HELLENIC CAA	FLIGHT STANDARDS DIVISION **INFORMATION BULLETIN**	**FSD/OPS/IB/ 3/2014**
	For all GREEK AOC HOLDERS and AOC APPLICANTS	**Revision 3** **18/2/2015**

Subject	**Air Operator's MANAGEMENT SYSTEM and MANAGEMENT SYSTEM MANUAL**

SCOPE

This Information Bulletin is intended to assist Air Operators (AOC holders and applicants for an EASA AOC) in the implementation of EASA Basic Regulation ((EC) No 216/2008) and its Implementing Rules concerning "Management System-MS", as well as to ensure compliance with these legal requirements.

It also provides guidance for developing the necessary documentation (Management System Manual-MSM). This information bulletin approaches MSM as an integrated manual (stand alone manual).

Even though this IB focuses on Oprators (AOC holders) and the Regulation (EU) 965/2012, it could be used by any aviation organisation (ATO, Operator, Maintenance Organisation, etc).

Acknowledgments: This Info Bulletin is based on "FOCA CL Management System", "EHEST Safety Management Manual (Revision 2)", "ICAO Annex 19" and "ICAO Doc 9859-Safety Management Manual (3rd edition)".

Reason of amendment

Revision 3	Clarification Changes in paragraphs 3.1 , 3.3.1, 3.8 and 3.9, and Linguistic changes all over IB

Table of Contents

1. Regulatory Requirements related to Management Systems

1.1. Basic Regulation (EC) No 216/2008

One of the essential requirements of the Basic Regulation (EC) No 216/2008 of the European Parliament and of the Council as amended and is in force, is the need of all Operators to establish implement and maintain a Management System.

1.2. Implementing Rules

Implementing Rules ((EU) No 965/2012 as amended and is in force) set in force Operator's requirements concerning the establishment of a Management System:

ORO.GEN.200 Management system

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

(1) clearly defined lines of responsibility and accountability throughout the operator, including a direct safety accountability of the accountable manager;

(2) a description of the overall philosophies and principles of the operator with regard to safety, referred to as the safety policy;

(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;

(4) maintaining personnel trained and competent to perform their tasks;

(5) documentation of all management system key processes, including a process for making personnel aware of their responsibilities and the procedure for amending this documentation;

(6) a function to monitor compliance of the operator with the relevant requirements. Compliance monitoring shall include a feedback system of findings to the accountable manager to ensure effective implementation of corrective actions as necessary; and

(7) any additional requirements that are prescribed in the relevant Subparts of this Annex or other applicable Annexes.

(b) The management system shall correspond to the size of the operator and the nature and complexity of its activities, taking into account the hazards and associated risks inherent in these activities.

1.3. lements of the Management System requiring Approval

Any of the elements of the Management System requires prior approval by HCAA. Elements of the Management System are defined as:

1. Lines of Responsibilities and Accountability; and
2. Safety Policy.

ORO.GEN.200 Management system

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

(1) clearly defined lines of responsibility and accountability throughout the operator, including a direct safety accountability of the accountable manager;

(2) a description of the overall philosophies and principles of the operator with regard to safety, referred to as the safety policy;

ORO.GEN.130 Changes

(a) Any change affecting:

(1) the scope of the certificate or the operations specifications of an operator; or

(2) any of the elements of the operator's management system as required in ORO.GEN.200(a)(1) and (a)(2),

shall require prior approval by the competent authority.

(b) For any changes requiring prior approval in accordance with Regulation (EC) No 216/2008 and its Implementing Rules, the operator shall apply for and obtain an approval issued by the competent authority. The application shall be submitted before any such change takes place, in order to enable the competent authority to determine continued compliance with Regulation (EC) No 216/2008 and its Implementing Rules and to amend, if necessary, the operator certificate and related terms of approval attached to it.

The operator shall provide the competent authority with any relevant documentation.

The change shall only be implemented upon receipt of formal approval by the competent authority in accordance with ARO.GEN.330.

The operator shall operate under the conditions prescribed by the competent authority during such changes, as applicable.

(c) All changes not requiring prior approval shall be managed and notified to the competent authority as defined in the procedure approved by the competent authority in accordance with ARO.GEN.310(c).

Explanation:

- Lines of Responsibilities means a graphic representation of the structure of an organisation showing the relationships of the positions also referred as "organisation chart";
- Responsibility indicates the duty assigned to a position or the state or fact of having a duty to deal with something or of having control over someone;
- Accountability is the liability created for the use of authority. Authority is the right or power assigned to an executive or a manager in order to achieve certain organisational objectives.
- The Safety Policy is the description of the overall philosophies and principles of the organization.

