**1 . Date: 25-01-2023General - Engine / PowersourceHevenDrones named “Most Disruptive Hydrogen Mobility” Company by Monaco Hydrogen AllianceURL: https://www.suasnews.com/2023/01/hevendrones-named-most-disruptive-hydrogen-mobility-company-by-monaco-hydrogen-alliance/**

HevenDrones, a leader in the development and commercialization of actionable drones, announced today its selection by the Monaco Hydrogen Alliance as the company with the most disruptive potential in the field of hydrogen mobility. HevenDrones was selected over ten hydrogen projects as the most likely to disrupt the hydrogen mobility market.

From autonomous last-mile delivery to emergency response, smart cities, and infrastructure repair, HevenDrones develops and manufactures actionable drones, designed to drive energy efficiency and sustainability across a range of commercial ecosystems, providing the required balance between payload and endurance.

The company is a market leader in harnessing the benefits of hydrogen as a power source for its drones, enabling extended flight times as well as the ability to carry heavier payloads and lower cost of ownership. HevenDrones’ Hydrogen-powered drones are also more ecological and less polluting.

“We are honoured to be named the company with the most disruptive potential by the Monaco Hydrogen Alliance. This award recognizes our unique combination of technological expertise and our commitment to a more energy-efficient, hydrogen-based, drone ecosystem,” said Bentzion Levinson, Founder & CEO of HevenDrones. “We are excited to strengthen and expand our partnerships with leading hydrogen companies as we continue to develop the next generation of hydrogen-powered drones, with greater energy efficiency and lower carbon impact.”

About HevenDrones

HevenDrones is building the next generation of multi-purpose, actionable drones, capable of solving a range of commercial, infrastructural, humanitarian and military challenges. Actionable drones not only capture visual and sonic information but can perform highly useful tasks simultaneously. From autonomous last-mile product delivery to defence missions, emergency response, and infrastructure repair, Heven’s fully-customizable drone solutions deliver cutting-edge performance, patented stability and superior lifting capability. The company is an early adopter of hydrogen technology, significantly extending flight times and speed. Heven’s leadership team includes industry experts from military, engineering and science backgrounds, with decades of combined experience.

**2 . Date: 25-01-2023ISR / ISTAR - Mini - Contract - Ministry of Defense of Ukraine orders additional 105 surveillance drones from German manufacturer Quantum-Systems URL: https://www.suasnews.com/2023/01/ministry-of-defense-of-ukraine-orders-additional-105-surveillance-drones-from-german-manufacturer-quantum-systems/**

Quantum-Systems GmbH, an aerial intelligence company that provides multi-sensor data collection drones to government agencies and commercial customers, today announced it will deliver 105 additional long-endurance reconnaissance drones type Vector™ in military support of Ukraine’s armed forces, funded by the German Government.

Founded in 2015, Quantum-Systems is at the forefront of UAS development. Its electric vertical take-off and landing (eVTOL) systems boast industry-leading endurance, ease of operation, and reliability, exceeding the performance of conventional UAS platforms.

Supporting Ukraine with real-time aerial intelligence

The Ministry of Defense of Ukraine has placed a second batch order of Vector™ systems, following an earlier order of 33 UAS of the same model in August 2022. Since then, the system was able to demonstrate it delivers unprecedented performance under the most challenging conditions. Vector™ has been extensively used and intensively tested on the Ukrainian battlefield, where it has proven to be an asset for military intelligence, surveillance, and reconnaissance operations. Its robust and rugged design makes it well-suited for operation in harsh environments and extreme weather conditions.

Quantum-Systems is pleased to announce that with the latest software update, Vector™ is also able to operate in GNSS-denied scenarios. The direct and immediate feedback received from the operators in the Ukrainian battlefield, as well as Quantum-Systems’ commitment to enhance security capabilities through technological advancements, accelerated development processes. New findings have been directly incorporated into the advanced technology of Vector. A fact which may have been decisive for the MOD’s decision.

Onsite training and support

To further provide support to the Ukrainian forces, Quantum-Systems also announces the opening of a Training and Support Facility in Ukraine. This facility will provide training for operators on the use and maintenance of the Vector™ system and will be the local hub for procuring spare parts and repair services.

“We are honored to be able to help Ukraine with the defense of their country and we are committed to continuing to provide the highest quality systems to their forces. Our belief in democratic values and the challenges faced by the Ukrainian soldiers daily, only motivate us even more so and speed up our development processes. Being able to further equip Vector with combat proven features and capabilities in a short period of time is crucial for us as a manufacturer and the operators of our systems, from which all of our Vector™ customers will profit”, said Florian Seibel, CEO of Quantum-Systems.

Growing Vector capabilities

Vector™ integrates dual Electro-Optical (EO) and Infra-Red (IR) gimbaled sensors, enabling missions both day and night. It streams real-time live video to multiple Ground Control Stations via Mesh IP encrypted data links and is equipped with advanced AI capabilities onboard. The data assessment and image processing of Vector™ is supported by automatic detection, identification, and tracking algorithms, which provide on-the-ground tactical units with mission-critical data.

With a flight time of 120 minutes, Vector is suited for applications such as ISR for enhanced live situational awareness, area mapping, battle damage assessment, Search & Rescue (SAR), and convoy and VIP protection.

**3 . Date: 02-02-2023Armed ISR / ISTAR - MALE - General - DatalinkGA-ASI Flight Tests LEO SATCOM on MQ-9AURL: https://www.suasnews.com/2023/02/ga-asi-flight-tests-leo-satcom-on-mq-9a/**

Capability Provides Global Coverage That Enables Operations Anywhere in the World

General Atomics Aeronautical Systems, Inc. (GA-ASI) and the Air National Guard (ANG), with joint support from the U.S. Marine Corps (USMC) and U.S. Air Force (USAF), flight tested an MQ-9A remotely piloted aircraft (RPA) equipped with a Low Earth Orbit (LEO) satellite communications (SATCOM) Command and Control system. This groundbreaking capability provides global coverage and connectivity that will enable pole-to-pole operations for GA-ASI’s family of RPA – including models such as the MQ-9B SkyGuardian®/SeaGuardian®, MQ-9A Reaper, and Gray Eagle 25M.

“This is truly game-changing for our platforms,” said GA-ASI President David R. Alexander. “Using LEO SATCOM not only keeps GA-ASI aircraft connected from the North Pole to the South Pole to allow operations in the most austere environments, but it will also provide resilient connectivity that allows operators to pass much more data to and from the aircraft.”

Early testing indicates LEO SATCOM significantly reduces latency and can be used in all phases of flight. For customers across the MQ-9 family of systems, LEO SATCOM should decrease operational costs, and the smaller hardware footprint will ultimately increase flexibility and reduce future payload integration costs.

The MQ-9A flight test was based out of GA-ASI’s Gray Butte Flight Operations Facility near Palmdale, Calif., and followed several weeks of ground testing.

**4 . Date: 22-02-2023ISR / ISTAR - Tactical - Contract - Primoco UAV announces sales contract worth EUR 2.35 MillionURL: https://www.suasnews.com/2023/02/primoco-uav-announces-sales-contract-worth-eur-2-35-million/**

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

Primoco UAV SE’s new order follows a successful 2022, in which the company sold a total of 22 UAVs One 150. 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%.

In addition, from 30 January 2023, the purchase and sale of Primoco UAV SE shares is even more accessible to retail investors. The Prague Stock Exchange reduced the basic investment volume (lot) for this title on the Start market to 10 units, which at the current rate corresponds to CZK 4,000. Originally, the minimum threshold was ten times higher.

**5 . Date: 07-02-2023Solar ISR / ISTAR - HALE - General - PlatformSkydweller Aero Inc. Successfully Demonstrates Initial Autonomous FlightURL: https://www.suasnews.com/2023/02/skydweller-aero-inc-successfully-demonstrates-initial-autonomous-flight/**

Skydweller Aero Inc., an aerospace company developing solar-powered aircraft for defense and commercial industries, today announced the successful completion of its first autonomous flight test demonstrations utilizing the company’s new proprietary fly-by-wire (FBW) actuation control system. Having met the criteria for safety-critical operations by the Spanish Civil Airworthiness Authority (AESA), Skydweller’s test pilot passively rode along on-board, validating both the successful transformation from mechanical to human-rated FBW actuation and the successful integration of full authority autonomous control capability.

This series of flight tests conclude the initial validation of the aircraft’s mechanical transformation from a piloted vehicle to a redundant FBW system flown from take-off to landing without any pilot input. The system demonstrates the basis and airworthiness approval for the high-reliability redundant flight control architecture, significantly decreasing remaining technical risk and accelerating Skydweller’s time-to-market.

“Our approach and speed of execution is based on our team’s collective experience designing and developing advanced autonomous platforms. These significant technical accomplishments propel us toward our ultimate goal of perpetual flight,” said CEO Dr. Robert Miller. “Given the proven history of the airframe and this validation of our successful transformation from a piloted aircraft to an autonomous platform, Skydweller is prepared to demonstrate the aircraft’s operational utility.”

The aircraft’s unique technical characteristics and design implementation provide the necessary levels of redundancy in its autonomous Vehicle Management System (VMS) required to deliver unprecedented utility based on its payload capacity and available power. Multiple levels of redundancy will enable customers to launch multi-month missions which will revolutionize both commercial and government operations.

Skydweller now sets its sights on additional technology maturation for payload demonstrations that will lead towards the company’s first fully autonomous and unmanned flight.

About Skydweller Aero Inc.

Skydweller Aero Inc. is a cutting-edge aerospace company developing solar powered aircraft solutions capable of achieving perpetual flight with heavy, and powerful payload capacity. Utilizing technology based upon the longest continuous renewably powered flight program in history, this fast-growing startup is developing a new class of unmanned aircraft, providing the persistence of geosynchronous satellites with the powerful sensing capabilities and the flexibility of a large, airborne platform. Skydweller Aero Inc. has World and US headquarters in Oklahoma City and European offices headquartered in Spain.

**6 . Date: 13-03-2023Research - Small - General - Engine / PowersourceFlyH2 Announces the Successful Maiden Flights of Dragonfly V, the Next Generation Hydrogen-Powered UAV  URL: https://www.suasnews.com/2023/03/flyh2-announces-the-successful-maiden-flights-of-dragonfly-v-the-next-generation-hydrogen-powered-uav/**

Cape Town-based FlyH2 Aerospace has announced the successful maiden flights of its hydrogen-electric Dragonfly V, a commercial UAV (or drone) designed for a range of applications requiring long endurance or payload flexibility. The flight tests took place last week in Citrusdal, approximately two hours outside of Cape Town, South Africa.

While there is still a way to go until the Dragonfly V is fully ready for production, the aircraft has already demonstrated remarkable handling and efficiency during its first flights. Dragonfly V is a fixed-wing STOL (Short Take-Off and Landing) drone that is targeted for use in multi-mission applications in landscape management such as agricultural pest control, forestry, farm security, and wildfire and wildlife management including anti-poaching. Capable of carrying heavy and high-volume cargo, Dragonfly V is also ideal for long-range humanitarian airdrops.

“We are thrilled to announce the success of our maiden flight tests for the Dragonfly V,” said Mark van Wyk, a principal founder of FlyH2 and the company’s CEO. “The Dragonfly V is a unique, highly capable, and versatile drone that is priced for commercial operations but with attractive qualities not typically found in its class. We are excited to bring this product to market and offer our customers a reliable and efficient solution for a diverse array of mission requirements.”

FlyH2 is actively raising capital to take its product to market. The company has a growing list of orders and is accepting pre-orders, secured with a deposit, to reserve a place on the waiting list. Once Dragonfly V is production-ready, the aircraft will achieve up to 24 hours of hydrogen-fuelled flight, depending on payload, making it an ideal platform for extended missions.

The use of fuel cells significantly increases the endurance of the Dragonfly V way beyond that which can be achieved with batteries. Electric propulsion offers ease of maintenance, simplicity, and reliability over internal combustion engines. Dragonfly V’s airframe is unusual in that it is modular, equipping operators with the means to customize and switch payloads in order to meet specific mission requirements. It can carry up to five payload pods beneath the wings making it a true multi-mission platform.

Dragonfly V is a next-generation UAV that stands out in the emerging market of larger industrial-grade drones. The aircraft is designed for hard, every day, high-cadence missions, requiring it to be rugged and hardy. FlyH2 is working on a push-to-take-off and push-to-land control system, allowing the aircraft to be flown by low-time pilots. The company is also looking forward to field trials with its partners in sterile insect technique releases, farm security, wildfire monitoring, and humanitarian aid.

“We are proud of the work that has gone into the development of the Dragonfly V,” said Onno Huyser, co-founder of FlyH2. “Our focus on using STOL instead of VTOL greatly reduces cost, increases endurance, and simplifies maintenance. The aircraft offers a promising future for the commercial drone industry. It is a cost-effective solution for a range of wide-area rural applications, and is ideal for fleet operations”.

FlyH2’s success in the development and testing of Dragonfly V signals a bright future for the award-winning company, and its commitment to innovation will continue to drive its success as it brings Dragonfly V to market.

**7 . Date: 31-03-2023ISR / ISTAR - Tactical - General - PlatformSkyryse celebrates the sixth anniversary of its first unmanned VTOL flightURL: https://www.suasnews.com/2023/03/skyryse-celebrates-the-sixth-anniversary-of-its-first-unmanned-vtol-flight/**

Skyryse, bringing trust, safety, and accessibility of flight for all through its flagship technology, commemorates the sixth anniversary of the first lightweight unmanned vertical take-off and landing (VTOL) flight achieved on March 29, 2017. This aviation milestone has become a driving force in Skyryse’s innovative approach to bringing the joy and freedom of aviation to all as it heads toward FAA (Federal Aviation Administration) certification.

Six years ago, Skyryse set out to develop a technology stack, making flying a general aviation aircraft simpler and safer. Founder and CEO Dr. Mark Groden and a team of four spent nearly a year working to earn FAA (Federal Aviation Administration) approval to fly an unmanned aircraft above 55 pounds (above typical drone weight). The team achieved the first lightweight unmanned flight within three months of their initial seed funding.

Building on the first unmanned flight, the company operated the highest volume, full-service, multimodal door-to-door air-taxi service in the world, leading to the development of the first cost-effective instrument flight rules (IFR) VTOL. Skyryse has grown from a team of four to nearly 100 with a similar objective of making flying simpler and more accessible, democratizing the skies.

Skyryse’s intuitive, highly-automated, airframe-agnostic, and universal flight control system accelerates accessibility, safety, and overall ease of flight by decades. Anyone can complete an entire flight from skids up to set down with the same familiar tap-and-swipe gestures used on a mobile device.

“Celebrating this anniversary is a reminder of our humble beginnings and an extraordinary triumph in our company history,” said Groden of Skyryse. “We continue to celebrate our early achievements to bring increased ease and safety to every flight across general aviation.”

On average, there are more than 300 general aviation deaths each year in the United States, according to the National Transportation Safety Board (NTSB). Most of these incidents occur due to loss of control or pilot error, an issue Skyryse and FlightOS address head-on. Skyryse FlightOS can reduce general aviation fatalities and allow anyone to enjoy the freedom of piloting an aircraft. Skyryse’s FlightOS offers 10-9 safety standards (one-in-a-billion chance of catastrophic system failure) through a full fly-by-wire system with triply redundant, dissimilar architecture, increasing general aviation safety to commercial air transport levels.

FlightOS has already achieved 100% means of compliance for its full-stack technology solution after completing a major System Review with the FAA, including hardware, software, and human-factor components. This achievement accelerates the company’s path toward certification, focusing on simplified vehicle enhancements of already certified airframes.

About Skyryse Los Angeles-based Skyryse is bringing trust, safety, and the accessibility of flight for all through FlightOS, its easy and intuitive integrated flight control system. FlightOS removes many aircraft management complexities during standard flight operations, inclement weather, and emergencies. Skyryse has raised over $260 million from leading investors, including Fidelity Management & Research Company, Monashee Investment Management, ArrowMark Partners, Venrock, Eclipse Ventures, Cantos, Stanford University, and Bill Ford, Executive Chair, Ford Motor Company.

**8 . Date: 30-03-2023Market - Spain’s Alpha Unmanned Systems announces completion of its first investment roundURL: https://www.suasnews.com/2023/03/spains-alpha-unmanned-systems-announcescompletion-of-its-first-investment-round/**

This is the first external financing that has entered the company based in Madrid which manufactures unmanned UAV helicopters

Alpha Unmanned Systems (AUS) an unmanned helicopter (UAV) manufacturer based in Madrid, announces the closing of its first seed round of external investment capital. With sales to nine countries and growing, this is the first external funding to enter the company since its inception nine years ago. This first round, which was led by Dr.Joseph Menaker, co-founder of UAV Factory, will be used to enhance Alpha’s product development and expand its sales and marketing efforts. Also participating in the seed round as investors were Tobias Webster, former CEO of UAVNavigation and current Director of International Business Development at Alpha and Javier Castaño, co-founder of Agnitio and current CFO of Alpha.

Eric Freeman, Alpha’s co-founder and CEO, said, “Alpha is very pleased and optimistic about the support and investment from one of the industry’s leading experts in Joseph Menaker. Joseph knows a lot about the challenges and opportunities in building a fast-growing UAV company. His extensive experience in UAV manufacturing and sales is extremely helpful to us.

The UAV industry is challenging and complex on many levels, and Alpha is dedicated to learning from the best in the industry.”

Dr.Joseph Menaker, says, “Alpha Unmanned Systems is one of the few small independent UAV manufacturers in existence, with outstanding technology and an excellent team of professionals ready to expand production and distribution of their devices. I am pleased to know that my experience in this industry is going to be able to help further develop Alpha and take it to the next level of quality manufacturing.”

Founded in 2014 with Spanish capital and headquartered in Madrid, AUS has made direct international sales to both institutional organizations (governments and the Armed Forces) and private entities, with highly demanding and recurring clients in Spain, Israel, USA, Greece, Indonesia, Georgia, Turkey, European Union, etc. With a highly qualified professional team, and with a clear commitment to its niche market, Alpha is in the “top three” of its sector of activity worldwide.

Its newest product, the Alpha 900, is a helicopter designed and manufactured primarily for missions in the marine environment. With a powerful combustion engine that gives it great autonomy and payload capacity (up to 4 hours and can carry payloads of up to 4 kg), the A900 can take off and land autonomously on and from moving vessels with limited space (small deck). In addition, it is built “STANAG Compliant”, so that all critical systems are redundant. All this makes it a perfect technology for navies, coast guard and/or intelligence operations, surveillance, target approach and/or reconnaissance at sea.

**9 . Date: 26-04-2023Loitering Munition - Mini - Contract - AeroVironment Awarded $64.6 Million Contract by U.S. Army for Switchblade 300 Loitering Missile SystemsURL: https://www.suasnews.com/2023/04/aerovironment-awarded-64-6-million-contract-by-u-s-army-for-switchblade-300-loitering-missile-systems/**

AeroVironment, Inc. (NASDAQ: AVAV) received additional funding of $64,565,126 on March 24 from the U.S. Army Tactical Aviation and Ground Munitions (TAGM) project office for the procurement of Switchblade® 300 loitering missile systems. This most recent firm-fixed-price contract increases the total funded amount of Switchblade systems under the original U.S. Army contract to $231,331,651. The contract will be managed by the U.S. Army Contracting Command, Redstone Arsenal, and the systems are scheduled to be delivered by July 2024.

AeroVironment’s combat-proven Switchblade 300 loitering missile systems have been deployed by the U.S. Army for more than a decade and are currently providing real-time ISR and precision strike support on battlefields in Ukraine. Ideal for use against beyond-line-of-sight targets, Switchblade systems were approved by the U.S. government for use by Ukraine and additional nations after the start of the Russia-Ukraine war in 2022. This new U.S. Army contract includes foreign military sales of Switchblade 300 for the first time to France and another allied nation, expanding Switchblade’s footprint internationally.

“Switchblade 300 continues to be a critical weapon in the armed forces of Ukraine’s unmanned systems arsenal,” said Brett Hush, AeroVironment’s vice president and product line general manager for Tactical Missile Systems. “This new contract further demonstrates the global demand for production-ready, combat-proven Switchblade 300 missile systems. We’re honored that Switchblade 300 continues to support the U.S. military and our allies.”

The backpackable Switchblade 300 offers operators the flexibility to rapidly maneuver and employ the system on the ground. Real-time video, GPS coordinates, and wave-off capabilities provide the operator confidence in precisely attacking key targets.

This contract award follows an August 2022 contract modification for additional funding by the U.S. Army for procurement of Switchblade 300 loitering missile systems.

**10 . Date: 11-04-2023Market - Primoco UAV delivered EBITDA of CZK 65.9 million in Q1 2023 and expects orders of CZK 1 billion in 2023URL: https://www.suasnews.com/2023/04/primoco-uav-delivered-ebitda-of-czk-65-9-million-in-q1-2023-and-expects-orders-of-czk-1-billion-in-2023/**

Primoco UAV increased EBITDA by 510% year-on-year to a record CZK 65.9 million in the first quarter. In the first three months of this year, the Czech manufacturer of unmanned aircraft reported sales of CZK 103.1 million, representing a year-on-year growth of 475%, according to preliminary and unconsolidated data. Since the beginning of the year, the company has won new orders, thanks to which it is on track to meet its goal of signing new contracts of CZK 1 billion in 2023.

“The financial and operational results in the first three months confirm the potential that Primoco UAV can further develop thanks to its products and services. As a result of the current geopolitical situation, many customers around the world have fully realized the important role that UAVs play in defending national territories. However, Primoco UAVs, thanks to their excellent features, continue to be promoted as a viable alternative to manned vehicles in civilian use,” says Ladislav Semetkovský, CEO, founder and shareholder of Primoco UAVs.

An example is the recent sale of two One 150 aircraft, including a ground control station, to an air services customer in Malaysia, which will use the machines to calibrate ILS, VOR/DME and NDB airport guidance systems in the Southeast Asia region. Since January, Primoco UAV has signed two new contracts for the delivery of 11 machines with a total value of EUR 10.75 million (CZK 251 million).

“During April we expect to sign another contract for the delivery of 8 aircraft and control stations in the amount of EUR 12.6 million (CZK 295 million),” says Ladislav Semetkovský. “The financial robustness of the company is also confirmed by its zero debt and independence from public subsidies.”

The results for the first quarter build on the company’s success last year. Full-year unconsolidated sales increased almost ninefold year-on-year to CZK 153 million last year. This resulted in an EBITDA operating profit of CZK 65.9 million against an EBITDA operating loss of CZK 24.6 million in 2021.

The financial results for 2022 and Q1 2023 confirm both the positive outlook for Primoco UAV and are already reflected in the growth of the market value of the company traded on the START market of the Prague Stock Exchange. On 24 March 2023, the share price reached a new record high of CZK 458 per share. The total market capitalization of the company exceeded CZK 2 billion. Since the beginning of this year, Primoco UAV shares have appreciated by 9.27%, for a total appreciation of 79.2% in 12 months. The liquidity of equity trades is also growing. The volume of shares traded in the first quarter of 2023 reached CZK 17 million. Year-on-year, it grew by 458%. Ladislav Semetkovsky (59.35%) and Gabriel Fülöpp (25.41%) remain the majority shareholders.

This year the company continues its certification process according to the NATO military standard STANAG 4703. The company has just successfully completed the certification of the Primoco Engine 340 combustion engine. The final testing phase has now started with the aim of completing the whole process in the summer of 2023. In September 2023, the company will present the architectural design of a new modern factory building, which is planned to be built on the premises of its airport in Písek – Krašovice. In addition to the production itself, which will make maximum use of robotic technologies, the project also includes the flight management of aircraft around the world, a training centre, presentation and administrative facilities. The design for the production process layout and the design of the new factory, which will allow production capacity to be increased to 250 aircraft per year in a single shift, is already complete.

The Annual General Meeting of Primoco UAV SE will be held on 28 April 2023 at 10:00 a.m. at the company’s premises at Výpadová 1563/29f, 153 00 Praha 5 – Radotín. The agenda and draft resolutions are available on its website. Detailed information and data on the company’s performance is available in the annual report published on the company’s website.

Financial results of Primoco UAV SE in Q1 2023 (unconsolidated and preliminary) in thousands CZK:

**11 . Date: 25-04-2023ISR / ISTAR - MALE - General - PlatformTTX-15: The low-cost multi-mission Uncrewed Aerial System with rapid deployment capabilitiesURL: https://www.suasnews.com/2023/04/ttx-15-the-low-cost-multi-mission-uncrewed-aerial-system-with-rapid-deployment-capabilities/**

TTX-15 is a collaboration between British military aviation specialists and the Czech aerospace company Pure Flight s.r.o to produce a low cost, uncomplex, MALE, multi-mission UAS. The aircraft is equipped with an internal modular payload cassette that can be easily swapped to suit various mission requirements. Its name is inspired by the venom of the blue-ringed octopus, and like its namesake, the aircraft is a powerful and versatile asset in any operational environment.

The aircraft’s standout feature is its internal modular payload cassette, which provides an unmatched level of flexibility and adaptability to mission planners. The cassette can be quickly swapped to integrate various payloads, such as loitering munitions, decoys, and sonobuoys. In addition, the aircraft can be disassembled for storage or shipping inside a 40-foot container or towed behind a Land Rover with a road trailer and readied for flight by a team of three people in under 30 minutes. This unique feature allows it to be quickly deployed to any location, including unprepared strips, making it an ideal choice for missions that require rapid response.

TTX-15 is a modification of Pure Flight’s EASA/FAA-certified U-15 Phoenix motor glider, converting it into a STANAG-4671-compliant UAS. The system’s low cost and uncomplex training needs analysis makes it an accessible solution for government operations on all continents.

The aircraft’s ability to remain airborne for over 10 hours make it an ideal platform for medium altitude, long endurance operations. Its internal modular payload cassette can carry 9 loitering munitions, which can each deliver an 8kg HE warhead an additional 200 miles from the aircraft, or electronic warfare decoys to confuse and disrupt RADAR systems at stand-off range. With a change of the cassette, the aircraft can carry up to 16 sonobuoys to improve situational awareness in the naval environment. Shipborne operations make the aircraft a force multiplier in the maritime domain.

TTX Uncrewed Systems is a British company developing a suite of uncrewed capabilities across the maritime and airborne domains which are set to revolutionise low-cost warfighting and subsurface security. The company said “The development of TTX-15 will represent a step forward into a new generation of more accessible and equally capable uncrewed systems, and we are excited to announce further developments in the future”.

**12 . Date: 25-05-2023Cargo - MALE - General - Dronamics Cargo Drone Takes First Flight, Paving the Way for the Future of DeliveriesURL: https://www.suasnews.com/2023/05/dronamics-cargo-drone-takes-first-flight-paving-the-way-for-the-future-of-deliveries/**

Dronamics, the world’s first cargo drone airline, announced today the successful completion of the first flight of its flagship aircraft, the Black Swan, at Balchik airport in Bulgaria; demonstrating the potential for the logistics industry to enhance efficiency in the transportation of products.

Born out of two brothers’ desire to find a quicker, greener and more affordable way to deliver goods, Dronamics is on a mission to enable same-day delivery for everyone, everywhere. This significant milestone is the culmination of months of ground testing and subscale flights. The Black Swan aircraft was remotely piloted by two commercial airline pilots from the Dronamics ground control station.

The successful flight test validates the company’s licensed cargo drone technology for commercial flights in Europe, set to begin later this year, serving a variety of industries, with a fast and cost-effective solution to meet evolving consumer needs.

“Since the day we first imagined what the Black Swan aircraft could look like, we’ve worked towards this flight. Today we’ve made history and are proud to have demonstrated the validity of our drone technology,” said Konstantin Rangelov, Co-Founder and CTO of Dronamics.

“It’s taken an enormous amount of hard work, belief and drive to prove that what we envisioned works. We can now focus on the next step, the roll-out of our commercial operations, and we couldn’t be more excited,” said Svilen Rangelov, Co-Founder and CEO of Dronamics.

About

Dronamics is a leading developer and operator of large, long-range drones built specifically for cargo. Its flagship Black Swan is able to carry 350 kg (770 lb) at a distance of up to 2,500 km (1,550 mi) up to 80% faster, 50% cheaper and with up to 60% lower emissions than alternative modes of transport, including airfreight. This enables same-day shipping over long distances for a variety of industries: from pharma to food, from e-commerce to spare parts. Dronamics is Europe’s first licensed cargo drone airline and IATA’s first Strategic Partner for drones worldwide.

Dronamics has raised a total of $40 million in pre-Series A funding from early-stage funds and angel investors from 12 countries and is co-funded by the European Union under the prestigious European Innovation Council, Europe’s flagship innovation program.

**13 . Date: 26-05-2023Cargo - Tactical - General - Elroy Air demonstrates autonomous cargo-handling capabilities of Chaparral aircraft at Travis Air Force BaseURL: https://www.suasnews.com/2023/05/elroy-air-demonstrates-autonomous-cargo-handling-capabilities-of-chaparral-aircraft-at-travis-air-force-base/**

Elroy Air, the company leading the race to develop a vertical take-off and landing (VTOL) aerial logistics system for middle-mile commercial shipping, humanitarian aid and military resupply, demonstrated the autonomous ground navigation and cargo-handling systems of its Chaparral aircraft for the United States Air Force senior and executive officers as part of the Golden Phoenix Technology Demonstration Event.

During the live demonstration, a developmental prototype of the Chaparral aircraft’s ground systems performed a series of autonomous manoeuvres without the use of GPS, which can be unreliable or jammed in contested environments. Without intervention from operators, the vehicle located and navigated autonomously to a cargo pod inside a hangar from a distance of 20 meters, then used its robotic grasping mechanism to pick the pod up and secure it to the underside of the vehicle. The system then navigated out of the hangar to the takeoff zone.

“We are proud to partner with the United States Air Force and be here today to demonstrate one small part of the Chaparral’s autonomy, and how it will improve mission efficiency and airman performance when operating in a contested, GPS-denied environment,” said Karl Purdy, Director of Federal Programs at Elroy Air. “The Chaparral’s high levels of autonomy enable multi-capable Airmen to accomplish tasks outside of their core AF specialty. Its scalable logistics support to tailorable force packages enables friendly forces to execute from multiple, austere operating locations.”

The Chaparral is a transitioning “lift + cruise” VTOL aircraft with a full carbon composite airframe and a turbine-based hybrid-electric powertrain for long-range mission capabilities. It was designed to fit in a shipping container or C-130 aircraft, enabling it to be quickly shipped and deployed to missions anywhere in the world.

Designed specifically for logistics, Chaparral has unique capabilities for locating, navigating to, picking up, and dropping off Elroy Air’s lightweight, aerodynamic modular cargo pods. The pods are a core element in the Chaparral airborne logistics system — they can be pre-loaded by ground personnel and picked up by the aircraft’s robotic systems before takeoff. At the delivery location, after the system has landed the cargo pod is lowered to the ground and released.

About Elroy Air Elroy Air is developing industry-first autonomous aircraft systems and software to expand the reach of express shipping to every person on the planet. Building on the powertrain and perception technology enabling the hybrid-electric / autonomous vehicle revolution, its vertical-takeoff-and-landing (VTOL) aerial logistics systems can operate outside of airport infrastructure and evolve the possible in commercial air cargo. The company’s solutions will expand delivery locations and reduce timeframes, provide immediate aid and relief in disaster and firefighting situations, as well as rapid autonomous resupply for troops in the field. The company’s headquarters is in South San Francisco, California and it is financed by world-class venture capital firms including Catapult Ventures, Marlinspike Capital, DiamondStream Partners and Shield Capital, strategic investors including Lockheed Martin Ventures, and pioneering angel investors including early Uber executives.

**14 . Date: 02-05-2023ISR / ISTAR - Small - General - PlatformQuantum Systems announces the launch of Trinity™ ProURL: https://www.suasnews.com/2023/05/quantum-systems-announces-the-launch-of-trinity-pro/**

Quantum Systems GmbH, the aerial intelligence company that provides multi-sensor data collection drones to commercial customers and government agencies, today announced the launch of Trinity Pro – the futureproof mapping drone designed to adapt to changing requirements and accelerate decision-making through aerial data with a high-level of safety and ease of use.

The Trinity Pro, with its broad range of sensors, further improves the ROI from its highly successful predecessor and firmly places itself as the premier fixed-wing VTOL drone.

Addressing the ever-changing needs of the commercial market

The Trinity Pro, with its state-of-the-art flight control system, allows for continued adaptation and evolution to meet ever-changing industry requirements.

Designed with the needs of tomorrow’s data consumers in mind, the Trinity Pro provides an expanded feature set, capturing and delivering more data in less time than ever before.

The Trinity Pro transforms drone capabilities while remaining easy to operate, and simple to integrate into existing workflows.

With minimal downtime and low maintenance requirements, the Trinity Pro positions itself as the easiest to use, and highest performance fixed wing/VTOL drone on the market today.

Focusing on hardware-software synthesis

The Trinity Pro is an advanced unmanned aerial system (UAS) designed to adapt to changing demands, provide additional connectivity, and accelerate decision-making. At the heart of Trinity Pro is the Quantum-Skynode autopilot, utilizing a Linux mission computer. This provides additional onboard computing power, increased internal storage, versatility, and seamless interoperability. These advanced avionics systems enable AI readiness for the platform, support for downstream integration of next-generation sensors and provide cutting-edge safety features during field operations.

Included in the Trinity Pro system is Quantum-Systems’ proprietary operations software, QBase 3D, and an ever-expanding portfolio of industry workflow and software integrations, which eliminate complex mission setup processes and maximize ROI in terms of cost and time efficiency.

The Trinity Pro’s new capabilities include planning functions for missions requiring take-off and landing at different locations, allowing for efficient and safe long corridor flights and BVLOS operations. The platform also incorporates advanced self-diagnostics to ensure smooth and safe operation.

Trinity Pro launches alongside a new customer portal, an online solution for managing individual drones and fleets, training, and support activities. Users can easily access support, training materials, documentation, and online courses to enhance their skills and earn certifications.

Technical advancements

Trinity Pro now includes an enhanced terrain-following system, which significantly improves safety during operations. Additionally, improvements to trigger point calculations results in improved image overlap and higher data quality. Trinity Pro also features automatic wind simulation for crash avoidance in bad weather and a linear approach for landing.

Furthermore, Trinity Pro is equipped with a downfacing LiDAR scanner that provides highly accurate ground avoidance and landing control. The system features USB-C ports for faster data transfer. Trinity Pro is protected against dust and water damage and features increased wind limits of up to 14 m/s in cruise mode (handling gusts up to 18m/s) and 11 m/s during hover.

