

PILOT OPERATING HANDBOOK AIRCRAFT FLIGHT MANUAL

AIRBOXER

and its supporting systems

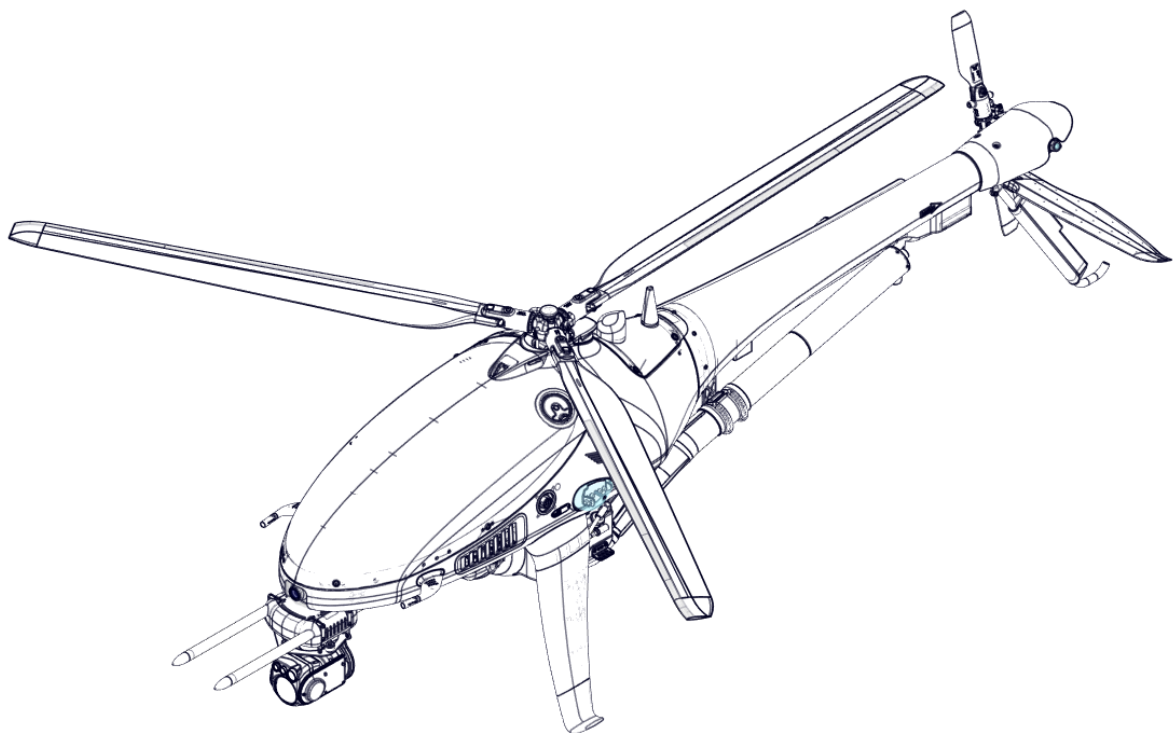




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PART A GENERAL

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A.2 GENERAL INTRODUCTION

This manual is designed as an operating guide for the pilot. It includes material and data required to be furnished to the pilot by both EASA and by High Eye. This manual is intended to give the pilot the best possible information and to help him find the best answer to most operational situations. However, it cannot replace pilot's appreciation of each particular situation. Pilots must maintain adequate ground and flight instruction, and good proficiency for the operation of the Airboxer.

To achieve the required level of safety, every pilot must be familiar with this manual's content, with other safety-related available information and with all regulations covering UAS operations that are relevant in the country of operation. The pilot is responsible for determining that the Airboxer is safe for flight and for operating it in respect to this manual and above information.

The Airboxer's owner is responsible for maintaining the aircraft according to the manufacture procedures and for maintaining this manual in a current status in accordance with the list of current pages.

