SMS CAMO Takeaways

Derived from the workshop:

'SMS in CAMO: practical implementation'

held on 10/11 November 2020

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1. Introduction

These SMS Takeaways result from the EASA workshop: '*SMS in CAMO: practical implementation*' that took place on 11/12 November 2020 about the implementation of organisation's SMS principles in Part-CAMO (Annex Vc of Regulation (EU) No 1321/2014).

- These principles are translated mainly into CAMO.A.200 series
- Consolidated version of Part-CAMO (IR + AMC/GM) can be found here in PDF (Annex Vc), or as online format here
- The 'Guide for transition to Part-CAO and Part-CAMO' can be found here
- All workshop presentations are posted at https://www.easa.europa.eu/newsroom-and-events/events/sms-camo-practical-implementation.
- Management System Assessment tool can be found here. Draft version of the tool, which includes Part-CAMO elements, can be requested at: safety.management@easa.europa.eu

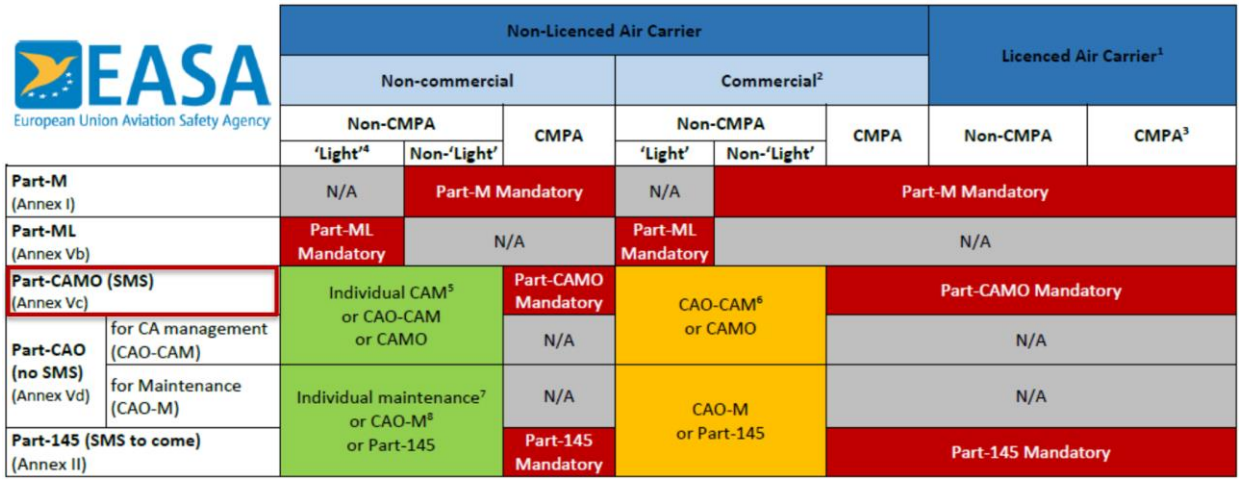
These Takeaways also consider questions and comments received during the workshop.

The workshop has been prepared together with EASA Air Operations standardisation team leaders who shared their experience collected during their visits of EU Member States.

The principal targeted persons for this information are the National Competent Authorities (NCA) Inspectors responsible for the oversight of the CAMO. But it can also be used by the CAMO to improve the implementation of their management systems.

Note: The "Management System" (MS) as established by CAMO.A.200 addresses the core elements of the ICAO "Safety Management System" (SMS) of Annex 19.

2. Setting the scene



		Non-Licenced Air Carrier				Licenced Air Carrier[1]	
		Non-commercial		Commercial[2]			
		Non-CMPA	CMPA	Non-CMPA	CMPA	Non-CMPA	CMPA[3]
		'Light'[4] / Non-'Light'		'Light' / Non-'Light'			
Part-M (Annex I)		N/A	Part-M Mandatory	N/A	Part-M Mandatory		
Part-ML (Annex Vb)		Part-ML Mandatory	N/A	Part-ML Mandatory	N/A		
Part-CAMO (SMS) (Annex Vc)		Individual CAM[5] or CAO-CAM or CAMO	Part-CAMO Mandatory	CAO-CAM[6] or CAMO	Part-CAMO Mandatory		
Part-CAO (no SMS) (Annex Vd)	for CA management (CAO-CAM)		N/A		N/A		
	for Maintenance (CAO-M)	Individual maintenance[7] or CAO-M[8] or Part-145	N/A	CAO-M or Part-145	N/A		
Part-145 (SMS to come) (Annex II)			Part-145 Mandatory		Part-145 Mandatory		