“Hundreds of customers across various industries, including mapping, surveying, forestry, utilities, and construction, rely on the Trinity platform in their daily operations. The new capabilities of Trinity Pro make it even easier for professionals to expedite data collection and management, operations, and ultimately improve decision-making. Through an enhanced user experience and streamlined integration of future technologies, we are building on the success of the Trinity platform to help customers take advantage of aerial intelligence at scale,” said Florian Seibel, CEO of Quantum-Systems GmbH.

Built on the legacy of the Trinity F90+ UAS

The Trinity UAS (launched in 2017) was designed to streamline the complex process of collecting aerial data. Since then, the Trinity platform has continued to improve in its performance and functionality, and additional features have been introduced to make the technology even more accessible and usable for daily operations.

With drone adoption continuing to rise, worldwide customers are utilising the Trinity platform to gather more aerial data than ever before to optimise their business processes.

The platform has already accumulated over 75,000 flight hours and continues to innovate in response to the increasing demand for automation, data quality, and safety assurance.

Today’s announcement builds upon Trinity’s established success in supporting professionals across various industries, and it introduces novel solutions to meet even the most demanding requirements of commercial users.

**15 . Date: 30-05-2023Component - General - HardwareThe world’s first ice protection solution for UAS approved by the Norwegian Ministry of DefenseURL: https://www.suasnews.com/2023/05/the-worlds-first-ice-protection-solution-for-uas-approved-by-the-norwegian-ministry-of-defense/**

Atmospheric icing has long been one of the greatest obstacles to UAS operations as most UAS platforms are designed for fair weather and warmer climates. While the theater of war moves toward colder climates, allied forces are in need of solutions that make UAS applications reliable in these challenging conditions.

May 30th, 2023, Trondheim, Norway. UBIQ Aerospace has successfully completed a demonstration of its proprietary autonomous ice protection solution, D•ICE, in collaboration with the Norwegian Ministry of Defense (MoD), the Norwegian Armed Forces, and the Norwegian Defense Research Establishment.

“We are impressed with UBIQ Aerospace’s innovative solutions and their ability to tackle complex challenges like extreme cold weather and in-flight icing,” says Staff Sergeant Jarle Mossing, UAS instructor, Norwegian Army Land Warfare Centre. “Their demonstration showcased some truly impressive capabilities, and we look forward to getting access to their solutions and applying them to our most pressing cold-weather challenges.”

The D•ICE solution consists of several modules that protect all icing-exposed aircraft components, enabling operations and sustained flight in potential and known icing conditions.

“D•ICE has been designed with the specific size, weight and power (SWaP) limitations of UAS in mind,” says Kasper Trolle Borup, Chief Technology Officer at UBIQ Aerospace, “I’m thrilled that we can now offer the world’s lightest and most energy-efficient ice protection solution for all types and sizes of uncrewed and crewed aircraft. The D•ICE solution is truly autonomous; it is modular and can be fitted onto any flying platform. We are excited as we move into a new phase where we work with leading UAS providers to deploy D•ICE globally.”

The D•ICE solution will be flying with tactical UAS OEMs by the end of 2023 and deployed with NATO allied forces in 2024. Off-the-shelf solutions can be ordered now. Sign up here to be the first to know.

**16 . Date: 20-06-2023Partnership - Primoco UAV and Airbus Defence and Space sign MOUURL: https://www.suasnews.com/2023/06/primoco-uav-and-airbus-defence-and-space-sign-mou/**

Primoco UAV unmanned aerial vehicles have gained significant market share in recent years with continuous growth in the number of systems operated worldwide. With the Primoco UAS (unmanned aerial system) not only compliant to the latest European Union UAS regulation but also compliant with NATO EMAR and STANAG standards, it is the system of choice for customers who seek a platform able to meet strict regulatory requirements with high effectiveness and operational safety. Primoco UAS are authorised to operate in numerous European countries including Germany, Spain, Denmark, Czech Republic, Slovakia, Iceland and many others based on the cross-border acceptance of the OEM´s certification. Its EU operational approval was also a subject to recent successful audit performed by the national aviation authority as a part of EASA supervision of the implementation of UAV regulations.

The tripartite MoU aims to bring together each party ́s expertise, paving the way for fruitful cooperation. Airbus Defence and Space will contribute with its long-lasting and proven experience in airworthiness matters and will focus through its subsidiary Airbus DS Airborne Solutions, on the international UAS services market in the commercial and law enforcement domain.

“The relevance of UAS is increasing exponentially in defence, as we currently witness in Ukraine. It is also quickly becoming a factor in commercial applications for border and coastal security, fire monitoring, search and rescue, connectivity or agriculture and smart farming,” said Mike Schoellhorn, CEO of Airbus Defence and Space. “We have been pioneering unmanned platforms since many years. Our collaboration with Primoco is an additional element of building a European ecosystem of a universe of UAVs, both at the service of our armed forces and of society in general.”

The CEO and founder of Primoco UAV SE, Mr. Ladislav Semetkovský considers the MoU with Airbus Defence and Space to be a turning point: “Airbus Defence and Space is a global leader in aerospace solutions in more than 130 countries. Its knowledge base, including advanced research activities, experience with the introduction of sophisticated systems and breadth of portfolio across various platforms will allow us to explore the new capabilities of our UAS systems at a completely different level. With our common European background, the results of this cooperation will be primarily beneficial for European industry. We are thrilled by the signing of the MoU as it allows us to elevate our combined UAS potential.”

Primoco UAV develops and produces the One 150 civilian and military unmanned aircraft, capable of flying completely independently according to programmed flight plans. The key features of the aircraft are its size, maximum take-off weight 150 kg, 15 hours endurance, 2000 km range, cruising speed 120 km/h, payload 30 kg and fully automatic take-off and landing. The company focuses on civil and military aerospace applications, particularly in energy, border and coastal security, fire monitoring and search and rescue operations. The company’s aircraft is in operation on four continents. Primoco UAV is a publicly traded company on the Prague Stock Exchange in the PX START market.

**17 . Date: 07-06-2023ISR / ISTAR - Mini - Market - Quantum-Systems Inc. Selected for United States Department of Defense APFIT ProgramURL: https://www.suasnews.com/2023/06/quantum-systems-inc-selected-for-united-states-department-of-defense-apfit-program/**

Quantum-Systems Inc., a leader in electric vertical take-off and landing (eVTOL) aerial intelligence solutions, today announced its inclusion in the second set of projects to receive funding for the United States Department of Defense (DOD) pilot program to Accelerate the Procurement and Fielding of Innovative Technologies (APFIT).

The announcement comes after the Office of the Under Secretary of Defense for Research and Engineering (USD(R&E)) published an official release outlining the 11 DoD program offices that will receive FY23 APFIT funding, with U.S. Special Operations Command (USSOCOM) awarding Quantum-Systems Inc. $20 million.

“We are honoured by DoD’s decision to allocate FY23 APFIT funds to accelerate procurement of our Vector fixed-wing, eVTOL unmanned aircraft system. This will allow us to increase manufacturing capabilities and get our mission-critical technology into the hands of more warfighters sooner, ” said David Sharpin, CEO of Quantum-Systems Inc.

Established by Congress in the Fiscal Year 2022 National Defense Authorization Act, APFIT is a competitive, merit-based program with the goal of helping companies to expeditiously transition and field technologies.

**18 . Date: 20-06-2023General - SoftwareRed Cat and Athena AI announce breakthrough artificial intelligence and computer-vision capabilities for Teal 2 military-grade droneURL: https://www.suasnews.com/2023/06/red-cat-and-athena-ai-announce-breakthrough-artificial-intelligence-and-computer-vision-capabilities-for-teal-2-military-grade-drone/**

Red Cat Holdings, Inc. (Nasdaq: RCAT) (“Red Cat” or the “Company”), a military technology company integrating robotic hardware and software to protect and support the warfighter, today announces it has completed the second phase of its artificial intelligence and computer-vision partnership with Athena AI.

Athena was first announced as a partner for Red Cat’s Teal 2 military-grade drone in March. Now, by processing video that the Teal 2’s thermal-imaging sensor recorded during a nighttime test flight, Athena’s technology has successfully performed target recognition and battle tracking. This capability allows commanders fast decision-making on the battlefield with artificial intelligence assistance.

“Nighttime computer-vision capability is a Teal 2 add-on we support for users who need high-value data at night,” said George Matus, founder and CEO of Red Cat subsidiary Teal Drones. “The images and insights that Athena’s technology deliver are outstanding. Athena’s battle-tracking capabilities and artificial intelligence, combined with Teal’s best-in-class drone, give warfighters the unfair advantage.”

Australia-based Athena, an AI-enabled military decision-support company, has licensed to Red Cat its proprietary computer-vision architecture, which allows high-speed tracking of objects and, at slower speeds, in-depth data exploitation. Athena’s solution can identify weapons, humans and other targets at night, as well as Identification Friend or Foe (IFF) markers, such as Cyalume HALOs and IR beacons.

“Unlike a lot of other drones in the sUAS quad space that aren’t MISB-compliant, the Teal 2’s KLV metadata unlocks the full decision-suite support of Athena AI,” said Athena CEO Stephen Bornstein. “This combination of a nighttime sUAS with live-vehicle metadata allows for real-time situational awareness to support battle tracking, common operational picture (COP) at higher echelons of command, and accurate targeting.”

Officially launched in April, the Teal 2 is designed to Dominate the Night™ and arrives as the world’s leading sUAS for night operations. The Teal 2 is the first sUAS to be equipped with Teledyne FLIR’s new Hadron 640R sensor, providing end users with the highest resolution thermal imaging in a small form factor. The Teal 2 also offers the latest intelligence, surveillance and reconnaissance (ISR) technology, delivering time-critical information and enabling operators to make faster, smarter decisions. The Teal 2 airframe has been designed as an open platform that can add software features such as Athena AI, and those combined products improve Red Cat’s gross margins.

Red Cat will exhibit the Teal 2 at the Modern Day Marine expo in Washington, D.C., from June 27-29.

To view a spec sheet for the Teal 2, click here.

To watch a short video about the Teal 2, click here.

About Red Cat Holdings, Inc.

Red Cat (Nasdaq: RCAT) is a military technology company that integrates robotic hardware and software to provide critical situational awareness and actionable intelligence to on-the-ground warfighters and battlefield commanders. Its mission is to enhance the effectiveness and safety of military operations domestically and globally – and to “Dominate the Night™.” Red Cat’s suite of solutions includes Teal Drones, developer of the Teal 2, a small unmanned system with the highest resolution imaging for nighttime operations, and Skypersonic, a leading provider of unmanned aircraft for interior spaces and other dangerous environments. Learn more at https://www.redcatholdings.com.

**19 . Date: 15-06-2023Partnership - SoftwareShield AI and Kratos Team up to Integrate AI Pilot on Valkyrie XQ-58URL: https://www.suasnews.com/2023/06/shield-ai-and-kratos-team-up-to-integrate-ai-pilot-on-valkyrie-xq-58/**

Kratos Defense & Security Solutions, Inc. (Nasdaq: KTOS), a Technology Company in the Defense, National Security and Global Markets, and Shield AI, Inc., a defence technology company building the world’s best AI pilot, have signed an agreement to integrate and bring to market an AI pilot built by Shield AI for Kratos’ XQ-58 Valkyrie, making real the concept of crewed-uncrewed teaming for jet aircraft.

“Ukraine is losing 10,000 drones per month due to Russian electronic warfare – primarily because the Russians are jamming communications and GPS. If an uncrewed aircraft is unable to operate without GPS and without communications, it will be near useless in future conflicts,” said Brandon Tseng, Shield AI’s co-founder and President, who is also a former Navy SEAL. “AI Pilots enable teams of aircraft to intelligently execute missions without GPS and communications. When you take an incredible, affordable uncrewed jet aircraft like the XQ-58 and pair it up with our AI pilot, you create a game-changing strategic deterrent.”

“The Valkyrie is one of a very few uncrewed jet aircraft that are flying today, ramping in production and are ready for AI pilot integration. Close integration and access with Kratos on the XQ-58 will enable the productization of intelligent uncrewed jet aircraft on a timeline that is, quite frankly, going to shock some people. Ultimately our AI pilots will be flying many uncrewed jet aircraft, but I can’t think of a better-uncrewed jet to start with than the Valkyrie,” said Ryan Tseng, Shield AI’s co-founder and CEO.

Shield AI has developed a combat-deployed AI pilot that has flown on a variety of platforms, including a quadcopter, their own manufactured Group 3 unmanned aircraft system called the V-BAT, and a modified F-16 fighter jet.

Kratos has active production lines producing approximately 150 jet drones annually, including Valkyrie, and a family of affordable, expendable, and attributable tactical jet drones flying today, including Tactical Firejet, Mako, Valkyrie and others, with actual known cost points of approximately $400,000 to $6.5 million and multiple contracts with the United States Air Force, Navy, Army, Marine Corps and others.

“By taking the most cost-efficient, proven, existing and in production uncrewed jets, with key performance capabilities, and pairing them with the most intelligent, capable, and proven AI pilots, Kratos and Shield AI are uniquely positioned to rapidly bring the first and best crewed-uncrewed teaming aircraft to market,” commented Eric Demarco, CEO of Kratos.

**20 . Date: 15-06-2023ISR / ISTAR - Mini - Contract - WingXpand Scores Seven Figure Contract with U.S. Air Force to Ruggedize its’ 7ft Backpackable Aircraft and Develop Fire Spotting Software URL: https://www.suasnews.com/2023/06/wingxpand-scores-seven-figure-contract-with-u-s-air-force-to-ruggedize-its-7ft-backpackable-aircraft-and-develop-fire-spotting-software/**

The U.S. Air Force has awarded WingXpand a seven-figure contract for the customization and ruggedization of its unique 7ft backpackable aircraft.

This upgraded aircraft will not only withstand more rigorous conditions, but it will also be equipped with advanced fire spotting software, transforming it into a crucial tool in wildfire detection and prevention. This notable contract underscores WingXpand’s pioneering role in the field of aerial intelligence and its significant contributions to national security and environmental safety.

The new aircraft combines size, power, and versatility. Although compact enough to fit into a backpack, it offers more than two hours of autonomous flight time while carrying two pounds of customizable sensors for data collection. This capability is invaluable across various industries, like public safety, agriculture, and inspections, allowing comprehensive and flexible aerial surveys, more safely and effectively.

At the heart of the aircraft is a smart computer with Edge AI, a cutting-edge technology that enables the aircraft to detect early signs of wildfires autonomously. By identifying potential threats early, emergency services can respond faster, saving homes, wildlife, and most importantly, human lives.

James Barbieri, CEO and Co-Founder of WingXpand, expressed his pride in the company’s latest achievement, “Our collaboration with the U.S. Air Force and the contract we’ve secured emphasizes the innovative work we do. Not only have we developed an easy and powerful aircraft, but our AI technology will also contribute significantly to preventing wildfire loss. We’re excited to bring such a valuable tool to the U.S. Air Force and the nation.”

The aircraft’s ability to fly for extended periods and carry a significant payload, combined with the advanced AI technology, is a game-changer. The U.S. Air Force’s investment underscores the significance of WingXpand’s technology and opens the door to future collaborations with other defense entities.

WingXpand will share more about the upgraded aircraft and its AI detection system at the Energy Drone and Robotics Summit in Houston, Texas, June 12th-14th.

**21 . Date: 17-07-2023ISR / ISTAR - Mini - General - PlatformEvent 38 Releases E400 Variant ISR DroneURL: https://www.suasnews.com/2023/07/event-38-releases-e400-variant-isr-drone/**

Event 38 Unmanned Systems Inc, a leading manufacturer of unmanned aerial vehicles, has announced the release of a new variant of its flagship product, the E400 ISR.

The E400 ISR drone is designed for intelligence, surveillance, and reconnaissance missions and is designed for applications such as search and rescue, law enforcement, and military operations. The new variant of the E400 ISR comes with several enhanced features that make it an even more versatile tool for professionals in various fields.

One of the most notable features of the new E400 ISR is its extended flight time of up to 2.5 hours. This longer battery life allows for more extended surveillance operations, giving operators a greater range and flexibility when gathering intelligence and conducting reconnaissance missions.

The E400 ISR drone is also equipped with a 40x zoom EO/IR camera that captures high-resolution images and videos. The camera’s impressive zoom capabilities allow for more detailed imaging of targets and greater accuracy when tracking moving objects.

In addition, the E400 ISR boasts an impressive range of up to 10 miles, giving operators the ability to cover a larger area and gather data from greater distances.

“Event 38 Unmanned Systems is dedicated to providing professionals with the most advanced and reliable unmanned aerial vehicles,” said Jeff Taylor, CEO of Event 38 Unmanned Systems.

“The new variant of the E400 ISR drone represents our commitment to pushing the boundaries of what is possible and delivering cutting-edge technology to our customers.”

**22 . Date: 17-07-2023Market - Primoco UAV, Czech UAV manufacturer, doubled its sales and profit in the first half of the year. Its share price increased by 75%URL: https://www.suasnews.com/2023/07/primoco-uav-czech-uav-manufacturer-doubled-its-sales-and-profit-in-the-first-half-of-the-year-its-share-price-increased-by-75/**

Primoco UAV more than doubled its sales year-on-year to CZK 213.4 million in the first half of 2023. EBITDA was over CZK 100 million for the first time in the company’s history and it also more than doubled compared to the same period last year. Demand for Primoco UAV products and services continues to grow and, following the favourable financial results and the outlook for the future, the market capitalization of the company, whose shares are listed on the START market of the Prague Stock Exchange, is also growing. Since the beginning of the year, the share price has increased by more than 75% to CZK 720 per share. The market value of Primoco UAV is almost CZK 3.5 billion.

Primoco UAV has expanded its successful business in the first half of this year, once again recording dynamic growth in all key metrics. The year-on-year more than doubling of sales and profit is mainly due to the increased demand for unmanned aerial vehicles, which Primoco UAV develops and manufactures in the Czech Republic. “During the second quarter of 2023, we closed our largest single contract to date for the delivery of 18 aircraft for a European customer. However, beyond Europe, where customers only fully understood the high added value of UAVs after the Ukraine conflict, we are also seeing increased interest in our technology in Asia and Africa,” said Ladislav Semetkovský, CEO, founder and majority shareholder of Primoco UAV.

This year Primoco UAV has already concluded new contracts for the supply of 29 UAVs with a total value of CZK 515 million. According to the company’s management, negotiations on new orders for the production of 14 more UAVs for non-European customers are at an advanced stage, with completion expected in the third quarter of 2023. Last year, the value of new contracts amounted to CZK 400 million with a total of 22 UAVs ordered.

At the end of the first quarter of 2023, Primoco UAV estimated that this year’s new orders would reach CZK 1 billion, based on concluded contracts and negotiations with potential customers. “The results of the first half of the year make it possible to confirm this outlook and unless there is a sudden change in the economic environment in which Primoco operates, it is possible that we will even exceed this estimate, perhaps to CZK 1.2 billion.” Semetkovský added. “With the growing number of aircraft delivered in total, revenues from service, maintenance and crew training are also growing.” The company expects full-year revenues to reach CZK 750-850 million this year based on orders placed, the company’s production capacity and expected deliveries.

The company’s favourable economic results for the first half of the year and the outlook for further growth in the future are also reflected in the value of Primoco UAV shares traded on the Prague Stock Exchange. Since the beginning of the year, the share price has grown by more than 75% to CZK 720 per share. The shares have appreciated by 148% year-on-year and the market capitalization of Primoco UAV is now almost CZK 3.5 billion. In this context, the company confirms its previously announced intention to prepare for the transition of the listing from the START market for small and medium-sized enterprises to the main market of the Prague Stock Exchange in 2024. The transition to the Prime Market would open the way for Primoco UAV to increase its liquidity and thus its inclusion in the main index of the Prague Stock Exchange.

At the same time, Primoco UAV continues with the certification of its UAVs under the NATO military standard STANAG 4703. The whole process has now reached the final testing phase, with the aim of completing everything needed during the autumn of 2023. The company has also started preparing project documentation for the construction of a new factory. It is to be built on land in the area of Primoco UAV’s own airport in Písek – Krašovice. The company will unveil the architectural design in October 2023, and the plan is to launch the new factory in 2027. This will increase production capacity from the current 100 UAVs per year to 250 UAVs, while maintaining single-shift operation. In addition to the maximum level of robotics and automation, the project also includes the flight control of Primoco UAVs around the world and a new training centre for pilots.

The Memorandum of Understanding that Primoco UAV’s CEO signed with Airbus Defence and Space and its subsidiary Airbus DS Airborne Solutions in June is also a very promising step for the future. This document clearly represents a significant milestone for Primoco UAV. It is a confirmation that the world leader in aviation sees the Czech manufacturer as a key pioneer in the field of unmanned platforms. At the same time, it is the first step towards establishing a long-term business relationship. “Airbus Defence and Space is a global leader in aerospace solutions in more than 170 countries. Its knowledge base, including advanced research activities, experience in deploying sophisticated systems, and breadth of portfolio across multiple platforms, will allow us to explore new capabilities of our unmanned aircraft system at a completely different level. Thanks to the common European background, the results of this cooperation will be particularly beneficial for European industry,” said Semetkovský, CEO of Primoco UAV.

Financial results of Primoco UAV SE for the first half of 2023 (unconsolidated and preliminary) in thousands CZK:

Primoco UAV One 150 sales overview:

**23 . Date: 29-08-2023Training - U.S. Department of State Chooses Embry-Riddle to Train Drone OperatorsURL: https://www.suasnews.com/2023/08/u-s-department-of-state-chooses-embry-riddle-to-train-drone-operators/**

DAYTONA BEACH, FLORIDA — Embry-Riddle Aeronautical University has been contracted to assist in the development of curriculum and online training for small Uncrewed Aerial Systems (sUAS) operators for the U.S. Department of State’s Bureau of International Narcotics and Law Enforcement Affairs, Office of Aviation (also known as the Air Wing).

“The government has training standards and robust administrative policies and procedures already in place globally for everything that is crewed — but nothing that is uncrewed,” said Dr. Scott Burgess, associate professor of Aviation and principal investigator on the project.

That’s where Embry-Riddle comes in. An established leader in uncrewed systems application and safety — Embry-Riddle became the first academic institution in the world to receive the Trusted Operator certification from the Association for Unmanned Vehicle Systems International (AUVSI), in 2018 — The university will lend its expertise in designing and administering a standardized training program that could potentially be used by government employees, law enforcement entities and civil aviation authorities all over the world.

“Their intent is to standardize sUAS training, certification and standardization globally,” Burgess added. “Our job is to offer our existing sUAS professional education, thus enabling their crews to perform to a set standard, as well as assist in setting conditions that provide a level of knowledge, skills and abilities equivalent or surpassing established international sUAS crew standards.”

The final step will be to design courseware in conjunction with the Air Wing and offer training to students, earning them an industry certification in sUAS.

“The Worldwide Campus Department of Flight has worked aggressively over the past six years to raise-the-bar for UAS operational integration, training and standardization into various commercial and governmental disciplines, and the federal government came to us for a reason,” Burgess added. “They have been very open to our ideas, due to the fact that our strength in these areas is combined with our knowledge in aviation safety. The DoS has also encouraged further ideas to establish a noteworthy program.”

Those new ideas will be mined from a wealth of industry experience and various projects led by Embry-Riddle to help push drone technology forward. In 2021, for instance, the university earned a first-of-its-kind waiver to begin training aspiring drone pilots remotely through online video streaming platforms. The Department of Flight has a long history of supporting government agencies, such as the FBI, Daytona Beach Police Department, South Florida Water Management District, Conservancy of SW Florida, Oklahoma Department of Emergency Management and the Government of the Bahamas. Around the same time, Embry-Riddle was awarded nearly $2 million from the Federal Aviation Administration (FAA) to collect risk-assessment data that will help integrate UAS safely into the National Airspace System.

Researchers at Embry-Riddle also continue to leverage uncrewed systems in creative ways to solve real-world problems. Some of those applications are safety-focused — such as using drones to improve tactical response against active shooters, or deploying them into hurricanes to more accurately predict storm developments. Other applications might surprise you — such as using drones to map ancient cities.

“We are very pleased to partner with the U.S. Department of State, Bureau of International Narcotics and Law Enforcement Affairs Air Wing in this endeavor,” said Dr. John R. Watret, FRAeS, chancellor of Embry-Riddle’s Worldwide Campus. “As leaders in UAS education programs, we are extremely well equipped to support these operators and ensure they receive the highest level of training.”

Burgess is leading the project along with fellow drone experts from the College of Aviation at Embry-Riddle’s Worldwide Campus: David Thirtyacre, Department of Flight chair, and associate professors Joe Cerreta and Anthony Galante.

**24 . Date: 21-09-2023ISR / ISTAR - Small - Regulation - A-techSYN win awarded UK flight approvalURL: https://www.suasnews.com/2023/09/a-techsyn-win-awarded-uk-flight-approval/**

A-techSYN have been successful in obtaining flight permission from the UK Civil Aviation Authority (CAA) to operate their CGT50 VTOL UAV (MTOW 60Kg) in UK airspace.

Adnan Cetinkaya fo A-techSYN commented on the decision today, “This is a significant milestone, and it sets the stage for a busy and productive period in the upcoming months as we are engaged in various UAV-related activities and projects.”

The CGT50-VTOL is a 4,71 m wingspan T-Tail UAV. It uses electric powered motors for takeoff and landing and does not require a runway or catapult. It is a composite airframe with 5 kg payload capacity, powered by a petrol engine. The low fuel consumption enables a safe endurance of 6 hours. The CGT50-VTOL can takeoff from a table and land on a 5×5 m surface with high accuracy.

The UAV has a 55 kg MTOW (including payload). It can be operated by just two people. Using A-techSYN’s AvionicsMini Flight Control System, flight missions are carried out fully autonomous!

**25 . Date: 22-09-2023Cargo - MALE - General - PlatformISS Aerospace and Marshall Futureworx to develop VTOL Heavy-Lift Unmanned Aircraft System (HLUAS)URL: https://www.suasnews.com/2023/09/iss-aerospace-and-marshall-futureworx-to-develop-vtol-heavy-lift-unmanned-aircraft-system-hluas/**

ISS Aerospace (www.issaerospace.com) supported by Marshall Futureworx (www.marshallfutureworx.com) is delighted to reveal that it has been awarded a £500,000 grant through the Defence Technology Exploitation Programme (DTEP), delivered by the Defence and Security Accelerator (DASA) and InnovateUK. This will fund a project to develop a VTOL Heavy-Lift Unmanned Aircraft System (HLUAS). DTEP is sponsored by the MOD’s Directorate of Industrial Strategy and Exports (DISE).

Using an innovative hybrid-electric gas turbine powerplant, our solution delivers extended range, endurance and a payload significantly greater than current rechargeable Lithium Polymer batteries, and without the need for complex electrical infrastructure for re-charging batteries in the field or at sea. Fuel will be widely available Jet A1 or diesel.

The HLUAS will provide a payload of up to 250kg and have a potential range approaching 100km. It will meet the demanding requirements of both defence & security clients by transporting large payloads to and from small naval platforms and ground pads without the need for a runway. It will outperform crewed alternatives by increasing scale and efficiency of operations while improving safety. Cross-cutting technology ensures seamless execution of missions, enhancing operational capacity across roles from logistics to reconnaissance.

The HLUAS employs an open architecture, ensuring a flexible and adaptable software and payload interface which is key to enabling support to a diverse array of potential cargo types, while also ensuring the safe carriage and operation of equipment. These capabilities are designed for integration with broader enterprise and industrial systems. The HLUAS will deliver operational potential to expand existing logistics and surveillance networks through the addition of autonomous nodes. This expansion enhances operational capabilities, particularly in congested and complex battlefield and logistic support environments.

It will be designed to be certified to both Civil and Military Aviation Airworthiness requirements using Marshall’s UK CAA and UK MAA Design, Manufacturing and Flight Test Organisation approvals.

“We are excited to have been selected for funding in DTEP Cycle 1. Our Heavy Lift UAS will be capable of carrying a diverse range of payloads and will therefore be able to fulfil numerous potential roles for both military, commercial and off-shore support operators. We have worked with DASA on numerous occasions – this time through DTEP – and our relationship with them continues to be a positive and productive experience. We have already collaborated successfully with Marshall Futureworx on Project Lilypad (https://marshallfutureworx.com/lilypad) and look forward to building on this relationship.”

Ryan Kempley

CEO & Founder, ISS Aerospace

“We are delighted to support ISS Aerospace in the development of the Heavy Lift UAS, this builds on our established relationship building highly autonomous drones for the offshore sector and other industries. The support we have committed to provide leverages our expertise in civil and military platform certification, lightweight composite aerostructures and integrated programme management. The combined strengths of ISS Aerospace, Marshall Futureworx and the broader Marshall Group, offers the potential to develop a world-class Heavy Lift UAS solution, capable of meeting the needs of both the military and commercial markets both domestically and abroad.”

Kieren Paterson

Managing Director, Marshall Futurworx

**26 . Date: 18-10-2023ISR / ISTAR - Small - Regulation - Alpha Unmanned Systems obtains CAE certificateURL: https://www.suasnews.com/2023/10/alpha-unmanned-systems-obtains-cae-certificate/**

The A900 system from Alpha Unmanned Systems(AUS), acquired by the DGAM for the Matacán Schools Group (GRUEMA), has successfully completed the process of obtaining its Certificate of Airworthiness for Experimentation (CAE).

This certificate has been issued by the Deputy Directorate General of Inspection, Regulation, and Defense Industrial Strategy (INREID) and authorizes the Alpha Unmanned Systems’ A900 to be operated as an aircraft within the fleet of aircraft belonging to the Armed Forces.

For Alpha Unmanned Systems, obtaining the CAE for their A900 system is of great importance, as it represents a further step towards obtaining the Type Certificate and eliminates the need for additional procedures to obtain other CAEs for new A900 systems.

In addition to confirming their A900 helicopter as a reliable and robust product, the CAE ensures that the aircraft is safe and its use is authorized under the Defense Airworthiness Regulations (RAD).

Manufactured by the Spanish company Alpha Unmanned Systems, based in San Sebastián de los Reyes, Madrid, the A900 was acquired as part of the RAPAZ Program, just as they did previously with the two A800 systems operated by the UME, with the aim of providing the Unmanned Aerial Systems Military School (EMUAS) with training capacity in rotary-wing aircraft, which it lacked until now. The unmanned A900 helicopter, along with its control station and redundant data link, will enable EMUAS to provide training on this system to any defense operator.

Thanks to recent international sales contracts, AUS has positioned itself at the forefront of technological advancement and garnered significant interest from prominent navies. In the naval context, their systems operate as squadrons or technological demonstrators for the Greek Navy, the Indonesian Coast Guard, the Spanish Ministry of Defense, and the U.S. Department of Defense. In Spain, they are also utilized in a multipurpose capacity by the INTA and UME.

**27 . Date: 09-10-2023Market - Primoco UAV SE, Doubles the Profit and Tripled the Revenue in the First Nine Months of the YearURL: https://www.suasnews.com/2023/10/primoco-uav-se-doubles-the-profit-and-tripled-the-revenue-in-the-first-nine-months-of-the-year/**

Primoco UAV SE, the manufacturer of unmanned aerial vehicles, reported sales of CZK 372 million in the year to September 30, 2023, three times more than in the same period last year. Net profit doubled year on year to CZK 126 million. The company’s best-ever financial results reflect the growing demand for Primoco UAV aircraft, spare parts, pilot training, aerial work and other related services. The shares of the company, traded on the Prague Stock Exchange, reached CZK 900 per share at the end of the third quarter, having appreciated by nearly 120% since the beginning of the year. The market capitalization of Primoco UAV exceeded CZK 4 billion.

Czech manufacturer Primoco UAV continues to benefit from strong demand for UAVs and other related services. The company’s Q3 2023 results showed dynamic growth in both revenue and profit, confirming that 2023 is the company’s record year so far. “In the third quarter, we continued to focus on efficient execution of our contracted orders, the volume of which now utilises our existing production capacity and supports further expansion. At the same time, we have completed a new version of the control system, which has increased the level of automation and air traffic safety. The combination of strong demand and continued innovation gives us an excellent foundation for the company to continue to grow at a rapid pace,” said Ladislav Semetkovský, founder and majority shareholder of Primoco UAV.

In the first nine months of the year, the company delivered 22 UAVs to customers, which significantly contributed to the growth of sales and increase in net profit. At the same time, it concluded new contracts for the supply of 33 aircraft and related services with a total value of CZK 690 million. In addition, negotiations for the delivery of a total of 78 aircraft to 8 different customers are now at an advanced stage. “With regard to the level of new business in progress, we confirm our previously published forecast that new contracts concluded in 2023 will reach an aggregate value of CZK 1 billion. For the next 12 months we expect to conclude contracts in the volume of CZK 1.8 billion,” Semetkovský said.

The company’s favourable economic results are also reflected in the price of Primoco UAV shares traded on the Prague Stock Exchange. During the third quarter alone, their price rose by a fifth to CZK 900 per share. The valuation has increased since January 1st by almost 120%. The company’s market capitalisation now exceeds CZK 4.2 billion. After September’s increase of the free float to 18%, Primoco UAV plans to meet the needs of investors from the beginning of 2024 and move from the START market for small and medium-sized enterprises to the main market of the stock exchange. This step is linked to the mandatory introduction of financial reporting in IFRS, which Primoco UAV is now implementing in co-operation with the consulting company EY.

The preparation of project documentation for the construction of a new automated factory on our own land in the area of Písek-Krašovice Airport is also continuing. The company expects to start the building permit procedure in March 2024, construction in 2025 and the new plant is planned to increase production capacity to 250 aircraft per year per shift from 2027, more than triple the current level. The project will also include the construction of a new control centre for the operation of Primoco UAVs worldwide, a state-of-the-art pilot training centre and a research department for new technologies.

Primoco UAV SE is continuing the process of certification according to the NATO military standard STANAG 4703 and maintaining its emphasis on innovation, which has ensured that the One 150 UAVs are among the world’s best in their category. “During the summer, we completed a new software and hardware version of the aircraft’s control system. This is the next step, which, based on flight experience, allows us to move towards full automation and even greater air traffic safety. Primoco UAV has so far invested CZK 3 million in this project alone,” Semetkovský said, adding that Primoco’s approach to innovation played an important role in the decision by Airbus Defence and Space and its subsidiary Airbus DS Airborne Solutions to enter into a memorandum of understanding with the Czech manufacturer in June this year.

Financial results of Primoco UAV SE in Q1-Q3 2023 (unconsolidated and preliminary) in thousand CZK:

**28 . Date: 10-10-2023ISR / ISTAR - Micro - General - PlatformTeledyne FLIR Defense Unveils New Black Hornet 4 Personal Reconnaissance System at AUSA ConferenceURL: https://www.suasnews.com/2023/10/teledyne-flir-defense-unveils-new-black-hornet-4-personal-reconnaissance-system-at-ausa-conference/**

Next-gen nano-drone builds on battle-proven Black Hornet 3 legacy and delivers improved range, endurance, signature and imagery data while providing covert situational awareness to warfighters

Teledyne FLIR Defense, part of Teledyne Technologies Incorporated (NYSE:TDY), is introducing its new Black Hornet® 4 Personal Reconnaissance System at this week’s Association of the U.S. Army (AUSA) conference in Washington D.C.

