VX4 programme moves to the next phase

- Preliminary investigation into August 9 incident swiftly completed, identifying the root cause to be a single component
- Vertical successfully concluded its remote thrustborne flight test campaign in July 2023
- Certification timelines unchanged, with more advanced prototype aircraft in production and expected to be flying in early 2024

London, UK; New York, USA—31 August 2023
Vertical Aerospace (Vertical) [NYSE: EVTL], a global aerospace and technology company that is pioneering zero-emissions aviation, today provides an update on its overall programme.

Flight Test Update
Vertical concluded its remote thrustborne flight test campaign in July 2023, as the first full-scale VX4 prototype reached its target speed of 40kts (70 kmph), demonstrating exceptional overall stability and control. Performance targets were generally exceeded by 10-30% during hover and low speed flights. The prototype performed especially well in sustained hover, typically the most challenging regime for a VTOL aircraft, where it maintained level flight for longer than anticipated. The aim of these thrustborne flight tests was to verify acceptable stability, battery efficiency and control characteristics, aerodynamics, structural loads, performance and vibration throughout this speed range — all of which were achieved.

Incident Update
Vertical continued further uncrewed flight tests following the completion of the remote thrustborne flight test campaign. The purpose of these was to understand how the aircraft performed outside of its expected operating conditions before the aircraft’s planned retirement.

During one of these test flights, an unexpected fault occurred causing the aircraft to enter a stable descent, before being damaged on impact with the ground. Vertical completed a swift and thorough investigation and submitted a report to the Air Accidents Investigation Branch (AAIB). Vertical’s investigation identified the root cause to be a fault with a propeller. This early generation propeller had already been redesigned prior to the incident, with the issue fully resolved ahead of the next phase of testing. Further recommendations by the investigation are being implemented by Vertical.
Vertical believes transparency and openness is fundamental to the safety of aerospace. It therefore intends to provide a further full update to the industry on the incident once the AAIB’s investigation has concluded.

**VX4 Programme Update**

Supported by the learnings from the completed thrustborne campaign, the VX4 and its certification programme remains on track with no changes to timelines. The assembly of a second significantly more advanced full-scale VX4 prototype is underway at GKN Aerospace’s Global Technology Centre. This demonstrator is expected to be ready to fly early next year. Its components will include technology from most of Vertical’s certification partners: Honeywell, GKN Aerospace, Hanwha, Solvay, Leonardo and Molicel. An additional, identical full-scale aircraft has also now been approved and is expected to be flying in the second half of 2024.

These upgraded full-scale aircraft’s structures and subsystems will be tested in line with certification standards. Both will require rigorous regulatory oversight, including a Permit to Fly from the UK Civil Aviation Authority, to progress to piloted flying.

Stephen Fitzpatrick, Vertical Founder and CEO, commented: “We are pleased with our flight test progress to date and the data, insights and invaluable learnings we have collected. While a fault of any sort is disappointing, it is not wholly unexpected at this stage of testing a novel aircraft. I am pleased that as a result of our expert team we have isolated the cause of the fault and been able to provide the AAIB with our report within 14 days of the incident. Our planned second upgraded prototype, which will include most of our top tier partners’ technology, will have us in the air early next year and we remain on track for our certification timelines”.

**Notes to Editors**

- Vertical continues to be funded into H2 2024.
- During an additional flight test on 9 August, when one of the aircraft’s electrical propulsion units (EPU) had been intentionally disabled, one of the front propellers connected to a separate EPU was released. This resulted in an excessive out of balance load, which caused the failure of one of the supporting pylon structures. The aircraft entered a stable descent due to loss of thrust, suffering damage on contact with the ground.
- Core proprietary technology unique to Vertical’s aircraft, including the high voltage and battery systems, performed well during the incident.
- Voltage, current and power all stayed within acceptable limits and cell temperatures were considered normal during and after the incident.
- Vertical’s investigation identified the root cause to be a bonding issue within the propeller blade itself. This generation 1 propeller design will not feature on any future VX4 prototype – prior to the incident, it had already been redesigned and manufactured with a different process.
- The aircraft involved in the incident will be used in further ground tests but will not be repaired to an airworthy standard.
About Vertical Aerospace
Vertical Aerospace (NYSE: EVTL) is pioneering electric aviation. The Company was founded in 2016 by Stephen Fitzpatrick, an established entrepreneur best known as the founder of the OVO Group, a leading energy and technology group and Europe’s largest independent energy retailer. Vertical has focused on building the most experienced and senior team in the eVTOL industry, who have previously certified and supported over 30 different civil and military aircraft and propulsion systems. Vertical received its Design Organisation Approval in 2023 underlining the UK Civil Aviation Authority’s confidence in Vertical’s capability to design a safe and reliable aircraft and aviation-related products to the highest standards.

