

Military Continuing Airworthiness Management Organization (Mil CAMO)

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Introduction

- Origin of CAMO
- Role of Mil CAMO
- Responsibility of Mil CAM
- Mil CAMO Responsibilities
- Military Airworthiness Review.

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Type versus Tail Airworthiness

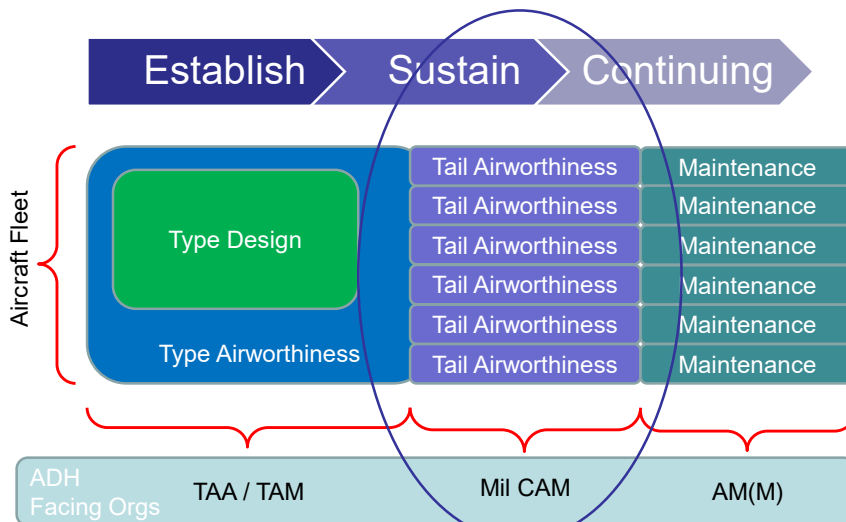
- Type Airworthiness covers all the aircraft of a particular category e.g. All the Typhoon fleet
- Continuing Airworthiness covers the day-to-day airworthiness of each individual aircraft hence the term Tail airworthiness e.g. The airworthiness of Typhoon ZJ924.



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Managing Airworthiness



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Continuing Airworthiness

- Continuing Airworthiness is **all of the processes** to ensure that, **at any time in its operating life**, an Air System [individual aircraft] complies with the **airworthiness requirements** in force and is in a condition for **safe operation** [MAA 02]
- A CAMO is required to manage these processes.

[Source: MAA02]

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Origin of Civil CAMO



International Civil Aviation Organization (ICAO)

- Created 1944 – Chicago Convention
- 191 Sovereign State Members
- Not binding

ICAO defines international Standards, recommended practices and procedures.

Relevant sections:

- Annex 6 – Operation of Aircraft: Criteria for safe operating practices
- Annex 8, Part II – Airworthiness of Aircraft: Procedures for certification and continuing airworthiness of aircraft



European Union Aviation Safety Agency (EASA)

- Operational since 2003
- Legally Binding (**was until 1 Jan 2021**)

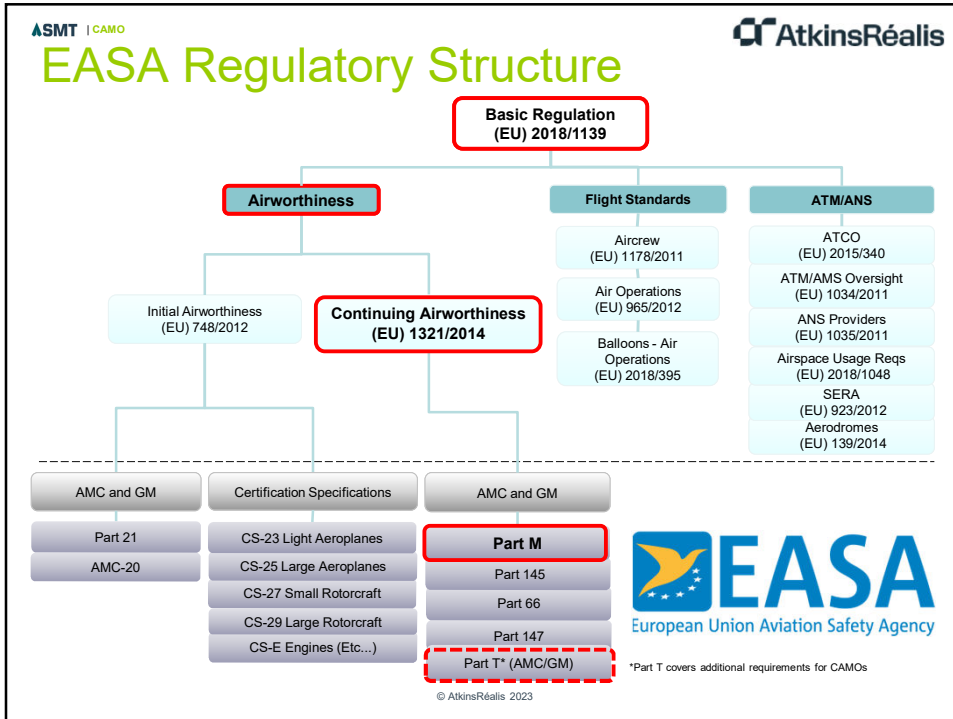
EASA implements the regulatory system.