Speaker's key messages

General

- Part-CAMO is applicable since 24 March 2020 (introduced by Regulation (EU) 2019/1383)
- Part-CAMO structure is similar to the ARX/ORX (Air Operation and Air Crew Regulations)
- Evolution from a Quality System (QS) to a Management System (MS):
  - Identification of hazards, management of risks, assessment of mitigations
  - Compliance monitoring (and feedback system) maintained
  - For Licenced Air Carriers (LAC), the MS shall be integrated with the Operator MS
- Importance of defining the safety policy, and the associated accountability and responsibilities across the organisation

Oversight by the Competent authority (CA)

- Risk based principles harmonised with other domains
- Oversight cycle may be increased beyond 24 months based on the maturity of the organisation MS

Transition from Part-M Subpart G to Part-CAMO

- 'Grandfathering' process upon request from the organisation
- New approval and approval reference provided by the CA (CAME to reflect the new reference)
- Scope of work maintained
- Existing CAME procedures to be used
- CAME to be amended to comply with Part-CAMO 'novelties' until 24-Sep-2021 (European Commission to confirm a possible 6-month extension of that date)
- Controlled environment not affected
- Role of CA:
  - Oversight iaw Part-CAMO
  - Oversight programme should include the check of the 'novelties' before the end of the transition!

Additional EASA considerations

- EASA recommends the organisations to start their transition to Part-CAMO as soon as possible! NAA inspector are invited to push the accountable managers accordingly!

- Part-MG organisations not requesting the transition to Part-CAMO should continue to be audited in accordance with Part-MG, but they take the risk to be suspended at the end of the transition period, if the transition activity is not completed.

- Changes to the CAMO organisation during the transition are explained in chapter V of the 'Guide for transition to Part-CAO and Part-CAMO' here.

- The 'generic transition finding' as proposed in the 'Guide' is supposed to cover the initial shortcomings in the CAME. The organisation should prepare an implementation plan.

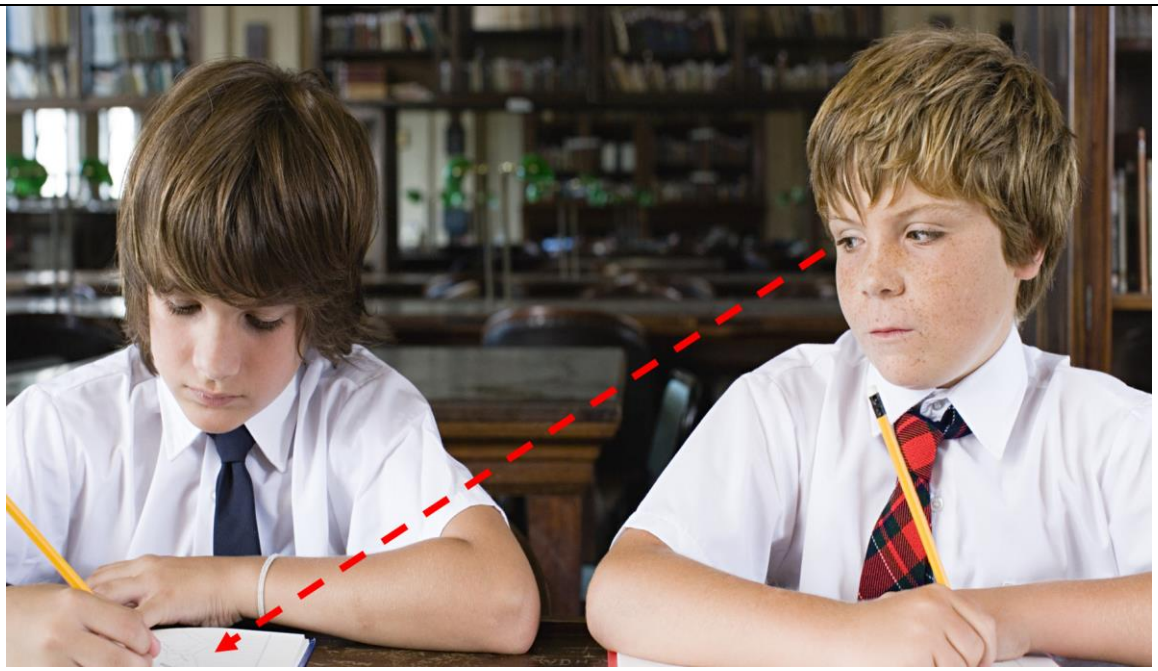
- For integrated AOC/CAMO, it cannot be considered by default that the CAMO is compliant with the MS requirement, but the CA could already expect some 'operating' elements when assessing the MS (see paragraph 7).