Black Hornet 4 represents the next generation of lightweight nano-drones, building on its predecessor to deliver enhanced covert situational awareness to small units. A new 12-megapixel daytime camera with superior low-light performance, plus a new high-resolution thermal imager, delivers crisp video and still images to the operator. At just 70 grams, Black Hornet 4 has a flying time of more than 30 minutes, a range greater than two kilometres, and can fly in 25-knot winds. Flight performance has been augmented by new obstacle-avoidance capabilities and an advanced battery.

Compared to small quad-rotor drones, the single-rotor Black Hornet 4 unmanned aerial vehicle (UAV) has an extremely low visual and audible signature, enabling it to identify threats day or night without being detected. Able to launch in less than 20 seconds and well suited for missions in GPS-denied environments, the Black Hornet 4 UAV can be used to rapidly identify targets beyond visual line-of-sight and assess weapon effects in real time.

“Black Hornet 4 takes the features and capabilities that made Black Hornet 3 world-renowned to the next level,” said Dr. JihFen Lei, executive vice president and general manager of Teledyne FLIR Defense. “We’ve worked closely with customers and end users to make this system even more valuable for dismounted soldiers in need of situational understanding or engaged in covert operations, where precise and immediate intel is crucial.

“Black Hornet 4 is future-proof nano-drone technology,” Lei added.

FLIR Defense has delivered more than 20,000 Black Hornet PRS systems to military and security forces in over 40 countries. Black Hornet drones are currently being used in Ukraine through donations made by the British and Norwegian governments, where they have performed successfully in numerous missions under the harshest of environments.

The U.S. Army began acquiring Black Hornets five years ago as part of its Soldier Borne Sensor program and since then has placed orders totalling more than $125 million. In July, the Army awarded Teledyne FLIR a five-year contract worth up to $94 million for additional Black Hornet systems.

Visit Teledyne FLIR Defense at AUSA in Hall A, Booth 1003, to see the new Black Hornet 4, or learn more online. Black Hornet 4 is designed and built by FLIR Defense in Norway.

About Teledyne FLIR

Teledyne FLIR, a Teledyne Technologies company, is a world leader in intelligent sensing, unmanned systems, and integrated solutions for defence and industrial markets, with roughly 4,000 employees worldwide. Founded in 1978, the company develops a wide range of advanced technologies to help professionals make better, faster decisions that save lives and livelihoods. To learn more, visit teledyneflir.com or follow @flir. #AnyThreatAnywhere

**29 . Date: 10-11-2023Partnership - Airbus to Provide Sales and Operations Support of Silent Arrow® UAS to European MarketsURL: https://www.suasnews.com/2023/11/airbus-to-provide-sales-and-operations-support-of-silent-arrow-uas-to-european-markets/**

Airbus will also certify the Silent Arrow® GD-2000 1-ton precision cargo glider to operate from the Airbus A400M following a planned series of airdrops in Europe

LOS ANGELES, Nov. 9, 2023 /PRNewswire/ — Silent Arrow today announced the signing of a Memorandum of Understanding between Airbus DS Airborne Solutions GmbH (Airbus), MEL Aviation Ltd and Yates Electrospace Corporation (dba Silent Arrow) to manufacture, distribute and support the Silent Arrow GD-2000 heavy cargo delivery UAS platform for European market segments to include:

The agreement sets forth a three-way collaboration in the field of autonomous cargo delivery by bringing together Silent Arrow airborne cargo delivery capability, MEL Aviation’s expertise in aerospace manufacturing and Airbus’ experience in unmanned aerial services to jointly serve the needs of European customers.

To facilitate the collaboration, Silent Arrow recently granted an exclusive license to MEL Aviation to manufacture the Silent Arrow GD-2000 and its spare parts for UK and EU markets in accordance with ISO AS9100 quality standards.

Airbus will then provide sales, marketing and after-sales support by leading the operational service model for Silent Arrow, to include:

“We are thrilled to take our collaboration with MEL Aviation to the next level with Airbus joining the team to build and lead the service business for Silent Arrow across Europe,” said Chip Yates, Silent Arrow’s Founder and CEO. “The Airbus A400M is the perfect platform for deploying numerous Silent Arrows in tactical resupply, electronic warfare or humanitarian and disaster relief operations and we look forward to achieving A400M certification as part of this exciting program.”

The Silent Arrow GD-2000 is the world’s first heavy payload, autonomous and attritable cargo delivery aircraft designed to carry 1,500 lbs. of cargo over 40 miles when deployed from cargo aircraft such as the Lockheed Martin C-130, Boeing C-17 and Airbus A400M.

About Silent Arrow®: The Silent Arrow® product line consists of three sizes of autonomous cargo delivery aircraft capable of carrying 350 to 1,500 pounds of emergency, disaster relief and humanitarian response supplies anywhere in the world on short notice. Silent Arrow’s engineering team has been awarded more than 20 patents, 6 Fédération Aéronautique Internationale (FAI) aircraft world records and 2 FAI Louis Bleriot medals for disruptive contributions to the aerospace industry. In 2021 Silent Arrow® was selected as a finalist for the Robert J. Collier Trophy as the “Greatest Achievement in Aeronautics or Astronautics in America,”.

**30 . Date: 16-11-2023Cargo - Tactical - General - Engine / PowersourceElroy Air achieves industry-first flight of turbogenerator-hybrid hVTOL aircraftURL: https://www.suasnews.com/2023/11/elroy-air-achieves-industry-first-flight-of-turbogenerator-hybrid-hvtol-aircraft/**

Byron, Calif. – Elroy Air flew the world’s first turbogenerator-hybrid electric vertical take-off and landing (hVTOL) aircraft on November 12 at its test-flight facility in Byron, California – the Chaparral C1. The C1 is an autonomous hVTOL aircraft, with distributed electric propulsion and a turbogenerator-battery architecture. The milestone marks a significant step forward in the company’s mission to enable same-day shipping to every person on the planet and agile, low-risk resupply for Defense.

The Chaparral took flight on November 12 from Byron Airport, where the Elroy Air Team runs flight test operations. Leveraging both its turbogenerator system and high-power batteries the C1 took off vertically, flew for 57 seconds, and landed successfully.

“This is an exhilarating day for our team and the industry as a whole,” said Elroy Air co-founder and CEO Dave Merrill. “In 2017 we had an unconventional idea to develop an autonomous long-range VTOL aircraft that would fill a major capability gap for middle-mile express shipping, humanitarian logistics, and military resupply. On Sunday our Chaparral C1 became the first turbogenerator-hybrid electric hVTOL aircraft to take flight. This marks a major moment for the industry as hybrid-electric aircraft enable the dual benefits of runway-independent safe redundant propulsion, and long-range flight well in excess of battery power alone. Our accomplishment puts Elroy Air one step closer to delivering a transformative logistics capability to our customers and partners.”

Hybrid-electric aircraft represent a critical advancement in the aviation industry. For vertical flight, distributed electric propulsion (DEP) using multiple redundant rotors enables robust and safe operations even in the case of motor failure – a key enabler for autonomy. However, today’s battery-electric eVTOL aircraft designed for Air Taxi and cargo operations are range-constrained due to the energy density limitations of available battery cells, and they must be operated in locations with substantial battery-charging infrastructure. The combination of DEP and turbine-based electrical power generation yields a best-of-both-worlds option first suggested by NASA researchers in 2008. Turbogenerator-hybrid architecture addresses the limitations of all-electric systems by combining a gas turbine-driven generator with batteries – enabling long-range missions (a “must-have” for logistics) without requiring charging infrastructure, as well as safe redundant flight for autonomous operations.

“The use of hybrid electric powertrains is not trivial – balancing battery and turbogenerator power output to respond to load demand requires power management systems that are properly governed to facilitate effective and efficient flight. Such systems for true VTOL and vertical flight capable aircraft are more complex and demanding than for fixed wing systems because of the discrepancies in power requirements in different flight regimes,” explained Ashish Bagai, advanced rotorcraft expert. “This is a major step in the development of hVTOL flight – one that underscores the potential utility value of DEP concepts. It’s very encouraging.”

To develop and bring the world’s first hVTOL air vehicle into flight test, the Elroy Air team overcame substantial technology challenges in electrical power management and structural vibration. The company’s intellectual property and deep accumulated technical experience positions Elroy Air at the forefront of hVTOL aircraft development. Elroy Air’s engineering team is led by Zach Lovering, an aerospace engineer and eVTOL industry veteran who contributed to multiple aircraft development programs at Zee Aero (now Wisk), and subsequently led the pioneering Vahana eVTOL aircraft program at Acubed by Airbus.

“The team at Elroy Air has achieved an exciting milestone with the first flight of their Chaparral aircraft,” said Dr. Mark Esper, 27th US Secretary of Defense and Elroy Air Board Member. “Their work to enable autonomous cargo delivery for the resupply of troops in the field will create a game-changing capability for supporting and sustaining the United States military and allied forces in future campaigns.”

Elroy Air’s Chaparral is in high demand from a number of leading partners in commercial, humanitarian, and defense logistics. Its vehicle backlog – reflected in LOIs and MOUs with a growing number of deposit-backed agreements – today exceeds $3Bn in future revenues. Since starting work with AFSOC in 2019, the company now holds 3 active contracts with US Air Force (SBIR Phase II, SBIR Phase III, and TACFI). The Chaparral’s capabilities address an urgent operational need for logistics in contested environments where today’s alternative is dangerous resupply missions using expensive crewed aircraft, a demand reflected by its active partnerships with the Defense community.

“AFWERX is excited to see the progress in hybrid electric powertrains for transformative vertical lift aircraft. Hybrid flight marks a key technical milestone for the industry to increase VTOL range and payload while validating the investment strategies of both AFWERX Prime and AFVentures TACFI program,” said Col. Elliott Leigh, AFWERX director and chief commercialization officer for the Department of the Air Force.

“They say it takes a village. Without the support of our investors, commercial partners, and the Department of the Air Force’s visionary Agility Prime effort we would not be this much closer to making our vision a reality,” said Elroy Air co-founder and Chief Product Officer Clint Cope.

“This groundbreaking initial flight of the C1 will be followed by an ongoing envelope expansion campaign in coordination with the US Air Force in which we’ll advance the vehicle’s demonstrated flight capabilities through subsequent modes of airborne operations,” said Elroy Air VP of Engineering Zach Lovering. “These modes include expanded hover, system identification, transition, and cruise flight.”

Elroy Air is developing industry-first autonomous aircraft systems and cutting-edge software, revolutionizing the world of express shipping. Leveraging hybrid-electric and autonomous vehicle technologies, their vertical-takeoff-and-landing (VTOL) aircraft transcend traditional airport limitations, unlocking new frontiers in commercial air shipping, humanitarian aid, and military logistics. From agile, low-risk resupply for troops, to dynamic disaster response and firefighting support, to warehouse-to-warehouse express parcel transport, their technology reshapes logistics possibilities. With headquarters in South San Francisco and flight test operations in Byron California, Elroy Air is backed by premier venture capital firms including Catapult Ventures, Marlinspike Partners, Snowpoint Ventures, and Shield Capital. Strategic investment from industry giants like Lockheed Martin Ventures and support from visionary angel investors including early Uber executives drive the company’s mission to provide same-day shipping to every person on the planet.

**31 . Date: 01-11-2023Market - Shield AI Raises $200M, Reaching $2.7B ValuationURL: https://www.suasnews.com/2023/11/shield-ai-raises-200m-reaching-2-7b-valuation/**

Shield AI, the defense technology company building the world’s best AI pilot for aircraft, today announced it has raised $200 million in Series F funding in an oversubscribed funding round. This funding, led by U.S. Innovative Technology Fund (USIT) and co-led by Riot Ventures, with participation from Cathie Wood’s ARK Invest and returning investors Disruptive and Snowpoint, values Shield AI at $2.7 billion.

“We’re building the world’s best AI pilot to ensure air superiority and deter conflict because we believe the greatest victory requires no war. This funding accelerates the scaling of Shield AI’s products, enabling the deployment of intelligent, affordable mass—the most important non-nuclear deterrent for the next 30 years,” said Brandon Tseng, Shield AI’s President, co-founder, and former Navy SEAL.

Shield AI builds an AI pilot called Hivemind, which enables teams of intelligent aircraft to operate autonomously in high-threat environments on the edge, without the need for remote operators, command inputs, or GPS. The technology approach is similar to those in the self-driving car industry and its software stack is aircraft agnostic, allowing Shield AI to provide autonomy to a variety of form factors across the aerospace industry. This announcement comes on the heels of the company’s recent launch of its V-BAT Teams product. This product enables a single human operator to command a minimum of four V-BATs, generating real-time AI-driven flight paths, and exhibiting dynamic read-and-react behaviors autonomously. Except for lethal decision-making, V-BAT Teams can complete missions from start to finish without the need for an operator or pilot.

Concurrently, the company has been diligently working on integrating Hivemind into uncrewed fighter jets, a significant effort supported both through government programs and company R&D. In December 2022, Shield AI, along with its government partners, made aviation history by autonomously maneuvering a modified F-16 in real-world air-combat scenarios. The company continues to fly and test its autonomy on fighter jets and has more autonomous maneuver flight hours of fighter jets than any company in the world.

“The increasing number of military conflicts we have seen over the last 18 months unfortunately paints a sobering view of our future defense technology needs and the important role AI will play,” said Thomas Tull, Chairman of USIT. “Shield AI continues to be a pioneer in this sector, driving much needed innovation by developing state-of-the art AI pilots. We are proud to continue supporting their mission as they leverage these cutting-edge technologies to deter conflict before it begins.”

The funds from the Series F round will be used to:

“As deep-tech investors, we have seen a large swath of autonomy efforts in every realm and Shield AI has a clear lead. Battlefields are increasingly dominated by drone warfare and the enemy is doing everything in their power to make it a hostile environment, including blocking communications and GPS. Modern air forces are flying blind. Shield’s AI pilot doesn’t require GPS or communications because it’s smart and adaptable to the environment. Their AI is trainable and adaptable to many different missions and has flown teams of quadcopters, V-BATs, and modern fighter jets. The closest tech comparable we’ve seen is what Tesla is doing with their self-driving stack. Their combination of market-leading AI technology and top-tier growth is why we are excited to continue to invest in the Company,” said Stephen Marcus, Co-Founder and General Partner of Riot Ventures.

About Shield AI

Founded in 2015, Shield AI is a venture-backed defense technology company whose mission is to protect service members and civilians with intelligent systems. In pursuit of this mission, Shield AI is building the world’s best AI pilot. Its AI pilot, Hivemind, has flown a fighter jet (F-16), a vertical takeoff and landing drone (V-BAT), and a quadcopter (Nova). The company has offices in San Diego, Dallas, Washington, D.C., and abroad. Shield AI’s products and people are currently in the field actively supporting operations with the U.S. Department of Defense and U.S. allies.

**32 . Date: 16-12-2023Loitering Munition - Small - General - PlatformAir-Launched, Tube-Integrated Unmanned System (Altius) 700 first tube launchURL: https://www.suasnews.com/2023/12/air-launched-tube-integrated-unmanned-system-altius-700-first-tube-launch/**

The Uncrewed Aircraft Systems Project Management Office, in collaboration with the U.S. Special Operations Command, executed a successful flight demonstration involving the first launch of the Air-Launched, Tube-Integrated Unmanned System (Altius) 700 air vehicle on Dec. 3, at Fort Campbell, Kentucky. The event marks a significant milestone in the Army’s Launched Effects program. The demonstration, which used a Black Hawk as the launch platform, served as a significant risk reduction event for upcoming Altius 700 test flights. The system was developed as an air vehicle solution to address the size, weight, and power requirements in the approved May 2020 Launched Effects Abbreviated Capabilities Development Document.

Launched effects will bring a critical capability to the Army with advanced teaming between crewed and uncrewed systems to detect, identify, locate, and report pacing threats in contested environments. The transformational capabilities launched effects bring to large-scale combat operations provide Corps, Division, and Joint commanders with effective and timely targeting, enabling fires and effects at the time and place of need. The two-flight demonstration yielded positive data that validates the Altius 700’s performance capabilities across all phases of operation, encompassing launch, flight, landing, and recovery. The insights gained from the demonstration are instrumental to refining the system’s design and operating procedures ahead of the program’s upcoming test flights. The first test flight of the fully integrated launched effects prototype is scheduled to take place early 2024. The test will demonstrate the prototype’s performance with the payloads and mission system controlled by the prototype Scalable Control Interface software. Additional testing will follow, leading up to a final operational demonstration by the end of the fiscal year 2024 and a rapid fielding decision of the launched effects prototype scheduled in 2025.

**33 . Date: 18-12-2023Loitering Munition - Small - General - PlatformM300 Murtajiz loitering munitionURL: https://www.suasnews.com/2023/12/m300-murtajiz-loitering-munition/**

The Murtajiz M-300 is a standoff loitering attack weapon system designed to locate and precisely attack targets. MP-300 LMs are launced from ground-based launchers and controlled remotely or antonomously. MP-300 includes full mission capabilities such as target search, identification and attack.

**Warheads:**

* High Explosive
* Anit Armor

**Specifications:**

* Max Payload Weight: **100,000 gm**
* Operating Altitude: **5000m**
* C4I Communication: **100 km**
* Loitering Speed: **150 km/hr**
* Attack Speed: **250 km/hr**
* Dimensions: **3000x2500x750 mm**

**34 . Date: 13-12-2023Cargo - Mini - Market - Matternet Receives Authorization from the German Aviation Office to Launch BVLOS Drone Delivery Operations in BerlinURL: https://www.suasnews.com/2023/12/matternet-receives-authorization-from-the-german-aviation-office-to-launch-bvlos-drone-delivery-operations-in-berlin/**

New Drone Delivery Network is First of Its Kind in Berlin with Goal to Connect 13 Hospitals with Europe’s Largest Hospital Laboratory Labor Berlin to Support Transportation of More Than 6 Million Lab Samples Per Year

Matternet, the developer of the leading urban drone delivery platform, today announced that it has received approval from the Luftfahrt-Bundesamt (LBA), Germany’s Federal Aviation Office, to operate the Matternet M2 drone delivery platform beyond the visual line of sight (BVLOS) in the heart of Berlin. This marks the beginning of Berlin’s first ever BVLOS drone delivery network.

Labor Berlin, Europe’s largest hospital laboratory, provides diagnostics for 30 hospitals with more than 24,000 beds, including Charité, the largest university hospital in Europe and Vivantes, the largest municipal hospital group in Berlin. Labor Berlin handles more than 6 million lab samples per year from satellite laboratories across Berlin in its central lab. The drone delivery network aims to connect Labor Berlin’s central lab to affiliated hospitals for ultra-fast delivery of critical samples in the densely populated city. When fully operational, the network will serve millions of patients a year. Operations will formally begin early next year following clearance on federal state level.

“Healthcare systems need a fast, reliable and cost-effective solution to transport lab samples and pharmacy items to ensure patients receive best-in-class care,” said Andreas Raptopoulos, Founder and CEO of Matternet. “We are extremely excited to partner with Labor Berlin, Europe’s largest hospital laboratory, to create the first city-wide healthcare network in the capital of Germany and bring the benefits of drone delivery to the citizens of Berlin.”

The drone delivery network will target emergency diagnostics and will increase operational efficiency as well as cut down on carbon emissions from the nearly 250,000 miles per day that cars travel within the city.

“Collaborating with Matternet enables us to enhance access to vital healthcare options through unmanned drone delivery, benefiting our patients and hospital network,” said Nina Beikert, Labor Berlin CEO. “These operations align with our dedication to innovation and sustainability as drone delivery not only accelerates emergency testing, but also enhances supply chain efficiencies while reducing greenhouse gas emissions.”

Klaus Tenning, Head of Studies and Collaborations and Project Leader for Labor Berlin, adds: “After years of preparation and pioneering work, we are excited to execute our vision for a fully operational network of drones delivering samples throughout our hospital service – to further improve patient care.”

Matternet holds U.S. Federal Aviation Authority (FAA) Type Certification and Production Certification, as well as BVLOS operational approvals from the FAA and the Swiss Federal Office of Civil Aviation (FOCA), in addition to the German LBA approval now. Matternet started delivering lab samples via drone in Switzerland in 2017 and in the US in 2019. It has transported tens of thousands of specimens for Ospedale Regionale di Lugano, University Zürich Hospital and Stadtspital Zürich in Switzerland and, through its partnership with UPS, Wakemed Health and Wake Forest Baptist Health in the U.S.

About Matternet

Matternet is the leading developer of commercial drone delivery systems for urban and suburban environments. The company ships the Matternet M2 drone and Matternet Software Platform and operates its technology directly for customers or in partnership with logistics organizations, such as UPS. Matternet has achieved many industry firsts, including being the first company to be authorized for commercial Beyond Visual Line of Sight (BVLOS) drone delivery operations over cities in Switzerland, the first to launch routine revenue-generating operations in the U.S., and the first to achieve standard Type Certification and Production Certification by the U.S. Federal Aviation Administration. Matternet is partnered with UPS and Ameriflight, who have received approval from the Federal Aviation Administration to operate the Matternet M2 under Part 135. To date, Matternet technology has enabled tens of thousands of commercial flights over dense urban and suburban environments in the U.S. and Europe.

**35 . Date: 09-12-2023Cargo - MALE - General - PlatformReliable Robotics Flies Large Cargo Aircraft with No One On BoardURL: https://www.suasnews.com/2023/12/reliable-robotics-flies-large-cargo-aircraft-with-no-one-on-board/**

Reliable Robotics, a leader in aircraft automation systems, today announced a significant milestone in its work to bring advanced safety-enhancing technologies to market in the United States. Last month’s successful flight of a Cessna 208B Caravan with no one on board was a first for aviation. A remote pilot supervised the uncrewed aircraft from Reliable’s control center 50 miles away.

The Reliable autonomous flight system enables the aircraft to be remotely operated by a pilot on the ground and improves safety by fully automating the aircraft through all phases of operation including taxi, takeoff and landing. Reliable’s system is aircraft agnostic and utilizes multiple layers of redundancy and advanced navigation technology to achieve the levels of integrity and reliability necessary for uncrewed flight. The system will prevent controlled flight into terrain (CFIT) and loss of control in flight (LOC-I), which account for the majority of fatal aviation accidents.

The Cessna Caravan is designed and manufactured by Textron Aviation Inc. Reliable Robotics has been collaborating with Textron Aviation, which includes the Beechcraft, Cessna and Hawker brands, and Textron eAviation focused on sustainable flying. Textron Aviation has delivered more than 3,000 Caravans, proving it to be the world’s most popular turboprop utility aircraft.

“Textron Aviation is committed to delivering continuous aviation improvements and our relationship with Reliable Robotics advances this work,” said Chris Hearne, Senior Vice President of Engineering and Programs, Textron Aviation. “Reliable’s successful flight of an uncrewed Cessna 208 Caravan represents a milestone for the industry in bringing new technology to aviation.”

The Caravan, and other regional cargo aircraft like it, serve an essential role connecting communities and businesses across the United States and around the globe. With a useful load of over 3,000 pounds, and a take-off performance to operate from shorter runways, these aircraft deliver time-sensitive shipments to many places that would otherwise not have next-day or same-day service. Remote piloting will allow even more areas to benefit from this critical service.

ASL Aviation Holdings is a global aviation services company with airlines based in Europe, Asia, Africa and Australia, and has been working with Reliable Robotics since 2022 to explore bringing advanced aircraft automation into its operations. ASL operates a fleet of over 160 aircraft and provides cargo services for the world’s leading express parcel integrators and eCommerce platforms. Reliable Robotics is an original member of ASL’s CargoVision forum of companies involved in pioneering new aviation and propulsion technologies.

“ASL is always innovating to better serve customers, and our partnership with Reliable Robotics is aimed at enabling us to provide reliable, flexible and cost-efficient time-sensitive cargo delivery to smaller unserved areas,” said Dave Andrew, Chief Executive of ASL Aviation Holdings. “This historic flight is a testament to Reliable’s focused leadership in advancing aviation innovation and capability for the industry.”

Reliable Robotics and the U.S. Air Force are working to leverage the significant progress on remote piloting for the Cessna Caravan to jointly examine how this commercially derived technology can be applied to large multi-engine aircraft for cargo logistics, aerial refueling and other missions. Reliable has been working under a series of contracts with the Air Force since 2021.

“This monumental aviation achievement is a great example of how AFWERX accelerates agile and affordable capability transitions for the world’s greatest Air Force,” said Col. Elliott Leigh, AFWERX Director and Chief Commercialization Officer for the Department of the Air Force. “This milestone accelerates dual-use uncrewed flight opportunities, increasing aviation safety and enabling us to bring a broad range of autonomous military capabilities into denied environments.”

The FAA formally accepted the certification plan for Reliable’s autonomous flight system in June of 2023. The certification plan leverages existing regulations for normal and transport category aircraft, and does not require any special conditions or exemptions. With multiple industry-first technical accomplishments and unrivaled FAA certification progress, Reliable Robotics is well positioned to deliver safety-enhancing aircraft automation systems.

About Textron Aviation

We inspire the journey of flight. For more than 95 years, Textron Aviation Inc., a Textron Inc. company, has empowered our collective talent across the Beechcraft, Cessna and Hawker brands to design and deliver the best aviation experience for our customers. With a range that includes everything from business jets, turboprops, and high-performance pistons, to special mission, military trainer and defense products, Textron Aviation has the most versatile and comprehensive aviation product portfolio in the world and a workforce that has produced more than half of all general aviation aircraft worldwide. Customers in more than 170 countries rely on our legendary performance, reliability and versatility, along with our trusted global customer service network, for affordable and flexible flight.

**36 . Date: 16-01-2024Cargo - MALE - General - PlatformAutonomous Drones – Next Evolution of Military LogisticsURL: https://www.suasnews.com/2024/01/autonomous-drones-next-evolution-of-military-logistics/**

It’s been two decades since US forces began using drones. They were initially used for surveillance and reconnaissance, with the DoD acknowledging that millions of hours had been flown by 2006. As early as 2001, the CIA used the MQ-1 Predator to carry anti-tank missiles into Afghanistan. Recent conflicts have highlighted how drones can be pivotal in combat situations by providing electronic attacks, strikes, suppression or destruction of enemy air defenses, and even search and rescue operations.

Drones and autonomous technologies have proven their strategic advantages in the battlefield. And now there’s growing recognition of their advantages in another battlefield support role: logistics. Napoleon Bonaparte acknowledges this importance in his famous quote:

“Amateurs discuss tactics: professionals discuss logistics.”

Logistics are arguably the most essential capability any nation can have to support its military efforts. The history of war is replete with victories that started with disrupting the enemy’s supply lines. And reversely, armies suffered defeat because they extended their supply lines too far. General John J. Pershing, commander of the American Expeditionary Forces in World War I, famously proclaimed, “Infantry wins battles, logistics wins wars.”

So, how can drones improve the capabilities of national military logistics?

Well, as it turns out, much the same way as they support commercial logistics. For commercial applications, drones can be used for two key capabilities: time-sensitive deliveries and support for “less than ideal” locations.

Well, that also sums up most combat situations.

Drone developers customize their designs and onboard technologies based on their use cases: long-duration flight times, advanced optics for surveillance, precision targeting, munition deployments, and broad arrays of sensors and tracking capabilities for continuous situational awareness.

New capabilities must integrate into existing logistics frameworks in order to maximize adoption rates and effectiveness. One of the main integration points is the transport form factor. The introduction of non-standard form factors can require unpacking and repacking. Not only does this slow things down, it also introduces a “sticking point” that complicates processes and can require specialized tools or capabilities.

As simple and straightforward as that seems, most cargo drone developers miss this point.

The military, like most commercial companies, has standardized on the shipping pallet, allowing its forces to leverage the industries and equipment surrounding the 5 billion in use worldwide. Traverse Aero is likewise designing and building the Orca, an autonomous hybrid-electric eVTOL drone, to support palletized cargo with a 1.7 m3 cargo bay. The extended range of up to 1000 km and carrying capacity of up to 250 KG provides speed and flexibility while integrating seamlessly into existing supply chain operations.

Traverse Aero is also leveraging the billions of dollars already invested in commercial markets to bring an advanced level of autonomy to the Orca, allowing it to operate in adverse conditions with minimal logistical support.

One of the more direct use cases for autonomous drones is the resupply from and between forward operating sites (FOS), forward operating bases (FBO), and other forward positions. For example, ammo and other munitions are typically packed and transported on pallets. These pallets can be quickly loaded into Orcas for a resupply operation. Some of the key value points include:

The Orca cargo platform provides a capable logistics platform that can augment capabilities while integrating with existing systems.

The size and capacity of Orca’s cargo bay makes it a versatile space that supports use cases beyond simple cargo transportation. For example, by tapping into the onboard power supply, active payloads can be transported and powered for extended periods. Other potential use cases include:

Because they are autonomous, Orcas can operate equally well at night and provide these capabilities at zero risk to the remote flight crew.

The cargo bay is only one of the functional forms of the Orca. The transportation of the Orca is consistent with traditional middle-mile logistics.

Autonomous drones can expand the logistics capabilities of forward positions while minimizing risks to airmen who would otherwise be required to operate aircraft in potentially hostile environments. The military can leverage the billions of dollars of development in the commercial sector to expedite the development of these capabilities. Most importantly, the form factors of cargo drones needs to integrate with existing logistics frameworks to reduce the barriers to entry and maintain operational efficiencies.

The Orca by Traveres Aero is the first autonomous eVTOL drone designed to meet this challenge.

**37 . Date: 12-01-2024Market - PRIMOCO UAV: Balance letter to shareholdersURL: https://www.suasnews.com/2024/01/primoco-uav-balance-letter-to-shareholders/**

Dear Shareholders,

As we start a New Year, which I can say will be extremely exciting for Primoco UAV, please look back with me on our record year of 2023 while I summarize the key pillars of our company’s sixfold to eightfold year-on-year growth in key metrics and offer you an update on the outlook for the period ahead.

The current tense geopolitical situation in the world is having an impact on the security industry, which is experiencing the steepest growth in defence investment in decades. In addition to the need to secure the supply of traditional defence equipment or replenish stocks to appropriate levels, there is also a growing demand for technologically advanced systems and services. Keeping up with market demands is only possible through the continuous development of production capacity, development skills and cooperation between the various players in the industry. I am very pleased that in the field of advanced unmanned systems, Primoco UAV has been able to fulfil these ambitions over the past year, strengthening the foundations for its long-term and sustainable development.

Financial and Business Results (preliminary, consolidated and unaudited)

In 2023, Primoco was able to capitalize on the relentless interest of its existing and new customers and take advantage of the growing market demand for its dynamic growth. The result is a more than sixfold year-on-year increase in revenues to CZK 598 million and EBITDA increased eightfold to CZK 241 million with an operating margin of 40%. The company’s best-ever financial performance reflects the growing demand for UAVs, spare parts, pilot training, complex aerial work and other high value-added Primoco UAV services.

Undoubtedly, not only the war in Ukraine, but also the aforementioned geopolitical uncertainties in other regions play a role in the increase in demand for advanced UAVs. A number of European countries have decided to increase their defence spending. Those who were previously sceptical about unmanned systems are quickly reassessing their previously often sceptical attitude towards UAVs and those who have not yet fully realised their indispensable role in equipping armies, but also other security forces for whom UAVs and their capabilities are important in a wide range of civilian applications – from intelligence services to integrated rescue systems.

Primoco UAV supplies customers with more than just One 150 UAVs, which are among the world’s top in their category with their flight parameters, wide range of basic or optional equipment and low operating and acquisition costs. Our solutions are comprehensive and include the ability to equip aircraft with dozens of different devices and sensors depending on the intended use – EO/IR cameras, calibration sensors, SIGINT/ELINT sensors, communication repeaters and other advanced technologies. All this is certified in accordance with European standards.

Primoco’s global market position, partnerships and aviation experience

Thanks to Primoco UAV, the Czech Republic is the world’s second largest supplier of medium-sized UAVs. According to the renowned Swedish Institute for Peace Research SIPRI, a total of 69 dual/military use UAVs with a take-off weight of up to 250 kilograms have been sold globally in 2022. Data from national defence systems licensing registries show that the medium-sized UAV market segment is dominated by manufacturers from the United States with two-thirds and our company Primoco UAV with one-third. In the category of heavy aircraft with a take-off weight of over 250 kilograms, another 120 unmanned machines were delivered. The global market, with the exception of the pandemic Covid year of 2021, has been growing steadily by tens of percent per year in recent years and the Czech Republic plays a significant role in it.

Our aircraft are currently flying hundreds of hours per month during actual combat reconnaissance operations and civilian missions of all kinds. As a result, we have a huge amount of real data and valuable customer feedback at our disposal at all times, allowing us to work efficiently on improvements and further upgrades to our aircraft. Primoco UAVs can thus keep pace with current mission needs over the long term, adapt to the environment in which they are deployed, and reliably deliver the results users expect.

For example, during the summer of 2023, we completed a new software and hardware version of the Primoco UAV One 150 control system. This is the next step, which, based on flight experience, allows us to move towards maximum automation and even greater safety off-air traffic. We have invested three million crowns in this project alone and customers are already appreciating the results in real missions.

Thanks to its focus on innovation and commercial success, Primoco UAVs are increasingly attracting interest from major players in the world of aviation and business. In June 2023, we signed a memorandum of understanding with Airbus Defence and Space and its subsidiary Airbus DS Airborne Solutions (ADAS). In December 2023, the agreement was extended to include a commercial agency agreement, which opens up opportunities for Primoco to reach out to Airbus Defence clients.

Orders and outlook for the following period

In 2023, we produced and delivered 33 aircraft, an almost threefold increase compared to 2022. At the same time, we have created the conditions for further production growth in view of the advanced stage of negotiations on further orders for several dozen aircraft and we expect a further significant increase in the economy this year. At the same time, we have created the conditions for further production growth as negotiations for several dozen more aircraft for 2024 are well advanced. In total, we have produced over 150 machines since Primoco UAV was founded, which are in daily operation in many different places on the planet. We want to continue to work on diversifying our target markets. In addition to the dominance of Europe, this will include Asia, the Middle East and Africa.

The preparation of the project documentation for the revitalisation of the Písek – Krašovice airport area is also continuing. In addition to the new assembly hall, the project also includes the construction of a control centre for the operation of Primoco UAVs worldwide, a modern pilot training centre and a research department for the development and testing of new technologies. The total planned investment is approximately CZK 750 million. A significant part of this amount will go towards the robotization and machinery of the modern factory. We expect to start the building permit procedure in 2024, with construction to follow in 2026. From 2027, we expect Primoco UAVs to gradually move to new premises and increase the total delivery capacity to 250 machines per year, more than triple the current level. In addition to expanding domestic production capacity, we are also working on a secondary production project for One 150 abroad.

