Assessement of mitigation measures

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Why?

<u>AMC2 ARO.GEN.300(a);(b);(c)</u> Oversight

EVALUATION OF OPERATIONAL SAFETY RISK ASSESSMENT

As part of the **<u>initial certification</u>** or the continuing oversight of an operator, the competent authority should normally evaluate the operator's safety risk assessment processes related to hazards […]

As part of its **<u>continuing oversight</u>**, the competent authority should also remain satisfied as **<u>to the effectiveness of these safety risk assessments</u>**.

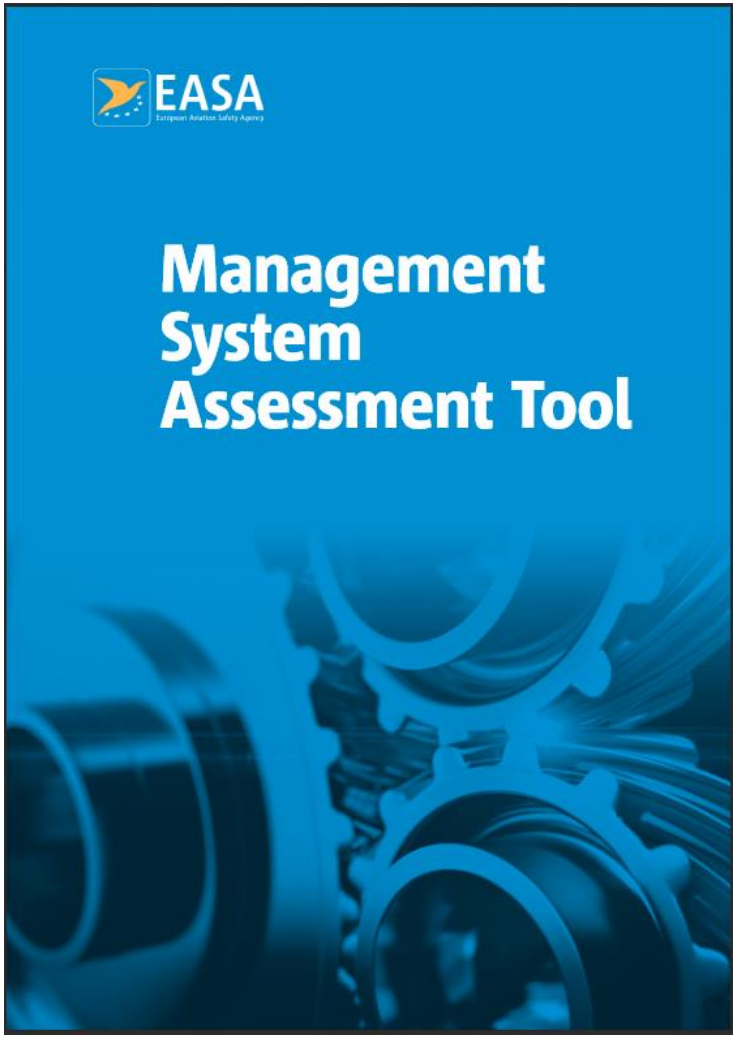
Why?

ORO.GEN.200 Management system

(a) The operator shall establish, implement and maintain a management system that includes:

(3) the identification of aviation safety hazards entailed by the activities of the operator, their evaluation and the management of associated risks, **including taking actions to mitigate the risk and verify their effectiveness**;

How?



The assessment of the operator's management system is done by a combination of organisational visits, meetings and desktop reviews.