- The first oversight cycle for Part-CAMO should normally be 24 months.

- Concerning the Safety Manager, the intent of the regulation is to ensure that this person has a certain knowledge in Continuing Airworthiness.

3. Eye opener

a) Implementation issues in Industry



Speaker's key messages

- The need for SMS emerged from the reduced opportunity to learn from accident/incidents. SMS looks more to the particular hazards present in the organisation environment.

- The evolution takes time and SMS implementation should be a collective effort that include in particular all the managers. The Safety Manager should not be isolated and he should be supported by the accountable manager!

- The 'help' of consultants to implement SMS is not always positive: one size does not fit all!
  - the risk assessment method should be adapted and tailored to the CAMO
  - the safety performance indicators should reflect the specific risks of the CAMO

- The role of the Accountable Manager is key: he should support and promote the implementation of the MS to make it work (e.g. just culture).

- Importance of the quality of the data collected to support safety risk management (SRM) processes: validity, complete, consistent and accurate. Data may be limited, but organisation should make the most of the data available!

- The most common findings in OPS domain in relation to SMS implementation are:
  - management unwillingness to take real safety accountability
  - poor safety manager qualification and competence
  - poor understanding of MS principles by line managers
  - inadequate SRM processes, leading to questionable assessment
  - SMS Manual copied and not reflecting the specificities of the operators
  - No mitigating measures and inadequate monitoring of risk mitigations
  - No change management
  - No real Safety Review Board (SRB)

b) Inspector 2.0 and inspection evolution

Speaker's key messages

- SMS implementation by the CAMO also represents a challenge for the competent authority. Senior management should support it!
  - Change from Compliance and strict application of the rule
  - Evolution towards risk-based oversight in areas not always covered by the rules
  - Risk-based oversight change does not mean reduction of resources, but optimal use of the available resources

- New inspector mindset:
  - Change in attitude: no tick box exercise, effort to understand the particular setup of the organisation
  - Effort in preparation, understanding of data
  - focus on risk areas, prioritisation
  - Use of Plan/Do/Check/Act and lean principles (reducing lower added value activities)
  - Ensure the organisation knows how to use the SRM tool they have

- New skills:
  - Inspector skills and competence to assess management system
  - Understanding risk management principles and technique
  - Understanding the relevance of the hazard log developed by the organisations
  - Importance of training to achieve this
  - Soft skills

- Compliance to be maintained!
  - Use more 'desktop' review to verify compliance
  - This way more time can be used on-site to challenge the SMS and confirm the analysis resulting from the preparation.

  ➔ The inspector should challenge the output of the CAMO safety risk management '**Shake the tree**…' !!

  ➔ Importance of the interview with the Safety Manager and Accountable Manager

Additional EASA considerations

These principles are called by CAMO.B.300 (oversight principles) and CAMO.B.305 (oversight programmes). Point CAMO.B.200 has more to do with the risks that are directly related to the competent authority's organisation and processes.

4. Hazards and risks in CAMO environment

Hazards
and
risks

Speaker's key messages

Hazards need to be identified:

A hazard is anything that could cause harm

- This identification can be:
  - reactive (based on experience, incident/accident)
  - proactive (based on report of existing situation, procedures, practices, near-misses)
  - predictive (based on data)
- The '*internal safety reporting scheme*' (CAMO.A.202) provides a platform for the organisation to collect hazards identified by its staff

Risks need to be assessed and managed:

Risk is the chance of a hazard causing the harm

- Risk is measured based on probability and severity
  A risk assessment matrix can help on identifying where to put efforts, and on re-assessing hazards after the mitigations are put in place.
- The risk mitigations need also to be monitored

- Identification of hazards is a wide exercise: the hazards are not to be considered only derived from non-compliance of prescriptive requirements, but also from a particular scenario/operation, configuration, environment, facility, human factor, procedures, etc.

- Hazards should not be considered as silos, but the cumulative effect of all hazards identified should be questioned. Some hazards interrelate, but often, in order to mitigate cumulative risks, there is a need to act individually on each hazard.

Additional EASA considerations

- A risk assessment may be used to support an AMP task escalation or variation exercise

- When maintenance is contracted by the CAMO to the approved maintenance organisation (AMO), the CAMO should establish in the contract the conditions and exchange of information (such as particular hazards) necessary to ensure that safety is proactively managed during the maintenance to be contracted, trying to anticipate potential issues which could occur during that activity.