Certification and corporate events

In November 2023, we terminated our contract with the Military Technical Institute s.p. for breaches of contract by this company. At the same time, we have realigned the continuation of the military certification process NATO STANAG with the Department of Defence and the Department of Military Aviation Oversight (ODVL) with the goal of completing the One 150M type certificate in 2024.

At the General Meeting held on 1 December 2023, the shareholders also voted on changes to the company’s Board of Directors and Supervisory Board. Ladislav Semetkovský, Petr Kováč and Romana Wyllie will be new members of the Board of Directors. Jakub Fojtík, Vladan Ševčík and Jan Sechter were elected members of the Supervisory Board. Petr Babický, Jan Venglář and Rostislav Kuneš became members of the Audit Committee.

Shares

At the December General Meeting, the shareholders voted to apply for admission of all 4,708,910 Primoco UAV registered ordinary shares in book-entry form, constituting the entire share capital of the company, to trading on the regulated Prime Market organized by the Prague Stock Exchange. Primoco UAV shares are currently traded on the START market of the Prague Stock Exchange. The upcoming transition to the Prague Stock Exchange’s Prime Market, which is planned for the near future, is connected with the mandatory introduction of financial reporting according to IFRS. Primoco works on this project in co-operation with the consulting company EY. At the same time, we plan to increase the proportion of the company’s free float from the current 18 percent to the target 25 percent.

Shares of Primoco UAV have seen significant growth in the past year thanks to good financial results and a positive outlook for the future. While on 31 December 2022 the securities were trading on the stock exchange at CZK 410 apiece, by the end of December 2023 their price had risen to CZK 885. The company’s market capitalization now exceeds four billion crowns. The increase in the market value of Primoco UAVs is also reflected in the volume of share trades executed. According to the Prague Stock Exchange, Primoco was the most traded title on the PX START market in 2023.

I would like to conclude this look back at the year 2023 and the outlook for the next period by thanking you for your support and trust, which we greatly appreciate and without which we could not succeed together. At the same time, I would like to wish you a successful 2024, both professionally and personally.

Best regards, Ladislav Semetkovský CEO and Majority Shareholder

**38 . Date: 24-01-2024Market - Primoco UAV Starts Trading on the Prime Market of the Prague Stock Exchange on 29 JanuaryURL: https://www.suasnews.com/2024/01/primoco-uav-starts-trading-on-the-prime-market-of-the-prague-stock-exchange-on-29-january/**

Prague, January 24, 2024 – The securities of Primoco UAV SE, unmanned aircraft manufacturer, will be introduced to trading on the main market of the Prague Stock Exchange on Monday, January 29, 2024. Alongside other securities such as ČEZ, Erste Group Bank or Komerční banka, last year’s most successful Prague Stock Exchange name will join the premier group of Czech companies after completing the final phase of preparations – from the approval of the prospectus by the Czech National Bank to the transition to financial reporting under IFRS.

After more than five years since entering the START market for small and medium-sized enterprises, Primoco UAV SE will move to the Prime Market of the Prague Stock Exchange on 29 January 2024. Ladislav Semetkovský, the founder and CEO of the company that is focused on the production of unmanned aircraft and the provision of aerial work, expects that the transition to the Prime Market, in addition to the prestige, will increase interest in the shares, which were the best performing in the Prague market last year. “On the START market, we have gradually become known to most Czech investors and have reached a market capitalization approaching five billion CZK. Prime Market now puts us in the sphere of the largest publicly traded companies in the Czech Republic and opens our shares to more of the world, which will help us continue to dynamically increase the value of the company,” Semetkovský says.

“The transfer of a company from the unregulated market to the Prime Market is a significant event for the stock exchange. We traded on the START market with the vision that it would become a gateway to the capital market for smaller companies and ideally an intermediate step on their way to the world of international investors active in the Prime market. Primoco has come a long way since it went public. This is a cutting-edge technology company that will represent the Czech Republic well and I firmly believe that it will find its way into the portfolios of many foreign investors,” says Petr Koblic, CEO of the Prague Stock Exchange.

Primoco UAV’s share price more than doubled on the Prague Stock Exchange last year after the company began to significantly increase sales, revenues and profits. In connection with the announcement of record preliminary financial results for last year, the share price has appreciated by more than 12% since the beginning of 2024 and has approached CZK 1,000 per share. In November 2018, the subscription price per share was CZK 250. For 2024, management expects further significant growth in key performance indicators.

**39 . Date: 01-01-2024Market - Shield AI Raises Additional Capital in Series F, Boosts Total Amount to $500MURL: https://www.suasnews.com/2024/01/shield-ai-raises-additional-capital-in-series-f-boosts-total-amount-to-500m/**

Shield AI, the defense technology company building the world’s best AI pilot for aircraft, today announced the expansion of their Series F funding round to a total of $500 million. An additional $100M in equity, raised at the Series F price, and $200M in debt from Hercules Capital were added to the initial $200M in equity closed in November.

“AI pilots are becoming a strategic conventional deterrent in class with our aircraft carriers and guided missile submarines. But interestingly, it’s the first strategic deterrent that is software-defined and has only recently become possible because of advances in AI and compute power. That’s a huge paradigm shift for aerospace and defense,” said Ryan Tseng, Shield AI’s CEO and Cofounder.

“The defense and investment communities are seeing the profound impact AI pilots will have on national security and global stability. AI pilots solve the electronic warfare (GPS- and communications-jamming) problem that’s devastating 10,000 drones per month in the Russia-Ukraine War, and they enable the operating concept of intelligent, affordable mass, where swarms of affordable aircraft can accomplish missions normally reserved for expensive, exquisite aircraft,” said Brandon Tseng, Shield AI’s President, Cofounder, and former Navy SEAL.

Shield AI’s flagship product, Hivemind, is an AI pilot that enables teams of intelligent aircraft to operate and complete missions autonomously in high-threat environments, without the need for remote operators or GPS. Hivemind is an aircraft agnostic autonomy stack similar to the self-driving technology found in cars. It has flown quadcopters, the MQ-35A V-BAT, and the F-16. Next year it will fly Kratos’ XQ-58 Valkyrie. Shield AI has accumulated more autonomous flight hours executing fighter jet maneuvers, like dogfighting, than any company in the world.

Recently, Shield AI introduced V-BAT Teams, a first-of-its-kind software product powered by Hivemind that enables teams of V-BATs to execute missions, autonomously reading and reacting to each other and the environment just as a team of humans would normally pilot them.

About Shield AI

**40 . Date: 15-02-2024Component - General - DatalinkDomo Tactical Communications (DTC) and Inertial Labs Partner to Deliver a Breakthrough Integrated Uncrewed Systems Solution for GNSS-denied Navigation and CommunicationsURL: https://www.suasnews.com/2024/02/domo-tactical-communications-dtc-and-inertial-labs-partner-to-deliver-a-breakthrough-integrated-uncrewed-systems-solution-for-gnss-denied-navigation-and-communications/**

Domo Tactical Communications (DTC) , the leading provider of wireless IP mesh technology, and Inertial Labs, Inc., the leading developer of global navigation satellite system (GNSS)-independent navigation solutions, today announced a partnership to develop a breakthrough integrated uncrewed systems solution to benefit UxV manufacturers and end users worldwide. The new solution combines technologies from both companies to create a single navigation, command and control (C2), and intelligence, surveillance and reconnaissance (ISR) system.

DTC’s MANET Mesh with MeshUltra™ family waveforms deliver robust, high-bandwidth C2 and ISR links, enabling uncrewed vehicles to operate successfully in the most hostile RF environments. Leveraging Inertial Labs’ inertial navigation system (INS) and DTC’s Mesh-based RF ranging capability, those same vehicles will also be able to operate even when space-based positioning systems are unavailable due to jamming, spoofing, or lack of sky view. The INS provides assured position, navigation, and timing (APNT), and alternative navigation (ALTNAV) solutions directly to the uncrewed vehicle.

“DTC is committed to ensuring connectivity in most any environment or situation. This partnership with Inertial Labs offers a breakthrough combined solution for uncrewed systems,” said Rob Garth, Business Unit Director for Unmanned Systems at DTC. “The cohesive communications and positioning package will reduce customers’ time to market and increase their beyond-line-of-sight connectivity.”

“DTC is a trusted partner with a track record of delivering mission-critical Unmanned systems communication solutions,” said Jamie Marraccini, President and CEO of Inertial Labs. “By combining our Inertial Navigation capability with DTC’s MANET radio and Mesh-based ranging, we are providing our current and future customers with an unparalleled solution set perfectly tailored for the most demanding of GNSS-contested environments.”

About Domo Tactical Communications

DTC is the leading MANET IP MESH provider in the world. DTC radio solutions provide resilient high-bandwidth wireless communications in the most hostile RF environments.

DTC is an established C2 and ISR link provider to Unmanned Systems manufacturers and end users globally. DTC operates in the US, UK, and Denmark with over 160 employees.

Learn more: www.domotactical.com

About Inertial Labs

Inertial Labs is at the forefront of developing and customizing products for exciting technologies, from commerce and industry to government, defense, and aerospace.

Solutions include Inertial Measuring, Magnetic Compensation, GNSS Tracking, LiDAR

Scanning, Optical Image Processing, Visual Navigation, Programmable Navigation Solutions powered by iMX8 and NVIDIA processors, and Celestial/Solar Compassing. As sensor fusion consultants and engineers, Inertial Labs designs and develops high-quality products with the best price-performance ratio in the world.

**41 . Date: 28-04-2024Armed ISR / ISTAR - Mini - General - ArmamentIntroducing the Felon 1.0 UAV: A Game-Changer for Military and Law EnforcementURL: https://www.suasnews.com/2024/04/introducing-the-felon-1-0-uav-a-game-changer-for-military-and-law-enforcement/**

The Felon 1.0 UAV is a brand new flying machine that combines the ability to see things from above (surveillance) with the power to attack targets (lethal precision) – making it a major leap forward in technology for both the military and law enforcement.

Firepower From Above

The Felon 1.0 is equipped with a powerful weapon system that fires the same kind of bullets (5.56mm) as many assault rifles. This means it can take out targets from the air with great accuracy, while keeping operators at a safe distance. No matter the mission – whether it’s scouting ahead (reconnaissance), protecting an area (perimeter security), or fighting terrorism (counter-terrorism) – the Felon 1.0 can provide a quick and effective response.

See Everything, Do Everything

The Felon 1.0 is like having a super-powered lookout in the sky. It has advanced sensors and communication systems that give operators a real-time picture of what’s going on below, helping them make the best decisions in any situation. This information can also be shared with soldiers or police officers on the ground (ground forces) which makes everyone working together more effectively and helps them complete their missions successfully.

Dominating the Skies

From intense city battles to guarding long borders, the Felon 1.0 sets a new standard for military drones. It brings together superior firepower and tactical advantages in one flying machine.

Humm, Autel in Green it seems. They must be pretty miffed that Randal beat them to the green brand.

Feloni

(Is it April 1st? ed)

**42 . Date: 24-04-2024Armed ISR / ISTAR - Tactical - General - PlatformMayman Aerospace unveiling first full-scale model of Razor™ P100 military VTOL during SOF Week 2024URL: https://www.suasnews.com/2024/04/mayman-aerospace-unveiling-first-full-scale-model-of-razor-p100-military-vtol-during-sof-week-2024/**

Mayman Aerospace will unveil a full-scale model of Razor, its high-speed Air Utility Vehicle, during SOF Week 2024, May 6-10 in Tampa, Florida.

Razor is the name for the military variant of the dual-use, jet-powered, high-speed vertical take-off and landing (HS-VTOL) vehicle, from US-based manufacturer Mayman Aerospace. Derived from the Speeder design, the scalable Razor aircraft will be sized for payloads up to 1,000lb. Prototypes are already under construction for flight test in Q3 this year. The 100lb-payload Razor P100 is expected to fly first, and the 500lb-payload Razor P500 soon after. Mayman Aerospace will showcase a full-scale Razor P100 model during SOF Week 2024.

With more than US$120 million in LOI commitments from customers in Europe and Australia, plus US$3.25 million in US Department of Defense funding, Mayman Aerospace has been expanding its experienced engineering team while ramping up for flight testing.

Mayman Aerospace has also announced development of SkyField™, an AI-driven, autonomous Razor operating environment engineered for seamless integration into existing third-party battlefield management systems. SkyField will enable immediate, effective Razor operations alongside existing hardware and software systems, plus a simplified route to future capability development.

“We are excited to further define and develop Razor and the SkyField operating system as we work to bring the aircraft’s extensive capabilities to the warfighter. Razor is just the first step in creating the SkyField flight mesh. Alongside our Department of Defense colleagues, we are realizing the full capability unlocked by Razor’s unique design in combat scenarios, humanitarian and disaster relief operations, and training,” says David Mayman, CEO and founder of Mayman Aerospace.

Razor fulfills disparate missions in an era where real-world battlefield requirements are rapidly evolving. The need for combat mass through multiple, highly capable, low-cost, and attritable platforms is rapidly emerging. Razor’s low cost, jet speed, and VTOL versatility make it uniquely suitable for the next-generation battlespace.

Easily transported for mass launch in the field, from ships, or the air, Razor may be configured for contested logistics, armed with Hellfire or Brimstone missiles as a range extender for precision attack, flown as a low-cost cruise missile, or equipped with advanced sensors for ISTAR, electronic warfare, and the suppression of enemy air defenses (SEAD). The aircraft will also be used as a high-speed, low-cost target drone, requiring no special launch infrastructure for air-to-air and air defense training.

Mayman Aerospace will be in the BlackHays Group booth #4802 in the JW Marriott Hotel Small Business Conference Room

**43 . Date: 28-04-2024General - SoftwareQinetiQ achieves UK’s first jet-to-jet teaming between aircraft and autonomous droneURL: https://www.suasnews.com/2024/04/qinetiq-achieves-uks-first-jet-to-jet-teaming-between-aircraft-and-autonomous-drone/**

QinetiQ has successfully trialled the UK’s first Crewed-Uncrewed-Teaming demonstration between a crewed aircraft and an autonomous jet drone.

The trial – which took place in collaboration with the Defence Science and Technology Laboratory (Dstl), the Royal Navy and the Air and Space Warfare Centre (ASWC) – saw a QinetiQ jet aircraft take off from Ministry of Defence (MOD) site Boscombe Down in Salisbury, while a modified Banshee Jet 80 drone was launched from the MOD Hebrides range, off the north-west coast of Scotland.

Flying from Boscombe to the Hebrides, the aircraft soon gained control of the Banshee, with the drone receiving its orders from the aircraft before automatically conducting the mission assignment, flying at 350 knots. The mission was completed not only by the live Banshee but also a number of digital Banshees within a live-virtual swarm, successfully acting in a co-ordinated manner.

The Banshee was equipped with QinetiQ’s Airborne Command and Control for Swarm Interoperable Missions (ACCSIOM) technology, which allows the drone to communicate with the crewed aircraft using the same messaging format as the standard NATO Link 16 datalink. Instrumental to the deployment of autonomous air platforms, the technology provides an airborne gateway which can receive and translate both long range and short range communications between drones while in-built safety systems can override the autonomy to ensure the drone stays at all times within a safe operating area.

The success of this trial demonstrates that the combination of Crewed and Uncrewed Teaming between current front line combat aircraft and next generation drones can be potentially achieved successfully with the existing combat air fleet, while offering the potential to increase combat capability in an affordable manner.

Alan Hart, Managing Director Science & Technology, QinetiQ said: “This transformative trial is a great example of collaboration and technology leadership in aviation defence capability, as we seek to meet the ever-changing requirements of those on the front line. It represents a significant advance in developing technologies that will allow uncrewed systems to operate seamlessly with current aircraft, providing the basis for air operations for the next twenty years.”

Minister for Defence Procurement, James Cartlidge said: “Our Armed Forces strive to be at the cutting-edge of technology. The ability to team crewed and uncrewed systems is an important step forward in our ability to seize the opportunities inherent across drones. Using British engineering expertise, this successful trial is another excellent example of what happens when the MOD and industry experiment and test hand-in-hand – a core approach in our UK Defence Drone Strategy and Integrated Procurement Model.”

Peter Stockel, Dstl’s Chief for Robotic and Autonomous Systems said: “This UK first paves the way in de-risking the barriers to adopt autonomous systems through advancing autonomy capabilities that are easier to integrate and also address regulatory requirements. The project has been about ‘teaming’ throughout, not only for the crewed-uncrewed technologies and their integration, but also as an exemplar of MOD, Dstl, QinetiQ and other industry partners working collaboratively to accelerate advanced autonomy research and development for operational advantage at pace through more open and agile approaches and real world experimentation.”

Commodore Steve Bolton, Deputy Director Aviation Programmes & Futures, said: “I am delighted with the results of this trial. The development of Crewed–Uncrewed Teaming, as one of the Royal Navy’s many aviation transformation initiatives, seeks to embrace the onset of autonomy and Human Machine Teaming, to expand our aviation combat mass and operational advantage at sea.”

This flight trial is part of the UK’s Accelerating Air Autonomy Capability Experimentation (A3CE) R&D programme and is the culmination of a year’s planning and development activity by QinetiQ and Dstl that has seen a series of synthetic and flight de-risking trials, assessment and testing.

About QinetiQ

QinetiQ is an integrated global defence and security company focused on mission-led innovation. We employ more than 8,500 highly-skilled people, committed to creating new ways of protecting what matters most; testing technologies, systems, and processes to make sure they meet operational needs; and enabling customers to deploy new and enhanced capabilities with the assurance they will deliver the performance required. Visit our website www.QinetiQ.com

**44 . Date: 28-04-2024Cargo - Tactical - Partnership - SNC and Pyka Partner on RUMRUNNER: Delivering Critical Supplies Under FireURL: https://www.suasnews.com/2024/04/snc-and-pyka-partner-on-rumrunner-delivering-critical-supplies-under-fire/**

SNC and Pyka have partnered to offer RUMRUNNER, the world’s most capable zero-fuel cargo aircraft for contested logistics. Featuring unprecedented payload capacity and range capabilities, RUMRUNNER will enhance express logistics networks, enable access to remote sites and streamline the delivery of critical supplies to points of need.

Modified to enable contested operations, RUMRUNNER is the first all-electric, super-short take-off and landing (SSTOL) capable unmanned aircraft system (UAS) in its class. RUMRUNNER’s fully autonomous flight engine can be programmed by a single on-ground pilot, with dynamic rerouting via satellite link.

**45 . Date: 04-05-2024Cargo - Partnership - SoftwareASL Aviation Holdings Inks Deal with Reliable Robotics for 30 Aircraft Autonomy SystemsURL: https://www.suasnews.com/2024/05/asl-aviation-holdings-inks-deal-with-reliable-robotics-for-30-aircraft-autonomy-systems/**

Global aviation services provider ASL Aviation Holdings, and Reliable Robotics Corporation, a leader in autonomous aircraft systems, today announced that ASL has placed a deposit-backed order for 30 units of the Reliable autonomous flight system for the Cessna 208B Caravan. The deal secures early delivery slots and enables ASL to be a leader in the adoption of safety and efficiency enhancing automation. ASL and Reliable have been working together since 2022 to bring advanced automation and remote piloting into ASL’s operations and have a shared goal of expanding the program to include additional aircraft types in the next 12 months.

“We are constantly developing and upgrading our capabilities to match and anticipate our customers’ requirements. Automating the Caravan with Reliable’s technology will enable ASL to deliver safe and reliable air cargo transport services at a lower operating cost to our express freight, postal and e-commerce retailer customers,” said ASL Aviation Holdings Director, Hugh Flynn.

ASL Aviation Holdings is a world leader in wet-lease airline operations for major express freight, postal and e-commerce companies. The ASL group consists of eight airlines based in Europe, Asia, Africa and Australia, operating over 160 aircraft. Reliable Robotics is an original member of ASL’s CargoVision forum of next-generation companies involved in pioneering new aviation and propulsion technologies.

“ASL and Reliable will work together to deliver automated air cargo services for the largest global buyers of air cargo capacity, in turn providing more goods to more people in more places. This will start with the Cessna C208B Caravan, and then we intend to bring advanced automation to a range of aircraft to meet industry needs,” said Myles Goeller, Chief Business Officer at Reliable Robotics.

The Reliable autonomous flight system fully automates an aircraft through all phases of operation including taxi, takeoff and landing, enabling it to be operated by a remote pilot in a ground control station. Reliable’s system is aircraft agnostic and utilizes multiple layers of redundancy and advanced navigation technology to improve safety and achieve the levels of integrity and reliability necessary for uncrewed flight. The system will help prevent controlled flight into terrain (CFIT) and loss of control in flight (LOC-I), which account for the majority of fatal aviation accidents. In November 2023, Reliable Robotics remotely operated a Cessna 208B Caravan with no one on board, marking aviation history. Industry-leading certification progress includes FAA acceptance of Reliable’s certification plan in June 2023, and all requirements for the advanced aircraft navigation and autopilot systems agreed upon in February 2024.

About Reliable Robotics

Reliable Robotics launched in 2017 to bring safe, certified automation systems to commercial aviation. The company’s system enables remote operation of any aircraft type. Reliable’s vision is to transform the way we move goods and people around the planet with safer, more convenient and more affordable air transportation. The company is headquartered in Mountain View, CA and has a distributed global workforce. Learn more and see job openings at https://reliable.co

**46 . Date: 31-05-2024Component - General - Engine / PowersourceGA-ASI Completes Durability Test for HFE 2.0 EngineURL: https://www.suasnews.com/2024/05/ga-asi-completes-durability-test-for-hfe-2-0-engine/**

On May 16, 2024, General Atomics Aeronautical Systems, Inc. (GA-ASI) completed durability testing for its new 200-horsepower heavy fuel engine at its El Mirage, California, flight facility. The Heavy Fuel Engine (HFE) 2.0, featuring a new GA-ASI-designed gear box and dual brushless generators from General Atomics Electromagnetic Systems (GA-EMS), is designed to bring the engine and all ancillary components to 2,500 hours between scheduled overhauls and greatly increase maintenance-free operational periods.

“Our HFE 2.0 engine is now the best heavy fuel engine in aviation,” said GA-ASI President David R. Alexander. “Hats off to our Internal Research and Development team whose ingenuity and technical sophistication inspired the HFE 2.0 program, allowing us to develop a more reliable and durable engine that also addresses diminishing manufacturing sources for aviation heavy fuel engines and components.”

The final durability test simulated a full 2,500-hour engine life operating the highest flight loads that could ever be seen in the field. The test included conditions simulating 1,250 full power take-offs and climbs to high-cruising altitude, and over 200 hours of cruise in a worst-case generator loading conditions.

The HFE 2.0 engine is being considered by the U.S. Army to become the fleet replacement for the current 180-horsepower engine used on GA-ASI’s Gray Eagle Extended Range (GE ER) Unmanned Aircraft System (UAS). HFE 2.0 is also the cornerstone of the modernized Gray Eagle 25M (GE 25M) UAS currently being produced under a U.S. Army-funded program to support future Multi-Domain Operations (MDO) UAS missions.

GA-ASI and its affiliate General Atomics Europe partnered with global leaders in high-performance engines — supported by propulsion technology innovator Cosworth — to develop an engine with increased horsepower, durability, and reliability. GA-ASI also brought in GA-EMS to design and build the engine’s dual brushless generators, which will dramatically reduce field maintenance and with the same Size, Weight, and Power (SWaP) of the existing brushed generator, will deliver over 50 percent more electrical power for new payloads and mission capabilities.

Final 150-hour qualification testing is scheduled to be completed in September followed by certification from the U.S. Army.

**47 . Date: 11-05-2024Armed ISR / ISTAR - MALE - General - PayloadGA-ASI Developing New ABAD Pod for Battlefield Awareness and DefenseURL: https://www.suasnews.com/2024/05/ga-asi-developing-new-abad-pod-for-battlefield-awareness-and-defense/**

General Atomics Aeronautical Systems, Inc. (GA-ASI) is working with the U.S. Special Operations Command (USSOCOM) to develop a new Airborne Battlespace Awareness and Defense (ABAD) capability. The new ABAD pod is being developed for the GA-ASI-supplied MQ-9A Block 5 Medium-Altitude, Long-Endurance Tactical (MALET) Extended Range Remotely Piloted Aircraft (RPA) being operated by the U.S. Air Force Special Operations Command (AFSOC). ABAD will provide detection and protection against Radio Frequency (RF) and Infrared (IR) threats.

“Threat awareness and survivability are critical for MQ-9A to operate in contested environments,” said GA-ASI President David R. Alexander. “ABAD will enable the tracking of RF and IR missile threats, enable defensive measures, and real-time threat awareness for MQ-9A.”

The first phase of contract work evaluated suitable RF Electronic Warfare (EW) and IR countermeasures systems. This led to the down selection of a next-generation software-defined radio-based EW system from BAE Systems and the AN/AAQ-45 Distributed Aperture Infrared Countermeasure System (DAIRCM) from Leonardo DRS.

“BAE Systems’ advancements in small form factor EW technologies will provide affordable multifunction capabilities for the MQ-9A, enabling it to operate in previously inaccessible airspace,” said Joshua Niedzwiecki, vice president and general manager of Electronic Combat Solutions at BAE Systems.

“Leonardo DRS is delighted to team with GA-ASI to provide our industry-leading and proven AN/AAQ-45 DAIRCM aircraft protection system to enhance MQ-9A survivability in support of this mission for USSOCOM,” said DRS Vice President of the DAIRCM Program, David Snodgrass.

Work is underway on an engineering and test effort to mature the capability as a podded payload capable of operation on the MQ-9A aircraft in 2025.

About GA-ASI

General Atomics Aeronautical Systems, Inc. (GA-ASI), an affiliate of General Atomics, is a leading designer and manufacturer of proven, reliable RPA systems, radars, and electro-optic and related mission systems, including the Predator® RPA series and the Lynx® Multi-mode Radar. With more than eight million flight hours, GA-ASI provides long-endurance, mission-capable aircraft with integrated sensor and data link systems required to deliver persistent situational awareness. The company also produces a variety of sensor control/image analysis software, offers pilot training and support services, and develops meta-material antennas.

**48 . Date: 04-05-2024Armed ISR / ISTAR - Mini - Contract - Origin UAV successfully delivers an airborne weapon precision strike system to NATO member countriesURL: https://www.suasnews.com/2024/05/origin-uav-successfully-delivers-an-airborne-weapon-precision-strike-system-tonato-member-countries/**

Origin UAV, a leading developer of drone technology with precision strike capabilities, has announced the successful delivery of its Origin UAV Beak systems to NATO member countries. This achievement signifies a significant advancement in bolstering the defense capabilities of allied nations, demonstrating Origin’s commitment to innovation and security.

The Origin UAV Beak is designed to provide precision strike capabilities at a fraction of the cost of firing a precision-guided missile, making it a cost-effective solution for modern military operations. Equipped with state-of-the-art technology, including precision bomb-drop capability and advanced ISR (Intelligence, Surveillance, and Reconnaissance) features, the Beak sets a new standard in unmanned aircraft systems.

It is specifically engineered to excel in GNSS-denied environments and features anti-jamming capabilities, offering defense forces unparalleled operational flexibility and effectiveness.

Agris Kipurs, co-founder at Origin, emphasized the company’s dedication to disrupting the military power balance through cost-effective technological superiority in the air. He stated, “Our delivery of the Origin UAV Beak systems to NATO member countries underscores our commitment to addressing evolving security challenges and enhancing operational superiority.”

In addition to this achievement, Origin is excited to announce its participation in the upcoming Special Operations (SOF) week in Tampa, Florida, from May 6 to 9. As a leading innovator in military technology, Origin aims to showcase the Beak’s capabilities and engage with industry experts, military professionals, and government officials at this event.

Origin invites all interested parties to visit its booth 4006 at SOF week to learn more about the Beak and explore potential collaboration opportunities. Together, Origin seeks to shape the future of military aviation and ensure the safety and security of nations.

For media inquiries and further information, please contact: [email protected]

Visit Origin web page to learn more about the company and the Beak: originuav.com

**49 . Date: 04-05-2024ISR / ISTAR - Micro / Mini - Contract - Tesseract Ventures Announces Revolutionary SWARM Drone Technology for Special Operations ForcesURL: https://www.suasnews.com/2024/05/tesseract-ventures-announces-revolutionary-swarm-drone-technology-for-special-operations-forces/**

Tesseract Ventures is excited to announce that it has been awarded an Other Transaction Agreement (OTA) from the U.S. Special Operations Command (USSOCOM). This contract will fund the development of the company’s next-generation drone, the SWARM (Special Warfighter Assistive Robotic Machine).

The SWARM drone technology is set to revolutionize USSOCOM and SOF operations by offering a new, much-needed capability: a highly versatile nano drone equipped with smart payload and interoperability across multiple systems. This pioneering technology can potentially give Special Operations Command warfighters an edge in surveillance, and tactical response operations.

The SWARM system includes a Nano First Person View (FPV) Drone, a Smart Payload System, and Smart Payloads. Equipped with a multi-function camera system with high-res, night, and thermal capabilities, SWARM’s super-compact drone is designed for rapid deployment in any situation.

Working solo or in groups, it can perform critical tasks such as landing or dropping payloads that can work to protect troops from threats such as enemy combatants, gas, radiation, and more. Designed for adaptability, the payload system can be equipped with explosive charges for precise strikes against enemy assets and infrastructure.

“With the SWARM, Tesseract Ventures is not just introducing a new product; we are ushering in a new era in military technology,” states John Boucard, CEO, at Tesseract Ventures. “This technology is a game-changer for SOF personnel, enabling technological advantages previously unavailable on a single platform. Our commitment to innovation is reflected in the SWARM, offering enhanced capabilities and strategic benefits to our Special Operations Forces.”

About Tesseract Ventures

Tesseract Ventures was founded in 2018 by John Boucard, a veteran inventor, engineer, and technologist to recruit the smartest minds in robotics, defense, and critical infrastructure. The company enables businesses to defy the boundaries of space and time through next-generation technologies. Robots, smart spaces, wearables, and radically connected platforms are just some of the tools Tesseract created to make American industries smarter, better connected, and more efficient. The company is based in Overland Park, KS with its defense studio in Tampa, FL.

**50 . Date: 29-06-2024Regulation - A-techSYN Secures Another Operational Authorisation in Ireland:Paving the Way for UAS ServicesURL: https://www.suasnews.com/2024/06/a-techsyn-secures-another-operational-authorisation-in-irelandpaving-the-way-for-uas-services/**

In a significant milestone for the Irish drone industry, A-techSYN, Ireland’s premier developer and manufacturer of Unmanned Aerial Systems (UAS), has successfully obtained its latest UAS Operational Authorisation. The Authorisation allows A-techSYN to perform SAIL-II Level operations over the Irish Waters, which is integral to ongoing projects such as the DTIF-GUARD, U-AVES and Mistrall. This achievement marks another successful stepin the company’s journey, demonstrating its commitment to innovation, safety, and expanding its test, evaluation, and trialling capabilities.

“For the last decade, A-techSYN has been pioneering the integration and implementation of specific category UAS. We believe that progress can only be made by applying ideas in live situations, obtaining feedback from the field and refining the solution. This means that you need to be able to fly repetitively. With this authorisation, we will be able to test the use cases we believe to be critical for implementing Drone technologies and gather the much desired data in a much faster way.” said Gokhan CELIK, CEO of A-techSYN

The authorisation process, meticulously overseen by the Irish Aviation Authority (IAA) UAS Division and the Airspace Regulation Department, is a testament to the rigorous standards A-techSYN adheres to. The IAA, Irelands’ semi-state body responsible for the regulation of safety in Irish civil aviation, has played a crucial role in this success. Their dedication to maintaining safe and efficient airspace management is reflected in their thorough and professional oversight.

“We are immensely grateful to the IAA’s UAS Division and Airspace/U-space Department as well as AirNav for their unwavering support and professionalism over the past year. Our previous authorisation in Wicklow was limiting us to perform flights in a TRA only environment. This new authorisation will allow us to perform much desired proof of concept flights below 500 feet as well as more complex and varied operations for applications up to 2500 feet within the TRA which exceeds 100 Sq. Nautical Miles.” said Mark Early, Accountable Manager and Head of Aviation and Safety at A-techSYN.

A-techSYN develops and manufactures the CGT-50 VTOL UAV which is designed for diverse applications, including maritime surveys and security operations, providing unparalleled versatility and efficiency.

The CGT-50 VTOL UAV is central to several collaborative projects that demonstrate its potential and versatility. Notably, the GUARD project, aimed at revolutionising maritime surveillance and enhancing Irish defence operations, highlights the strategic importance of the system. This project integrates advanced automated drone technology into defence applications, underscoring the significant impact of UAS in improving national security and operational efficiency by enhancing the reach of the Irish Navy beyond the limitations naval vessels have.

Additionally, in partnership with BlueWise Marine and ATU Galway, the U-AVES project focuses on using unmanned aerial vehicles for maritime ecological surveys, enhancing data collection, and environmental monitoring.

These projects underscore the strategic importance of the CGT-50 VTOL UAV and its potential to transform various industries. The successful implementation of these projects showcases A-techSYN’s ability to leverage cutting-edge technology to meet diverse operational needs ranging from agriculture and infrastructure monitoring to environmental conservation and disaster management.

A-techSYN’s success is built on strong partnerships and collaborations. We look forward to continuing our work with stakeholders, including government agencies, industry partners, and academic institutions, to deliver innovative solutions that meet their goals and objectives.

**51 . Date: 29-06-2024ISR / ISTAR - Tactical - Contract - Beyond Military: Primoco UAV Scores Another Deal for Inspection DronesURL: https://www.suasnews.com/2024/06/beyond-military-primoco-uav-scores-another-deal-for-inspection-drones/**

Primoco UAV, Czech UAV manufacturer, has announced another new contract. The company will supply two One 150 UAVs fully equipped for inspection, calibration and evaluation of airport navigation equipment to an Asian customer. The value of the transaction is EUR 2.5 million (CZK 62 million).

The announcement comes shortly after the company received a record order for 24 UAVs worth EUR 18 million (CZK 450 million). “The new contract confirms that unmanned systems are increasingly in demand not only by the military, security or rescue forces, but also for practical civilian applications,” said Ladislav Semetkovský, Primoco UAV CEO, adding that the company announced new orders worth more than half a billion Czech crowns in June alone. It expects orders for 50 to 60 UAVs worth around CZK 1 billion for this year.