Relevant sections:

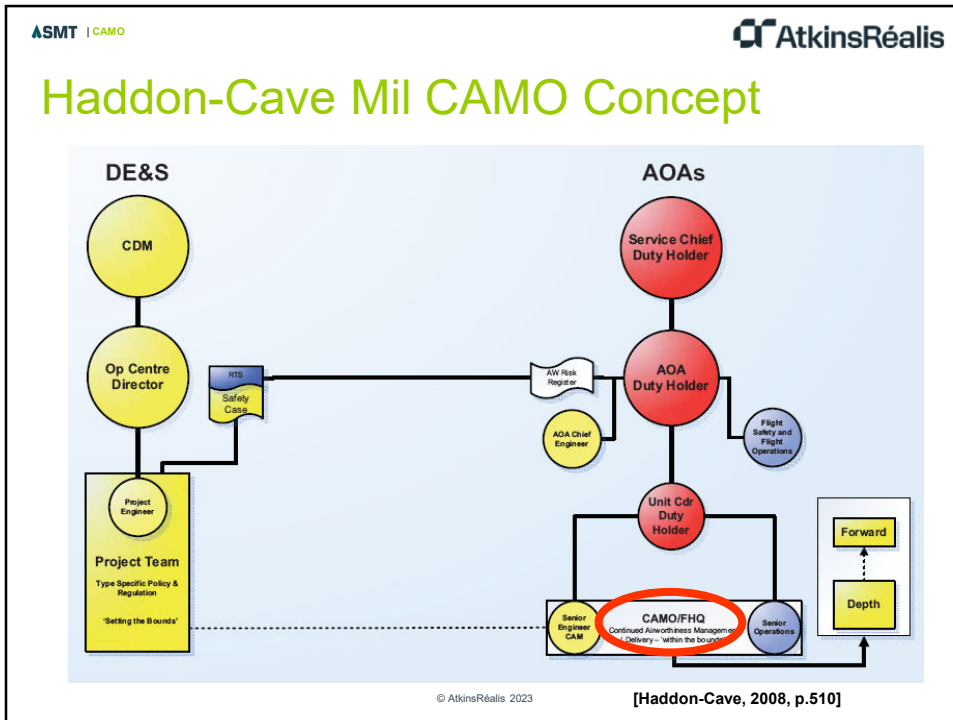
- Part M – Continuing Airworthiness Requirements

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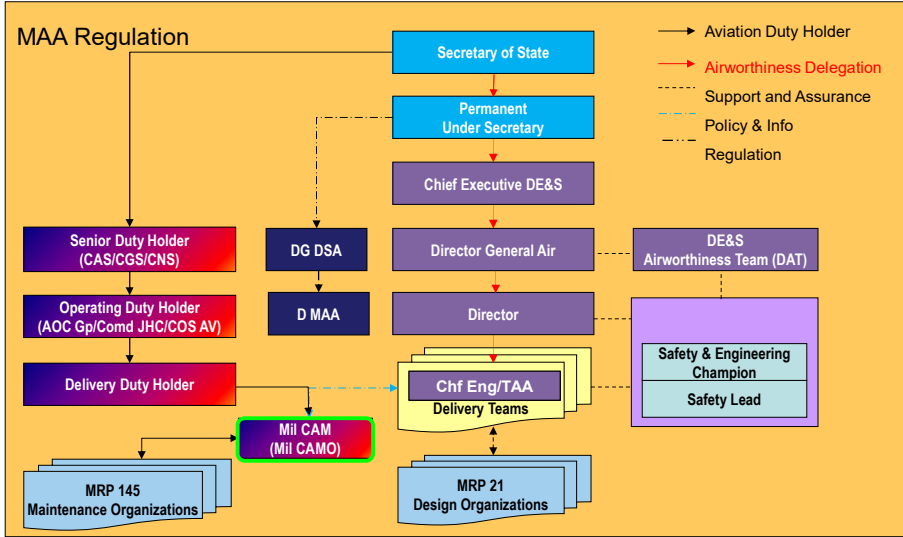


