

**CIVIL AVIATION DIRECTORATE
AIRWORTHINESS INSPECTORATE**



PART-CAMO *NOVELTIES*

Changes to Regulation (EU) No. 1321/2014

- Annex I (Part-M)
- Annex II (Part-145)
- Annex III (Part-66)
- Annex IV (Part-147)
- Annex Va (Part-T)



- Annex I (Part-M)
- Annex II (Part-145)
- Annex III (Part-66)
- Annex IV (Part-147)
- Annex Va (Part-T)
- **Annex Vb (Part-ML)**
- **Annex Vc (Part-CAMO)**
- **Annex Vd (Part-CAO)**

Part-ML

Requirements for continuing airworthiness management of other than complex aircraft not listed in the AOC of an air carrier licensed iaw EC No 1008/2008, such as:

- Aeroplanes with MTOM \leq 2730 kg
- Rotorcraft with MTOM \leq 1200 kg, certified for max 4 occupants
- Other ELA2 aircraft

Part-CAMO

Requirements to be met by an organisation to qualify for the issue or continuation of a CAMO approval

Part-CAO

Requirements to be met by an organisation to qualify for the issue or continuation of a Combined Airworthiness Organisation approval (combination of Continuing Airworthiness Management + Maintenance)

Part-CAMO Overview

Section A – Technical requirements

CAMO.A.005 Scope

CAMO.A.105 Competent authority

CAMO.A.115 Application for an organisation certificate

CAMO.A.120 Means of compliance

CAMO.A.125 Terms of approval and privileges

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CAMO.A.125 Terms of approval and privileges

An organisation approved in accordance with Part-CAMO, may arrange to carry out limited continuing airworthiness tasks with any subcontracted organisation, **working under its management system**, as listed on the certificate.

AMC1 CAMO.A.125(d)(3) provides guidance on subcontracting of airworthiness tasks.

The subcontracted organisation performs the tasks as an **integral part of the CAMO's management system**, irrespective of any other approval held by the subcontracted organisation (including CAMO or Part-145 approval).

The CAMO retains the accountability for the satisfactory completion of the tasks and has to ensure that the action taken by the subcontracted organisation meet the standards required by Part-CAMO.

This can be achieved by:

- active control through direct involvement; and/or
- endorsing the recommendations made by the subcontracted organisation.

The management system of the CAMO is extended to the contracted organisation.

Contracts

Appendix II to AMC1 CAMO.A.125(d)(3) provides the information and headings to be found in the contract between the CAMO and the subcontracted organisation.

Note

The procedures adopted by the subcontracted organisation to fulfil its responsibilities with regard to the subcontracted activities can be developed by the CAMO or by the contracted organisation. In this case, the procedures of the subcontracted organisation needs to be accepted by TM CAD as extended procedures of the CAMO and as such need to be cross-referred in the CAME. Amendments to the subcontracted organisation's procedures can only be done in agreement with the CAMO.

CAMO.A.130 Changes to the organisation

- Changes to nominated persons, their reporting lines to the AM, and changes that affect approval/scope of work, shall be approved by TM CAD.
- Applications to be submitted at least at least 30 days before the intended date of change (in case of change to nominated persons: at least 20 days before).
- **Changes, and in particular those requiring the approval of TM CAD, shall be subject to MOC and risk assessment (to be submitted to TM CAD). → AMC1 CAMO.A.200(a)(3).**