For calibration of airport navigation equipment such as ILS/VOR/DME/TACAN/COM, as well as visual systems such as PAPI/VASI, Primoco UAVs are able to fully replace manned machines. They deliver the same high measurement quality to the required ICAO standard with significantly lower purchase and operating costs.

**52 . Date: 15-06-2024Loitering Munition - Mini - Contract - Johnnette Technologies Becomes the First Indian Startup to Get Contract From Indian Army to Supply More Than 150 JM-1 Loitering MunitionsURL: https://www.suasnews.com/2024/06/johnnette-technologies-becomes-the-first-indian-startup-to-get-contract-from-indian-army-to-supply-more-than-150-jm-1-loitering-munitions/**

New Delhi, Delhi, India: The Indian Army has awarded a strategic contract to Johnnette Technologies Private Limited for the procurement of 150 state-of-the-art loitering munitions, marking a significant milestone in India’s defence autonomy under the Atmanirbhar Bharat initiative. Johnnette Technologies, a leader in defence technology, has developed the JM-1, a precision-guided loitering munition engineered for tactical engagements. The acquisition of the JM-1 underscores the Indian Army’s commitment to enhancing its tactical capabilities with advanced, locally-produced technology. It has a unique algorithm which is based on AI that enables JM-1 to strike a target with precision at altitudes of more than 18,000 ft. Founded in 2014 by retired Lt Cdr John Livingstone, Johnnette Technologies has been at the forefront of unmanned systems technology, offering innovative solutions to the military and commercial sectors. The company’s dedication to high-quality aerospace systems is evident in its continued expansion and success. “We believe this Johnnette JM-1 contract, reaffirms our dedication towards producing high-quality defence products and our support for Atmanirbhar Bharat,” said Lt Cdr John Livingstone, Founder and CEO of Johnnette Technologies. “This contract capitalizes on our experience collaborating closely with our defence clients and our position as a leading provider of high-quality, rapidly deployable UAVs and loitering munitions for the Indian military.” The JM-1 boasts impressive capabilities, with max tested launch altitude at 18,000 feet and a maximum altitude for operations at 500 meters. With a range of 5 km and a flight endurance of up to 25 minutes, the JM-1 is equipped with advanced GPS navigation and onboard computing systems to ensure precise targeting and control. The flexibility of launch methods, either via canister or by hand, makes it adaptable to various mission requirements. This contract builds on Johnnette Technologies’ previous success in December 2023 with the Indian Army, following the supply of their flagship tactical fixed-wing drone, the Johnnette JF-2, for border surveillance operations.

**53 . Date: 22-06-2024ISR / ISTAR - Mini - Contract - Quantum Systems equips the Romanian Ministry of Defence with Vector systemsURL: https://www.suasnews.com/2024/06/quantum-systems-equips-the-romanian-ministry-of-defence-with-vector-systems/**

**54 . Date: 20-07-2024ISR / ISTAR - Small - General - Made in Britain: TEKEVER Unveils First UK-Manufactured AR3 DroneURL: https://www.suasnews.com/2024/07/made-in-britain-tekever-unveils-first-uk-manufactured-ar3-drone/**

TEKEVER, a leading European unmanned aerial systems (UAS) company, is making a big splash at the Farnborough International Airshow 2024.

TEKEVER will showcasethe first TEKEVER AR3 drone to be entirely manufactured in their West Wales facilities. This marks a significant milestone for the company, demonstrating their complete in-house capability for UK-based development, production, testing, and operation of their flagship drone.

UK Workforce Expansion

TEKEVER highlighted its significant investment in the UK workforce. The company has more than doubled its staff in the past year, with growth across various departments including operations, engineering, software development, manufacturing, research & development, and support. This expansion is further bolstered by the opening of a new facility at West Wales Airport, Aberporth, in September 2023, adding to their existing presence in Southampton.

Focus on the UK Market

TEKEVER underlined its view of the UK as a strategic home market. The company has ambitious plans for further expansion in the UK to address the growing demand for their drones, both for domestic use and export.

This announcement signifies TEKEVER’s strong commitment to the UK and its aspirations to become a major player in the country’s UAS industry. Find them (Booth # 3760) to learn more

**55 . Date: 24-08-2024Cargo - MALE - General - PlatformEDGE GY-300 Drone Delivers 300kg Up to 400km in Harsh ConditionsURL: https://www.suasnews.com/2024/08/edge-gy-300-drone-delivers-300kg-up-to-400km-in-harsh-conditions/**

EDGE, a leading innovator in drone technology, today announced the launch of its groundbreaking GY-300 heavy-duty cargo drone. Designed to redefine the logistics industry, the GY-300 offers unparalleled capabilities in payload capacity, range, and operational versatility.

Capable of transporting up to 300 kilograms of cargo over distances of up to 400 kilometers, the GY-300 is a robust and reliable solution for a wide range of industries. Its exceptional performance is complemented by minimal maintenance requirements, making it a cost-effective choice for businesses seeking to optimize their supply chain operations.

The GY-300’s true strength lies in its adaptability. Engineered to thrive in challenging environments, this cutting-edge drone can effortlessly navigate rough terrain, including unpaved surfaces, with short take-off and landing distances. This unparalleled versatility opens up new possibilities for cargo delivery in remote and underdeveloped regions.

Take-off distance (7,000 ft. density altitude, no wind)

Minimum landing distance (7,000 ft. density altitude, no wind)

**56 . Date: 24-08-2024Research - Tactical - General - Istari Digital Unveils X-Plane To Become World’s First Digitally-Certified AircraftURL: https://www.suasnews.com/2024/08/istari-digital-unveils-x-plane-to-become-worlds-first-digitally-certified-aircraft/**

In a revolutionary leap for aviation, Istari Digital has announced that a modification of the Lockheed Martin Skunk Works® X-56A is on track to become the world’s first digitally-certified aircraft. Last year, the United States Air Force awarded Istari Digital a $19 million contract to pioneer this ambitious program, aptly named Flyer Øne in homage to the Wright Brothers. The goal? To create and flight certify a digital twin before it’s physically built, paving the way for future aircraft development to mirror the rapid pace of software engineering.

While digital certification is routine in industries like Formula 1 racing, it’s unprecedented in aviation. “It’s not as futuristic as it sounds,” said Will Roper, Istari Digital founder and CEO. “For a new aircraft variant, if the structure and flight dynamics can be simulated accurately, physical prototypes become the slow lane. Hardware as software is the fast lane.”

Istari Digital has previously been tight-lipped about the specifics of their aircraft and industry partners. In an exclusive reveal, they shared the exciting news. “Having just passed a major Design Review, we’re thrilled to announce the modification of the Skunk Works X-56A is on track to achieve the first digital flight release,” Roper said. “The United States Air Force X-Plane program has a storied history of breaking physical boundaries—from the sound barrier to sub-orbital flight. Now, they’re breaking digital barriers too.”

The X-56A, developed by Lockheed Martin Skunk Works, is an advanced modular uncrewed aerial vehicle designed to push the boundaries of High-Altitude Long Endurance flight. With a 7.5-foot fuselage and a 27.5-foot wingspan, the X-56A first took flight in the summer of 2013 from Edwards Air Force Base. With a unique mission to demonstrate flutter prediction capability and flutter suppression, the program achieved significant progress in flight control, demonstrating the ability to suppress body freedom flutter through the development of slender, flexible wings.

The Flyer Øne design features significant modifications to landing gear systems, cameras, as well as addressing obsolescence issues. “In many respects, this is a simpler variant of the aircraft,” said a member of the Skunk Works team. “We collected significant data during the original program, so the simulation of updated flight performance has a solid foundation.”

Roper initiated the defense trend of adopting digital engineering practices during his tenure as Assistant Secretary of the Air Force, penning the Matrix-inspired “There is No Spoon” in late 2020. The Pentagon has since directed digital engineering for all future programs. However, unlike Formula 1, aerospace and defense face challenges in integrating numerous intellectual property and classified data sources, making adoption more difficult.

Istari Digital’s solution is a new decentralized data meshing technology that expands on the concept of a “digital thread.” Earlier this month, they launched Model Øne, a program to build an “internet of models” for the Pentagon. In a recent Wall Street Journal op-ed, Roper and former Google CEO and Istari Digital investor Eric Schmidt highlighted how such infrastructure could simplify and accelerate virtual technology across industries. “Applying software practices to hardware will lead to revolutionary speed and agility,” Schmidt said. “Istari Digital is providing the missing infrastructure to connect coding environments with existing engineering tools, making software speeds possible for hardware at scale.”

For the digital X-56A, this new digital infrastructure will act as a plug-and-play interface between Lockheed Martin’s simulations and the Air Force’s stringent airworthiness process. The aim is to meet the burden of proof normally required physically for a Military Flight Release.

Once approved, the aircraft-on-a-chip will be built to specification and flown at Edwards Air Force Base. If the physical twin matches the digital model, the aircraft-on-a-chip is a real airplane, at least from a research and development perspective. It can be updated and evolved using software processes without the time, cost, and environmental impact of physical world innovation.

However, Roper cautions, “It isn’t surprising this subsonic drone can be modeled in near virtual reality because it is anchored by significant physical world data. The original X-56A was built to collect flexible wing data because it could not be modeled from extrapolated rigid-wing designs. Model pedigree determines what can be a digital twin.”

The risk of over-extrapolation was evident in the 2022 Formula 1 season when new ground-effect regulations led to unexpected “porpoising” effects for many teams, including Mercedes. Taking over half the season to model, understand, and then correct them, Mercedes Tech Director, Mike Elliott, blamed a single simulation error: “If we hadn’t made that one mistake, we’d have a car that was winning the world championship,” Elliott said.

As Flyer Øne, and with it, aviation, now take to the digital skies, both new design speeds and technical risks will follow in its wake. But like Formula 1, clinging to legacy processes is a losing strategy. Even with new risks, design speed and cycle time win.

**57 . Date: 16-07-2024General - New trials set to help unlock drone deliveries and inspections in the UKURL: https://www.suasnews.com/2024/08/new-trials-set-to-help-unlock-drone-deliveries-and-inspections-in-the-uk/**

Six projects have been selected for trials under a new UK Civil Aviation Authority scheme that will test drone use in deliveries, inspections of infrastructure, emergency services and flights to remote locations.

The regulator has chosen the trials to take place that will help safely integrate drones flying beyond visual line of sight (BVLOS) of their operator into UK airspace, helping to make this vital extension to drone flying an everyday reality.

BVLOS flights will be carried out at distances beyond the flyer’s ability to see the drone. These flights use advanced technologies for navigation, control and to detect other aircraft.

The UK Civil Aviation Authority has selected the projects, including:

The trials will gather key safety data, such as how drones detect and avoid other aircraft, the electronic signals they can send to be able to be visible to other airspace users and air traffic control.

This will support the regulator’s ongoing development of policy and regulations so that drone flights can be fully integrated with other airspace users.

“These innovative trials mark a significant step forward in integrating drones safely into UK airspace. By supporting projects ranging from consumer deliveries to critical infrastructure inspections, we are gathering essential data to shape future policies and regulations.

“Our goal is to make drone operations beyond visual line of sight a safe and everyday reality, contributing to the modernisation of UK airspace and the incorporation of new technology into our skies.”

The UK Civil Aviation Authority invited organisations to bid to participate in an innovation sandbox to validate and test their concepts, supporting the development of BVLOS capabilities.

Innovation sandboxes are controlled environments where organisations can test and further develop their new technology against the regulatory framework, helping applicants maximise the readiness of their innovation, and also help the UK Civil Aviation Authority better evolve regulations to better support both innovators and existing users.

The BVLOS sandbox is part of a collaboration with UK Research and Innovation (UKRI) that is supporting the creation of the aviation ecosystem needed to accelerate the introduction of advanced air mobility (AAM), drones, and electric sub-regional aircraft in the UK.

“The UKRI Future Flight challenge team are excited to be working in partnership with the UK Civil Aviation Authority, working together to accelerate the introduction of drone operations in the UK.

“These have the potential to transform how we deliver goods and provide services, particularly in less well-connected regions. These new sandbox projects are a great step towards realising these ambitions.”

The new trials will also help develop plans for how drones can be safely integrated with other airspace users, as part of the regulator’s wider Airspace Modernisation Strategy.

The projects included in the trial are:

Amazon Prime Air

Airspection

NPAS

NATS

Project SATE

Project Lifeline

**58 . Date: 10-07-2024Cargo - MALE - Contract - Pyka Announces Heinen Brothers Agra Services as First U.S. Customer for Autonomous Electric Crop Protection AircraftURL: https://www.suasnews.com/2024/08/pyka-announces-heinen-brothers-agra-services-as-first-u-s-customer-for-autonomous-electric-crop-protection-aircraft/**

ALAMEDA, Calif. (August 8, 2024) — Pyka, maker of Pelican Spray, the world’s largest autonomous electric crop protection aircraft, is pleased to announce Heinen Brothers Agra Services, one of the largest privately owned aerial application service providers in North America, as its first Pelican Spray customer in the United States.

Heinen Brothers Agra Services will now begin integrating Pelican Spray into their extensive fleet of agricultural aircraft. This addition will enhance their operations across the Midwest, South, and Western regions of the U.S., enabling them to better meet peak customer demand through large-scale automation of their aerial application services.

This partnership follows Pyka’s groundbreaking FAA authorization for the commercial operation of Pelican Spray in the U.S., making Pelican Spray the largest ever UAS authorized by the FAA for commercial use and enabling Pyka to offer its innovative technology to American farmers.

“We’ve been eagerly anticipating the opportunity to begin operations with Pelican Spray,” said Lukas Koch, Chief Technology Officer at Heinen Brothers Agra Services. “As experts in aerial application, we see the potential for Uncrewed Aerial Systems (UAS) to revolutionize our industry, offering significant cost-saving benefits to American farmers. Pelican Spray is the first autonomous agricultural solution that delivers the necessary work rate and spray performance needed to provide a viable commercial solution to begin augmenting our current fleet. Ultimately, we want to keep the pilots of our manned aircraft safer, so we are adopting a proactive approach that will allow UAS to handle certain workloads that will get our traditional pilots home safely to their families and loved ones. On an agronomic front, timing is very important for crop health; new tools like Pelican Spray will help us better serve our customers and their fields. These are groundbreaking times, we hope to facilitate even more agricultural innovation through collaboration with future companies that can unlock even more value from platforms like Pelican Spray. We are excited for the future of ag aviation and look forward to a long and productive partnership with Pyka.”

“Heinen Brothers is a forward-thinking organization that embraces new technologies to enhance the capabilities of American producers and improve the nation’s food production systems overall,” said Volker Fabian, Chief Commercial Officer at Pyka. “We are thrilled to partner with them and excited to commence U.S. operations with Pelican Spray.”

The two companies will celebrate the launch of their partnership and the delivery of Pelican Spray to Heinen Brothers Agra Services with a Field Day at Heinen Brothers’ corporate headquarters later this month. About Pyka:

Pyka is defining the future of safe, environmentally-friendly, and cost-effective aviation with autonomous electric airplanes for crop protection and cargo delivery. Pyka’s proprietary technology includes autonomous flight control software, flight computers, high energy density batteries, advanced electric propulsion systems, and carbon composite airframes. Learn more at www.flypyka.com.

About Heinen Brothers Agra Services:‍

Heinen Brothers Agra Services is a full-service ag retailer located in the heart of the Midwest. Headquartered in Seneca, KS, they focus on bringing reliable products and services to their growers in several states. Heinen Brothers and its subsidiary Kelly Hills Unmanned Systems, offer diverse aviation solutions and specialize in providing timely aerial application services to maximize yields and profits. Learn more at www.heinenbrosag.com or www.kellyhills.us.

**59 . Date: 31-08-2024ISR / ISTAR - Tactical - General - TEKEVER’s AR5 Drone Deployed to Enhance Maritime Safety in the Gulf of GenoaURL: https://www.suasnews.com/2024/08/tekevers-ar5-drone-deployed-to-enhance-maritime-safety-in-the-gulf-of-genoa/**

TEKEVER, a leading provider of unmanned aerial systems (UAS) and maritime surveillance solutions, is pleased to announce the deployment of its AR5 unmanned fixed-wing aircraft to the Sarzana air base in Italy. The aircraft will be operated by the Italian Coast Guard on behalf of the European Maritime Safety Agency (EMSA) to enhance maritime awareness in the Gulf of Genoa.

The TEKEVER AR5, a high-endurance UAS, is being deployed as part of a contract awarded to the REACT consortium (CLS Group and TEKEVER) by EMSA. The aircraft is equipped with advanced sensors, including optical and infrared cameras, maritime radar, an AIS receiver, and an EPIRB antenna, enabling it to perform a wide range of maritime surveillance tasks.

Key objectives of the deployment include:

“We are proud to contribute to the important work of the Italian Coast Guard and EMSA in safeguarding maritime safety and security, the AR5’s capabilities make it an ideal tool for addressing the complex challenges faced by maritime authorities today.”

The TEKEVER AR5 is expected to play a crucial role in enhancing maritime awareness and protecting the Gulf of Genoa for years to come.

About TEKEVER

TEKEVER is a global leader in unmanned aerial systems (UAS) and maritime surveillance solutions. With a focus on innovation and technology, TEKEVER provides cutting-edge solutions to a wide range of industries, including maritime, defense, and public safety.

**60 . Date: 04-10-2024Cargo - Tactical - Market - Dufour Aerospace and Areion Renew Partnership and Commitment to Purchase 40 Aero2 Drones with Option for 100 Additional DronesURL: https://www.suasnews.com/2024/09/dufour-aerospace-and-areion-renew-partnership-and-commitment-to-purchase-40-aero2-drones-with-option-for-100-additional-drones/**

Dufour and Areion (formerly known as Spright) will showcase the Aero2 drone at UP.Summit, an invitation-only gathering of 300 of the world’s most innovative minds rethinking the future of transportation

BENTONVILLE, AR Dufour Aerospace, the innovative Swiss drone and eVTOL company, and Areion, the U.S. drone pioneer and successor to Spright, today announced the renewal of their partnership, including the purchase by Areion of 40 Aero2 drones with options for an additional 100 aircraft. Dufour and Spright previously announced this largest-ever purchase of civilian drones in 2023. Areion will continue business development activities with Dufour Aerospace’s tilt-wing Aero2 drone, focusing on critical goods transport and other logistical applications.

The announcement was made at the UP.Summit, an invitation-only gathering of 300 of the world’s most innovative minds rethinking the future of transportation, taking place this year in Bentonville, Arkansas. Investors in attendance represent more than $1 trillion of assets under management. Dufour Aerospace’s Aero2 drone is displayed at the UP.Summit sporting the Areion livery.

Said Dufour Aerospace CEO Sascha Hardegger: “We are pleased to continue our partnership with Areion. Our first product, the Aero2, will soon enter pre-series production with a view to commercial deliveries in 2026, and we believe Areion is the right partner to expand our footprint in the United States. As a testament to the promise of this partnership, we are honoured Thomas Pfammatter, our co-founder, was invited to the UP.Summit. It is a key gathering of visionaries on the next phase of flight operations, and we are happy that Aero2 will be on display. Investors will see what’s possible with our innovative tilt-wing platform.”

“Dufour Aerospace has developed an impressive multi-role platform for unmanned air mobility that will allow us to meet our future needs. With today’s announcement, we demonstrate our continuing commitment to their vision and to their technological approach, in which we are proud to be a partner in the U.S. and abroad,” said Areion Managing Director, Tyler Kennedy.

The UP.Summit was founded in 2017 and is co-hosted by Tom and Steuart Walton, and Ross Perot Jr, rotating between Bentonville, Arkansas and Dallas/Ft. Worth, Texas annually. Thomas Pfammatter, co-founder and board member of Dufour Aerospace, was invited to attend the UP.Summit, in recognition of his expertise in the future of flight, pioneering work in electric aircraft, and many thousands of flight hours as a rescue helicopter pilot in Switzerland.

About Dufour Aerospace

Dufour Aerospace develops efficient and sustainable aircraft for cargo transportation, logistics and public safety. It uses distributed electric propulsion and a hybrid module to meet today’s Advanced Air Mobility and medium-sized drone market requirements. The company was incorporated in 2017 and has its headquarters in Visp, Switzerland, with a design office and flight testing facilities in Dübendorf, Switzerland. Dufour Aerospace employs more than 50 employees.

‍About Areion

Areion UAS is the new drone division of Legionair Tactical Logistics, revived to help solve for many of the toughest challenges facing communities across North America. This innovative, drone-based solution leverages emerging aeronautical technology to create operational solutions that can be implemented locally. Based in Chandler, Arizona, Areion was born from an aviation heritage dedicated to safe and efficient operations.

**61 . Date: 21-09-2024ISR / ISTAR - N/A - Contract - PlatformOrbital Composites Wins AFWERX TACFI Award to Build Multi-Mission Starfighter Drone FleetsURL: https://www.suasnews.com/2024/09/orbital-composites-wins-afwerx-tacfi-award-to-build-multi-mission-starfighter-drone-fleets/**

Orbital Composites, a leading advanced aerospace manufacturing company, today announced it has been awarded an AFWERX Tactical Funding Increase (TACFI) contract to develop and scale production of its revolutionary modular unmanned aircraft system, Starfighter X.

The TACFI program aims to accelerate the development and deployment of innovative technologies that address critical national security needs. Orbital Composites’ selection for this program underscores the potential of its revolutionary approach to unmanned aircraft design and production.

Key aspects of the Starfighter X platform include:

“I started Orbital to build the fastest helicopter ever built,” said Cole Nielsen, founder and CTO of Orbital Composites. “We took a detour to build the necessary machines to build the factory. Now we are ready to start building disruptive products, starting with the Starfighter drones.”

“Our contrarian approach of ‘building the factory first’ uniquely positions us to tackle the challenges of scaled production,” said Amolak Badesha, cofounder and CEO of Orbital Composites. “While others focus on prototypes, we’ve invested in creating a factory that can go from concept to mass production in record time. This is now paying off as the DoD seeks rapid, scalable solutions.”

Orbital Composites’ patented Additive Manufacturing Compression Molding (AMCM) process allows for rapid production of complex aerospace components. This technology, combined with the company’s expertise in AI robotics and advanced materials, enables the manufacture of high-performance UAS platforms at a fraction of the time and cost of traditional methods.

Orbital Composites can directly 3D print and fly Starfighter aircraft, while also having the capability to scale to tens of thousands of airframes using the AMCM process. This strategy aligns closely with the Pentagon’s Replicator initiative, which aims to field thousands of autonomous systems for the U.S. warfighter in the next 12-18 months.

The scalability of the company’s robotic autonomous manufacturing processes allow it to potentially support both Replicator and the Collaborative Combat Aircraft (CCA) program. While Orbital Composites intends to develop its own airframes, the company is also in talks with several prime contractors to accelerate production of larger, more exquisite aerospace platforms.

This contract builds upon Orbital Composites’ recent successes and pushes the company’s total government contract awards beyond the $10 million milestone. Orbital Composites continues to push the boundaries of aerospace manufacturing, supporting America’s competitive edge in defense, energy, and space technologies.

About Orbital Composites:

**62 . Date: 07-09-2024Cargo - Small - Pitch - Savback Welcomes Dufour Aerospace’s First Flight in SwedenURL: https://www.suasnews.com/2024/09/savback-welcomes-dufour-aerospaces-first-flight-in-sweden/**

This week marked an exciting milestone as Dufour Aerospace conducted a series of customer demonstrations and test flights at the Västervik airfield in Sweden. We at Savback, along with the Västervik Drone Science Park, were proud to support this groundbreaking event as one of Dufour’s strategic partners. This occasion also marked the first deployment of Dufour’s newly formed Operations Team in Sweden.

The demonstrations featured Dufour’s AeroMini10, a small-sized test and validation platform that is part of their innovative tilt-wing aircraft family. Over the course of 12 autonomous flights, Dufour’s team showcased the impressive capabilities of unmanned tilt-wing aircraft, focusing on the advanced in-house flight control system. The tests were a resounding success, providing valuable operational insights in real-world conditions outside their home base in Switzerland.

The AeroMini10, though the smallest in Dufour’s tilt-wing lineup, is a powerful tool for proving concepts and training pilots and operators. Its design mirrors that of the larger Aero2, allowing for significant and meaningful flight operations with a streamlined approach. While capable of Beyond Visual Line of Sight (BVLOS) operations, the flights during this campaign were conducted within the drone pilots’ visual range.

We are thrilled to have been part of this successful first flight in Sweden and look forward to continuing our partnership with Dufour Aerospace as they advance the future of unmanned aerial technology.

**63 . Date: 28-09-2024Glider - Small - Contract - Silent Arrow® Awarded AFWERX Contract to Build 300-500 Mile, One-Way Loitering Cargo DroneURL: https://www.suasnews.com/2024/09/silent-arrow-awarded-afwerx-contract-to-build-300-500-mile-one-way-loitering-cargo-drone/**

Silent Arrow today announced it has been selected by AFWERX for a SBIR Phase II contract in the amount of $1.25M focused on the Silent Arrow CLS-300 (“Contested Logistics System, 300nm Range”) powered cargo drone to address the most pressing challenges in the Department of the Air Force (DAF). The Air Force Research Laboratory and AFWERX, have partnered to streamline the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) process by accelerating the small business experience through faster proposal to award timelines, changing the pool of potential applicants by expanding opportunities to small business and eliminating bureaucratic overhead by continually implementing process improvement changes in contract execution. The DAF began offering the Open Topic SBIR/STTR program in 2018 which expanded the range of innovations the DAF funded and now Silent Arrow will start its journey to create and provide innovative capabilities that will strengthen the national defense of the United States of America.

“We’d like to thank the U.S. Air Force, AFWERX, AFRL and our Air Force Customer and End-User organizations for expanding our successful partnership by awarding this follow-on Phase II,” said Chip Yates, Silent Arrow’s Founder and CEO. “We look forward to building on our Phase I propulsion test success as we prepare a number of full-scale aircraft for flight tests in Q3 and Q4 of 2025.”

The views expressed are those of the author and do not necessarily reflect the official policy or position of the Department of the Air Force, the Department of Defense, or the U.S. government.

**64 . Date: 14-09-2024ISR / ISTAR - Mini - Contract - SYPAQ and Army sign DEF-129 ContractURL: https://www.suasnews.com/2024/09/sypaq-and-army-sign-def-129-contract/**

Melbourne, Australia – SYPAQ Systems, with sovereign communications partner CODAN DTC, were pleased to meet with senior Australian Army leadership recently to sign the DEF129 Small Uncrewed Autonomous System (sUAS) contract. This represents a 4-year program to manufacture, deliver and sustain the Corvo X sUAS for the Australian Army, bringing truly sovereign, world-leading autonomous systems capability to the Australian Defence Force (ADF).

“Since 2021, we have been proud to collaborate with the team at CODAN DTC. Both organisations share a deep commitment to innovation, security and sovereignty. CODAN DTC solutions will enhance not only the Corvo X platform through delivery of world-class, secure C2 communications, but importantly provide a resilient local industrial capability to meet future Defence requirements across dismounted soldier and UAS operational requirements in a dynamic operational environment. We are proud to demonstrate a truly sovereign supply chain solution to our world-leading autonomous capability in Australia”, stated SYPAQ CEO Amanda Holt.

“This integrated system will support the safety of operations for ADF users by providing a small, secure ISR capability which they are unable to get anywhere else in the world.”

“CODAN DTC has integrated secure military communications technology into many UAS systems here and across the globe, and we are very much looking forward to seeing our technologies be part of the successful Corvo X delivery under DEF129” said Matt Jones, VP of CODAN DTC Asia Pacific.

“CODAN DTC has been developing and delivering sovereign tactical communications technologies in Australia for over four decades, and what better way to display this than with a partner like SYPAQ Systems and on an amazing platform like Corvo X.”

At over 90% Australian content, the Corvo X sUAS is a true Australian success story having been developed in Australia, in collaboration with the Australian Defence Force over a number of years. SYPAQ performs all design, integration and manufacture of the Corvo X sUAS for DEF129 in its Defence Autonomy Centre of Excellence, located in Melbourne (Victoria). CODAN DTC, based out of Mawson Lakes, South Australia will provide the critical tactical communications link for this project. DEF129 will generate over 18 new local industry jobs and ensure an enduring sovereign sUAS solutions partner for the ADF is maintained to meet emergent operational requirements, delivering capability advantage at the speed of relevance.

www.corvounmanned.com.au

**65 . Date: 07-09-2024Cargo - Tactical - Safety - UAS Malloy Aeronautics T150, Loss of control during flight mode changesURL: https://www.suasnews.com/2024/09/uas-malloy-aeronautics-t150-loss-of-control-during-flight-mode-changes/**

Whilst being operated in a manual flight mode, the unmanned aircraft breached the geofence and changed to an automated flight mode. In response, the remote pilot reduced the throttle and changed back to the manual mode. Control of the aircraft was lost because the mode was changed at a low throttle setting and the subsequent actions to regain control were unsuccessful. The aircraft struck the ground and was destroyed.

The operator no longer uses the manual mode and has promoted the use of standardised phraseology between the ground control station operator and the remote pilot. Further action has been taken to consider and apply a suitably sized geofence for each operational flight.

The Operation Safety Case on which the Civil Aviation Authority (CAA) granted a Specific Category Operational Authorisation were missing definitions and procedures for the use of geofences and actions to be taken in the event of a breach. A Safety Recommendation has been made to the CAA as these omissions have further effect as the use of a geofence is widely used as a mitigation for several other operational risks.

History of the flight

The Remote Pilot (RP) was undertaking a skills currency flight using a Malloy Aeronautics T150 unmanned aircraft and was assisted by a Ground Control Station (GCS) operator.

The RP and GCS operator were in two-way communication via radio. The RP was flying circuits in Stabilised flight mode (stab mode) at a training ground. It is a remote site on farmland used by the organisation he was contracted to fly with as an R&D and training pilot. The geofence for the flight was 40 m high by 300 m radius with the centre on the takeoff point. The dimensions of the geofence were not considered by the RP and GCS operator prior to the flight but accepted as a standard training envelope.

The GCS operator noticed the aircraft was approaching the upper limit of the flight geography zone within the geofence and he informed the RP using terminology not immediately understood by the RP. The RP was aware that the aircraft was turning to the right and climbing quicker than he had expected. Shortly afterwards the aircraft breached the upper limit of the geofence and reverted to an automated Return to Launch (RTL) flight mode.

The RTL automation initially commanded the aircraft to climb, which the RP instinctively counteracted by reducing the throttle. The GCS operator informed him that RTL mode was engaged, and the RP changed the flight mode, by cycling the three-way flight mode selector switch on the handheld transmitter, to loiter and then back to stab mode.

The aircraft diverged from level flight and was seen to follow an erratic flight path unfamiliar to the RP, during which it achieved a maximum pitch of -41° and -60.9° of roll. To regain control the RP increased the throttle to 100% which caused the aircraft to overcorrect, and it then pitched to 85.3° with 60° of roll before descending rapidly from a height of 37 m. The RP realised he could not regain control and switched to an automated mode (loiter mode) but by this time the aircraft was heading towards the RP’s ground position and he decided to close the throttle, bringing it to the ground.

Twelve seconds had passed from the geofence breach before the aircraft struck the ground approximately 50 m from the RP’s position and within the horizontal boundary of the geofence.

**66 . Date: 25-10-2024Armed ISR / ISTAR - Mini - Market - Origin Secures €4M to Deliver Cost-Effective Drone-launched Precision-Guided Weapon SystemsURL: https://www.suasnews.com/2024/10/origin-secures-e4m-to-deliver-cost-effective-drone-launched-precision-guided-weapon-systems/**

Origin, a defence technology company specialising in advanced autonomous systems, has closed €4 million in financing. The funding comprises €2.4 million in venture capital, led by Change Ventures with participation from Silicon Roundabout Ventures, and €1.6 million in EU grants and support from the Latvian Ministry of Defence. This funding will accelerate product development and enable Origin to expand its team with key engineering and sales hires. The company already has commercial agreements with two NATO countries, and its flagship product, the BEAK, is battlefield-tested.

The conflict in Ukraine has exposed the rapidly changing nature of warfare and forced all nations to re-examine their defence capabilities. Even large democracies who have the means to afford heavy equipment such as tanks or fighter jets are re-evaluating the cost-effectiveness of current precision-strike systems, often priced in hundreds of thousands or even millions per use. The limitations of loitering and first person view (FPV) drones as alternatives have been made clear, due to their vulnerability to electronic warfare and short range air defence. This environment has created an urgent need for new solutions in the defence sector.

Origin addresses this challenge by developing precision-guided weapon systems that are both cost-effective and highly efficient. Its flagship product, the BEAK, is a man-portable ISR (Intelligence, Surveillance, and Reconnaissance) drone with precision guidance technology, delivering precision strike capability at a cost significantly lower than existing alternatives. It achieves this by retaining its most valuable components on a reusable carrier vehicle, unlike traditional systems where these components are embedded in the projectile and destroyed with each strike.

Agris Kipurs, co-founder and CEO of Origin, said: “We find ourselves in a new era where security can no longer be taken for granted and warfare is evolving rapidly. We saw an opportunity to leverage our decade of experience building autonomous drones for the demanding needs of action sports enthusiasts to create an alternative to today’s expensive precision-guided munitions.”

The BEAK employs advanced computer-vision algorithms and AI for precision guidance technology and autonomous flight, allowing it to navigate complex environments and respond to threats even under intense radio jamming. In addition to these capabilities, the BEAK is man-portable, quick to deploy, and designed for ease of use, making it highly desirable for defence forces operating in rapidly changing environments.

Andris K. Berzins, Partner at Change Ventures, said: “Having known Agris and Ilya for a decade through their successful launch of the world’s leading action sports drone Airdog, I knew this team is unlike the many that have started learning how to build a drone startup only since the Ukraine invasion two years ago. Their ability to combine this expertise with an ambitious vision to reshape the precision weapons market, and their remarkable traction within the past 18 months, made investing in Origin an easy choice.”