5. Mitigation measures and Safety Review Board

Speaker's key messages

In the SRB meeting:

- the major hazards identified are discussed and safety risks are prioritised
- mitigation measures are agreed (Accountable Manager takes decisions)
- implementation of actions and effectiveness of taken measures are monitored
- safety performance is assessed against the safety policy and objectives
- appropriate resources are allocated

The SRB may also be tasked with:

- reviewing the results of compliance monitoring
- monitoring the implementation of related corrective and preventive actions

While auditing SRB activities, NAA inspectors should review

- Advance circulation of SRB papers and agenda
- Frequency and length of SRB meetings
- Who participate and their accountability and authority
- Standing agenda items (e.g. output from each of monitoring processes)
- Minutes and actions, and their distributions
- Follow-up of previous actions

Reminder:

- Not all technical information has to be discussed at the Safety Review Board (SRB) level. The SRB should provide a risk picture of the organisation. Up to a certain type/level of risk, the safety/operational managers should take actions without a decision of the SRB.
- Nominated persons and Accountable Manager should participate in the SRB

CAUTION!

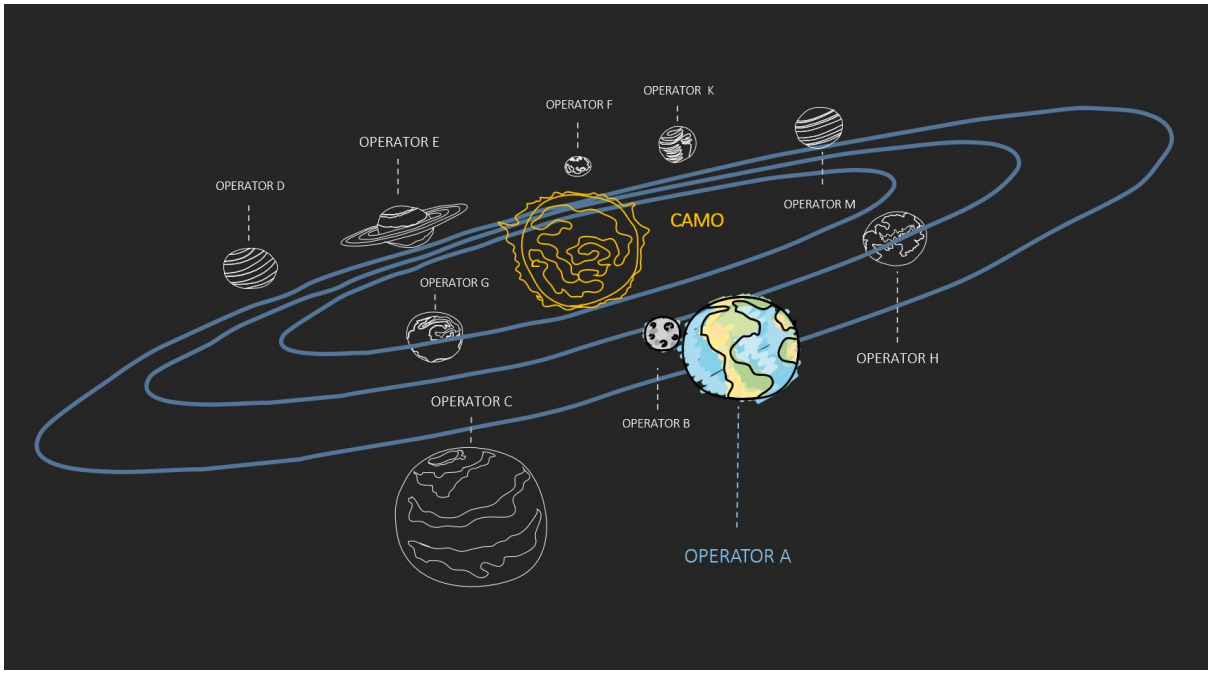
- A 'risk level' column in the green for all hazards after mitigation may be the sign of an inappropriate (or not honest) risk analysis!
- The risk should not be considered as mitigated as long as the mitigation measure is not implemented!

Additional EASA considerations

If possible, competent authority participation at the SRB is recommended:

- SRB is a good opportunity to gain the picture of risk awareness and see the system at work;
- Inform the CAMO about the willingness to participate to SRB as observer by clearly defining attendance's objectives and protocol.
- Access to safety critical information during such meeting should not be used to raise findings against the organisation.