CAMO.A.150 Findings

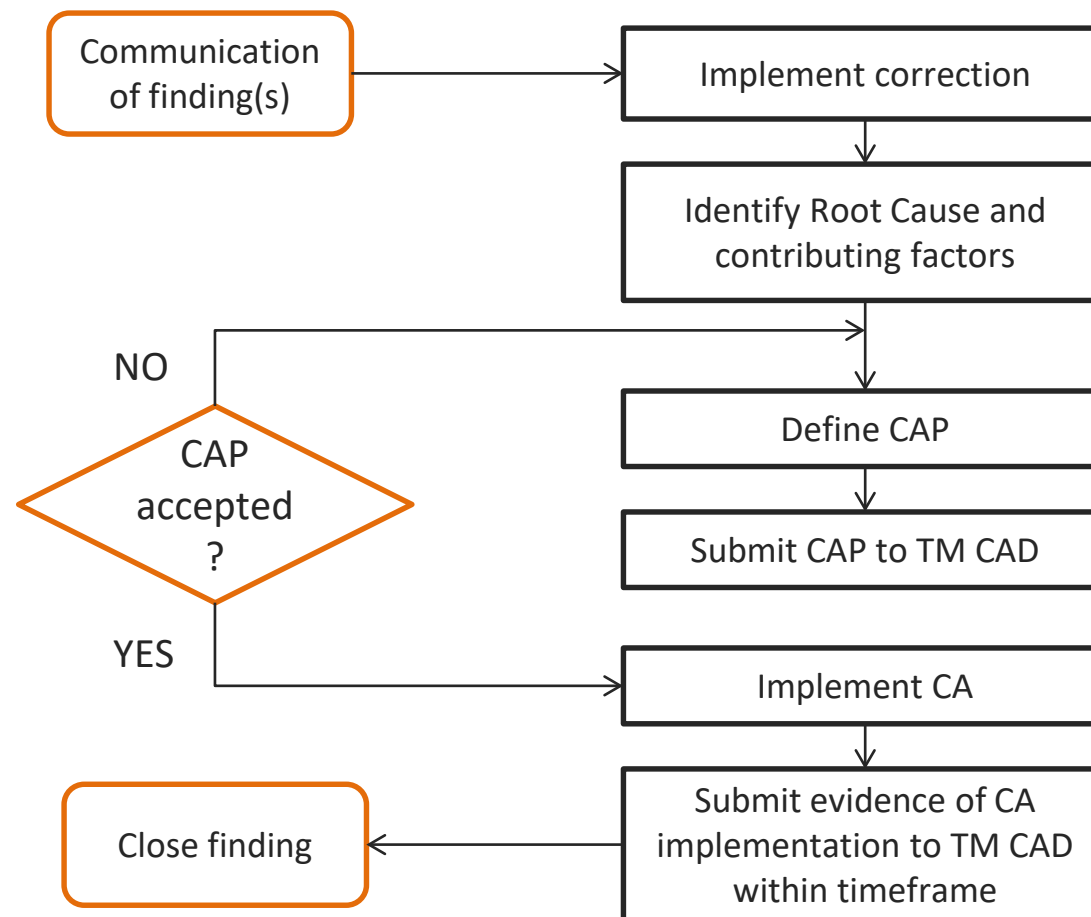
The organisation shall identify **Root Cause(s)** of findings and define a Corrective Action Plan which addresses effects of non-compliance (correction) and root cause & contributing factors (corrective action). The organisation shall demonstrate CA implementation to the satisfaction of TM CAD.

Note.

Correction = action to eliminate a detected non-compliance.

Corrective action = action to eliminate or mitigate the root cause(s) of a detected non-compliance and prevent recurrence.

Preventive action = action to eliminate the cause(s) of a potential non-compliance.



Notes

- The RCA shall be recorded and submitted to TM CAD upon request.
- Findings detected during an audit are not always the result of a systemic issue; they might sometimes have a one-off nature and be the result of mistakes, oversights, human issues.
- An organisation may ask for an extension of the deadline for re-compliance. **This has to be done in writing, explaining the reasons for the extension request and at least 2 weeks before the deadline.**
- The finding closure process can be completed with an internal/ external follow-up audit/inspection/meeting to verify effectiveness of the CA.

CAMO.A.155 Immediate reaction to a safety problem

The organisation is required to have a system in place to identify safety problems and react in a structured and timely manner to mitigate or eliminate related safety risks.

This includes reactions to:

- Results of audits/inspections
- Voluntary or mandatory occurrence reports
- Safety-significant information issued by TM CAD and/or the EASA.