**67 . Date: 15-11-2024ISR / ISTAR - Small - General - PlatformDr-One Takes Center Stage: HIEN’s eVTOL Prototype Heads to JapanURL: https://www.suasnews.com/2024/11/dr-one-takes-center-stage-hiens-evtol-prototype-heads-to-japan/**

HIEN “Dr-One” eVTOL to be exhibited at Gifu Air Base Air Show 2024 in Japan! For its very first Post on LinkedIn, HIEN Aero Technologies is pleased to announce that “Dr-One”, the first prototype of its domestically-developed large-scale unmanned eVTOL aircraft, will be exhibited at the Japan Air Self-Defense Force Gifu Air Base Air Show 2024 on November 17th. Dr-One (hybrid eVTOL) Successful levitation test using gas turbine power generation for the first time in Asia: https://lnkd.in/dyVXPuwk “Dr-One” Specifications: Power source: Hybrid gas turbine power generation (equipped with two 10kVA generators) Fuel: JET-A, kerosene (mixed with lubricating oil), diesel (mixed with lubricating oil), biofuel, etc. Flight type: Lift and cruise MTOW: 100kg Maximum cargo capacity: 20kg Maximum flight speed: Over 180km/hour Maximum flight time: Over 1 hour Maximum flight distance: Over 180km Vertical take-off and landing propulsion units: 8 units (electric double quad) Horizontal flight propulsion units: 1 unit (electric) External power supply: 10kVA (continuous) \*External power supply option unit required Transportation: Disassemble and assemble, can be mounted on regular freight vehicles. Main uses: Equipment with various sensors for monitoring and inspection of facilities in mountainous areas and remote islands, search for people in need of rescue, etc. Transportation of emergency supplies such as medicines and transplant organs. Transportation of relief supplies during disasters, transportation of mobile phones and radio relay stations and power supply for them, etc. Power supply for store cash register systems and medical power supply during disasters, power supply for public offices and government offices, etc. Event information: https://lnkd.in/ddjTBgg5 More information coming soon! Stay tuned everyone and follow us as HIEN Aero Technologies is working to develop a scalable eVTOL with a practical range through a hybrid system and unique airframe…

**68 . Date: 02-11-2024Armed ISR / ISTAR - HALE - Partnership - PayloadGA-ASI and BAE Systems Collaborate on Autonomous Electronic Warfare Link 16 Capabilities on MQ-20 AvengerURL: https://www.suasnews.com/2024/11/ga-asi-and-bae-systems-collaborate-on-autonomous-electronic-warfare-link-16-capabilities-on-mq-20-avenger/**

General Atomics Aeronautical Systems, Inc. (GA-ASI) collaborated with BAE Systems to demonstrate unique electronic warfare (EW) capabilities remotely controlled via a secure, jam-resistant Link 16 network on an MQ-20 Avenger® unmanned aircraft system (UAS). The Avenger is a jet-powered platform used extensively as a test bed for autonomous UAS development and the Collaborative Combat Aircraft (CCA) program. The demonstration helps accelerate emerging networked electronic attack capabilities for U.S. Air Force Autonomous Collaborative Platforms (ACPs).

The demonstration took place at GA-ASI’s Desert Horizon flight operations facility in El Mirage, California, and is part of an ongoing series of technology insertion and autonomous flights performed using internal research and development funding to prove important concepts.

“This effort featured novel mission system capabilities and the viability of autonomous payload control on our MQ-20,” said Mike Atwood, Vice President of Advanced Programs at GA-ASI. “We’re identifying key areas for improvement, while sharing investment and reducing risk.”

BAE Systems provided customized mission technology that included EW capabilities, a multi-functional processor (MFP), and a Link 16 terminal. The company successfully tested the integrated solution in its System Integration Lab to identify and jam threats autonomously and under control of an operator. Command, control, and status of the EW system was made possible through software-based, open-mission-system (OMS) compliant message translation hosted on the MFP. A secure Link 16 networking waveform was used to disseminate this information.

“We are working closely with General Atomics to highlight the maturity of autonomous EW mission systems in support of U.S. Air Force objectives,” said Scott Bailie, director of Advanced Electronic Warfare Solutions at BAE Systems. “We are combining proven EW technology and secure command and control on a rapid timeline in a small form factor well-suited for CCAs.”

**69 . Date: 29-11-2024M-Rotary - Armed ISR / ISTAR - Mini - Contract - Latvian Startup Secures €4.5M for Man-Portable ISTAR DroneURL: https://www.suasnews.com/2024/11/latvian-startup-secures-e4-5m-for-man-portable-istar-drone/**

Latvian defence tech startup Origin has secured €4.5 million from the European Defence Fund (EDF) to develop a man-portable ISTAR drone (intelligence, surveillance, target acquisition, and reconnaissance) with target laser designation capability. This collaborative project, involving partners from Lithuania (Aktyvus Photonics UAB) and Germany (Leosys Laser and Electro-Optic Systems GmbH), is supported by the European Commission and the defence ministries of Latvia, Lithuania, and Germany. This new project will focus on minimizing size, weight, and power consumption (SWaP) across a laser designator, see-spot camera, gimbal, and the UAV itself.

Recent developments stemming from Russian aggression in Ukraine have highlighted the continued importance of trench warfare in modern military tactics. In challenging, hard-to-reach terrains—particularly urban areas—handheld laser designation systems are increasingly relied upon for precision strikes. However, experts suggest that a more effective and safer alternative would be the use of man-portable UAVs equipped with laser designation capabilities. The challenge, however, lies in the cost, complexity, and weight of these systems. Most current models require larger platforms with sufficient payload capacity to support the necessary targeting technology.

The MPortISTAR project is part of a broader push for technological self-reliance across the European Union, reducing the EU’s dependence on imported products. This mini (less than 15 kg), man-portable vertical take-off UAV will integrate a laser target designator compatible with standard NATO laser-guided precision munitions. Key focuses for the project will be cost effectiveness (estimated to be one fifth the cost of current technologies) and reducing the need for forward-deployed troops, thereby minimizing risks of casualties.

Agris Kipurs, co-founder of Origin, said: “The European defence landscape increasingly relies on adaptable, affordable technologies that enhance operational capabilities. At Origin, we are encouraged that the European Defence Fund recognises the necessity of strengthening the defensive capacities of small and mid-sized nations in a cost-effective way. Our MPortISTAR project directly addresses this need, ensuring that countries like Latvia can meet modern security challenges more effectively.”

Origin’s flagship product, The Beak, has already gained traction in the defence sector, offering a versatile ISR drone with precision strike capabilities. Deployed to Ukraine through the Drone Coalition and secured through contracts with two NATO countries, the Beak is proving its value in the battlefield. With the MPortISTAR project, Origin continues to focus on expanding its product offerings to meet the evolving needs of modern defence operations.

**70 . Date: 23-11-2024Glider - Tactical - Contract - Silent Arrow® Wins Competitive Air Force Contract to Develop 200 Mile Contested Logistics DroneURL: https://www.suasnews.com/2024/11/silent-arrow-wins-competitive-air-force-contract-to-develop-200-mile-contested-logistics-drone/**

AFRL Direct to Phase II contract will fund the development, build and flight test of 6 Silent Arrow® CLS-200 aircraft to carry 500 pounds over 200 nautical miles.

Silent Arrow today announced it has been selected by The Air Force Research Laboratory (AFRL) for a $1.8M Direct to Phase II SBIR contract focused on building and flight testing the Silent Arrow CLS-200 (“Contested Logistics System, 200 Nautical Miles”) attritable special missions Unmanned Aircraft System (UAS).

The CLS-200 relies on the foundational engineering of the commercially successful Silent Arrow GD-2000, the world’s first heavy payload, autonomous and attritable cargo delivery aircraft to enter full-rate production.

The GD-2000 has been deployed in the United States and in multiple overseas countries from a variety of aircraft including the C-130H, MC-130J, C-27J and Airbus A400M. Mass production is based in the UK and led by Silent Arrow manufacturing partner The MEL Group under AS9100, with Airbus DS Airborne Solutions GmbH also partnered with Silent Arrow to distribute and support the GD-2000 heavy cargo delivery UAS platform throughout European market segments.

Whereas the GD-2000 is an unpowered glider, the new CLS-200 can travel six times as far by utilizing an innovative propulsion unit and propeller system that are inexpensive enough to allow the entire cargo drone to be single-use. In addition to being air droppable, it will also be capable of taking off from the ground including from unimproved surfaces, naval vessels and other launch points.

“We’d like to thank the U.S. Air Force, AFRL and our Air Force Customer and End-User organizations for expanding Silent Arrow’s warfighter offerings by awarding this competitive Direct to Phase II,” said Chip Yates, Silent Arrow’s Founder and CEO. “The flight testing at our Pendleton, Oregon facility will be exciting as we longline airdrop 5 units from our UH-1H rotorcraft and then deliver a 6th unit to the Air Force for their hands-on evaluation.”

**71 . Date: 02-11-2024Partnership - TEKEVER and DRONEWAY partnerURL: https://www.suasnews.com/2024/11/tekever-and-droneway-partner/**

We are delighted to announce a new strategic partnership between TEKEVER and DRONEWAY, Morocco’s leading drone provider. Unveiled on the opening day of the Marrakech Air Show, this collaboration marks a significant step in TEKEVER’s expansion into the African market. Together, we plan on advancing Morocco’s drone industry with TEKEVER’s state-of-the-art systems—including the AR3, AR4, AR5, ARX, and ATLAS—aimed at making Morocco a key player in the global drone sector. A heartfelt thank you to everyone who honored us with a visit—we’re thrilled to share our vision with you and look forward to more exciting conversations in the days ahead. Stay tuned for more updates!

**72 . Date: 06-12-2024Partnership - 15 Companies Pitch Their Capabilities at GA-ASI’s Blue Magic NetherlandsURL: https://www.suasnews.com/2024/12/15-companies-pitch-their-capabilities-at-ga-asis-blue-magic-netherlands/**

On November 19, 2024, General Atomics Aeronautical Systems, Inc. (GA-ASI) hosted its first Blue Magic Netherlands (BMN) event in Eindhoven, the Netherlands. Approximately 200 people attended the event that provided Dutch businesses with an opportunity to present their capabilities to GA-ASI and other companies interested in possible collaborations. GA-ASI was joined for the event by the Netherlands Ministry of Economic Affairs, the Netherlands Ministry of Defence, Lockheed Martin Ventures, Brainport Development, Brabant Development Agency (BOM), the Netherlands Industries for Defence & Security (NIDV), and SpaceNED.

At this event, GA-ASI and its partners heard first-hand from Dutch companies about the important capabilities they are developing. The process started in July when GA-ASI put out an open invitation to Dutch businesses to apply for the opportunity to present innovative technologies at the November 19 event. Key areas of focus included Artificial Intelligence/Machine Learning, Autonomy, Advanced Materials, Sensors, Advanced Manufacturing, and Space. Close to 50 companies applied and after reviewing the applications, 15 businesses were selected to pitch their capabilities to an audience that included lightweight lattice structures, gas detection technologies, advanced battery and photonics applications, and several innovative unmanned system and AI applications, among many others.

“This event is where the rubber meets the road,” said Brad Lunn, Managing Director-Strategic Finance at GA-ASI. “In addition to attracting many companies, we increased the areas of expertise and depth of knowledge from the presenting companies in order to provide research, development, and breakthrough innovations to support current and future missions by GA-ASI aircraft. We also wanted to give the companies an opportunity to pitch in front of other potential customers, partners, and investors.”

The first Blue Magic event held by GA-ASI was in 2019 in Belgium, with subsequent events held in 2020, 2021, and 2023. GA-ASI is delivering eight MQ-9A Remotely Piloted Aircraft to the Royal Netherlands Air Force (RNLAF).

GA-ASI expects to announce technology partnerships stemming from the BMN event and intends to hold this event on an annual basis in the Netherlands.

**73 . Date: 20-12-2024H-Rotary - ISR / ISTAR - Tactical - Contract - A Milestone Achieved: SwissDrones Delivers 50th Aircraft to SAITURL: https://www.suasnews.com/2024/12/a-milestone-achieved-swissdrones-delivers-50th-aircraft-to-sait/**

SwissDrones is proud to announce the delivery of our 50th aircraft to the Southern Alberta Institute of Technology (SAIT) and SAIT Applied Research and Innovation Services–one of Canada’s top research colleges in 2024. SAIT is expanding their fleet with two brand new SDO 50 V3’s, complementing their existing SDO 50 V2. These industry-leading RPAS (Remotely Piloted Aircraft Systems) will support SAIT’s focus on heavy-lift and beyond-visual-line-of-sight (BVLOS) operations. Through academic collaborations with manufacturers like SwissDrones and regulatory bodies, SAIT offers cutting-edge training and certification operations of RPAS above 25 kilograms of take-off weight. In addition to training, SAIT and SwissDrones are driving innovation through joint R&D projects and advanced training programs for Canadian companies. We are honored to collaborate with SAIT to shape unmanned aviation technology’s future and foster the next generation of RPAS advancements. Stay with us as we unveil more milestones and continue celebrating the incredible achievements of 2024! The next highlight is on its way—don’t miss it!

**74 . Date: 20-12-2024H-Rotary - ISR / ISTAR - Tactical - Partnership - Phoenix Air and SwissDrones SDO 50: A Powerful Partnership for Offshore DeliveryURL: https://www.suasnews.com/2024/12/phoenix-air-and-swissdrones-sdo-50-a-powerful-partnership-for-offshore-delivery/**

We are excited to see our SDO 50 being successfully deployed by Phoenix Air Unmanned, LLC for a groundbreaking offshore cargo delivery capability demonstration for the oil and gas industry. Flying 38.5 miles (62 km) from shore to Ship Shoal 28 in the Gulf of Mexico, the SDO 50 showcased its advanced capabilities for beyond visual line of sight (BVLOS) operations, maintaining a cruising speed of 40 knots (74 km/h) and completing a flawless round trip under Federal Aviation Administration regulation. A critical aspect of the mission involved landing safely on a offshore platform—a task requiring thorough preparation and technical precision. From radio link stability to weather conditions, each element demanded careful planning. One standout success was upgrading the SDO 50’s autopilot with advanced features to handle magnetometer interference, ensuring precise heading control during landing. Extensive testing in Switzerland prior to deployment guaranteed the aircraft’s readiness for this demanding environment. This achievement highlights the SDO 50’s engineering excellence and demonstrates how unmanned aerial systems (UAS) are reshaping logistics for industries like oil and gas

**75 . Date: 06-12-2024Partnership - Shield AI and Palantir Technologies Deepen Strategic Partnership and Announce Deployment of Warp SpeedURL: https://www.suasnews.com/2024/12/shield-ai-and-palantir-technologies-deepen-strategic-partnership-and-announce-deployment-of-warp-speed/**

Shield AI, the defense technology company building autonomy for the world, has announced it is expanding its work with Palantir Technologies Inc. (NASDAQ: PLTR), a leading provider of AI systems, to develop and deliver large-scale command and control of autonomous uncrewed systems, including operations in GPS- and communications-denied environments. With Warp Speed, Palantir’s manufacturing OS for American re-industrialization, Shield AI is doubling down on its commitment to delivering scalable, AI-powered solutions to protect service members and civilians.

By leveraging Shield AI’s advanced Hivemind software development kit, along with Palantir’s suite of powerful software solutions—including enterprise resource planning, geospatial intelligence, and operational decision-making tools—the partnership combines the strengths of both companies to address the most critical defense challenges. “Shield AI and Palantir have both built technology products proven in the most demanding environments,” said Brandon Tseng, Shield AI’s President, Co-founder, and former Navy SEAL. “Our partnership is about bringing together Palantir’s software dominance and Shield AI’s expertise in autonomy to deliver the best possible outcomes for customers. It’s exciting to scale up what we’ve been working on together in this next chapter of our partnership.”

This announcement builds on work Shield AI and Palantir showcased at the Association of the U.S. Army’s (AUSA) Annual Meeting and Expo in October, where the companies demonstrated the integration of Shield AI’s Hivemind with Palantir’s Gaia. This integration created a unified command-and-control system for autonomous systems. Hivemind’s proven autonomy capabilities—demonstrated on platforms like the V-BAT, F-16, MQM-178 Firejet, and Nova quadcopter—now seamlessly integrate with Gaia’s geospatial intelligence tools, enabling real-time mission execution and precision targeting.

“The American Industrial Base needs Warp Speed,” said Shyam Sankar, Palantir’s Chief Technology Officer and Executive Vice President. “Shield AI stands out in their field, having achieved mission impact and product results where others have struggled. This partnership, and Shield AI’s deploying of our newly announced manufacturing OS will enable faster and better delivery to customers, and ultimately aid in the defense of the West.”

**76 . Date: 20-12-2024Fixed Wing - Solar ISR / ISTAR - Tactical - General - PlatformSolar powered aircraft achieves new stratospheric successURL: https://www.suasnews.com/2024/12/solar-powered-aircraft-achieves-new-stratospheric-success/**

Latest flight trials take the British-built PHASA-35 High Altitude Pseudo Satellite (HAPS) a step closer to operations in the stratosphere.

A British-led team of engineers has taken a leap forward in the race to harness the stratosphere for earth observation and communications, completing a new series of test flights of BAE Systems’ High Altitude Pseudo Satellite (HAPS) Uncrewed Aerial System (UAS), PHASA-35®, in quick succession.

During the first flight at Spaceport America® in New Mexico, US, in recent weeks, the solar powered aircraft flew for 24 hours climbing to more than 66,000 feet and cruising in the stratosphere, before successfully landing in a serviceable condition, meaning it was ready to fly again just two days later.

This is a major milestone in the development of PHASA-35, named after its 35 metre wingspan, demonstrating its ability to be launched, flown, landed, potentially reconfigured and then relaunched again so quickly.

Designed by BAE Systems’ subsidiary Prismatic Ltd to operate above the weather and conventional air traffic, PHASA-35, has the potential to provide a persistent and stable platform for uses including ultra-long endurance intelligence, surveillance and reconnaissance.

These latest flight trials are a significant step forward in proving PHASA-35’s capability for operations, and a real moment of pride for our entire team. We’re committed to continuing to develop PHASA-35 at pace to make it available for operational activity as soon as 2026.Bob Davidson, Chief Executive Officer, BAE Systems’ Prismatic

The latest trials also saw the aircraft carry an active intelligence, surveillance & reconnaissance sensor, known as a software defined radio, developed by BAE Systems’ Digital Intelligence business. This weighed more than twice as much as the previous payload it had flown to the stratosphere with.

At Prismatic’s site in Alton, Hampshire, UK the PHASA-35 team has now built the next iteration of PHASA-35. The new model has more than twice the onboard solar power generation and storage capacity than the current version. These modifications are expected to allow it to demonstrate stratospheric missions of increasing duration and complexity from next year onwards.

Prismatic sits within FalconWorks®, the advanced research and development arm of BAE Systems’ Air Sector.

These latest trials draw on a huge amount of collaboration between Prismatic, the wider BAE Systems business and industry partners, including Honeywell and the UK Met Office. They demonstrate the credibility and capability of the system for operational use.Dave Holmes, Managing Director, FalconWorks at BAE Systems

The PHASA-35 team will now use data from these most recent trials to further improve and mature this novel technology.

**77 . Date: 20-12-2024Hybrid Rotary / Fixed Wing - ISR / ISTAR - Small - Contract - U.S. Army Takes Delivery of Textron Systems’ MK 4.8 HQ Aerosonde System for Future Tactical Uncrewed Aircraft Systems ProgramURL: https://www.suasnews.com/2024/12/u-s-army-takes-delivery-of-textron-systems-mk-4-8-hq-aerosonde-system-for-future-tactical-uncrewed-aircraft-systems-program/**

Redstone Arsenal, AL – The U.S. Army’s Future Tactical Uncrewed Aircraft Systems (FTUAS) Product Office has officially taken receipt of the Textron Systems’ MK 4.8 HQ Aerosonde system, marking a significant milestone in the program’s rapid prototyping effort. This achievement follows a comprehensive two-year development and testing process, which included extensive technical testing, ground and flight acceptance testing, and a joint effort between the vendor and the United States Government (USG).

The delivery of the system, formalized through the DD-250 process, transfers ownership to the USG. The FTUAS team will now proceed with New Equipment Training (NET) to qualify instructors and operators at the Redstone Test Center on the MK 4.8 HQ Aerosonde system. This training is expected to be completed by late January 2025.

Upon completion of NET, the FTUAS team will embark on a USG-led developmental testing cycle, which will culminate in the program’s capstone event. This testing effort will occur in parallel with the ongoing efforts to evaluate production proposals for award, anticipated in the fourth quarter of fiscal year 2025.

The FTUAS program will provide Brigade Combat Teams (BCTs) with an organic capability for reconnaissance and surveillance operations, enabling them to collect, develop, and report actionable intelligence. This will allow BCT commanders to maintain dominance during Multi-Domain Operations. The FTUAS system boasts transformational capabilities, including vertical take-off and landing, on-the-move command and control, and Soldier-led, field-level maintenance. Its Modular Open Systems Approach enables rapid capability insertions, ensuring the system keeps pace with evolving technology.

The Program Executive Office (PEO) for Aviation, located at Redstone Arsenal, AL, is responsible for modernizing the Army Aviation fleet of crewed and uncrewed aircraft. PEO Aviation’s Uncrewed Aircraft Systems Project Office is dedicated to rapidly fielding innovative UAS capabilities to Army formations, maintaining the Army’s asymmetric advantage over peer adversaries in large-scale combat operations.

**78 . Date: 24-01-2025Hybrid Rotary / Fixed Wing - ISR / ISTAR - Mini - Regulation - ideaForge SWITCH MINI becomes the first and only small UAV to earn the Prestigious “Fit for Indian Military Use” CertificationURL: https://www.suasnews.com/2025/01/ideaforge-switch-mini-becomes-the-first-and-only-small-uav-to-earn-the-prestigious-fit-for-indian-military-use-certification/**

ideaForge Technology Limited, a global leader in drone technology is proud to announce that its SWITCH MINI UAV has earned the prestigious “Fit for Indian Military Use” certification. The SWITCH MINI UAV with its unmatched performance, quality, reliability, and the ability to meet the rigorous demands of the Indian military is the only small UAV to obtain this certification, making it a landmark achievement for the Indian Drone Industry. This certification, granted after stringent evaluations by the Directorate General of Quality Assurance (DGQA), solidifies ideaForge’s position as a global leader in dual use drone technology.

The “Fit for Indian Military Use” certification is a testament to the SWITCH MINI UAV’s adherence to the highest quality benchmarks and its time-tested operational excellence over years of deployment by the Indian Armed Forces. It validates the UAV’s capability to deliver unmatched and reliable performance under demanding operational conditions, including high-altitude environments with extreme weather challenges. This recognition further boosts ideaForge’s credibility in both domestic and international markets as a trusted partner for dependable defense and civil solutions.

Mr. Ankit Mehta, CEO, ideaForge Technology Limited, said, “Earning the ‘Fit for Indian Military Use’ certification marks a significant milestone in our journey of advancing drone technology and India’s indigenization efforts. It exemplifies our relentless pursuit of innovation and quality in creating solutions that can empower global defense. The SWITCH MINI UAV stands as a testament to our ability to design and deliver cutting-edge, dual-use products that strengthen India’s security and sovereignty while meeting the most stringent global standards.”

The SWITCH MINI UAV is a versatile, high-performance Vertical Take-Off and Landing (VTOL) drone designed for Intelligence, Surveillance, and Reconnaissance (ISR) missions. Engineered to excel in high-altitude terrains with extreme temperatures, high winds, and low air density, it provides enhanced situational awareness while keeping personnel out of harm’s way. This man-portable UAV, carried on the back of a soldier, acts as an indispensable force multiplier, ensuring mission success even in the most challenging environmental, terrain and operational conditions.

The certification’s implications extend beyond military applications. It strengthens the SWITCH MINI UAV’s eligibility for defense procurement processes across the world, thus elevating its appeal to foreign defense and security agencies as well. It further opens up opportunities in sectors like aerospace, critical infrastructure, and advanced industrial applications. By meeting DGQA’s stringent requirements, ideaForge has not only set a benchmark for quality and reliability but also gained insights that will drive future innovations in UAV technology.

As ideaForge continues to redefine unmanned aerial technology, the SWITCH MINI UAV remains pivotal in enhancing national security, fostering technological sovereignty, and expanding market reach. With this certification, ideaForge has reinforced its dedication to delivering cutting-edge solutions that align with the needs of modern defense and civil ecosystems.

ideaForge is a pioneer and the pre-eminent market leader in the Indian unmanned aircraft systems (UAS) industry. With a mission-first approach, we deliver cutting-edge drones engineered for unmatched performance, autonomy, and reliability, redefining possibilities in security, mapping, surveillance, and disaster response applications across militaries and enterprises.

With India’s largest operational deployment of indigenous UAVs, an ideaForge drone takes off every 3 minutes, enabling over 6,00,000 successful flights. Ranked 3rd globally among the world’s Top Dual-Use Drone Manufacturers by Drone Industry Insights (DRONEII) Global Drone Review 2024, ideaForge continues to set benchmarks in innovation and excellence.

Since pioneering India’s first VTOL UAVs in 2009, we have expanded with advanced Technology & Product Development and manufacturing hubs in Navi Mumbai, Bengaluru, Delhi, and the USA, driving the development of indigenously designed and built solutions. Backed by marquee investors, including Qualcomm, Infosys, Celesta Capital, Florintree, EXIM Bank, and Infina Finance, ideaForge is at the forefront of revolutionizing unmanned systems.

Discover more: www.ideaforgetech.com

**79 . Date: 31-01-2025Component - Safety - UBIQ Aerospace Showcases D•ICE Advanced UAS Ice Protection Solutions at Norwegian Special Forces Command’s Annual Arctic Warrior ExperimentationURL: https://www.suasnews.com/2025/01/ubiq-aerospace-showcases-dice-advanced-uas-ice-protection-solutions-at-norwegian-special-forces-commands-annual-arctic-warrior-experimentation/**

UBIQ Aerospace, a leading innovator in autonomous ice mitigation solutions for unmanned aircraft systems (UAS), today announced the successful demonstration of its cutting-edge D•ICE sensor and propeller protection technologies at the Joint Norwegian Special Forces Command’s (NORSOCOM) and United States Special Operations Command’s (USSOCOM) annual Arctic Warrior Experimentation in Rena, Norway.

The annual event brings together leading innovators, military organizations, and technology developers to pressure-test solutions in harsh, real-world Arctic conditions. During the event, UBIQ demonstrated its technology in a setting where icing poses significant risks, mirroring real-world operational challenges faced by unmanned aerial systems, globally.

“Icy conditions pose a real threat to the success and continuity of UAS-based missions,” said Dave Saran, S&T Experimentation Lead of (SOF AT&L-ST), US Special Operations Command. “As global reliance on these systems increases for widescale missions to include intelligence, reconnaissance & surveillance (ISR), kinetic operations, and logistical support, the need for on-demand, any time, any weather enablers is critical.”

UBIQ’s live-flight demonstrations featured its D•ICE Ice Protection Solution, designed to maintain critical functionality and safety in the harshest weather – eliminating traditional flight-limiting icing considerations. By deliberately flying a UAS into known icing conditions, UBIQ successfully showcased how its system rapidly mitigates icing risks, ensuring uninterrupted operations in sub-zero temperatures.

“The Arctic Warrior Experimentation is one of the industry’s most impactful field tests and offered us an unparalleled opportunity to showcase our solutions in some of the most challenging conditions on the planet,” said Mikkel Cornelius Nielsen, Chief Engineer at UBIQ Aerospace. “We design systems that meet real-world challenges and demonstrate the value of innovation in advancing aerial operations. Our participation in this event highlights UBIQ’s commitment to addressing the universal challenge of icing in aerial operations with practical, innovative solutions.”

These demonstrations reflect UBIQ’s dedication to rethinking traditional limitations and advancing practical solutions. The company’s advanced ice protection system plays a crucial role in expanding the operational availability and capabilities of UAS globally. The Arctic’s demanding conditions provide an invaluable environment for demonstrating the reliability and performance of UBIQ’s technologies.

UBIQ’s D•ICE technology delivers reliable performance by actively managing ice accumulation on critical UAS components. This capability is vital to ensuring mission continuity for global industries such as defense, logistics, and energy, which depend on reliable performance in challenging environments.

About UBIQ Aerospace

UBIQ Aerospace is a leading innovation company in the field of ice protection systems, introducing fresh perspectives with pioneering technologies for unmanned and manned aircraft. With a focus on innovation, UBIQ’s solutions redefine traditional approaches, enabling aircraft to operate safely and efficiently in demanding environments, from Arctic operations to global logistics and defense applications.

**80 . Date: 14-02-2025Contract - A-techSYN Signs €2.5M Contract to Provide FaaS in SpainURL: https://www.suasnews.com/2025/02/a-techsyn-signs-e2-5m-contract-to-provide-faas-in-spain/**

Over 1.500 hours of flights planned in the next 14 months

In a significant milestone for the Irish drone industry, A-techSYN, Ireland’s premier developer and manufacturer of Unmanned Aerial Systems (UAS), was selected as the successful bidder for the EU tender of PARQUE TECNOLÓGICO DE FUERTEVENTURA SAMP (PTFSA) for “Deployment of low and/or medium altitude unmanned platforms (UAS), with on-board sensors and data transmission systems to the ISSEC center for the development of the RETECH4CAN project”, with file number 254/2024.

A-techSYN entered the bidding in a consortium with Aerial Works SL, a spanish company wich has a wide experience in complex operations with UAS of different types, requests of operational approvals and pilot training for customers around the world. This company will dedicate its efforts to the coordination of activities and training of remote pilots.

The contract asks A-techSYN to perform 5 different kinds of BVLOS operations which are expected to result in 1.500- 2.000 hours of flights, using the CGT50 VTOL and CTOL versions, several payloads such as gimbals, Hyperspectral Cameras and LIDARs. The base of operation will be the Strataport at the PTFSA in Fuertoventura and all information gathered will be in real time deployed to the GIC center.

This achievement marks another successful step in the company’s journey, demonstrating its commitment to innovation, safety, and expanding its test, evaluation, and trialling capabilities.

“For the last decade, A-techSYN has been pioneering the integration and implementation of specific category UAS. We believe that there is a huge need for this size of UAS but there also is a lack of POCs. Individual applications and flights are not sufficient to validate and prove the feasibility of using these systems.

The ISSEC center is also trying to validate the use of HAPS and UAS for certain types of applications in the RETECH4CAN project focusing on protection of forestry.

The center not only evaluated our technology but also our maturity level and flight operations experience as well as acquiring authorisations to fly. We believe that the concept of being an end-to-end solution provider has enabled our selection as the successful bidder. said Gokhan CELIK, CEO of A-techSYN.

“The first step is to apply for and get permissions to fly in Fuerteventura” said Ángel Diego Del Real SÁNCHEZ, who is the accountable manager of the ATAW, an UTE between A-techSYN and Aerial Works. “We have a step by step plan in action and have already prepared the documents for the first application.

The combined experience of our companies in this area allows us to transfer the know-how gained in Ireland to the Spanish domain. We hope that with the support od AESA, we will start flying in SAIL II from Fuerteventura this Spring.”

“The plan is that we will start performing flights as soon as we get the permissions using our Irish flight teams. While this is going on, we will also select and train local flight teams in Fuerteventura. This will ensure the continuity of operation. We hope to expand our services to local authorities and emergency services and hope to continue performing flights with local teams and equipment for years to come.” said Umit Gurkan, the project coordinator for ATAW.

“We are immensely grateful to the IAA’s UAS Division and Airspace/U-space Department as well as AirNav for their unwavering support and professionalism over the past year. Our previous authorisations in Ireland had a huge effect in us being approved as a candidate for this tender.” said Gokhan CELIK.

“The operations to be performed are very similar to what we already perform and we hope that we will operate in SAIL-II.

As part of this project, a comprehensive service will be provided, including UAS platform deployment and operations, data transmission, platform maintenance, sensor and payload integration, obtaining operational authorizations from aviation authorities for BVLOS and other complex operations, and training activities. UAS platforms will be deployed in designated areas and operated in compliance with operational requirements. Data collected from onboard sensors will be transmitted in real time to the operations center, and regular maintenance and technical support will be ensured to sustain continuous operations. Additionally, sensor and payload integration will be conducted for environmental monitoring and modeling applications.

All operations will be carried out in accordance with the safety and risk mitigation standards set by aviation authorities, and the necessary authorization processes for BVLOS flights and other complex operations will be completed. The project will also provide trained personnel, including pilots, technicians and operators ensuring seamless execution of operations.

A fleet of 6 UAVs, along with additional UAVs supporting sensor and payload integration, will be deployed at the designated base to ensure the effective execution of these services. A range of EO/IR-capable gimbals, multi-spectral cameras, and LIDAR sensors will be integrated to enhance operational capabilities and support mission objectives.

The flight services will consist of multiple phases and stages, with a total of 445 flight blocks requested within the scope of the project. These blocks may be allocated as needed throughout the project. It is estimated that the total flight hours required for the project will range between 1,500 and 2,000 hours.

This project is a comprehensive operation requiring high operational capacity and advanced technology integration. Precise planning, robust technical infrastructure, and expert personnel coordination are critical to ensuring efficient and uninterrupted flight operations. This 14-month intensive project involves a continuous data flow, dynamic mission management, and ongoing operational optimization, demanding meticulous execution at every stage. Each phase will be managed with a strong emphasis on safety and mission success.

www.a-techsyn.com

**81 . Date: 21-02-2025Hybrid Rotary / Fixed Wing - ISR / ISTAR - Small - General - Edge Autonomy – VX30 Stalker UAS Selected for DIU Blue List, Paving Way for Government-Wide AdoptionURL: https://www.suasnews.com/2025/02/edge-autonomy-vx30-stalker-uas-selected-for-diu-blue-list-paving-way-for-government-wide-adoption/**

We’re proud to announce that our VX30 Stalker UAS has been selected by the Defense Innovation Unit (DIU) as one of the first Group 2 UAS eligible for Blue List evaluation. The DIU Blue List contains technology that has been approved as secure to be universally used throughout government agencies. Focused on dual-use systems and solutions, this strengthens national security and allows for the solution of operational challenges at speed and scale. We had the honor of participating in a recent fly-off at Twentynine Palms with the intent to add Group 2 and 3 UAS to the Blue UAS Cleared List. Evaluators from numerous U.S. Army units were present for our Stalker flights and demonstrations of our software and gimbal capabilities. Our systems are designed with a modular open systems approach (MOSA), which impressed evaluators through overall agility and the ease with which third party technology can be integrated into our aircraft. With nearly two decades of real-world mission support, the Stalker has evolved alongside our customers’ needs – and we look forward to continuing our commitment to current and emerging national security challenges.

**82 . Date: 21-02-2025Hybrid Rotary / Fixed Wing - Contract - PteroDynamics Awarded U.S. Navy Contract to Develop Next-Gen Autonomous Transwing VTOL UASURL: https://www.suasnews.com/2025/02/pterodynamics-awarded-u-s-navy-contract-to-develop-next-gen-autonomous-transwing-vtol-uas/**

PteroDynamics Inc., an innovator in autonomous vertical takeoff and landing (VTOL) aircraft systems, today announced an expansion of its contract with the U.S. Naval Air Warfare Center Aircraft Division (NAWCAD) to design, develop, and demonstrate in a maritime environment the next generation of its Transwing® VTOL unmanned aerial system (UAS).

The additional $4.65 million award is the sixth and most important expansion of the company’s 2021 Blue Water Logistics UAS (BWUAS) prototype contract and calls for a larger aircraft with more robust capabilities than the company’s P4 Transwing VTOL UAS that successfully demonstrated sea trials during last summer’s RIMPAC 2024 Exercise. The new autonomous P5 Transwing UAS aircraft will have a maximum takeoff weight of 330 pounds and a minimum range of 400 nautical miles carrying a 50-pound payload.