Present

Suitable

Operational

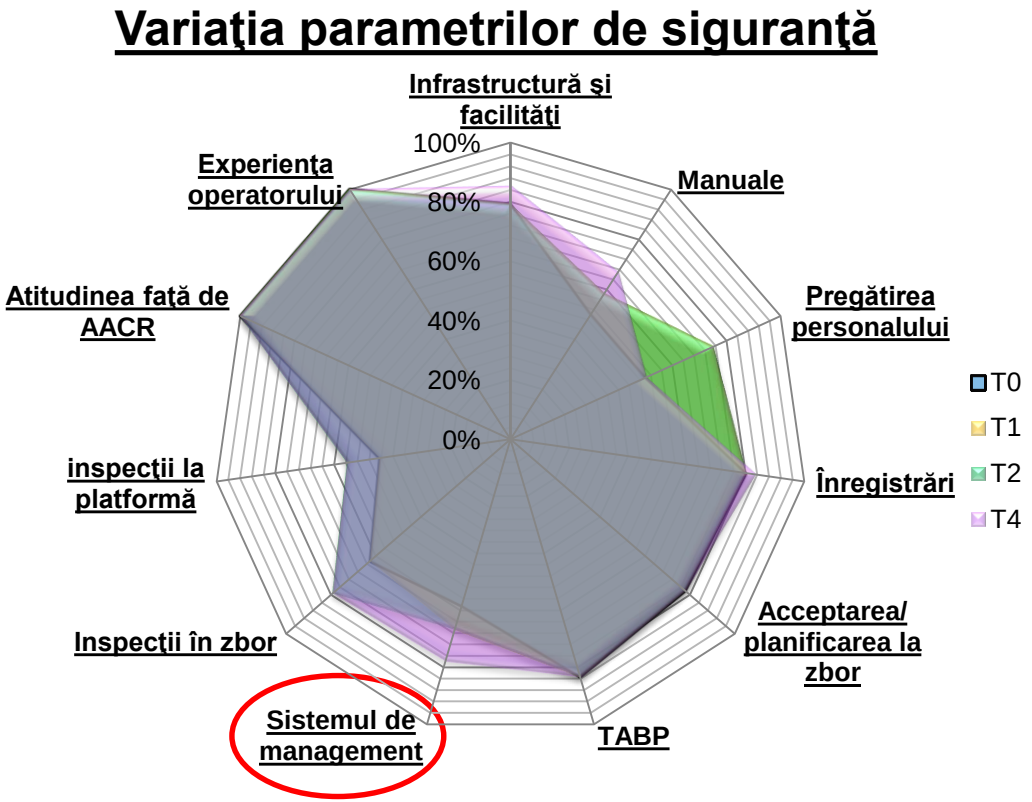
Effective

How?

Since the application stage:

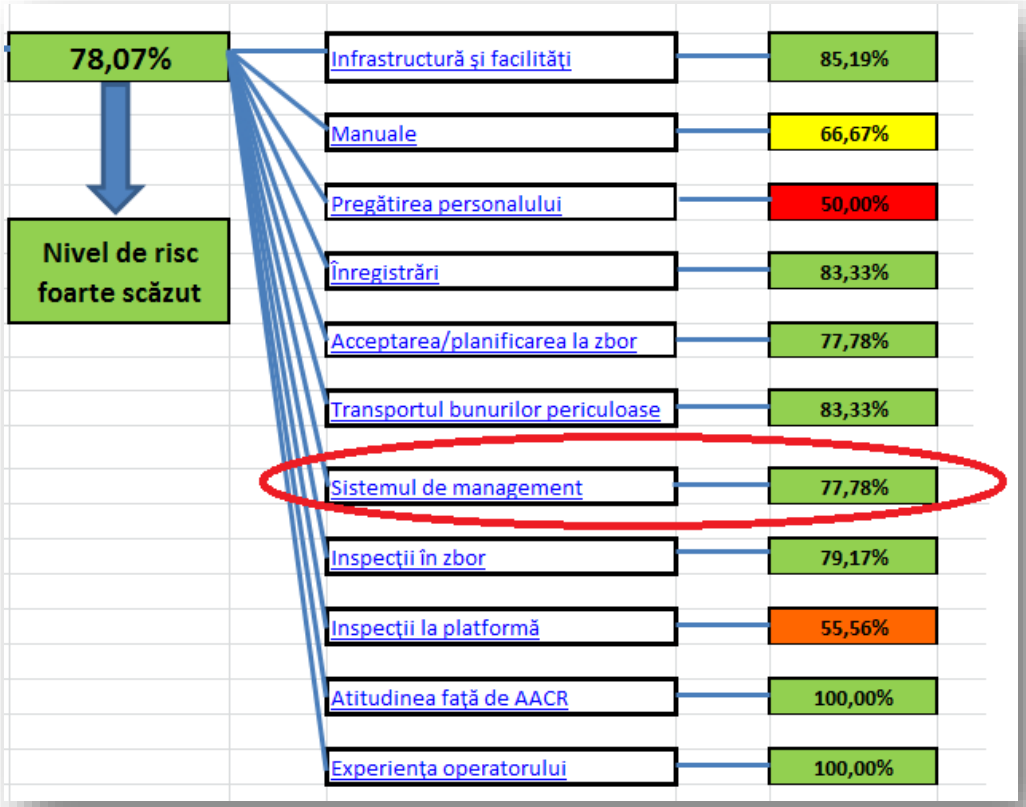
- ✓ **identifying risk** is a crucial step, but not the only one. It is not sufficient though;
- ✓ knowing about and thinking about risk is not the same as **doing something** about risk;
- ✓ **establish policies and procedures** that assist the organization to foresee and manage high-risk situations;
- ✓ ability to **mitigate risk** consequences in order to manage the risks at an acceptable level;
- ✓ **verify** the extent to which the actions mitigate or eliminate the safety risks

Audit/Inspection planning



The audit/inspection interval for the on-site assessment of the operator's management system comes from the Risk Based Oversight Program.