Vertical’s top-tier partner ecosystem, including Rolls-Royce, Honeywell Aerospace, Leonardo, Hanwha, Dassault Systèmes, Molicel, and GKN Aerospace, is expected to de-risk operational execution and its pathway to certification allowing for a lean cost structure and enabling production at scale. Vertical has a leading pre-order book to a diverse global customer base, creating multiple potential near term and actionable routes to market. Customers include airlines, aircraft lessors, helicopter operators, mobility firms and tourism groups, including American Airlines, Virgin Atlantic, Avolon, Bristow, Marubeni, Kakao Mobility, Iberojet and FLYINGGROUP, as well as Japan Airlines (JAL), Gol, Air Greenland, Gozen Holding and AirAsia, through Avolon’s VX4 placements.

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Vertical Media Kit
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Forward-Looking Statements
This press release contains forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 that relate to our current expectations and views of future events. We intend such forward-looking statements to be covered by the safe harbor provisions for forward-looking statements as contained in Section 27A of the Securities Act and Section 21E of the Exchange Act. Any express or implied statements contained in this press release that are not statements of historical fact may be deemed to be forward-looking statements, including, without limitation, statements regarding the design and manufacture of the VX4, the preliminary results of the investigation into the experimental prototype aircraft flight test incident, our future results of operations and financial position, our plans for capital expenditures, our business strategy and plans and objectives of management for future operations, including the building and testing of our prototype aircrafts on timelines projected, certification and the commercialization of the VX4 and our ability to achieve regulatory certification of our aircraft product on any particular timeline or at all, expectations surrounding pre-orders and commitments, the features and capabilities of the VX4, the transition towards a net-zero emissions economy, as well as statements that include the words “expect,” “intend,” “plan,” “believe,” “project,” “forecast,” “estimate,” “may,” “should,” “anticipate,” “will,” “aim,” “potential,” “continue,” ”are likely to” and similar statements of a future or forward-looking nature. Forward-looking statements are neither promises nor guarantees, but involve known and unknown risks and uncertainties that could cause actual results to differ materially from those projected, including, without limitation: our limited operating history without manufactured non-prototype aircraft or completed eVTOL aircraft customer order; our history of losses and the expectation to incur significant expenses and continuing losses for the foreseeable future; the market for eVTOL aircraft being in a
relatively early stage; our potential inability to produce, certify or launch aircraft in the volumes or timelines projected; the potential inability to obtain the necessary certifications for production and operation within any projected timeline, or at all; any accidents or incidents involving eVTOL aircraft could harm our business; our dependence on partners and suppliers for the components in our aircraft and for operational needs; the potential that certain strategic partnerships may not materialize into long-term partnership arrangements; all of the pre-orders received are conditional and may be terminated at any time and any pre-delivery payments may be fully refundable upon certain specified dates; any circumstances; the inability for our aircraft to perform at the level we expect and may have potential defects; any potential failure to effectively manage our growth; our inability to recruit and retain senior management and other highly skilled personnel; our ability to raise additional funds when we need or want them, or at all, to fund our operations; our limited cash and cash equivalents and recurring losses from our operations raise significant doubt (or raise substantial doubt as contemplated by PCAOB standards) regarding our ability to continue as a going concern; we have previous identified material weaknesses in our internal controls over financial reporting which if we fail to properly remediate, could adversely affect our results of operations, investor confidence in us and the market price of our ordinary shares; as a foreign private issuer we follow certain home country corporate governance rules, are not subject to U.S. proxy rules and are subject to Exchange Act reporting obligations that, to some extent, are more lenient and less frequent than those of a U.S. domestic public company; and the other important factors discussed under the caption “Risk Factors” in our Annual Report on Form 20-F filed with the U.S. Securities and Exchange Commission (“SEC”) on March 22, 2023, as such factors may be updated from time to time in our other filings with the SEC. Any forward-looking statements contained in this press release speak only as of the date hereof and accordingly undue reliance should not be placed on such statements. We disclaim any obligation or undertaking to update or revise any forward-looking statements contained in this press release, whether as a result of new information, future events or otherwise, other than to the extent required by applicable law.

Source: Vertical Aerospace Ltd.