CAMO.A.160 Occurrence reporting

The organisation shall implement an occurrence reporting system that meets the requirements of Regulation **(EU) No 376/2014** (Reporting, analysis and follow-up of occurrences in civil aviation) and IR **(EU) 2015/1018** (List of all reportable mandatory occurrences).

In case of organisation holding multiple approvals, the occurrence reporting system can be integrated.

Note

- AMC 20-8 provides further reference on reportable occurrences.
- → TM CAD - CENTRIK occurrence reporting platform

CAMO.A.200 Management system

The term “Management System” includes two components:

Safety Management System and **Compliance Monitoring System** (note the change in terminology: Quality Manager no longer in use).

Organisations holding multiple approvals are encouraged to integrate their management systems.

(EC) 1008/2008 Air Carriers (AOC Holders) shall have an integrated Management System

COMPLEX OPERATORS

AMC1 ORO.GEN.200(b) Management system

SIZE, NATURE AND COMPLEXITY OF THE ACTIVITY

*(a) An operator should be considered as **complex** when it has a workforce of more than 20 full time equivalents (FTEs) involved in the activity subject to Regulation (EC) No 216/2008 and its Implementing Rules.*

(b) Operators with up to 20 FTEs involved in the activity subject to Regulation (EC) No 216/2008 and its Implementing Rules may also be considered complex based on an assessment of the following factors:

(1) in terms of complexity, the extent and scope of contracted activities subject to the approval;

(2) in terms of risk criteria, the extent of the following:

(i) operations requiring a specific approval;

(ii) high-risk commercial specialised operations;

(iii) operations with different types of aircraft used; and

(iv) operations in challenging environment (offshore, mountainous area, etc.)

In the case of a complex organisation the safety risk management process shall follow the AMC requirements for the safety review Board and the Safety Action Group.

The SRB and SAG for the operator will be extended to the airworthiness domain.

Safety management seeks to proactively identify hazards and mitigate the related safety risks before they result in aviation accidents and incidents.

Key processes of Safety Management [GM1 CAMO.A.200]

- Hazard identification

Hazard is a condition or an object with the potential to cause or contribute to an aircraft incident or accident.

- Safety Risk Management

Risk assessment is an evaluation based on engineering and operational judgement and/or analysis methods in order to establish whether the achieved or perceived risk is acceptable or tolerable.

- Internal Investigation
- Safety performance monitoring and measurement

DATA

- **Key processes of Safety Management** [GM1 CAMO.A.200]
- Management of Changes (internal/external, not limited to those requiring TM CAD approval, involvement of all stakeholders)

HIRA

- Continuous improvement
Procedures, training, safety nets, indoctrination
- Immediate safety action and coordination with Operator's ERP

The key Safety Management processes are supported by a **Compliance Monitoring Function as an integral part of the Management System for safety**.

The two functions of the management system should work in synergy and continuously exchange information.

- CM ensures effective compliance with safety related regulations and procedures during daily operations
- CM can follow-up on safety risk mitigation actions
- Root cause(s) of non-compliances can be fed into Risk Assessment
- Safety Risk Management can identify focus areas for CM
- Findings/Recurring findings can be used as Safety Performance Indicator.

The Safety Management System shall include [AMC1 CAMO.A.200(a)(1)]:

- **Safety Manager**

And, in the case of **complex organisations** [FTEs > 20 or multiple aircraft types, ref. AMC1 ORO.GEN.200(b)]:

- **Safety Review Board** – SRB, high level committee chaired by the AM to manage performance, review safety actions and strategies;

Additionally [GM1 CAMO.A.200(a)(1)], it may include one or more:

- **Safety Action Group** – SAG, standing or ad-hoc. It supports the SRB in practical matters.

Safety Policy [AMC1 CAMO.A.200(a)(2)]

It should include:

- Commitment to safety,
- Encouragement to internally report,
- Commitment to apply Just culture principles,
- Commitment to comply with applicable requirements and apply HF principles.

