

# Means of Compliance with Light-UAS.2410

Doc. No.: MOC Light-UAS.2410-01

Issue : 1

Date : 11 August 2023

Proposed  $\boxtimes$  Final  $\square$  Deadline for comments: 11 SEP 2023

SUBJECT : Lift/Thrust/Power System Endurance and Durability

**REQUIREMENTS incl. Amdt.** : Special condition Light-UAS Medium Risk 01,

point Light-UAS.2410

ASSOCIATED IM/MoC : Yes□ / No ☒

**ADVISORY MATERIAL** : N/A

#### **Introductory Note**

EASA is establishing means of compliance for Special Condition Light-UAS (SC Light-UAS) Medium Risk (SAIL III and IV). The research project Shepherd analysed available standards and recommended the selection of some sections of ASTM F3298 to substantiate full compliance with Light UAS 2405. EASA has further reviewed this assessment and presents the results in this document as means of compliance with Light-UAS.2410.

The means of compliance herein presented are expected to be demonstrated within the frame of SAIL IV DVR. They can be utilized also for SAIL III. Applicability for SAIL V and VI will be assessed separately.

#### List of acronyms

DVR: design verification report

SAIL: specific assurance and integrity level



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### 1. SC Light-UAS.2410

Each Lift/Thrust/Power System must be subject to

(a) an endurance demonstration of sufficient duration with respect to cycles and power settings in accordance with Light-UAS.2415;

(b) a durability demonstration to show that each part of the system has been designed and constructed to minimize the probability of failure of the system and sub-systems between overhaul periods, or between replacement intervals of parts; and

(c) an operational demonstration to verify the performance of the system throughout its declared operating range and operational limitations.

## 2. Means of Compliance with Special Condition Light-UAS.2405

The following sections of ASTM standard F3298-19 "Standard Specification for Design, Construction, and Verification of Lightweight Unmanned Aircraft Systems" address lift/thrust/power system endurance and durability and related provided information. When all sections are complied with, Light UAS.2410 can be considered fully covered.

- 7.12.6 Powerplant and Rotor/Vertical Lift System Compatibility
- 15.1 Verification General
- 15.2 Methods of Verification
- 15.4 Product Definition Process
- 15.5 Verification Process
- 16.3 Propulsion System
- 16.4 Propeller
- 16.9.1 Vertical Lift Propeller