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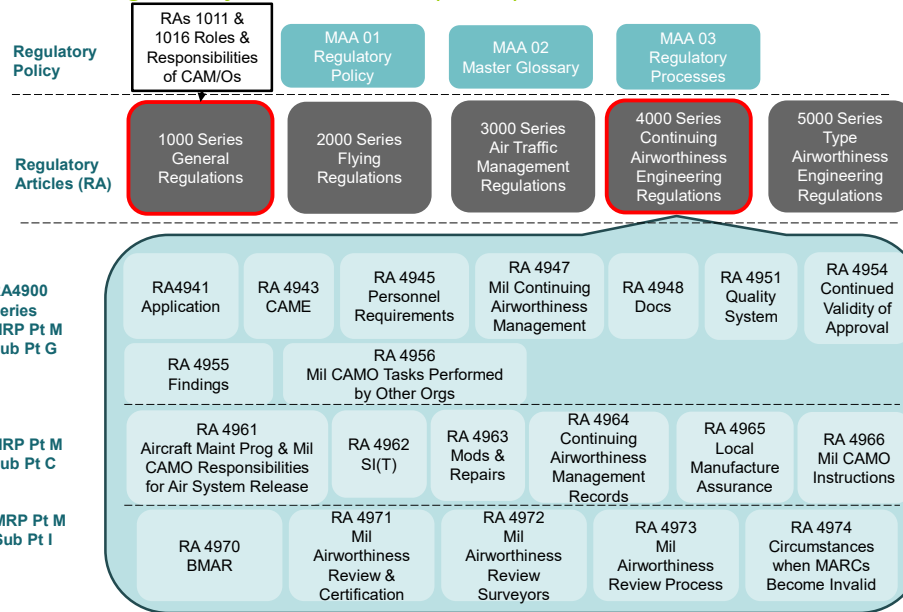
Actual Mil CAMO



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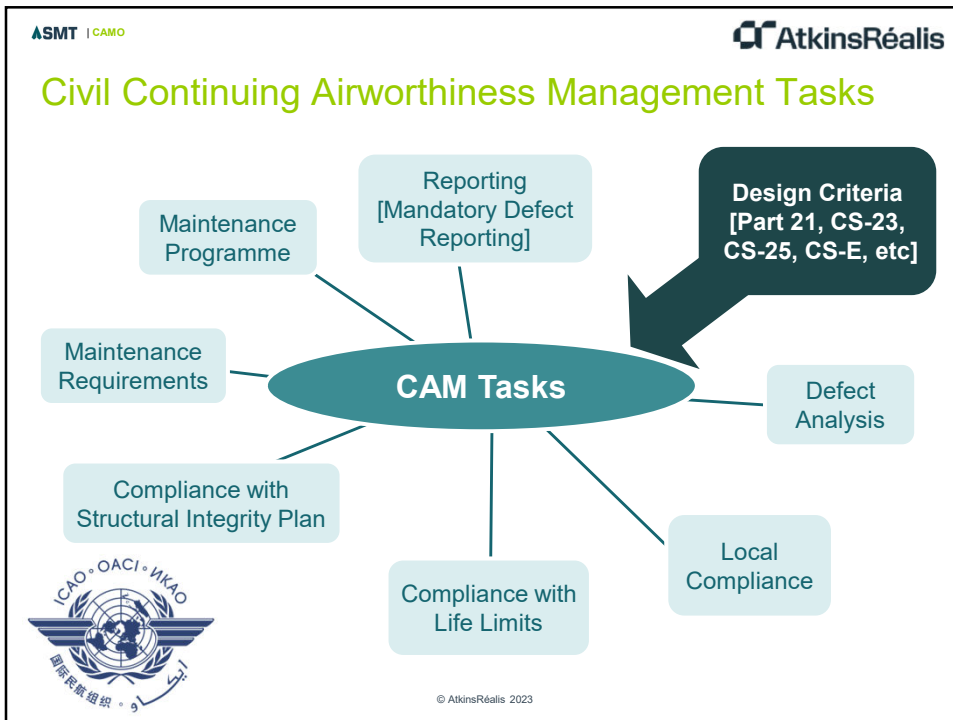
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MAA Regulatory Publications (MRP) Structure



