

October 2023

POLICY STATEMENT ON TYPE-CERTIFICATION OF VTOL AIRCRAFT

1 Introduction

- 1.1 The CAA welcomes the continued efforts by the aviation industry to deliver new and innovative products to the market. As part of its efforts to support the industry, the CAA is giving an indication of its policy approach regarding VTOL aircraft type-certification process.
- 1.2 Based on extensive review of available sources in 2021/22, the CAA took the decision to adopt SC-VTOL and notified industry and other regulators of this position publicly in June 2022. This CAA policy statement aims at highlighting the overall approach to type-certification for VTOL aircraft.

2 Scope

- 2.1 This Policy Statement is directed at organisations seeking to type-certify their VTOL aircraft in the UK. The scope of this statement is limited to the basis of type certification of VTOL aircraft coming to the market.

3 Interpretation

- 3.1 In this document, references to EU regulations are to those regulations as retained and amended in UK domestic law under the European Union (Withdrawal) Act 2018 and are referenced as “UK Regulation (EU) year/number” or “UK Regulation (EU) No. number/year”.

4 Definitions

‘aeroplane’ means an engine-driven fixed-wing aircraft heavier than air that is supported in flight by the dynamic reaction of the air against its wings.

‘Acceptable Means of Compliance’ (AMC). For established Certification Specification (CS), it is a recognised way, but not the only way, to demonstrate compliance with a CS requirement.

‘helicopter’ means a heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes;

‘Means of Compliance’ (MoC) is a defined way, but not the only way, to demonstrate compliance with a Special Condition requirement.

‘Special Condition’ (SC) means a set of technical specifications that are developed when the related certification specifications do not contain adequate or appropriate safety standards for the product.

‘VTOL aircraft’ means a heavier-than-air aircraft, other than aeroplane or helicopter, capable

of performing vertical procedures by means of more than two lift/thrust units and is certified for one or more occupants.

5 Requirements and applicable regulations

- 5.1 The UK technical specifications for type certification of VTOL aircraft are contained in “[Special Condition Vertical Take-off and Landing \(VTOL\) Aircraft](#)” (SC-VTOL). SC-VTOL should be read in conjunction with the Means of Compliance (MoC) to SC-VTOL as adopted by the CAA, to assist in demonstrating compliance with certification requirements.
- 5.2 In accordance with Part 21 paragraph 21.A.15 (UK Regulation (EU) No. 748/2012, also known as Part 21) in the absence of a dedicated SC-VTOL MoC a combination of individual Acceptable Means of Compliance (AMCs) from Certification Standards CS-23 (Normal Category Airplanes), CS-25 (Large Aeroplanes), CS-27 (Small Rotorcraft) and CS-29 (Large Rotorcraft) can be proposed by the applicant to develop a means of compliance to meet the type-certification basis requirements against which the VTOL will be type-certificated.
- 5.3 It will be the responsibility of the applicant to propose which means of compliance are most appropriate for certification of their VTOL aircraft and present their case to the CAA. The means of compliance should be selected on the basis of the proposed design and the operations the VTOL aircraft will be expected to perform.
- 5.4 In instances where no dedicated MoC for SC-VTOL or certification standards and associated AMCs are readily available, as per paragraph 21.B.80, the applicant will have to work with the CAA to develop an acceptable means to ensure an appropriate level of safety is demonstrated.
- 5.5 The applicant will have to provide Operational Suitability Data (OSD), containing data CAA considers important for safe operation of the aircraft type. OSD covers pilot(s) and maintenance engineers training, and simulator qualification (where applicable), the Master Minimum Equipment List (MMEL), and possibly other areas, depending on the aircraft systems. In addition, as part of certification process, the applicant will have to provide environmental protection requirements approach, including the noise aspects.

6 Related Documents

- [UK Regulation \(EU\) No. 2018/1139 \(the UK Basic Regulation\)](#)
- [UK Regulation \(EU\) No. 748/2012 \(the Initial Airworthiness Regulation\)](#)
- [UK CAA Special Condition - Vertical Take-Off and Landing Aircraft](#)

7 Review of Policy

The CAA retains the right to review this statement on a discretionary basis to consider technological developments, rulemaking progress, own research, and new evidence it receives from stakeholders that may affect its views and policy.

8 Point of Contact

8.1 Any queries or further guidance required on the content or implementation of this VTOL type certification Policy Statement should be addressed to:

AAMEnquiries@caa.co.uk