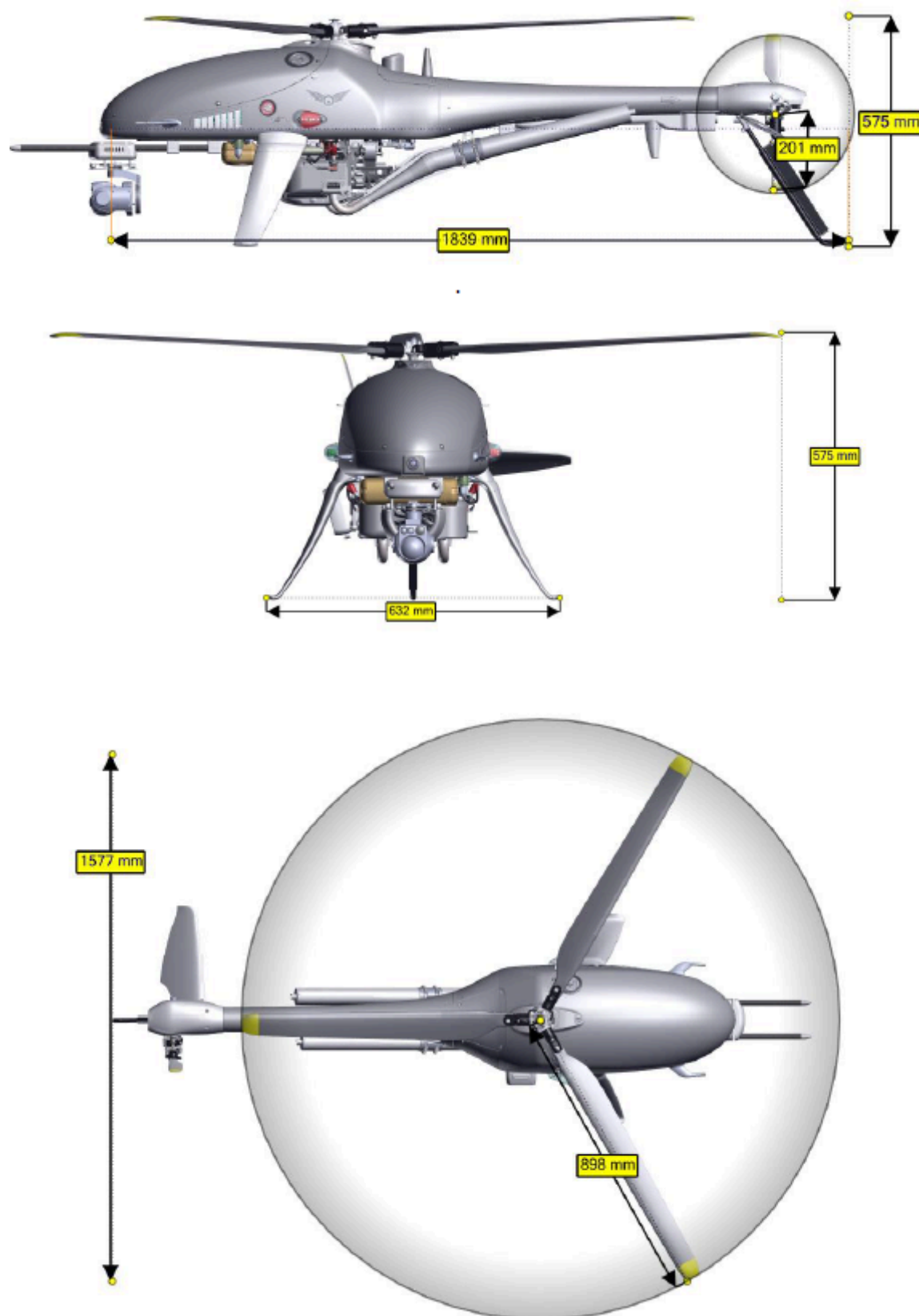
Issue 1.3 the first step has been made to add the different payloads as ANNEXES to this PoH.