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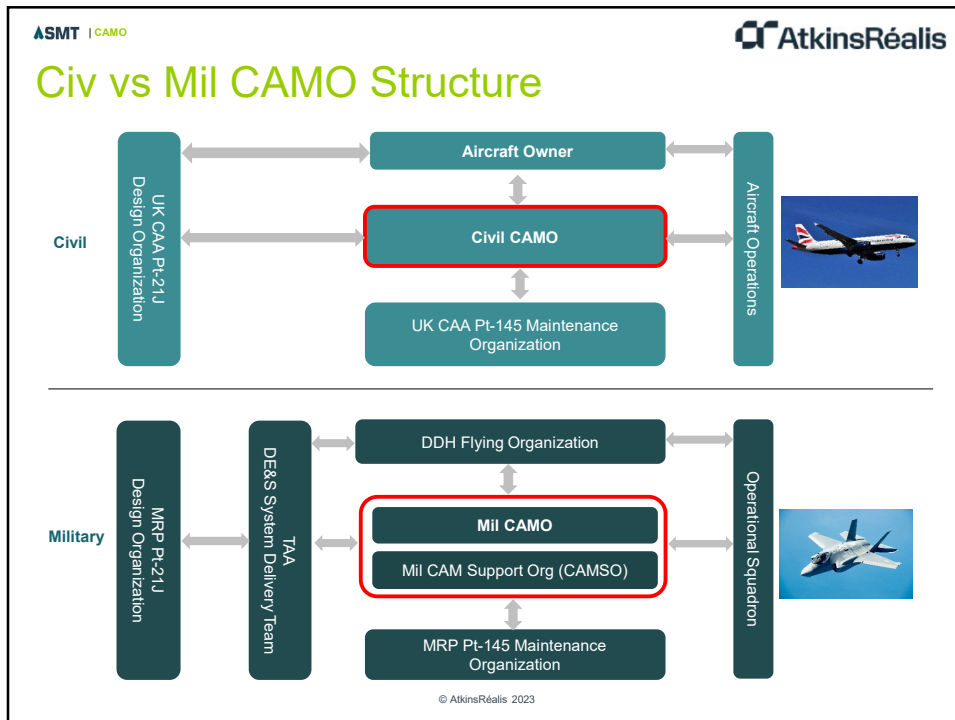
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Military Continuing Airworthiness Management Organizations (Mil CAMOs)

- ADHs are responsible for Continuing Airworthiness and they require the support of a Mil CAMO [RA 1016]
- A Mil CAMO manages all of the airworthiness processes to ensure that, at any time in its operating life, an Air System complies with the airworthiness requirements in force and is in a condition for safe operation.

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Continuing Airworthiness Management Exposition - CAME

- The purpose of the CAME is to set forth the **procedures, means and methods** of the Mil CAMO. **Compliance** with its contents will **assure** compliance with **regulatory requirements** [RA 4943]
- Apply using MAA Form 2-CAMO to become MRP Pt M Subpart G organization [RA 4941(1)]
- CAME Provisions [RA 4943] :
 - DH declaration that Mil CAMO will work iaw CAME
 - Organization's scope of work
 - Details of Mil CAM, DCAM & QA Mgr
 - Organization charts (link to DH)
 - Ref to list of Mil AR surveyors
 - Description & location of facilities
 - Procedures detailing compliance to MRP Pt M
 - Ref to list of Ac by Tail No, Type & Mk.



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Personnel Requirements

- The ADH/AM(MF) shall:
 - Appoint a Mil Continuing Airworthiness Manager (Mil CAM) [RA1011]
 - Ensure all activities of Mil CAMO can be carried out to the standard required for the issue of an MRP Part M Sub Part G approval [RA 4945(1), RA 1011 & RA 1016].



