



Civil Aviation Authority

MANDATORY PERMIT DIRECTIVE



Number: 2024-002

Issue date: 18 June 2024

In accordance with 41(1) of Air Navigation Order 2016 as amended the following action required by this Mandatory Permit Directive (MPD) is mandatory for applicable aircraft registered in the United Kingdom operating on a UK CAA Permit to Fly.

Type/Design Approval Holder's Name:

FLYLIGHT AIRSPORTS LTD

Type/Model Designation(s):

Exodus DeltaJet 500 StingRay

Effective Date:	02 July 2024
TCDS:	Not Applicable
Foreign AD (if applicable):	Not Applicable
Supersedure:	This MPD supersedes MPD 2024-001-E issued 05 January 2024

Aircraft Structure – Trike Frame – Operational Limitation

Manufacturer(s):

Flylight Airsports Ltd.

Applicability:

Exodus DeltaJet 500 StingRay Microlights (Serial numbers EA010-EA019 inclusive).

Definitions:

For the purposes of this MPD, the following definitions apply:

The SB:

Flylight Airsports Ltd. Service Bulletin #003 – Deltajet 500 12 June 2024 (issue 3).

Reason:

During a routine sub-contractor audit by the type approval holder, it was noted that an alternative aluminium tubing supplier had been selected to supply tubing that is used in the fabrication of later trike units. During the audit, discrepancies were noted between the material specification on the quality certificates and the type design data.

Chemical and structural testing showed that differences existed between the material specification listed on the quality certificates and the actual chemical composition of the tubing. Structural testing confirmed that the tubing did not meet the required strength specifications as specified in the design data for the trike.

Work carried out by the Type Approval Holder, including calculations and load testing of affected trikes, showed that an acceptable level of safety exists with a revised Maximum Take-off Mass (MTOM) of 400kg.

This condition, if not corrected, could lead to failure of the trike unit, possibly resulting in loss of the aircraft.

To address this potential unsafe condition, Flylight Airsports Ltd issued the SB at Issue 2 with instructions to temporarily amend the operating limitations until replacement parts can be sourced. In the meantime, work carried out by the Type Approval Holder; including calculations and load testing of an affected trike, showed that an acceptable level of safety exists with a revised Maximum Take-off Mass (MTOM) of 400kg.

For the reasons described above, MPD 2024-001-E (which is now superseded) required a temporary operating limitation to control this potential unsafe condition.

Since the issue, of MPD 2024-001-E, Flylight Airsports Ltd have sourced replacement tubing and have generated a modification to restore the aircraft to its designed MTOM. This modification has been approved by the BMAA.

This MPD requires embodiment of Flylight modification MRF EA009 in accordance with Issue 3 of the SB, in order to correct the unsafe condition.

Required Action(s) and Compliance Time(s):

- 1) No later than 6 months from the effective date of this MPD, contact Flylight Airsports Ltd in order to embody modification MRF EA009 for replacement tubing and re-instatement of the previous MTOM limits. Affected, un-modified aircraft must continue to operate at 400 kg MTOM until they have been modified in accordance with the data listed above.
- 2) Embodiment of MRF EA009 in accordance with Issue 3 of the SB constitutes closing action to this MPD.

Reference Publications:

Flylight Airsports Ltd. Service Bulletin #003 – DeltaJet 500 – Temporary Lowering of the MTOM, dated 5 January 2024 (Issue 2)

Flylight Airsports Ltd. Service Bulletin #003 – DeltaJet 500 – Temporary Lowering of the MTOM, return to standard operating limitations, dated 12 June 2024 (Issue 3).

The use of later approved revisions of this document are acceptable for compliance with the requirements of this MPD.

Remarks:

1. The safety assessment has warranted immediate publication and notification without implementing the full consultation process.
2. If requested and appropriately substantiated, CAA can approve Alternative Methods of Compliance for this MPD.

3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this MPD, and which may occur, or have occurred on a product, part or appliance not affected by this MPD, can be reported to the [CAA aviation safety reporting system](#). This may include reporting on the same or similar components, other than those covered by the design to which this MPD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed.
4. Enquiries regarding this MPD should be referred to: ga@caa.co.uk
5. For any questions concerning the technical content of the requirements in this MPD, please contact: Flylight Airports Ltd., E-mail: info@flylight.co.uk