The main PoH covers the RAPTOR Payload. If you want to read about your specific payload, check the particular annexes.

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A.3 THREE-VIEW



B.7 MINIMUM EQUIPMENT LIST

The MEL is intended to permit operations with inoperative items of equipment for a period of time until rectifications can be accomplished. However, rectifications are to be accomplished at the earliest opportunity. High Eye (Airworthiness) Directives and other Mandatory Requirements take precedence over the conditions in this MEL.

MEL conditions and limitations do not relieve the PIC (operator) from determining that the Airboxer is in a fit condition for safe operation with specified inoperative items allowed by the MEL. The provisions of the MEL are applicable until the Airboxer commences the flight. Any decision to continue a flight following a failure or unserviceability which becomes apparent after the commencement of a flight must be the subject of pilot judgement and good airmanship. The PIC (operator) may continue to make reference to and make use of the MEL as appropriate.

The MEL is not intended to permit dispatch after removal of operative items of equipment from a serviceable Airboxer.

The MEL contains only those items required by the operating procedures in the PoH or those items of airworthiness significance which may be inoperative prior to dispatch, provided that appropriate limitations and procedures are observed. Equipment obviously basic to Airboxer airworthiness such as rotors, stabilizer, powerplant, landing gear, etc. are not listed and must be operative for all flights. GCS and Antenna's are excluded.

It is important to note that:

ALL ITEMS NOT INCLUDED IN THE LIST ARE REQUIRED TO BE OPERATIVE UNLESS THEY ARE CONSIDERED TO BE NON-SAFETY RELATED ITEMS

Prior to operation with any item inoperative, acceptance by the crew is required in accordance with appropriate procedures. The decision of the PIC (operator) of the flight to have allowable inoperative items corrected prior to flight will take precedence over the provisions contained in the MEL. The PIC (operator) may request requirements above the minimum listed, whenever in his judgement such added items are essential to the safety of a particular flight under the special conditions prevailing at the time. The MEL cannot take into account all multiple inoperative items. Therefore, before dispatching an Airboxer with multiple MEL items inoperative, it must be assured that any interface or interrelationship between inoperative items will not result in a degradation in the level of safety and/or an undue increase in crew workload. It is particularly in this area of multiple discrepancies and especially discrepancies in related systems, that good judgement, based on the circumstances of the case, including climatic and en-route conditions, must be used.

B LIMITATIONS



B.7.1 MEL MAINTENANCE ACTION

When an item is discovered to be inoperative, it is reported by making an entry in p.e. the Airboxer Maintenance Record/Logbook. The malfunction must be recorded ultimately on the same day that the flight, test or maintenance task during which the malfunction is discovered ends. The day the malfunction is recorded is by definition 'the day of discovery'. Following sufficient fault identification, the item is then either rectified or may be deferred per the MEL or other approval means acceptable to High Eye prior to further operation. MEL conditions and limitations do not relieve the Operator from determining that the Airboxer is in a condition for safe operation with items of equipment inoperative. When these requirements are met, an Airworthiness Release, Airboxer Maintenance Record/Logbook entry is issued. Such documentation is required prior to operation with any item of equipment inoperative. Every effort shall be made by Maintenance to correct all technical defects as early as practicable and that the Airboxer be released from a maintenance station in fully operational condition.

The PIC (operator) must be informed by Maintenance as soon as practicable, should it be impossible to rectify the inoperative item prior to departure.

B.7.2 MEL RECTIFICATION INTERVALS

The MEL is not intended as a tool for prolonged or permanent operation of Airboxer in a configuration deviating from its "required" status. For safety reasons such operation should be avoided to the maximum possible. It is important therefore that rectifications be accomplished at the earliest opportunity in order that the affected Airboxer can be returned to its "required" status. In order to maintain this level, the MEL establishes limitations on the duration of operation with inoperative items, as follows:

Inoperative items, deferred in accordance with the MEL, must be rectified at or prior to the rectification intervals established by the following letter designators given in the "Rectification Interval Category" column of the MEL.