Audit/Inspection planning



A dedicated parameter was established in the RBO for the continuous assessment of the operator's management system with ORO.GEN.200 requirements;

The "management system" parameter has also a set of criteria to describe it.

Audit/Inspection planning

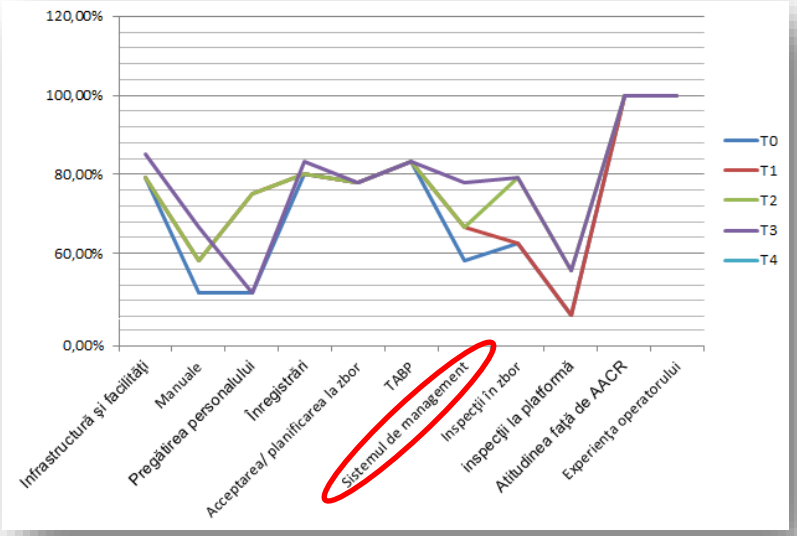
7	Sistemul de management	include responsabilităţi şi răspunderi clar definite la nivelul întregii structuri a operatorului, inclusiv răspunderea directă în materie de siguranţă a cadrului de conducere responsabil	3	77,78%	Nivel de risc foarte scăzut		**T1: 17.03.2016** - valoarea creste de la 2 la 3 ca urmare a implem masurilor corective pentru neconformitatile din 2015
		descrie filozofiile şi principiile generale ale operatorului în materie de siguranţă	3				
		sunt identificate pericolele care ameninţă siguranţa aviaţiei, generate de activităţile operatorului, evaluarea acestora şi managementul riscurilor asociate, inclusiv luarea de măsuri în vederea reducerii riscului şi a verificării eficacităţii acestora	1				**T1: 17.03.2016** - valoarea scade de la 2 la 1 pentru că nu este urmărită implementarea măsurilor stabilite pentru reducerea riscurilor **T3: 12.06.2017** - valoare se menţine la 1 deoarece nu sunt analizate schimbarile din legislatie si nu este evaluat impactul asupra operatorului
		sunt documentate toate procesele-cheie ale sistemului de management, inclusiv un proces menit să facă personalul conştient de responsabilităţile sale şi procedura de modificare a acestei documentaţii	3				**T1: 17.03.2016** - valoarea creste de la 2 la 3 ca urmare a implem masurilor corective pentru neconformitatile din 2015
		include o funcţie de monitorizare a conformării operatorului cu cerinţele relevante. Monitorizarea conformiării cuprinde un sistem de transmitere a constatărilor către cadrul de conducere responsabil în vederea asigurării implementării efective a unor acţiuni corective	2				**T1: 17.03.2016** - valoarea se se mentine la nivelul 2 datorita faptului ca a fost emisa o n/c N1 pentru AM - nu este finalizat procesul de nominalizare si aprobare **T2: 03.11.2016** - se mentine valoarea 2. iniţial nu au prezentat auditul intern pentru EFB, care a fost transmis ulterior **T3: 12.06.2017** - valoare se menţine la 2 deoarece nu este verificat sistemul electronic pentru masa si centraj
		corespunde mărimii operatorului, naturii şi complexităţii activităţilor sale	3				**T3: 12.06.2017** - valoare creşte de la 1 la 3. nu au fost identificate neconformităţi în acest sens.
		dimensiunea şi frecvenţa schimbărilor în sistemul de management	1				**T1: 17.03.2016** - valoarea creste de la 0 la 1 ca urmare a schimbării AM **T3: 12.06.2017** - se menţine valoarea 1. au avut loc multe schimbări ale AM
		variaţia numărului de angajaţi	2				
		folosirea mijloacelor alternative de conformare	3				

Each criteria is assessed by using a scale from 0 to 3, where 0 means that the requirements are entirely not complied with and 3 that the system is effective.

Audit/Inspection planning

- ✓ Criteria for a certain parameter give the level of compliance for that parameter.
- ✓ The overall level of compliance is given by the average of the level of compliance from all the parameters.