It should be:

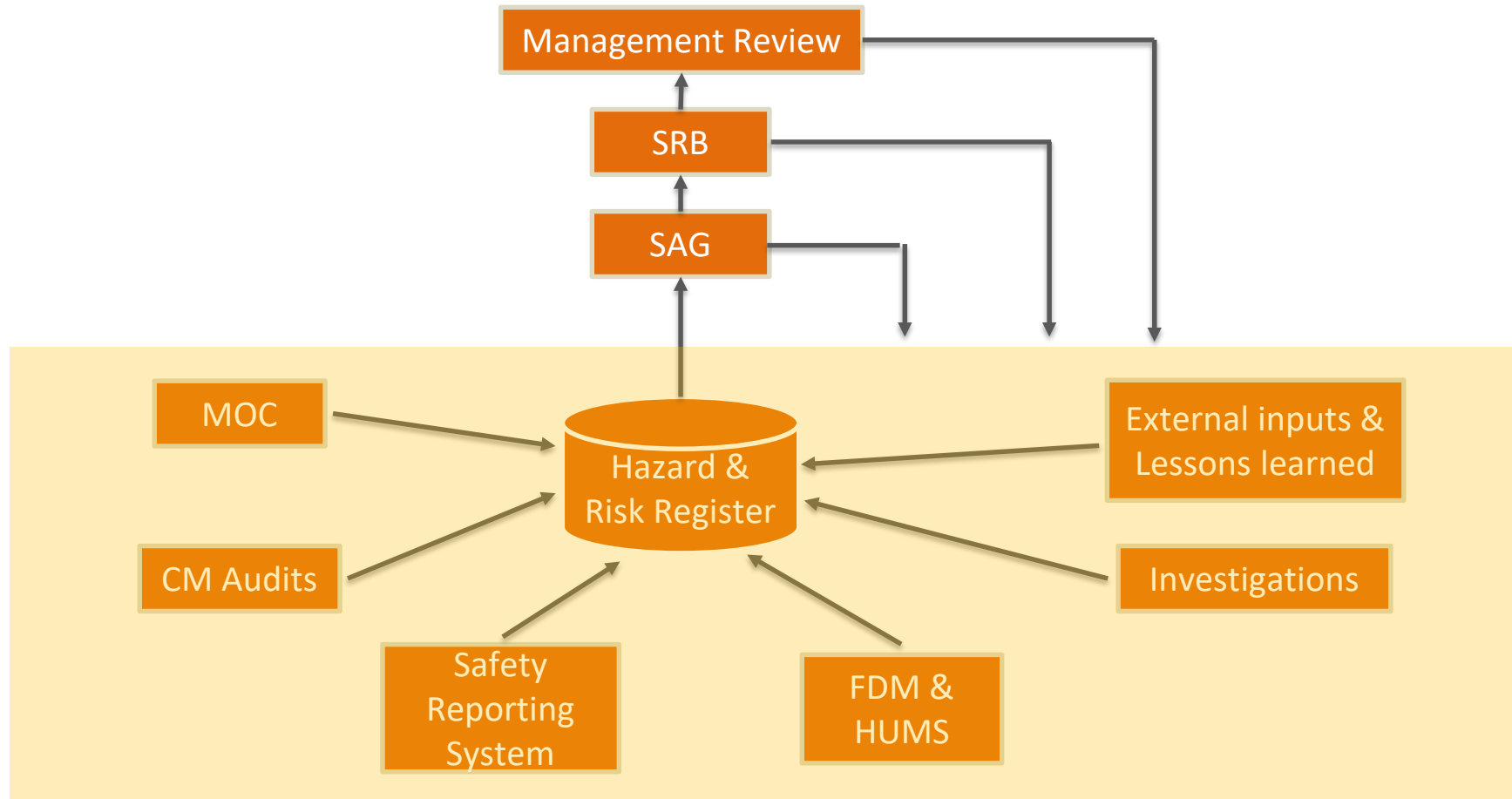
- Endorsed by the AM,
- Visible and communicated to staff,
- Periodically reviewed.

Safety Objectives [AMC1 CAMO.A.200(a)(2)]

The organisation shall define safety objectives, which constitute the basis for performance measuring and monitoring and reflect the commitment of the organisation to the management system.