It is designed to execute long-range tactical ship-to-ship, ship-to-shore, and shore-to-ship deliveries of critical repair cargo in contested maritime environments, currently performed by crewed aircraft. The new award raises the total contract value to over $7 million, nearly triple the original contract.

“Working with NAWCAD since 2019 has enabled PteroDynamics to identify and achieve key performance parameters that make the Transwing a uniquely capable VTOL UAS. This sixth contract expansion is so significant because it calls for the clean-sheet design, build, and demonstration of the next-generation P5 Transwing aircraft that will give the U.S. Navy an effective solution for automated just-in-time delivery of critical repair parts and supplies at sea,” said PteroDynamics CEO Matthew Graczyk.

“The size and capabilities of the P5 also hit a sweet spot in what we see in broader market demand, not only for other military branches like the Air Force, but also for commercial, governmental, and public safety operators around the world eager to leverage the key advantages of the Transwing platform.”

Historical data from Navy casualty reports show that warships that move to non-mission capable or partially mission capable status often do so due to logistics-related issues like electronics parts or assemblies – 90% of which are logistical deliveries weighing less than 50 pounds. Today, the Navy’s fleet of MH-60 helicopters, V-22 tilt-rotor aircraft, and commercial helicopters fly these missions. Recognizing the cost and inefficiency of using manned aircraft in missions that could be completed by UAS, Military Sealift Command tapped NAWCAD to demonstrate how autonomous vehicles can optimize logistics in contested environments and beyond through the BWUAS program.

“Maritime resupply missions are the lifeblood of naval operations, and for the U.S. Navy and our allies, there is a critical need to automate expensive, resource-intensive deliveries of critical payloads in strategic maritime environments like the Indo-Pacific region,” commented Graczyk.

PteroDynamics’ Transwing is a revolutionary VTOL aircraft system that folds its wings to transition seamlessly between configurations optimized for vertical and winged horizontal flight. It requires no launch and recovery infrastructure and occupies one-third or less ground footprint than other VTOL aircraft with a comparable wingspan.

NAWCAD awarded PteroDynamics the $4.65 million contract expansion, funded by the U.S. Defense Innovation Unit (DIU) via an Other Transaction Authority (OTA) agreement to the company’s existing 2021 BWUAS Innovative Wing Design contract, raising the current contract to over $7 million. Upon completion of this phase of the contract, the company will qualify for $5 million in supplemental program funding, bringing the total future contract value to $12 million.

PteroDynamics will design, build, test, and demonstrate two P5 Transwing UAS prototypes in a maritime environment to meet the following specifications:

– 330-pound maximum gross takeoff weight – Ability to carry a 50-pound payload at least 400 nautical miles – Hybrid electric/internal combustion engine powertrain that can burn JP-5 fuel – Autonomous multi-aircraft operations – Satellite communications for beyond visual line of sight (BVLOS) operation – Detect and avoid (DAA) capability – Operations in a broader range of environmental conditions – Transportable via C-130 and C-17 fixed-wing and CH-53 and CH-47 rotor aircraft

About PteroDynamics

**83 . Date: 06-02-2025Fixed Wing - Solar ISR / ISTAR - HALE - General - Zephyr completes 13 days of stratospheric flight and testing, launching operations from Kenya baseURL: https://www.suasnews.com/2025/02/zephyr-completes-13-days-of-stratospheric-flight-and-testing-launching-operations-from-kenya-base/**

Laikipia County, Kenya: AALTO HAPS Ltd. (“AALTO” or “the Company”), an Airbus subsidiary which designs, manufactures and operates the Zephyr High Altitude Platform Station (HAPS), has completed its first successful stratospheric flight and testing from its purpose-built HAPS facility (AALTOPORT) in Laikipia County, Kenya.

Flying for more than 13 days above 60,000ft in Kenya, Zephyr was equipped with a payload developed at AALTO’s Farnborough headquarters that can provide direct-to-device (D2D) 4/5G connectivity. Compatible with smartphone technology to enable video and data services, AALTO conducted tests to characterise the performance of the connectivity system. During the flight, AALTO also validated improvements to Zephyr’s flight envelope to provide greater stability and performance.

AALTO secured permissions to establish an AALTOPORT for stratospheric operations during 2024, following 18 months of regulatory engagement and technical studies to facilitate flight approvals. With the support of the Kenya Space Agency and Kenya Civil Aviation Authority, Kenya has consolidated its position as a global pioneer for HAPS innovation and enabled AALTO’s global expansion.

Hughes Boulnois, CEO of AALTO, commented: “Zephyr’s return to stratospheric testing and operations is an important step in its commercial roadmap. Stewarding the most established platform globally, AALTO is demonstrating the capabilities of Zephyr from a payload and platform perspective. With unrivalled performance and flexibility, alongside game-changing applications as a payload agnostic platform, AALTO’s Zephyr is a naturally complementary asset to traditional space and defence ecosystems.

“For many years we have worked with strategic partners on promoting technological innovation and opportunities across connectivity and Earth observation markets. Now thanks to the strategic vision of Kenyan regulators, we are one step closer to commercialising the stratosphere.”

Brigadier Hillary B Kipkosgey, Acting Director General / CEO of the Kenya Space Agency, added: “As the national regulator for space activities and coordinating agency for the multi-agency team on stratospheric operations, the Kenya Space Agency is committed to promoting adoption and use of enabling technologies that are innovative, secure and impactful.

“HAPS is a unique capability with potential use cases that Kenya recognises as critical to many stakeholders. Through our support to AALTO, we are pleased to demonstrate Kenya’s global leadership in creating a new hub for near space technology.”

**84 . Date: 14-03-2025Partnership - General Atomics and Radian Aerospace Partner To Advance Next-Generation Aerospace TechnologiesURL: https://www.suasnews.com/2025/03/general-atomics-and-radian-aerospace-partner-to-advance-next-generation-aerospace-technologies/**

General Atomics Systems Integration (GA-SI) and Radian Aerospace (“Radian”) have signed a Memorandum of Understanding (MOU) to advance next-generation aerospace technologies and explore broader strategic collaboration, including localization opportunities in the United Arab Emirates (UAE).

The collaboration will focus on integrating advanced avionics, electrification, and actuation technologies into cutting-edge aerospace platforms, leveraging GA-SI’s expertise in high-performance systems and Radian’s breakthrough single-stage spaceplane architecture. A key initiative will be the development of electromechanical braking and control actuation systems, which reduce weight, streamline operations, and enhance efficiency while ensuring the reliability needed for frequent space missions.

“This partnership underscores GA’s commitment to driving innovation across critical aerospace systems,” said Scott Sappenfield, Vice President of the Engineering Services Division. “Electromechanical braking is just one way we’re pushing the boundaries of efficiency and sustainability. We’re also excited about expanding collaboration with Radian through industrial partnerships and localization efforts in the UAE.”

The MOU also lays the groundwork for broader collaboration, and joint exploration of UAE offset projects. As GA-SI expands its presence in the UAE, the companies will assess local manufacturing, technology transfer, and workforce development opportunities to support regional aerospace growth.

“General Atomics is an ideal partner as we continue developing Radian One, the world’s first single-stage-to-orbit spaceplane,” said Richard Humphrey, CEO of Radian. “This partnership enables us to integrate next-generation technologies that enhance performance and reusability while opening the door to strategic investment and industrial collaboration. Together, we’re laying the foundation for the future of aerospace and space access.”

GA-SI and Radian will also evaluate partnerships with certified suppliers and manufacturers to develop integrated landing gear systems, enhance adaptability across aerospace platforms, and provide cost-effective solutions for OEMs. By combining GA-SI’s high-performance systems expertise with Radian’s spaceplane mission, this collaboration aims to drive aerospace innovation and shape the industry’s future on a global scale.

About Radian Aerospace

**85 . Date: 29-03-2025Acquisition - Kite Aero Acquires Swoop Aero’s AssetsURL: https://www.suasnews.com/2025/03/kite-aero-acquires-swoop-aeros-assets/**

● The new leader in drone based autonomous delivery and logistics ● Building on strong foundations, with a mission to grow the business ● Expanding drone logistics with an open third party integration strategy

Kite Aerospace Pty Ltd (Kite Aero), a newly formed uncrewed aviation company, has successfully acquired the assets of Swoop Aero.

The acquisition includes the renowned Kite drone and Swoop’s drone operations software platform, ensuring continuity for existing autonomous aerial logistics customers, and creating a more robust business operation to build on the foundations Swoop established in the industry.

Swoop created a global leader in drone-based logistics, widely recognized for its revolutionary technology in autonomous delivery, particularly in critical healthcare supply chains. Kite Aero acquired its key assets, with a mission to uphold and expand on Swoop’s achievements.

“Kite Aero is committed to building on the strong foundation that Swoop established,” said Philip van der Burg, CEO of Kite Aero. “The Kite drone and software platform have already proven their value in enabling scalable drone logistics solutions, and we see tremendous potential in taking it to the next level. Our goal is to continue to enable safe, reliable, and impactful drone operations to communities and businesses worldwide.”

Kite Aero is led by a seasoned team with over 50 years of combined experience in aerospace technology and uncrewed aviation, bringing deep expertise in autonomous flight systems, avionics, and regulatory compliance. This leadership is exceptionally well qualified to advance drone logistics and scale operations globally.

As part of its strategic vision, Kite Aero has opened up the software stack and avionics system to third-party integration, allowing broader adoption and interoperability across the industry.

The flight operating system, which has logged more than 36,000 flights and over 20,000 flight hours, is a proven and robust platform for autonomous aerial operations. Opening the platform to third parties will empower partners and operators to leverage the technology for a wide range of applications, from logistics and emergency response to commercial drone services.

In addition to advancing the Kite drone platform, Kite Aero will explore opportunities to re-engage former Swoop employees and industry partners to retain the expertise and innovation that drove Swoop’s success.

With a focus on operational excellence, sustainability, and cutting-edge automation, Kite Aero aims to lead the next chapter of drone operations, ensuring the technology remains at the forefront of real-world applications.

www.kite.aero

About Kite Aero

Kite Aero is a leader in autonomous aerial logistics, transforming the way critical supplies and commercial goods move through the sky. The Company has developed a globally recognized drone platform and advanced flight operations software. With over 36,000 autonomous flights and 20,000 flight hours already logged, Kite Aero builds on a strong legacy to deliver safe, scalable, and high-impact drone operations worldwide. The Company’s open integration strategy invites third-party developers and operators to collaborate on one of the industry’s most proven platforms. Led by a highly experienced team with decades of aerospace and uncrewed aviation experience, Kite Aero is setting a new benchmark for innovation, sustainability, and real-world application in the drone logistics space.

**86 . Date: 04-04-2025Regulation - O Transport Canada: New Canadian Drone Rules for BVLOS, 150kg Drones, Microdrones, and More With Full Implementation by Tuesday, November 4th, 2025URL: https://www.suasnews.com/2025/03/o-transport-canada-new-canadian-drone-rules-for-bvlos-150kg-drones-microdrones-and-more-with-full-implementation-by-tuesday-november-4th-2025/**

If you’ve been following the global drone industry, you likely know that stakeholders regularly demand Beyond Visual Line of Sight (BVLOS) operations. For some pilots who fly in those lucky countries, this type of commercial drone operation has been approved for several years. However, for those following JARUS official SORA 2.0/2.5 rules and in countries with Visual Line of Sight (VLOS) rules, BVLOS has been a LONG waiting game of submission and approvals.

Luckily, for those in Canada, we have a path to regular, boring old BVLOS and more THIS YEAR.

“To unlock the potential of medium-sized RPAS and beyond visual line-of-sight operations, regulatory amendments are needed to allow more routine operations, provide regulatory predictability, and support economic growth. This will help the Canadian RPAS industry to remain competitive in the global market… The Regulations Amending the Canadian Aviation Regulations (RPAS – Beyond Visual Line-of-Sight and Other Operations) (the Regulations) will allow operations with a remotely piloted aircraft up to 150 kg to be flown within visual line-of-sight and introduce rules for routine beyond visual line-of-sight operations with a remotely piloted aircraft of up to 150 kg over sparsely populated areas, at low altitudes, and in uncontrolled airspace. The Regulations will remove the requirement for a Special Flight Operations Certificate (SFOC) for these operations. The total benefits… will result primarily from enabling high-value RPAS operations, eliminating the need for SFOCs for certain RPAS operations, increased profits for domestic RPAS manufacturers, and increased recreational pilot activities.” (P. 70-71)

In June 2023, Transport Canada – Transports Canada announced the first version of the proposed new rules for flying drones Beyond Visual Line of Sight (BVLOS), “medium drones” weighing up to 150kg, and with a few more relevant regulatory items.

When the proposed rules were announced, Canadian drone stakeholders were provided a 90-day consultation window and were told that the new rules would be fully implemented by April 1st, 2025. Obviously, today is March 27th, 2025, and the fully baked proposed rules are not scheduled to be implemented next week.

Now, some parts of the rules will be implemented on or shortly after April 1st, 2025, such as completing the Level 1 Complex exam, and the full implementation date is now November 4th, 2025.

Overall, with the ongoing Part 108 delay in the 11th province and Europeans still slide tackling the adoption of SORA 2.0 and 2.5, I applaud Transport Canada’s timely publication and how they stickhandled the small delay.

Furthermore, considering that Transport Canada was on schedule with the first set of rules in 2019, proactively announced they were behind in public forums (e.g., Aerial Evolution Association of Canada conference), and announced the new rules while we (the members of the free country of Canada) are in the middle of an election, good on Transport Canada for getting this new set of rules across the line with an appropriate amount of time for adoption.

So, I assume you are still reading this to try understand the 175 pages of the new rules (referenced in Canada Gazette, Part 2, Volume 159, Number 7) in a more efficient way. Well, yes, here we go, eh!

First off, I have summarized the new rules based on the following 9 topics. Note, there are some elements of the rules that have not been discussed, such as the economic benefits and comment analysis. This summary is written from the perspective of a manufacturer/modifier who has a large fleet of drones that is regularly tested and used for Advanced and SFOC activities:

Aside from appeasing/quieting those stakeholders who have sent numerous emails, made passive-aggressive and outright aggressive social media posts, and (maybe) conducted phone calls “requesting” Transport Canada to allow for more complex operations, the three main objectives of the regulations are as follows:

Kindly, Transport Canada provided a list of definitions that replace the old definitions in various sections. Below is a copy/paste of some of the key terms in alphabetical order that start on Page 14 of the new rules:

Well, it’s here…kind of. Starting in November, operators will be able to fly BVLOS without an SFOC. Of course, there are pilot, airframe, testing, plans, approvals, and such required before we go full BVLOS on our skies.

However, there is a path for takeoff.

Per the Gazette, Transport Canada has approved 335 SFOC for lower-risk BVLOS. These previous approvals were critical in the development of the new rules. Furthermore, a sneak peak into the future: “It will also allow TC to shift resources towards issuing SFOCs for more complex operations — e.g., in urban centres, at higher altitudes, or for larger aircraft — and integration with the broader aviation sector.” (P. 76)

For existing Advanced Pilots, of which there are 16,338 as of March 6th, these rules give us new opportunities to fly without needing to apply for the Level 1 Complex Operations certificate. Also, Visual Observers (VO) will not require an Advanced Certificate and a Basic Certificate will suffice for the VO. Transport Canada “…has determined that the following operations may be added to the types of operations conducted by Advanced Pilot Certificate holders without the requirement to obtain a new pilot certificate”. (P.63)

These include:

For many countries, the <25kg maximum takeoff weight (MaxTOW) limit has been a reality for several years. For some, going above the 25kg MaxTOW is not of interest. To date, these <25kg drones have been affordable (thanks, DJI), readily available, and get the job done. However, as cameras, sensors, and other attachments are included, sometimes these <25kg do not make the cut.

By increasing the available MaxTOW to 150kg for non-SFOC operations, Transport Canada is positioning Canadian drone manufacturers for success and enabling pilots to perform more tasks with their tools (i.e., drones).

“Existing Part IX requirements will continue to apply for medium-sized drones within VLOS, such as: (I) operations in uncontrolled airspace must remain below 120 meters; and (II) operations in controlled airspace require authorization from air traffic services.

In addition, the Regulations will introduce new requirements to mitigate the additional safety risks associated with larger drones, such as: (I) increasing the minimum distance from people not involved in the operation, which will reduce the risk of a larger drone causing injury to a person; and (II) additional flight planning considerations, such as weather and ensuring the drone does not fly during low visibility, affecting the pilot’s ability to maintain line of sight.” (P.88)

Under the old rules, <250 gram drones could be used at advertised events without an SFOC. However, Transport Canada has modified the rules. Under the new rules, pilots of microdrones, such as the DJI Mavic Mini, Ascent AeroSystems Helius, or Autel Robotics Nano, will need to adapt to the requirements for advertised events.

Specifically, an SFOC will be needed for any size microdrone to fly at “an outdoor event that is advertised to the general public, including a concert, festival, market or sporting event.” (P. 84)

Transport Canada’s rationale was that “this amendment was added following pre-publication of the proposed Regulations in response to comments from stakeholders who noted that microdrones are frequently observed at advertised events and create safety risks for other RPAS operators and the public due to the constrained nature of the airspace at these events, and the higher density of people on the ground.” (P. 84)

For pilots seeking approval to fly at an advertised event, they should be aware that this type of event is considered a “low-complexity operation” (P. 63) and the cost for such an SFOC is stated to be $75, half of the previous $150 Transport Canada proposed.

Under the old/current rules, drone manufacturers and modifiers can self-declare that they meet the requirements for Advanced Operations, which include controlled airspace, near people (>5 meters to <30 meters from bystanders), and over people (<5 meters from bystanders).

This system has allowed many companies to get to market rather quickly. However, there have been numerous cases of abuse. Per Transport Canada’s presentation at the Aerial Evolution conference in November 2024, there were 26 invalidated declarations and 3 voluntarily withdrawn declarations.

With the new Pre-Validated Declarations (PVD), “Manufacturers determine which technical requirements their drone and supporting systems meet and whether they want to declare to TC via the Declaration or Pre-Validated Declaration Process. A drone will not be able to fly in any of the operating environments under the new framework unless a Declaration or a Pre-Validated Declaration has been made by the manufacturer to operate in the respective operating environment.” (P.85)

With a PVD, an operator would be able to perform operations with the following:

The PVD is a two-step process.

The first step involves a manufacturer submitting a plan to show how their drone will meet the requirements of Standard 922. Unlike the Advanced process, Transport Canada will proactively look at your documentation. So, for those who have previously skirted the rules and believe they have a great drone by submitting three lines to Transport Canada for an Advanced declaration, this new process should make it slightly more difficult for your BS.

This new process will be required for (1) VLOS operations with medium-sized drones near and over people and (2) Certain BVLOS operations in uncontrolled airspace, below 120 meters, and over sparsely populated areas.

After Transport Canada reviews the plan and accepts how the manufacturer will complete the requirements for Standard 922, the manufacturer will receive an acceptance letter. Then, “the manufacturer or service provider will execute the accepted plan, and subsequently declare to TC that their system meets Standard 922.” (P.86)

Once a PVD is complete, the tasks do not stop for manufacturers. Under the new rules, a manufacturer will need to submit annual reporting and service difficulty reporting to Transport Canada.

Annual reporting: This annual reporting includes “estimated number of product flight hours, a description of any safety-related issues that came up over the year, and any design changes that may affect the compliance with the requirements in Standard 922.” (P.86)

Service difficult reporting: “A service difficulty is any malfunction or defect that could affect the safety of the drone or could injure a person. Manufacturers or service providers with PVDs on their drone or system will need to establish and maintain a system for service difficulty reporting for pilots and RPAS Operator Certificate holders. Manufacturers will need to provide operators with a description of what systems or elements are critical for safety so they can report to the manufacturer or service provider as soon as feasible if a service difficulty has occurred. Manufacturers and service providers will need to investigate service difficulties and, if the conclusion is the system no longer meets the technical requirements of Standard 922, a mandatory action, which is an action to prevent an unsafe or potentially unsafe condition, will need to be developed to fix the issue. Manufacturers and service providers will need to notify operators of the mandatory action as soon as possible and whether the declaration on the product or supporting system is still valid.”

This ongoing reporting should provide Transport Canada with novel data on the performance of various drone manufacturers. Far too often, drone manufacturers can hide behind their great marketing as many pilots do not perform reporting to Transport Canada. As a company who has integrated with many drones and is the backup system for the drone failure/pilot error, this is a welcomed activity and should shed light onto whose drone actually performs to the marketing specification.

Show me the money… As previously mentioned, Transport Canada has revised their fee structure. This “Fee Modernization Initiative” will, of course, result in some pilots dropping their gloves while others will have their elbows up.

However, as an industry stakeholder who manufacturers drone products, has paid for ~10 advanced licenses, has paid the registration of more than 110 drones (we crash stuff), and has received a few SFOC approvals, I accept the reality of the “Fee Modernization Initiative”.

These new fees are as follows:

In this section, I’ve included an unorganized group of information that may be relevant to the readers:

(a) the type of airspace and any requirements applicable to the flight geography, including any specified in a NOTAM; (b) the altitudes and routes to be used for approach, take-off, launch, landing or recovery; (c) the proximity of other aircraft operations; (d) the proximity of airports, heliports and other aerodromes; (e) the location and height of obstacles, including wires, masts, buildings, cell phone towers and wind turbines; (f) the predominant weather and environmental conditions and the weather forecast for the duration of the flight; (g) in the case of a VLOS operation, an extended VLOS operation or a sheltered operation, the horizontal distance from any person not involved in the operation; and (h) in the case of a BVLOS operation, the distance from any populated area or sparsely populated area.

Transport Canada has modified the penalties for those pilots who choose not to follow the rules. The following penalties have been increased (P.96-97):

Well, we have made great strides as an industry. With these new regulations, the Canadian drone industry is better off this year than last. Yes, there are more tasks to complete to get to urban use cases and, of course, Transport Canada could move slightly faster. However, this is Canada and the safety of bystanders is important. We have a lot of near-empty space to travel to and from by drone. These new rules will directly benefit those living in rural locations without significant risk to the people in densely populated areas. Furthermore, this will give Transport Canada more time to work on the critical urban core activities to improve regular Canadians’ daily lives.

**87 . Date: 14-03-2025Acquisition - Quantum Systems Acquires AirRobot, Ensuring the Supply of Critical Capabilities to the BundeswehrURL: https://www.suasnews.com/2025/03/quantum-systems-acquires-airrobot-ensuring-the-supply-of-critical-capabilities-to-the-bundeswehr/**

Following the acquisition by Quantum Systems, AirRobot can continue to deliver to the Bundeswehr and provide the required capabilities for security and defense.

Munich/Arnsberg, March – Quantum-Systems GmbH today announces the complete acquisition of AirRobot GmbH. This strategic acquisition expands Quantum Systems’ product portfolio in drone technology and strengthens technological sovereignty for the Bundeswehr and European partners.

Portfolio Expansion and Technological Synergies

Quantum Systems, specializing in AI-driven fixed-wing drones and software, expands its offerings to include copter drones through the acquisition of AirRobot. This is an important step in Quantum Systems’ strategy to consistently expand its product portfolio in the Family of Systems as well as its software and AI expertise.

AirRobot from Arnsberg, Germany, will collaborate closely with Quantum Systems’ R&D team in Gilching, which develops market-leading AI-driven reconnaissance drones. AirRobot will be integrated as a standalone entity within the Quantum Systems Group.

AirRobot is the main supplier for the Bundeswehr’s MIKADO II program (2022-2032) and a Tier-1 supplier for Lockheed Martin in the TIQUILA program (2023-2033) of the UK Ministry of Defense.

Continuation of Business Operations

The acquisition of AirRobot ensures the continuity of development, production, and maintenance activities. Consequently, operations at the Arnsberg location will continue. The primary focus is on securing an uninterrupted supply to the Bundeswehr under the MIKADO program.

“The combination of the strengths of both companies opens up completely new possibilities for us and creates strong synergies for the future of unmanned aviation,” says Robert Polok, Managing Director of AirRobot. “By uniting our technologies, expertise, and innovative power, we will develop even more powerful drone solutions at the highest level – Made in Germany.”

This acquisition strengthens our position as an innovative provider of drone technologies for defense and security applications. We combine our competencies and simultaneously secure strategically important supply contracts for our national and international security partners.

**88 . Date: 14-03-2025Fixed Wing - ISR / ISTAR - Small - General - PlatformUAVE Prion Mk3 Dragon D-50URL: https://www.suasnews.com/2025/03/uave-prion-mk3-dragon-d-50/**

The Dragon D-50 is a twin-nacelle aircraft specifically designed to provide unparalleled performance. A twin-nacelle configuration enables stereopsis, which offers several key advantages: Accurate Distance Assessment: Enables precise determination of distances between objects, crucial for optimal target identification and positioning on the battlefield. Enhanced 3D Vision: Offers a three-dimensional perspective of the environment, making it easier to comprehend spatial relationships between objects. With the Dragon D-50’s twin-nacelle design, we offer enhanced visual clarity: Improved Resolution: Dual optical sensors work together to boost ISR (Intelligence, Surveillance, and Reconnaissance) resolution and detail. Advanced image processing ensures sharper, more detailed imagery. Wider Field of View: By deploying sensors on both payload nacelles, the aircraft provides a broader field of view than monocular systems, enhancing peripheral ISR coverage. Evolution or Revolution It also offers a whopping 88 litres and 50 kilo payload capacity with 100% redundancy, improving aircraft safety When selecting the best-engineered solution for ISR, a twin-nacelle aircraft outperforms all other configurations. Lead the way. UAVE Limited. British engineering excellence.

**89 . Date: 07-03-2025H-Rotary - ISR / ISTAR - Tactical - General - Uncrewed aircraft manufacturer Schiebel selected for UK police trialsURL: https://www.suasnews.com/2025/03/uncrewed-aircraft-manufacturer-schiebel-selected-for-uk-police-trials/**

The National Police Air Service (NPAS) has selected global manufacturer Schiebel to support its most ambitious trial so far of ‘Beyond the Visual Line of Sight’ (BVLOS) uncrewed aircraft operations.

The trial – which, in 2024, successfully achieved a place in the Civil Aviation Authority’s (CAA) BVLOS integration sandbox – will evaluate the feasibility of using uncrewed aerial systems (UAS) to work alongside crewed police helicopters and aeroplanes in support of policing operations across England and Wales.

David Walters, NPAS Head of Futures and Innovation, said the aim of the trial was to determine if advancements in aviation technology can bring future benefits to policing and, if they can, how they could be safely introduced into UK airspace.

“We will be evaluating how we might integrate uncrewed aircraft into the existing NPAS operating model, under the current management of our CAA-approved Accountable Manager and Form 4 certificate-holders, who are qualified and accountable for the delivery of safe police air operations over England and Wales,” said David Walters.

Schiebel will be flying the CAMCOPTER S-100 in a carefully selected and controlled environment to assess the UAS capabilities, as part of the concept for a future blended fleet, operated by NPAS.

“The CAMCOPTER S-100 is being operated worldwide with over 40 customers so far, including the UK Royal Navy. With its unrivalled experience and outstanding capabilities, the S-100 is the ideal UAS for this trial,” said Neil Hunter, Head of Global Sales at Schiebel.

“Schiebel prides itself at being at the forefront of delivering UAS technology globally and is continually looking to support the expansion and growth of UAS, specifically in the commercial market. In Western Europe alone it has won contracts with the European Maritime Safety Agency, and with Bristow Group supporting their UK Search and Rescue operations. Being chosen to fulfil this exciting and ground-breaking NPAS trial is testament to the S-100 pedigree and maturity,” he added.

Schiebel will join the National Air Traffic Control Service (NATS) as part of the team supporting the NPAS Futures and Innovation team with the trial, which is funded by the Home Office and scheduled to see its first test flight in summer 2025.

After extensive consultation, an area in the Severn estuary, in South West England, has been selected for the trial flights, away from any built-up environments.

For the last 24 months, NPAS has been building a robust safety case, which has included testing a ‘detect and avoid’ solution, to ensure the trial can operate safely and with minimum disruption to the public and other airspace users.

Along with the potential capabilities for policing operations, the trial will also evaluate the effectiveness of the ‘detect and avoid’ solution.

“We cannot predict the outcome of the trial, but it is imperative we deliver the same, or improved, capability that we have today with our crewed aircraft. The desired outcome is to be able to offer police forces in England and Wales a way of supporting their operations in an even more flexible way, with a continued emphasis on public safety,” added David Walters.

The National Police Air Service was formed in 2012 as part of a collaboration between all police forces in England and Wales to deliver efficient, borderless air support.

With an existing fleet of 19 helicopters and four aeroplanes, operating from 15 regional bases, the service responds to around 100 calls for service each day.

Air support deployments most commonly range from high-risk missing people and vehicle pursuits to firearms containments, public order and crowd control, intelligence-gathering, counter-terrorism, major incidents and aerial searches.

**90 . Date: 04-04-2025Acquisition - AeroVironment Stockholders Approve Acquisition of BlueHaloURL: https://www.suasnews.com/2025/04/aerovironment-stockholders-approve-acquisition-of-bluehalo/**

AeroVironment, Inc. (NASDAQ: AVAV) (“AV” or the “Company”) today announced that its stockholders have approved the issuance of AV common stock in connection with the Company’s pending acquisition of BlueHalo LLC (“BlueHalo”) at a Special Meeting of Stockholders held earlier today.

“Stockholder approval marks an important milestone as we move forward with the acquisition of BlueHalo and accelerate our transformation into the leading next-generation defense technology company,” said Wahid Nawabi, AV chairman, president, and chief executive officer. “Together, AV and BlueHalo will drive agile innovation and deliver integrated, all-domain solutions designed to redefine the future of defense and address the most important priorities and needs of our nation and allies around the globe. We thank stockholders for their continued support and look forward to closing this transaction and unlocking new opportunities for growth and value creation.”

More than 99% of the shares voted by AV stockholders were in favor of the issuance of AV common stock to complete the pending acquisition. Final voting results will be reported in a Form 8-K filed with the U.S. Securities and Exchange Commission.

The transaction is expected to close in May 2025, subject to the satisfaction of customary closing conditions.

About AeroVironment, Inc.

**91 . Date: 18-04-2025Partnership - GA-ASI Announces Technology Investments From Blue Magic NetherlandsURL: https://www.suasnews.com/2025/04/ga-asi-announces-technology-investments-from-blue-magic-netherlands/**

General Atomics Aeronautical Systems, Inc. (GA-ASI) is pleased to announce two businesses that it will invest in from the inaugural Blue Magic Netherlands (BMN) event last November: Emergent Swarm Solutions and Saluqi Motors.

“The technologies presented by Emergent and Saluqi really stood out to us, and we’re proud to be working with them,” said Brad Lunn, managing director for GA-ASI. “I expect several other companies from the Blue Magic Netherlands event to emerge and we hope to make additional announcements in the near future.”

At the Blue Magic investment and innovation conference in the Netherlands, GA-ASI and its partners heard pitches from innovative Dutch companies about the important technologies they are developing. The event was organized collaboratively between GA-ASI, the Dutch Ministry of Defense, the Dutch Ministry of Economic Affairs, Brainport Development in Eindhoven, and Brabant Development Agency (BOM). The key areas of focus were Artificial Intelligence/Machine Learning, Autonomy, Advanced Materials, Sensors, Advanced Manufacturing, and Space. Close to 50 companies applied and after reviewing the applications, 16 companies were selected to pitch their capabilities.

Emergent Swarm Solutions and Saluqi Motors were selected by GA-ASI to make investments after both companies made compelling pitches about their respective technologies at the BMN event and following months of detailed business and technology discussions with the two companies.

Emergent Swarm Solutions develops innovative software solutions for autonomous flight and intelligent, decentralized swarming capabilities for a variety of unmanned vehicles. GA-ASI is partnering with Emergent to develop critical autonomy skills for GA-ASI’s current and future portfolio of aircraft.

“It is a pleasure to partner with General Atomics to develop and deploy our autonomy and swarming capabilities on the current and next generation of unmanned aircraft,” said Lennart Bult, Co-founder and Managing Director at Emergent Swarm Solutions. “Collaborating with the General Atomics team has been a fantastic experience, and we look forward to delivering advanced capabilities through this partnership.”

Saluqi Motors builds high-density motors with integrated electronics that significantly increase power and torque in small packages, which is well-suited for airborne platforms. GA-ASI is partnering with Saluqi to qualify their existing products within the strict environmental demands of aerospace applications and to develop new products for specific applications.

“We are deeply honored to be selected by GA-ASI from such a strong field of innovative companies,” said Matthijs de Haan, CEO at Saluqi Motors. “Our ultra-compact and high-performance motors are engineered to meet the demanding requirements of aerospace applications. This collaboration enables us to further validate our technology and develop new solutions for the defense and aerospace industries.”

GA-ASI is a global leader in unmanned aircraft systems and related mission systems. The company hosted its first Blue Magic event in 2019 in Belgium, with subsequent events held in 2020, 2021, and 2023. GA-ASI is delivering eight MQ-9A aircraft to the Royal Netherlands Air Force (RNLAF).

“GA-ASI is committed to continue working with the Dutch government and Dutch industry in supporting the growth of technology innovation in the Netherlands. GA-ASI anticipates holding additional BMN events in the near future,” Lunn added.

**92 . Date: 02-05-2025Market - Primoco UAV Reports Excellent Financial Results for 2024: revenue, profit and cash in the hundreds of millionsURL: https://www.suasnews.com/2025/04/primoco-uav-reports-excellent-financial-results-for-2024-revenue-profit-and-cash-in-the-hundreds-of-millions/**

Primoco UAV SE, a Czech manufacturer of unmanned aerial vehicles, announces its financial results for 2024. The company recorded consolidated revenues of CZK 471 million, an EBITDA profit of CZK 147 million, and maintained a strong operating margin. Primoco continued to operate debt-free, generating a free cash flow of CZK 231 million.

“The year 2024 marked a period of intense work. With our successful entry into the main market of the Prague Stock Exchange, we symbolically completed our journey from a Czech startup to a company delivering on its global ambitions through a truly unique product,” said Primoco CEO Ladislav Semetkovský.

Primoco’s flagship aircraft, the Primoco One 150, remains the only medium-heavy unmanned aerial vehicle certified to NATO STANAG standards. STANAG certification enables NATO member states to acquire and deploy the aircraft without the need for additional testing. This certification comes at a critical time as NATO’s European members move to increase their defense budgets significantly. The Primoco One 150 also holds civilian certification for operation over densely populated areas, broadening its commercial applications and deployment in security, fire brigade and other emergency response missions.