Category A:

No standard interval is specified, however, items in this category shall be rectified in accordance with the conditions stated in the 'Remarks' column of the MEL. Where a time period is specified in calendar days, it shall start on the calendar day following the day of discovery. Where a time period is specified other than in calendar days, it shall start at the point when the defect is deferred in accordance with the Operator's approved MEL.

Category B

Items in this category shall be rectified within three (3) consecutive calendar days, excluding the day of discovery.

Category C

Items in this category shall be rectified within ten (10) consecutive calendar days, excluding the day of discovery.

Category D

Items in this category shall be rectified within one hundred and twenty (120) consecutive calendar days, excluding the day of discovery.

Category X

Items in this category do not require time-controlled rectification.



PART D

NORMAL PROCEDURES

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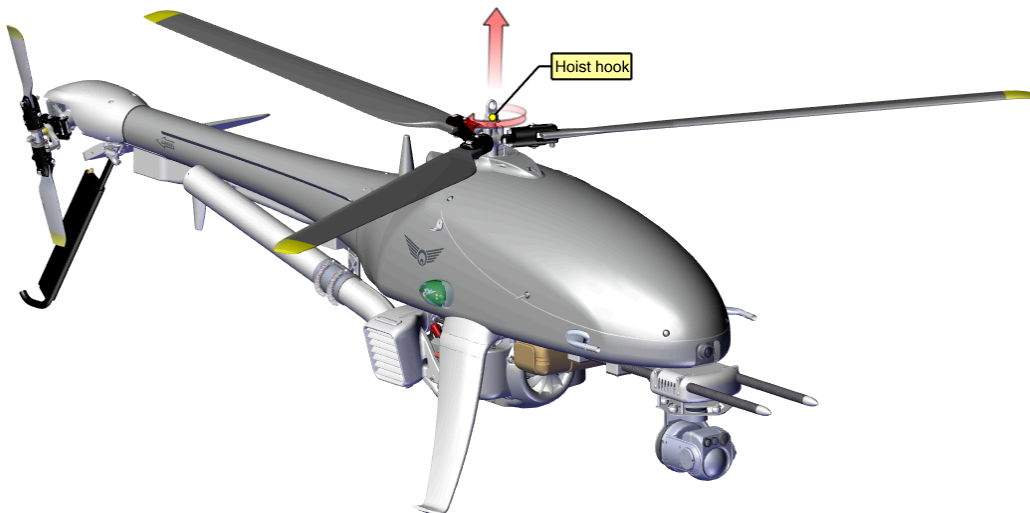
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D.4 MASS AND BALANCE CHECKING PROCEDURE

Accurate weighing of the Airboxer is required to confirm that the CG position is within the limitations as specified in this manual. Any physical change to the aircraft/payload configuration requires the weighing procedure to be repeated. See the Maintenance Manual for the mass and balance weighing procedure. The mass & balance check as described below is not allowed to be used to replace the weighing procedure, it only serves as a final check.

To check the mass & balance, follow the steps below:

1. Place the Airboxer at a convenient location with a flat, horizontal surface. Make sure that it is protected from external factors (wind / precipitation).
2. Remove all non-flight rated hardware from the airframe (covers, plugs, cables).
3. Unfold the rotor blades and take care to position each blade as accurately as possible into flight attitude.
4. Mount the main rotor lifting tool onto the main rotor hub. Make sure it is threaded the full depth into the rotor hub. It does not need to be torqued.



5. Lift the Airboxer till all three landing gear legs are no longer in contact with the underlying surface. Confirm that the Airboxer is at a level attitude. All three landing gear feet must be above the ground at the same height. Misalignments must be minimal, with only slight nose-heavy alignments being acceptable.
6. When satisfied that the mass and balance has been checked, place the Airboxer back on the ground and remove the main rotor lifting tool.
7. If the mass and balance was found to be correct, the operation can continue. If not, the Airboxer requires maintenance.