Nr. crt.	T0 31.12.2015	T1 17.03.2016	T2 03.11.2016	T3 12.06.2017
Infrastructură şi facilităţi	79,17%	79,17%	79,17%	85,19%
Manuale	50,00%	58,33%	58,33%	66,67%
Pregătirea personalului	50,00%	75,00%	75,00%	50,00%
Înregistrări	80,00%	80,00%	80,00%	83,33%
Acceptarea/ planificarea la zbor	77,78%	77,78%	77,78%	77,78%
TABP	83,33%	83,33%	83,33%	83,33%
Sistemul de management	58,33%	66,67%	66,67%	77,78%
Inspecţii în zbor	62,50%	62,50%	79,17%	79,17%
inspecţii la platformă	44,44%	44,44%	55,56%	55,56%
Atitudinea faţă de AACR	100,00%	100,00%	100,00%	100,00%
Experienţa operatorului	100,00%	100,00%	100,00%	100,00%
	71,41%	**75,20%**	**77,73%**	**78,07%**



Audit/Inspection planning

✓Basically, we can focus on a certain criteria, or on certain parameter to perform focused (possibly unannounced) inspections.

Nivel de conformare (%)	Factor de risc	Intervalul de audit/inspecţie	Nivelul de risc
> 75%	Nivelul foarte scăzut de risc	24 de luni	Foarte scăzut
65,01-75%	Nivelul scăzut de risc	24 de luni, dar la fiecare 12 luni pot avea loc audituri/inspecţii focalizate în domeniile pentru care parametri prezintă un nivel ridicat de risc	Scăzut
55-65%	Nivel mediu de risc	12 luni	Mediu
<55%	Nivel ridicat de risc	6 luni, dar se va acorda atenţie deosebită parametrilor cu nivel ridicat de risc	Ridicat

On-site assessment

- ✓ A stand-alone evaluation of the effectiveness of the mitigation actions cannot be done;

BUT,

- ✓ A joint evaluation is done to evaluate:
  - how the management of risks is performed,
  - when and if actions are taken to mitigate the risks and
  - how does the operator ensure the effectiveness of mitigation measures.

On-site assessment

- ✓ A stand-alone evaluation of the effectiveness of the mitigation actions cannot be done;

BUT,

- ✓ A joint evaluation is done to assess:
  - how the management of risks is performed,

- review risk identification and classification procedures
- review layout of risk register
- sample a processed and documented hazard
- check if risk register is reviewed in SRB

On-site assessment

- ✓ A stand-alone evaluation of the effectiveness of the mitigation actions cannot be done;

BUT,

- ✓ A joint evaluation is done to assess:
  - how the management of risks is performed,
  - when and if actions are taken to mitigate the risks and

- check severity and likelihood criteria
- check if procedures define who can accept what level of risk
- check for evidence of risks acceptability being routinely applied in decision making processes

On-site assessment

For the identified risks that require mitigating actions:

- don’t accept usual responsibilities (already defined in the applicable legislation) as mitigating actions. In fact this should only count as “existing defenses”;
- check if deadlines and responsible persons/groups are established for the implementation of the mitigating actions;
- check if the actions affecting multiple “domains” are communicate throughout the operator;
- following the implementation, check if an assessment of their effectiveness was performed.

Example: **an operator performing flights to a new destination**

Existing defenses:

- ✓ adequacy of the operational control and maintenance arrangements;
- ✓ general suitability of the aircraft;
- ✓ navigation and communication facilities available over the routes proposed and the associated equipment of the aircraft;
- ✓ adequacy of aerodromes or operating sites available within the proposed area, and the availability of current maps, charts, associated documents or equivalent data
- ✓ availability of adequate search and rescue facilities, and the need to carry special survival equipment and the need for training in the use of the survival equipment
- ✓ defined procedures;
- ✓ flight crew training;
- ✓ insurance;
- ✓ AIP

Example: **an operator performing flights to a new destination**

Mitigating actions:

- ✓ only appoint flight crews with experience, including the reserves;
- ✓ initially limit the operation at 2 sectors/ flight and cabin crew;
- ✓ avoid additional cumulative fatigue due to disruptive schedules by not planning consecutive early starts/late finishes/night duty;
- ✓ establish if there is any special degree of Bird Strike (or other wildlife) hazard, including seasonally - especially coastal sites, urban areas with poorly controlled refuse tipping and any tendency for seasonal shallow water bodies in vicinity;
- ✓ study runway use - is more than one active runway designated at any one time? If so, review any intersecting runway or runway crossing issues;
- ✓ runway undershoot or over-run issues - establish and consider if specific flight crew awareness is warranted;
- ✓ weather Record - Wind Velocity, Visibility, Temperature range and prevalence of sudden short-duration heavy precipitation etc.

Thank you!

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