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Mil Continuing Airworthiness Manager

- The Mil CAM shall:
 - Be Crown Servant (if supporting ADH)
 - If supporting AM(CAw) of CFAOS approved by MAA thro Form 4 [RA 4945(1)]
 - Be SQEP [RA 4945(2)]
 - Manage activities iaw RA 4900 Series
 - Have comprehensive relevant knowledge & appropriate experience related to aircraft CAw
 - Maintain Mil CAMO personnel competence [RA 4945(2)]
 - Ensure Mil CAMO approved by MAA [MRP PtM Sub Pt G & I]
 - Ensure initial BMAR for each ac [RA 4970]
 - Ensure Annual Mil AR for each ac [RA 4971 & 4974]
 - Issue/Revoke MARC for each ac [RA 4971]
 - Follow Mil AR process [RA 4973].



[Mil CAM Responsibilities RA 1011] © AtkinsRéalis 2023

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CAMO Personnel

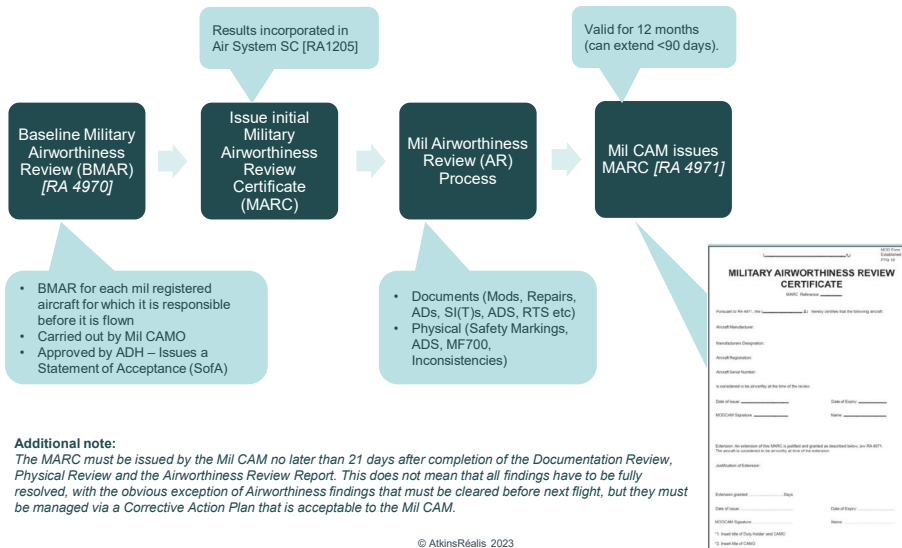
- Number of persons to be employed and qualifications are dependent upon:
 - The size and complexity of the organization
 - The number, complexity and age of the aircraft
 - The operational profiles and the amount and complexity of maintenance to be carried out
 - Tasks carried out by other organizations (e.g. DT or contractor)
- Therefore no one size fits all [RA 4945(2)].



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Military Airworthiness Review (Mil AR) Process



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Mil Airworthiness Review (AR) Surveyors

- Mil AR surveyors to conduct Mil ARs and provide MARC recommendations
- The Mil CAMO shall maintain a record of all current Mil AR surveyors, referenced in the CAME
- Mil AR Surveyors **should** have the following qualifications and experience:
 - >10 yrs experience in CA (>5 yrs exp in ac maint as supervisor)
 - For Service personnel, SNCO rank or above
 - For non-Service personnel, a valid & appropriate EASA Annex III (Pt 66) Category B or C licence
 - By derogation Ex-Service personnel who in-service met the requirement above may be exempted from the EASA licence requirement [RA 4972].



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CAMO Quality System

- The Mil CAM **shall**:
 - Establish an independent Quality System
 - Must be independent from the other functions
 - Designate a Quality Manager to monitor compliance with, and the adequacy of, procedures required to ensure Airworthy Air Systems
- Compliance monitoring **shall** include a feedback DDH or AM(MF) [RA 4951(1)]
- **Records** of monitoring activity **shall** be stored for at least **two** years. [RA 4951(3)]



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Record Keeping

- The Mil CAMO **shall** record all details of work carried out. The records required by RA 4813(1), (2) & (3) **shall** be retained. If the Mil CAMO has MARC privileges, it **shall retain** a copy of each MARC issued, together with all supporting documents, until **5 years** after the aircraft has been permanently withdrawn from service [RAs 4964(1) & 1225].



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Have we met the Learning Objectives?

- To get an oversight of the origin, role and activities of a Mil CAMO
- Mil CAM Responsibilities
- To get and understanding of the CAME
- To provide oversight of the MARC process.

Questions?