**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: 12-01-2024MarketPRIMOCO 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.

**38 . Date: 24-01-2024MarketPrimoco 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: 01-01-2024MarketShield 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.

**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.

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.

**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 - PartnershipSNC 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 - ContractOrigin 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.

**49 . Date: 04-05-2024ISR / ISTAR - Micro / Mini - ContractTesseract 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: 29-06-2024RegulationA-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 - ContractBeyond 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 - ContractJohnnette 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 - ContractQuantum 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/**

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| Quantum Systems, the Munich-based manufacturer of dual-use reconnaissance drones that use multi-sensor technology to collect data for government agencies and commercial users, is pleased to announce that it has been awarded a significant contract to supply the Romanian Ministry of Defence (MoD) with its advanced Vector unmanned aerial systems (UAS). |

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| The contract, valued at aproximately 18.4 million EUR was finalized on May 14, 2024, and will span over a period of 36 months. This marks a significant step in enhancing the capabilities of the Romanian Armed Forces with state-of-the-art UAS technology. Romtehnica S.A., the purchasing authority, has contracted Quantum Systems to supply these advanced systems to the Romanian Armed Forces, who will utilize them in various operations across the region. |

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| **Meeting the Romanian MoD’s requirements**The decision criteria for the contract were heavily weighted towards quality. Quantum Systems’ Vector UAS was selected based on its superior range, flight autonomy, sensor quality, and robust warranty terms, along with a competitive pricing structure. |

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| The vertical take-off and landing capable drone type Vector provides the Romanian MoD with a market-available tactical reconnaissance system meeting requirements in terms of range, flight time and sensor capability. The Vector enables precise reconnaissance and has a flight duration of up to three hours. The integrated ‘Raptor’ combi-sensor is equipped with an optical and an infrared camera, enabling day and night operations in all climates and under challenging environmental conditions. |

**54 . Date: 20-07-2024ISR / ISTAR - Small - GeneralMade 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.

**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 - GeneralIstari 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: 16-07-2024GeneralNew 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.

NPAS

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**58 . Date: 10-07-2024Cargo - MALE - ContractPyka 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 - GeneralTEKEVER’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 - MarketDufour 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.

**62 . Date: 07-09-2024Cargo - Small - PitchSavback 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 - ContractSilent 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 - ContractSYPAQ 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.

**65 . Date: 07-09-2024Cargo - Tactical - SafetyUAS 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 - MarketOrigin 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 - ContractLatvian 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 - ContractSilent 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: 02-11-2024PartnershipTEKEVER 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: 06-12-2024Partnership15 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 - ContractA 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 - PartnershipPhoenix 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: 06-12-2024PartnershipShield 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 - ContractU.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.