6. Talk to others… the central role of CAMO



Speaker's key messages

In case of licenced air carrier, the CAMO management system 'shall be an integrated part of the operator's management system' (CAMO.A.200(d)).
There may be different level of 'integration' ranging from:

- one single Safety Management process common to both the Operator and the CAMO, with one Safety Manager needing different skills and knowledge. Not a full qualification as CAMO expert is required for the Safety Manager, but sufficient knowledge should be ensured.

to

- Different Safety Management processes, one for the Operator and one for the CAMO, both integrated in one 'Management System' (i.e. in one set of organisation procedures) thus ensuring clear and effective communication and preventing duplication. Two safety managers may not be excluded, although a set-up with one single safety manager is preferred. One single SRB should also be used, such that final decision may be taken by the accountable manager.

→ The organisation should find the most suitable arrangement for their activities and the rule does not impose a particular setup.

In case of standalone CAMO (no licenced air carrier)

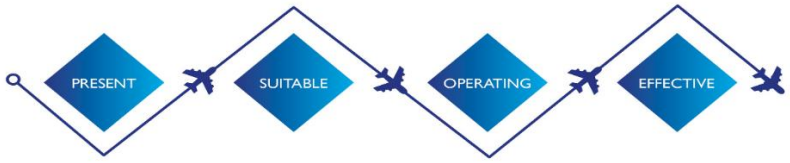
- This is the case of a CAMO providing CAW services to one or more operators. In this case the CAMO SMS shall interact with different SMS of the various operators. It is recommended for the CAMO Safety Manager to contribute to the SRB meetings of the various operators.

Additional EASA considerations

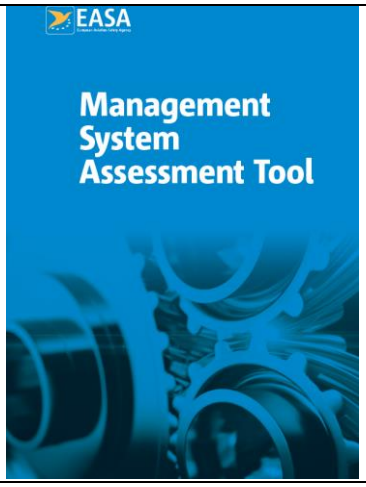
The CAME may refer to another manual describing the SMS processes (SMM or MSM). If this manual is common to the Operator and CAMO, the CAME approval will formalise approval of the SMS procedures for the CAMO domain. It is up to the competent authority to establish if desired an arrangement with its inspectors to enable synergies between domains.

The intent of referring to 'person or group of persons with the responsibility for managing the (…) safety management processes' (CAMO.A.305(a)(5)) is to prevent the understanding that Safety Management is a one-man duty. However, a single focal point is needed: the safety manager.

7. EASA Management System Assessment



Present	There is evidence that the feature is documented within the organisation's Management system/SMS Documentation.
Suitable	The feature is suitable based on the size, nature, complexity of the organisation and the inherent risk in the activity.
Operating	There is evidence that the feature is in use and an output is being produced.
Effective	There is evidence that the feature is achieving the desired outcome and has a positive safety impact.



Speakers' key messages

SMS is a game changer that requires the organisation not only to comply with the regulation, but to manage the safety, in particular by:

- Identifying what are the risks
- Establishing how these risks are mitigated and
- Determining if the mitigations are effective

The tool to assess Management Systems was developed in 2016 and has been updated to account for the newly adopted Parts, in particular Part-CAMO.

- The tool helps the competent authority to determine the effectiveness of the organisation management system.
- The tool is neither a compliance checklist, nor a ticking exercise.
- It is based on ICAO SARPS and EASA requirements (CAMO.B.300)
- Introduce the PSOE grading (present, suitable, operating, effective – see above)

Inspector should be trained and get competent to carry out management system assessments.

- New competencies may be necessary
- The inspector will need to: **understand, challenge, and decide**.
- "Critical thinking" is key and consideration should be given to the size, nature and complexity of the organisation

Initial assessment will focus one 'present' and 'suitable' elements, while the continuous oversight will rather evolve towards the 'operating' and 'effective' aspects.

Additional EASA considerations

Good preparation is essential for the assessment of a Management System:

- Identify the scope of the assessment
- Collect documents and evidences (e.g. operator's risk assessment documentation; operator's risk profile and benchmarking)
- Be ready how to conduct the assessment and who to interview
- Pay attention to the interfaces
- Report in a positive manner, recognizing what "is well done" and "what could be done better".

Management System Assessment tool can be found here. Draft version of the tool, which includes Part-CAMO elements, can be requested at: safety.management@easa.europa.eu