The objectives shall be communicated through the organisation and periodically reviewed.

The schematic below summarizes the Management System components and interactions.



Safety risk management – Interfaces between organisations

[GM1 CAMO.A.200(a)(3)]

Safety risk management processes should specifically address the planned implementation of, or participation of the organisation in, any complex operational and maintenance arrangements (such as when multiple organisations are contracted, or when multiple levels of contracting/subcontracting are included).

Hazard identification and risk assessment should start by identifying all parties involved in a certain arrangement (including independent experts and non-approved organisations).

It should then focus on:

- coordination/interfaces
- applicable procedures
- communication (including reporting)
- responsibilities, tasks allocation
- qualifications and competence of key persons

Regular communication/interface between all the parties involved to discuss work progress, risk mitigation actions, changes to the arrangement and any other significant issues.

Management System documentation

[GM1 CAMO.A.200(a)(5)]

Safety management policies and procedures should be included in Part 2 of the CAME. However, the organisation may decide to include such documentation in a stand-alone manual (e.g. Management System Procedures) or, in case of an organisation with multiple approvals, in an integrated manual.

In this case:

- Reference to the manual(s) shall be included in the CAME
- Relevant parts of such manual(s) to be submitted to TM CAD together with the CAME in the Application Package.

Compliance Monitoring

The key principles and requirements applicable to Compliance Monitoring (independent audit, audit plan, etc.) did not change.

Regarding the **feedback to the AM** [AMC4 CAMO.A.200(a)(6)], the organisation may decide to include the results of compliance monitoring in the SRB responsibilities.

If this does not happen, then the AM shall:

- Meet senior management at least twice per year to review performance of monitoring function
- Receive at least half-yearly reports on findings

CAMO.A.202 Internal safety reporting scheme

The organisation shall put in place a system to collect, investigate and address internal reports related to any potentially safety-related occurrences, including identified hazards, errors and near-misses.

The purpose of internal reporting is to maintain or improve aviation safety and not to apportion blame to individuals.

The application of “**Just culture**” principles shall ensure and encourage a free and frank reporting culture within the organization from the personnel.

The company should have a clearly defined disciplinary policy.

The internal reporting scheme should [AMC1 CAMO.A.202]:

- Be closed-loop (ensure reports are actioned)
- Feed into training (lessons learnt)
- Provide feedback to staff.

Reports should be analysed to identify those reports that require investigation. Initial and recurrent training shall be provided to staff involved in internal investigations.

Access to internal reporting scheme should be given to sub-contractors.

CAMO.A.205 Contracting and subcontracting

When contracting maintenance services and/or subcontracting continuing airworthiness tasks, the CAMO shall ensure that:

- The activities are compliant with the applicable requirements
- Any aviation safety hazards related to contracting/subcontracting are considered as part of the CAMO's Management System. Contracted/subcontracted organisations shall have access to the CAMO occurrence reporting system; subcontracted organisation also to the internal reporting system.

In case of subcontracted continuing airworthiness tasks, the subcontracted organisation shall work under the approval of the CAMO

CAMO.A.300 Continuing airworthiness management exposition (CAME)

The information to be included in the CAME and the headings changed in the following way [AMC1 CAMO.A.300]:

- Paragraph 0.1 of Part 1 is now “Safety policy, objectives and accountable manager statement”
- Part 2 – Management system procedures includes:
 - 2.1 Hazard identification and safety risk management scheme
 - 2.2 Internal safety reporting and investigations
 - 2.3 Safety action planning

- 2.4 Safety performance monitoring
- 2.5 Change management
- 2.6 Safety training and promotion
- 2.7 Immediate safety action and coordination with operator's Emergency Response Plan (ERP)
- 2.8 Compliance monitoring
 - 2.8.1 Audit plan and audit procedure
 - 2.8.2 Monitoring of continuing airworthiness management activities
 - 2.8.3 Monitoring of the effectiveness of the maintenance programme(s)
 - 2.8.4 Monitoring that all maintenance is carried out by an appropriate maintenance organisation

- 2.8.5 Monitoring that all maintenance is carried out in accordance with the contract, including subcontractors used by the maintenance contractor
- 2.8.6 Compliance monitoring personnel
- 2.9 Control of personnel competency
- 2.10 Management system record-keeping
- 2.11 Occurrence reporting

When the above mentioned procedures are included in a different manual (e.g. SMM, Management System manual (MSM, etc.) reference shall be included in the CAME.

