ISS Aerospace Announces DTEP Award to Create Jet Turbine Powered Heavy Lift UAV

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

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

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

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

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

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

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

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Company Contact:

ISS Aerospace

T. 01635261616
E. contact@issaerospace.com
W. https://www.issaerospace.com

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