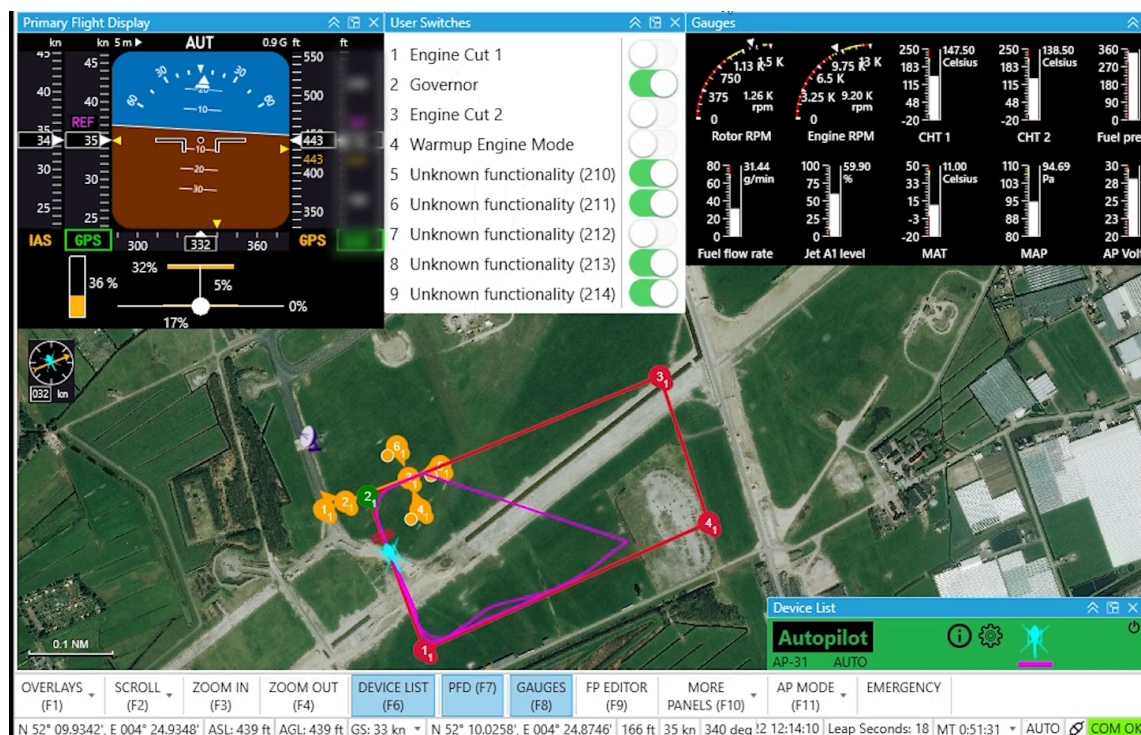
D.5 GCS START-UP PROCEDURE

The following procedure applies to starting-up the GCS module:

1. Confirm all relevant hardware is attached to the GCS module.
2. Switch on the GCS module and wait for boot-up sequence to be complete (>3 minutes)
3. Start-up Visionair and wait for the sequence to complete (> 2 minutes)
4. Start-up the payload control software.
5. Confirm all other software programs are shut-down.
6. Confirm that the computer sound is ON at maximum volume.
7. Confirm that the JOYSTICK EXTERNAL alert is OFF.

After the Airboxer has started-up:

1. Move both joysticks gently through their full-scale deflections and check for the JOYSTICK EXTERNAL alert to remain OFF. Check for any unusual binding, friction or play.
2. Place the cyclic joystick in the center and position the collective joystick at 0% IDLE Cut-off.
3. Complete the Visionair pre-flight setup. In the figure below the Visionair interface is presented.



It is possible to observe several parameters that are displayed during flight, e.g. artificial horizon CHT temperature, speed, altitude).

8. Complete the No-Fly zones setup.
9. Complete the Flight plans setup.
10. Complete the landing sites setup.