Among the company’s key milestones in 2024 was securing its largest-ever contract: a CZK 450 million agreement to deliver 24 Primoco One 150 aircraft. “This contract is significant not only for its size but also because each aircraft delivered opens the door to long-term partnerships, including training, servicing and future fleet expansion based on the positive experience with the One 150,” said Semetkovský.

Although revenues stabilized at nearly half a billion CZK levels last year after rapid growth in the previous period, management views this as characteristic of the industry, remaining optimistic about future prospects and demand. “Interest in unmanned aerial vehicles continues to rise globally, driven by security needs and civilian applications. Given the complexity of our industry, closing each transaction from initial contact to delivery typically spans years rather than months. However, the number of our active negotiations at various stages of development multiplied in 2024,” said Semetkovský.Primoco made significant investments during the year to support anticipated demand. The company acquired land in the industrial zone of Písek and completed project documentation for a new production, service, control and training center, set to commence construction in 2026 following the building permit approval. Located near Primoco’s airport, the facility will feature advanced robotics and automation and ultimately triple Primoco’s production capacity to 300 aircraft annually.

**93 . Date: 25-04-2025Partnership - Quantum Systems and RENK Gears Private Ltd. (RENK India) conclude strategic partnership in IndiaURL: https://www.suasnews.com/2025/04/quantum-systems-and-renk-gears-private-ltd-renk-india-conclude-strategic-partnership-in-india/**

Quantum Systems GmbH, the European market leader for real-time unmanned aerial intelligence solutions, and RENK Gears Private Ltd., (RENK India), a subsidiary of RENK Group AG, a leading provider of drive solutions for military and civilian use, signed a Memorandum of Understanding today in India for a strategic partnership.

The signing took place in Bengaluru, located in the Indian state of Karnataka, where the two technology leaders were joined by Bavaria’s State Minister Dr. Florian Herrmann. RENK Gears Private Ltd. and Quantum-Systems GmbH aim to cooperate more closely in the future in the areas of research and development, production, software development, and digitalization.

Both companies recently identified India as a key growth market.

Dr. Florian Herrmann, Bavaria’s State Minister, said: “Bavaria and India complement each other perfectly: the state of Karnataka is considered the Silicon Valley of India and Bavaria the Silicon Valley of Germany. Bavaria focuses on high-tech and research like no other federal state. With the Bavarian High-Tech Agenda, we are investing over 5.5 billion euros in science and the associated technology transfer to the economy – to turn good ideas into jobs. With success: companies from all over the world are coming to Bavaria – and Bavarian companies are expanding all over the world. We are therefore particularly pleased about the new international cooperation between Renk India and Quantum Systems. The areas of armaments, aerospace, AI and quantum computing are major fields of the future. As the Free State of Bavaria, we want to be at the forefront of innovation in these technologies worldwide and thus secure long-term value creation and prosperity for Bavaria. To this end, we also held a large reception in Bangalore today at the end of our trip to India to network with international business representatives. Networking and partnership are more important than ever in a global world in turmoil.”

“The cooperation is another strong signal for our location and underscores the ‘Make in India’ ambitions of the RENK Group,” said Praveen Mohan, Managing Director of RENK Gears Private Ltd.

India offers Quantum Systems a highly attractive strategic environment for sustainable growth. The country’s defense and security spending is steadily increasing, accompanied by massive investments in high-tech and infrastructure projects. As a geopolitically important player with major civil and military challenges, India is an exciting market for ISR drone technology and aerial intelligence services.

The RENK Group has maintained business relations in India for decades, as the country has been a strategic partner for Germany. The company is currently significantly expanding its production capacities in India for gearboxes, slide bearings and couplings for military and civilian applications. By 2025, a new roughly 7,000-square-meter production site for military and civilian applications will be built in India.

Quantum Systems also has a long-standing history of doing business in the region and is an established partner for India, including in the areas of land surveying and cadastral registration. In the future, the company will also be active in India for other government agencies.

**94 . Date: 12-04-2025Market - TEKEVER establishes new arm in Ukraine to enhance frontline support and innovation in defence technologyURL: https://www.suasnews.com/2025/04/tekever-establishes-new-arm-in-ukraine-to-enhance-frontline-support-and-innovation-in-defence-technology/**

Expanded network of facilities and workforce enhances support for Ukrainian armed forces

AR3 drone has successfully completed over 10,000 operational flight hours in Ukraine, demonstrating combat-proven reliability

Innovation and talent in Ukraine will be vital to bolstering European defence capabilities

TEKEVER, a European leader in Unmanned Aerial Systems (UAS), is proud to announce the establishment of a new arm of the business in Ukraine, in partnership with the Ministry of Strategic Industries of Ukraine. This strategic move aims to bolster TEKEVER’s ongoing support for Ukrainian armed forces and enhance European defence capabilities by fostering innovation and talent emerging from the region.

The establishment of a local entity will enable TEKEVER to expand its workforce and network of facilities across Ukraine, which provide maintenance and engineering support, R&D for developing new capabilities, and training sites to improve operational effectiveness for Ukrainian partners. The facilities are strategically located to enable access to the frontline and other organisations supporting the defence effort in Ukraine, and are designed to be mobile in the event of a security risk.

TEKEVER has been working closely with Ukrainian armed forces since 2022, deploying its UAS for intelligence, surveillance, target acquisition and reconnaissance. TEKEVER has continuously adapted its systems based on feedback from the frontline to ensure they remain highly effective and resilient under the most challenging electronic warfare conditions. Its AR3 has successfully completed over 10,000 operational flight hours in Ukraine, demonstrating its combat-proven reliability and technical maturity.

The company has backed multiple initiatives to foster innovation amongst Ukrainian start-ups that are developing other critical technologies for the frontline. The creation of a new arm of the business in Ukraine will enable TEKEVER to enhance its support, accelerating the pace at which it can adapt its systems, increasing capacity for training Ukrainian partners and collaborating with other organisations in the region to develop new solutions.

The new arm will enable TEKEVER to foster and leverage the exceptional talent and innovation emerging in Ukraine in defence technology. Not only is their expertise, resilience and resourcefulness vital for the defence of the country’s sovereignty, it is also fundamental for bolstering Europe’s defence capabilities.

Ricardo Mendes, CEO of TEKEVER, commented: “We have been proud to support Ukraine since the early stages of the Russian invasion in 2022 and remain committed to doing so. We work closely with our end-users in Ukraine to ensure that our platforms and technologies provide them with the critical intelligence needed to fight this war and defend their country. This initiative will see TEKEVER significantly enhance the level of support for our Ukrainian partners.

Ukraine has become a hub for defence and technology innovation throughout the war, and is home to the most resourceful and resilient talent pool. By formalising our presence in Ukraine, we will continue to invest in this talent and foster innovation that is vital for the defence of Ukraine and the future security of Europe overall.

The geopolitical landscape has shifted significantly in recent weeks, making European support for Ukraine even more vital. The steps we are taking to expand our presence in Ukraine reflect our recognition of this new reality and our commitment to leading the development of critical defence capabilities for Europe as a whole.”

A Ukrainian soldier, who has been using TEKEVER’s drones on the frontline, shared his experience, “Our unit are the ‘eyes’, providing critical intelligence for missile and artillery units. We maintain very close contact with TEKEVER and continuously provide them with feedback we gather from our missions. They analyse the challenges we face on the battlefield and implement modifications to the UAS. Over the last three years, we’ve encountered a number of different challenges and always strive to find solutions together.”

**95 . Date: 04-04-2025M-Rotary - Armed ISR / ISTAR - Mini - Contract - UK Ministry of Defence Accelerates Drone Warfare Capabilities with Rapid FPV Drone ProcurementURL: https://www.suasnews.com/2025/04/uk-ministry-of-defence-accelerates-drone-warfare-capabilities-with-rapid-fpv-drone-procurement/**

The UK Ministry of Defence (MOD) has awarded a £256,080 contract to Viking Arms Ltd for the rapid delivery of a training fleet of First-Person View (FPV) drones, marking a significant advancement in the British Army’s low-cost precision strike capabilities.

This swift procurement, completed in an unprecedented 19-day cycle (March 12-31, 2024), will provide the British Army with 180 drones, encompassing 5″, 8″, and 10″ models, alongside essential accessories including goggles, antennas, and controllers. The drones will be equipped with simulated strike payloads, replicating anti-tank, anti-personnel, and anti-structure engagements, enabling realistic combat training scenarios.

The initiative aims to rapidly establish a cadre of skilled FPV drone pilots within the British Army, leveraging the expertise of existing Uncrewed Aircraft Systems (UAS) instructors.

This strategic move aligns with the Chief of the General Staff’s “Any/Any Network” vision, fostering a digitally integrated battlefield where any sensor can cue any effector. The procurement underscores the MOD’s commitment to rapidly adapting to the evolving landscape of modern warfare, drawing directly from the lessons learned from the Ukrainian conflict’s effective use of FPV drones.

“This rapid procurement demonstrates the UK’s commitment to staying at the forefront of military technology,” stated [Spokesperson Name/Title]. “By investing in FPV drone training, we are equipping our forces with agile, low-cost precision strike capabilities that will provide a decisive tactical advantage on the battlefield, day or night.”

The delivery of these drones will enable the British Army to develop and scale its FPV drone capabilities, enhancing situational awareness and precision strike effectiveness. The modular and agile nature of these systems will provide the British Army with the tools necessary to maintain tactical dominance in an increasingly complex operational environment.

**96 . Date: 02-05-2025Regulation - AVILUS is a Certified Drone Operator (LUC)URL: https://www.suasnews.com/2025/05/avilus-is-a-certified-drone-operator-luc/**

Ismaning, Germany – May 2nd, 2025 – We are pleased to announce that AVILUS has been certified by the German Federal Aviation Office (Luftfahrtbundesamt, LBA) as a Light UAS Operator (LUC) in accordance with Regulation (EU) 2019/947, Annex Part C. This makes us the third company in Germany to receive this prestigious certification.

Holding a Light UAS Operator Certificate (LUC) allows drone operators to self-authorize new flight areas or with advanced privileges to self-adjust procedures, drone types, or operational methods independently from the Federal Aviation Office. Unlike a standard Operational Authorization (OA) granted by the Federal Aviation Office, the LUC transfers authorization privileges to the operator, which can be continuously expanded over time in coordination with the authority (Advanced Privileges).

“I am proud of this result,” shared Serçin Höhndorf, our Safety Manager, “but more importantly, I see it as the beginning of a continuous improvement journey.”

Obtaining a Light UAS Operator Certificate (LUC) requires the establishment of similar organizational roles, bodies, and structures as those needed for an Air Operator Certificate (AOC). The structure resembles that of an airline and requires, in addition to nominated personnel (postholders), management systems (MS) for safety (SMS), compliance (CMS), and for managing the granted privileges (PMS).

As part of the certification process, all our postholders were interviewed in detail by the Federal Aviation Office. The two-day audit covered not only the company’s organizational structure, personnel, and processes, but also the regulatory compliance of our flight activities.

“This certification opens a whole new chapter in our company’s story—and we are proud to be part of it,” said Daniel Beck, a member of the Flight crew.

AVILUS sees itself as both a manufacturer and operator of a new class of drones. The LUC certification not only recognizes the quality of our operations but also enables significant growth of our flight services – “Drone as a Service.”

**97 . Date: 02-05-2025Market - Denmark Launches DKK 53.7 Billion Defence Procurement: Calls for Tech InnovatorsURL: https://www.suasnews.com/2025/05/denmark-launches-dkk-53-7-billion-defence-procurement-calls-for-tech-innovators/**

We invite defense tech manufacturers and innovators to participate in two major procurement initiatives launched by the Danish Ministry of Defence: 1. Acceleration Fund – focused on strengthening Denmark’s military capabilities 2. Industry Fund for Ukraine – focused on supplying fully developed and ready-to-deliver equipment to Ukraine Who should apply: • Ukrainian and international defense tech companies • Developers of drones, C-UAS, air defense systems, autonomous and unmanned platforms, logistics, communications, cybersecurity, and soldier equipment • Companies with ready-to-produce solutions • Entities with or seeking joint ventures with Danish partners Timeline and Funding: • Acceleration Fund: 50 billion DKK (2025–2033) • Industry Fund for Ukraine: 3.7 billion DKK (2024–2026) • Priority area: drones (500 million DKK allocated in 2025–2026) What’s required: • Product description and technical specs • Estimated price and delivery time • Company ownership details and Danish subcontractors (if any) • Submission is open on a rolling basis You will receive a unique submission ID and can update your proposal at any time. Let’s work together to strengthen European defense and provide timely support to Ukraine. Interested in applying? Reach out – we are ready to assist with submissions and partner matchmaking in Denmark.

**98 . Date: 02-05-2025Fixed Wing - Solar - HALE - General - PlatformZephyr sets world-record for longest continuous flight, flying 67 days in stratosphereURL: https://www.suasnews.com/2025/05/zephyr-sets-world-record-for-longest-continuous-flight-flying-67-days-in-stratosphere/**

Nairobi, Kenya: AALTO HAPS Ltd. (“AALTO” or “the Company”), an Airbus subsidiary based in Farnborough, UK, has set a world-record for global aviation with its Zephyr High Altitude Platform Station (HAPS). Designed, manufactured and operated by AALTO, Zephyr concluded 67 days, 6 hours and 52 minutes of continuous flight in the stratosphere on 28 April 2025. This surpassed Zephyr’s previous flight record of 64 days in 2022, and breaks the world-record for longest flight duration that has stood for half a century.

After launching from its AALTOPORT in Kenya on 20 February 2025, Zephyr conducted connectivity payload testing before transiting to Australian airspace. During this transit, Zephyr navigated 7 different flight information regions, the most ever recorded by a HAPS. In addition, the aircraft crossed the Intertropical Convergence Zone (ITCZ) twice – a demonstration of Zephyr’s stability and performance during changing weather conditions in southern and northern hemispheres.

The record-breaking flight terminated safely over a designated aviation sanctuary area in the Indian ocean. Relevant authorities were promptly notified by AALTO.

After a decade of stewardship by Airbus Defence and Space, Zephyr has established itself as the leading HAPS platform in the world. Zephyr’s most recent record-breaking flight was facilitated by a regulatory framework in Kenya, led by the Kenya Space Agency and Kenya Civil Aviation Authority. With the support of its regulators, shareholders and partners, AALTO is preparing to commercialise HAPS services with initial targeted entry-into-service in Japan during 2026.

Hughes Boulnois, Chief Executive Officer of AALTO, commented: “AALTO and Zephyr are at the forefront of innovation in aerospace. With this new world-record flight, we have pushed the boundaries again for the burgeoning HAPS industry and aviation globally with a solar-powered, stratospheric aircraft. Stewarding the most advanced HAPS, we have demonstrated our capabilities that are valuable for commercial and government partners. Our focus for 2025 is continuing to integrate HAPS into the space, defence and connectivity ecosystems: progressing the commercial phase for this pioneering technology.”

Pierre-Antoine Aubourg, Chief Technology Officer, added: “Zephyr is a unique aircraft. Its performance during this flight underlines its technological robustness, compliance with flight procedures and safety models. Zephyr’s flight envelope is the most advanced in global HAPS, enabling safe and reliable performance and maximum oversight by AALTO and regulatory authorities. As we proceed to commercial services, we will continue to break new ground for aviation safety and performance.”

**99 . Date: 30-01-2023ISR / ISTAR - MALE - General - Swiss Air Force receives first Israeli dronesURL: https://www.swissinfo.ch/eng/politics/swiss-air-force-receives-first-israeli-drones/48244906**

Material for the first two drones has also been handed over to the air force, namely ground control stations, sensors, as well as logistics and training material, the Federal Office for Defence Procurement (Armasuisse) said in a statementExternal link on Monday. The military aviation authority had issued the necessary certification.

Parliament approved a credit of CHF250 million ($270 million) for the procurement in 2015. The Israeli origin of the aircraft was criticised at the time. The predecessor Ranger drones were taken out of service in 2019.

The new drones should have been in the air since 2019. However, technical problems caused their delay. Armasuisse therefore imposed contractual penalties on the Israeli manufacturer, Elbit Systems, and negotiated additional services, such as certification of the de-icing system.

This content was published on Jun 16, 2022 The Swiss army has carried out the first successful test flight of an reconnaissance drone manufactured by Israel.

The unarmed drones are to be operational for 20 years. They are used for situational and target reconnaissance. However, they can also be equipped to generate an image of the situation on the ground or for electronic reconnaissance. They can be used by day and by night.

The nine-metre-long unmanned aerial vehicles with a wingspan of 17 metres can be used by military and civilian agencies. They can be used, for example, by cantonal command staff, police and rescue services and the border guard corps.

This content was published on Nov 26, 2020 In the future it is hoped drones can increasingly be deployed in emergency situations.

In Switzerland more people are being referred to electrical therapies or psychedelic-assisted psychotherapy. Are there similar approaches where you live?

What were the circumstances of your immigration to Switzerland? And what motivated your decision to stay or leave?

Switzerland is steering towards a housing crisis. Are there solutions?

This content was published on May 7, 2025 Switzerland has already exhausted its natural resources for the year as of this Wednesday.

This content was published on May 7, 2025 The foreign ministry said it currently has no information on the Swiss nationals involved.

This content was published on May 7, 2025 The Swiss House of Representatives voted against a motion to introduce specific regulations for AI-generated “deepfakes.”

This content was published on May 7, 2025 The Swiss foreign ministry wrote on X that international humanitarian law forbids the annexation of occupied territories.

This content was published on May 7, 2025 The EU sees the agreements with Switzerland as a single package, but the Federal Council believes that one or more agreements could be rejected.

This content was published on May 7, 2025 The United States and China are set to hold tariff talks in Geneva on Saturday.

This content was published on May 6, 2025 The cost of daycare in Switzerland will be alleviated via a new childcare allowance for children up to the age of eight.

This content was published on May 6, 2025 Switzerland should not introduce a nationwide mandatory microchip scheme for cats. On Tuesday, the House of Representatives rejected such an idea by 108 votes to 80.

This content was published on May 6, 2025 The number of reported cyber incidents and online threats in Switzerland rose sharply last year, according to the National Cyber Security Centre (NCSC).

This content was published on May 6, 2025 The Swiss National Bank (SNB) is prepared to lower its key interest rate even further in the face of economic uncertainty, Chair Martin Schlegel said on Tuesday.

In compliance with the JTI standards

More: SWI swissinfo.ch certified by the Journalism Trust Initiative

You can find an overview of ongoing debates with our journalists here . Please join us!

If you want to start a conversation about a topic raised in this article or want to report factual errors, email us at english@swissinfo.ch.

This content was published on May 11, 2021 The drone was one of six ordered by the army in 2016. The delivery date is now likely to be mid-2022 at the earliest, three years later than planned.

This content was published on Sep 8, 2015 On Monday, the Senate voted for the purchase of six unarmed Hermes 900 drones (30 votes for, 12 against), which followed earlier approval by the House of Representatives. Campaigners had criticised the deal with Israeli company Elbit Systems, urging Switzerland not to invest in Israel’s military complex due to its “systematic human rights abuses” against…

Follow us

Stay informed daily about news in Switzerland with our Briefing in the SWI plus app for the Swiss abroad.

SWI swissinfo.ch - a branch of Swiss Broadcasting Corporation SRG SSR

SWI swissinfo.ch - a branch of Swiss Broadcasting Corporation SRG SSR

**100 . Date: 18-04-2023Armed ISR / ISTAR - Small - General - ArmamentThales Jackal VTOL drone completes first firing of LMM Lightweight Multirole MissileURL: https://www.thalesgroup.com/en/worldwide/defence/news/new-drone-completes-first-firing-missile-significant-unmanned-air-combat**

Share this article

A new versatile drone system capable of multiple types of combat mission over land, sea and air has completed a highly successful first trial firing of a Thales Lightweight Multirole Missile (LMM) to bring the potential of unmanned air combat a step closer to reality.

The JACKAL drone capability has been designed and developed by experts from UK-based Flyby Technology, with Turkish partners FlyBVLOS Technology and Maxwell Innovations providing design engineering and prototyping expertise, to fill a recently discovered gap in modern combat operations.

As a Vertical Take Off and Landing (VTOL) platform, JACKAL is designed to satisfy a number of roles, including Battlefield Air Interdiction, Close Air Support, engaging helicopters in flight and killing tanks, to denying the use of runways and roads.

The trial - sponsored by the Rapid Capabilities Office (RCO) of the Royal Air Force – involved teams from Flyby and the technology giant Thales which also manufactures the LMM.

Within a demanding six-week window, they were able to build two operational JACKAL aircraft and successfully fire two LMMs in an impressive demonstration of agile teamwork.

As a plug-and-play system, new equipment and technologies can be incorporated into JACKAL between missions as well as during continued development. The company says this novel streamlined procurement process ensures that future aircraft are not obsolete before they go into service and will remain relevant for longer. It also gives a pathway to future regulatory compliance and airworthiness standards.

Flyby Technology CEO Jon Parker is a former RAF and Royal Navy fighter pilot and he and his team have brought many years of operational experience to bear in the design of the capability.

The company says many nations cannot afford attack helicopters or access fast jets that are modern enough to survive today’s battlefield. JACKAL can give them the same effect with little risk at a fraction of the price. Because the aircraft was born from the ideas of Harrier pilots, the aircraft takes off and lands vertically, another advantage over traditional fighter jets as there is no need for vulnerable runways. It also means that JACKAL can operate from hidden locations such as woods and urban built-up areas. A unique selling point for JACKAL.

Following the invasion of Ukraine, Flyby Technology was asked to brief the RAF’s Rapid Capabilities Office (RCO) on their new drone system.

The Flyby team also contacted Thales in Belfast - where the LMM is designed and manufactured - to explore the possibility of firing it from JACKAL in a trial.

The Thales team accepted the opportunity to work with Flyby to be the first to fire their LMM (also known as Martlet in the Royal Navy) from a drone in flight. Flyby Technology planned and built two operational aircraft from scratch and fired two LMMs in the demanding timescale of six weeks.

Firing a sophisticated missile is not an easy task under the best of conditions and then only with meticulous planning taking many months. JACKAL then being an unproven, experimental aircraft, just added to the complexity of the challenge says the company.

The Belfast team rose to the challenge magnificently and just six weeks after getting the call, the combined teams successfully fired two LMMs proving that JACKAL had arrived as a devastating combat capability able to fire modern battlefield weapons in flight.

The JACKAL team is now developing plans for productionising the capability, whilst the aircraft is undergoing other enhancements and tactical development.

About Flyby Technology

As a former RAF and RN pilot, Air Warfare Instructor and Senior Weapons Instructor, Jon Parker has also brought to bear his project design, development and management experience gained previously from his role as aviation integration manager for the two new British aircraft carriers.

The original design development, prototyping and testing of JACKAL brought together the formidable warfighting expertise of Flyby together with the rapid prototyping and drone building expertise of partners FlyBVLOS Technology and Maxwell Innovations. This also meant the team could fly and test their aircraft at their dedicated range in Turkey without the regulatory restrictions placed on the flying of drones weighing more than 25 kilos in UK airspace.

Flyby Technology will continue development in Turkey as well as the UK, but is now seeking UK manufacturing partners to build JACKAL at scale. They are also designing weapons perfectly suited to both the JACKAL and its new Attack Drone role.

About Thales in Northern Ireland

With a 60 year heritage in world class engineering, Thales in Northern Ireland is the leading high technology company in the country, employing more than 700 people in the defence and space sectors.

Thales contributes >£50 million to Northern Ireland’s GDP with Thales Belfast’s staff average pay in the top 10% of all employees in Northern Ireland. Thales Belfast also supports an ecosystem of suppliers and 91% of our local procurement in Northern Ireland is with small to medium enterprises (SMEs).

Thales in Northern Ireland is located across two sites. Through the design and production of high precision, high volume effectors and fire control systems, as well as the integration of weapons onto tactical platforms, Belfast has developed into a centre of excellence for Thales’s air defence and surface attack solutions.

Belfast is also home to Thales’s global Space Electric Propulsion Integration Centre, delivered in 2016 with a £6 million investment. The centre was located in Belfast due to the high precision engineering skills already present on site, which were developed through our defence business alongside Invest Northern Ireland investment. Our site in Belfast delivered the first all-electric propulsion module designed and built in the UK, the Spacebus Neo Xenon Propulsion System (XPS), demonstrating its strength in the UK’s dynamic and growing space sector.

Thales has a strong commitment to investing in Northern Ireland’s future talent. We support research at one of Northern Ireland’s leading universities, Queens University Belfast, on a wide range of topics including cyber security, aerodynamics and advanced networking and communications.

As well as our work with universities, Thales supports STEM outreach in primary and secondary schools in Northern Ireland. Working with Primary Engineers, Thales supports the Primary Engineer & Secondary Engineer Leaders Award for Northern Ireland, giving local school pupils the chance to meet engineers from Thales and design potential solutions to engineering challenges.

Share this article

.

+33 (0) 1 57 77 80 00

**101 . Date: 16-02-2023Loitering Munition - N/A - General - Clandestine U.K. Program Developed 3D-Printed ‘Suicide’ Drone For UkraineURL: https://www.thedrive.com/the-war-zone/clandestine-u-k-program-developed-3d-printed-suicide-drone-for-ukraine**

By Thomas Newdick

Published Feb 16, 2023 4:24 PM EST

The TWZ Newsletter

By signing up you agree to our Terms of Service and Privacy Policy.

In an until-now secretive program, the United Kingdom has rapidly developed and flight-tested a number of “complex” drones that would be suitable for use by Ukraine in its conflict with Russia. While it’s unclear which of any of the unmanned aircraft systems (UAS) in question were ultimately selected for supply to Ukraine, it’s obvious that a range of different capabilities was explored in the process, including surveillance drones and, most intriguingly, what is described as a “3D-printed delta-wing ‘suicide’ drone.”

Some details of the rapid development program were recently revealed by QinetiQ, the U.K.-based defense technology company that works closely with the U.K. Ministry of Defense, especially on experimental projects and novel technologies. The drone program originated in the Future Capability Group — part of the defense ministry’s Defense Equipment and Support (DE&S) branch — which, in turn, engaged QinetiQ.

A statement from QinetiQ doesn’t confirm when the program actually took place, while an uncaptioned accompanying photo (also seen at the top of this story) shows a small drone with swept wing and tail fin, apparently powered by a pair of micro-turbine engines, and possibly 3D-printed. The suggestion is that this is one of the prototypes from the program, but that also remains unconfirmed for now. On both counts, we have approached the company to find out more.

The aim of the program was to “provide recommendations for uncrewed aircraft systems that could be deployed readily by the Ukrainian military” and was part of a wider U.K. government effort, known as KINDRED, that’s assessing what kinds of weapons and equipment could potentially be introduced to service by Ukraine in the space of just four months.

Within “a few weeks,” according to QinetiQ, it was determined that the drone program would be run from the company’s sprawling MOD Boscombe Down test site, in southwest England. Here, efforts were made to set up a safe and effective “sandbox window” test environment on the airfield.

But while KINDRED explores potential new defense equipment for Ukraine that can be brought to the front line within four months, the drone program was run on a much more demanding timeline. Within just three weeks, the QinetiQ-led team was to demonstrate a series of new drones and related technology to senior U.K. Ministry of Defense officials, during a two-day event. This would include “flying experimental UAS and EW [electronic warfare] testing.”

The QinetiQ Obsidian radar, offered as a counter-drone solution:

Ultimately, the defense ministry officials observed equipment, systems, and technologies from five different companies that were demonstrated at Boscombe Down. According to QinetiQ, the test projects “included C2 [command and control] and sensor payload[s] as well as VTOL [vertical takeoff and landing] UAS and a unique 3D-printed delta-wing ‘suicide’ drone.” No details of other projects were disclosed and the companies involved have not been named.

We do know, however, that there was close involvement from a range of U.K. defense organizations and units, including the Royal Air Force (RAF) Rapid Capabilities Office (RCO), the Royal Navy, the RAF’s No. 56 Squadron, Royal Artillery, Defense Science and Technology Laboratories (DSTL), U.K. Strategic Command, and the British Army HQ, as well as the Future Capability Group and DE&S.

As well as flight tests of at least some of the rapidly developed drones, the trials also included experiments on the ground, and use was also made of Boscombe Down’s anechoic test facility, which can be used to assess how test specimens respond to radio-frequency energy, as well as providing a controlled environment to see how electronic systems and emissions interact with one another. The anechoic chamber was also used to expose the test specimens to command link jamming, an important consideration in Ukraine considering Russia’s widespread use of offensive electronic warfare.

It is worth noting that QinetiQ has also been playing a central role in developing new UAS technologies for the U.K. Royal Navy, including producing the jet-powered Banshee Jet 80+ that has been launched from the deck of the aircraft carrier HMS Prince of Wales. The adapted target drone has been used to demonstrate the broader potential for flying future adversary missions as well as more capable operational UAS that could be used aboard the two Queen Elizabeth class carriers. A Banshee development would also appear to be suitable for adaptation as a ‘suicide’ drone, should that be desired. At the very least, it would seem likely that work with the Banshee could have informed the designs developed for Ukraine.

The development program in the United Kingdom seems to have some parallels with the U.S. effort to develop the still-mysterious Phoenix Ghost loitering munition for Ukraine. This all-new weapon was quickly developed by the U.S. Air Force specifically for Ukraine and, although announced as part of a U.S. security assistance package in April last year, the weapon is not thought to have been identified in use so far.

The big question is to what degree the results of the U.K. drone experiment led to technologies that were selected for Ukraine and whether these might have even been used on the battlefield already. QinetiQ has only said that the event “delivered invaluable UAS insight and assurances to support the provision of effective equipment for the Ukrainian military.”

At the same time, while the United Kingdom is known to have transferred a considerable number of drones to Ukraine — at least 2,000, including loitering munitions — as part of its aid effort to that country, there have been few details as to the particular types supplied. It is possible that at least some of the drones supplied already are of types or configurations that were specifically designed for Ukraine.

Some of the drones provided to Kyiv by the United Kingdom so far include “unmanned surveillance systems” of unknown type, cargo-carrying logistics drones, autonomous mine-hunting vehicles, as well as 850 hand-launched Black Hornet micro-drones, the latter as part of a deal in collaboration with the Norwegian Ministry of Defense.

To date, the United Kingdom is not known to have delivered any armed drones, although the fact that a delta-wing ‘suicide’ drone has at least been tested, with a view to supplying it to Ukraine, is significant.

In fact, Ukrainian efforts to field a ‘suicide’ drone in broadly the same class as the Iranian-designed Shahed-136 used by Russia may well be gaining momentum.

A brief video that emerged on social media within the last week shows what’s apparently a modified version of the RZ60, which was originally developed in Ukraine as a target drone. The new version uses a trailer-mounted rocket-assisted launch system, instead of the previous pneumatic catapult. There is speculation that the drone is intended for one-way attack missions, although that cannot be said for certain, and details such as range and payload remain unclear.

What we do know is that Ukraine has adapted other kinds of drones for ‘suicide’ missions, including off-the-shelf hobby-style drones that have been used to target objectives in Crimea and across the border in Russia.

If the Ukrainian military were to go forward with this U.K.-developed drone as a strike weapon, it would give them another method of hitting Russian forces at longer ranges, though not nearly as far as some of its strikes with the Soviet-era jet-powered Tu-141 Strizh reconnaissance drone that Ukraine has converted into a strike platform and that’s hit targets deep inside of Russia.

For the time being, there is no confirmation that the RZ60 is indeed being adapted as a ‘suicide’ drone, although a weapon in this class would almost certainly be of great interest to Ukraine and that would appear to be reflected in the testing of a delta-wing ‘suicide’ drone in the United Kingdom.

Depending on the performance of the 3D-printed delta-wing drone tested at Boscombe Down, it’s even possible that it could be the weapon referred to recently by U.K. officials when they said they plan to offer Ukraine “longer-range capabilities,” which led to some speculation that the Storm Shadow cruise missile could be headed to Ukraine.

The U.K. government said the weapons in question “will disrupt Russia’s ability to continually target Ukraine’s civilian and critical national infrastructure and help relieve pressure on Ukraine’s frontlines.” That could well make sense as a reference to a British-designed ‘suicide’ drone, but for now, we simply don’t know.

The cost factor could also be important for any kind of drone rapidly developed for Ukraine, especially one that makes use of 3D printing. While a low price point was not one of the criteria mentioned for the U.K. drone experiment, a UAS of this kind could potentially offer a much cheaper way of striking Russian targets at distance, or even overwhelming Russian air defenses if launched in considerable numbers. At the same time, the 3D printing method should allow the drone to be designed and developed in the United Kingdom, before production is launched in Ukraine, with only minimal preparation required.

Of course, longer-range weapons are one of the critical items of military aid that Ukraine is now vigorously campaigning for — alongside new fighter jets. To what degree there may be a connection between the U.K.’s drone experiments and potential new-long-range strike weapons for Ukraine remains speculative for now, but drones, more generally, are clearly something that the United Kingdom is putting a significant emphasis on as it seeks to put additional and more effective weapons in Kyiv’s hands. It will be fascinating to see whether any of these technologies appear on the battlefield any time soon.

Hat-tip to Gabriele Molinelli for alerting us to this story.

Contact the author: thomas@thedrive.com

AeroVironment's Red Dragon, which is said to already be combat proven, can find its own targets and doesn't need GPS for precision navigation.

The air-cooled AESA is a major contender to equip fighter-like loyal wingman drones, along with other air, land and sea platforms.

Weekly insights and analysis on the latest developments in military technology, strategy, and foreign policy.

By signing up you agree to our Terms of Service and Privacy Policy.

By Joseph Trevithick

Updated on Jun 29, 2019

By Joseph Trevithick

Updated on May 17, 2019

By Joseph Trevithick

Posted on Sep 14, 2018

By Tyler Rogoway

Updated on Sep 7, 2018

By Tyler Rogoway and Joseph Trevithick

Updated on Aug 30, 2018

By Tyler Rogoway

Updated on Aug 30, 2018

By Joseph Trevithick

Posted on Aug 23, 2018

By Joseph Trevithick

Updated on Jul 26, 2018

By Tyler Rogoway

Posted on Jun 1, 2019

By Joseph Trevithick

Posted on Jun 1, 2019

By Tyler Rogoway

Updated on May 30, 2019

By Joseph Trevithick

Updated on May 29, 2019

By Tyler Rogoway

Updated on May 25, 2019

By Tyler Rogoway

Updated on May 25, 2019

By Tyler Rogoway

Updated on May 18, 2019

By Tyler Rogoway

Updated on May 13, 2019

Weekly insights and analysis on the latest developments in military technology, strategy, and foreign policy.

By signing up you agree to our Terms of Service and Privacy Policy.

© 2024 Recurrent Ventures. All Rights Reserved.

Articles may contain affiliate links which enable us to share in the revenue of any purchases made.