The organisation may include additional headings if they wish to do so.

CAMO.A.305 Personnel requirements

- Accountable Manager
- Nominated person(s) with responsibility for:
 - Continuing airworthiness management
 - Compliance monitoring
 - Safety management
- Sufficient and qualified staff to plan, perform, supervise, inspect and monitor the organisation's activities
- ARS (if applicable)
- Authorized persons to extend ARC.

Note

- The role of compliance monitoring manager and safety manager can be covered by the same person.
- Subject to risk assessment and agreement of TM CAD, when justified by size, complexity and nature of the organisation, the AM may exercise also the role of compliance monitoring manager and/or safety manager, provided he/she can demonstrate required competency.
- Nominated Management team airworthiness knowledge, background qualifications and experience requirements are found in CAMO.A.305 (c) and detailed in AMC1 CAMO.A.305(c) d
- GM3 CAMO.A.305(g) details the key competence of the safety manager.

The organisation shall issue and periodically review a **manpower plan** [AMC1 CAMO.A.305(d)] to demonstrate that it has sufficient staff to plan, perform and supervise the required activities. Such plan shall be based on analysis of required tasks, their division/ combination, assignment of responsibilities, number of manhours.

As part of its management system, the organisation shall have a procedure to assess and mitigate risks in case of:

- Actual manpower lower than planned
- Temporary increase of contracted staff for temporary operational needs

Note

- The CAM and compliance manager (as well as any technical staff who may be part of SAGs or contribute to internal investigations) shall have additional duties related to the Safety Management (including participation to the SRB). This has to be reflected in the manpower plan and constitutes a **TM CAD review item** during the transition to Part-CAMO [
- The manhour plan needs to take into account also the so called unproductive hours (efficiency, training, sick leave, holidays, etc.)

The organisation shall establish and control the **competency of personnel** in accordance with a procedure and a standard agreed by TM CAD. Such procedure is normally included in CAME 2.9.

GM1 CAMO.A.305(g) provides guidelines for the competence assessment procedure.

Note

- The organisation shall assess for competence also the nominated persons and submit the assessment records to TM CAD together with the application.
- All staff involved with continuing airworthiness tasks, compliance monitoring, safety management and airworthiness reviews needs to be assessed **whether employed or contracted**.

- Familiarity with the safety policy and the procedures and tools that can be used for internal safety reporting shall be included in the competence assessment of all staff.
- If a person has been recruited from another approved CAMO, it is reasonable to accept a written confirmation from the previous organisation.

Safety training consists of a combination of Human Factors and Safety management topics. The syllabus of the initial training is provided in GM2 CAMO.A.305(g).

Recurrent training is aimed at refreshing the basic concept and to collect staff feedback regarding HF and Safety issues. A procedure should be in place to ensure that **feedback is formally reported by the trainers through the internal safety reporting scheme** to initiate actions when necessary.

CAMO.A.310 Airworthiness review staff qualifications

- At least 5 years experience in continuing airworthiness
- Appropriate Part-66 AML or aeronautical degree (this requirement can be replaced with additional 5 years experience in continuing airworthiness)
- Formal aeronautical maintenance training
- Held position with appropriate responsibilities (position independent from the airworthiness management process of the aircraft subject to airworthiness review or with overall authority on the airworthiness management process of the aircraft [AMC1 CAMO.A.310(a)]).

CAMO.A.325 Continuing airworthiness management data

The CAMO shall have access to current maintenance data. When access to documentation is provided by the operator/owner, this must be clearly stated in a contract.

The CAMO is anyway responsible to ensure that the documentation is current; to this end, there should be appropriate procedures or provisions in the contract.