1.4. Different requirements for Complex and Non-Complex Organisations

During the implementation of a Management System the complexity of the organisation must be

considered:

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 216/20083 and its Implementing Rules.
(b) Operators with up to 20 FTEs involved in the activity subject to Regulation (EC) No 216/20084 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, whether any of the following are present:
(i) operations requiring the following specific approvals: performance-based navigation (PBN), low visibility operation (LVO), extended range operations with two-engined aeroplanes (ETOPS), helicopter hoist operation (HHO), helicopter emergency medical service (HEMS), night vision imaging system (NVIS) and dangerous goods (DG);
(ii) different types of aircraft used;
(iii) the environment (offshore, mountainous area etc.).

Note: The requirements for non-complex organisations are lower than those for complex organisations.

2 The Management System and its Documentation

2.1. Purpose of a Management System

The whole set of manuals of an organisation (organisation's documentation) describing philosophies, policies, responsibilities, procedures and key processes related to safety, is considered as Management System Documentation.

The purpose of a Management System is to establish a policy, to deploy objectives from this policy and to achieve those objectives by means of the consistent implementation of clearly defined procedures and responsibilities.

A Management System of an organisation can include different sub-systems, related to quality management, safety management, financial management or environmental management.

2.2. Initial Stage

2.2.1 Duplicated Definitions (undesired redundancies)

As a consequence from the functional approach practised in the past in the area of legislation, the legal requirements set in force by JAA and EASA in various documents led to duplications in the organisations' documentation (e.g. OM, MOE, CAME, TM). This was especially evident for the

subjects “organisation” and “quality system”.

The amendment of organisations’ documentation was therefore a vast burden and cost-intensive for all parties involved, i.e. the organisations and the authorities.

The recent rule making process by EASA considered this aspect whilst establishing the Regulations Air Crew and Regulation Air Operations: As a consequence the resulting Implementing Rules regarding Organisation Requirements Aircrew (Annex VII, Part-ORA) and Organisation Requirements Air Operations (Annex III, Part-ORO) are mainly identical in the Subpart General Requirements (GEN) and allow the establishment of organisations’ documentation without duplications if clear references are provided.

The key issue for organisations will be to document all general organisational aspects of the company in the Organisation’s Management Manual, which is part of the organisation’s documentation (Management System Documentation).

2.3 Documentation and Implementation of a Management System

As stated in the Basic Regulation (EC) No 216/2008, the organisation must implement and maintain a Management System to ensure compliance with the essential requirements, to provide safe services and to aim for continuous improvement of this system.

“Implementation” and “Maintenance” of the Management System means that:

1. Philosophies, policies, procedures and tasks including responsibilities, accountabilities and course of action must be documented in an appropriate set of manuals and implemented.
   - *Organisation’s Documentation*
   - *Management System Documentation*
2. Employees must be trained based on this documentation.
   - *Training*
3. The qualification and performance of individuals, their adherence to the documentation and last but not least, the outcome of their work must be verified.
   - *Checking*
   - *Compliance Monitoring*
   - *Testing*
4. Experiences made shall help to further develop the organisation (including its Management System) as well as the products and services.
   - *Feedback*
   - *Continuous improvement*

Conclusion:

The Management System Documentation consists of the whole set of documents / manuals, which are maintained in an organisation (= Organisation’s Documentation).

2.4 The Possibility to develop an Organisation’s Management Manual

As stated in Chapter 2.2.1 “Duplicated Definitions (undesired redundancies)” the aviation industry

suffers from duplicated definitions in the manuals. The new EU Regulations regarding "Organisations' Requirements" now permit to avoid duplicated definitions of organisational aspects. This approach provides the chance for an enormous simplification especially for combined organisations.

For combined organisations, it is recommended to develop a controlling manual describing the general organisation, responsibilities, procedures, etc., which are common and valid also for other manuals / documents of the organisation. Whereas specific topics related to operations, training, maintenance for example still remain documented in the respective manuals (e.g. MOE, CAME, TM, OM, FSTD) as required by the respective Part.

The controlling manual may be named as Organisation Management Manual (OMM), as this OMM is describing the organisation as a whole. This is also in line with the description and guidelines as published in the "Foreign ATO Approvals User Guide" for ATO Manuals from EASA.

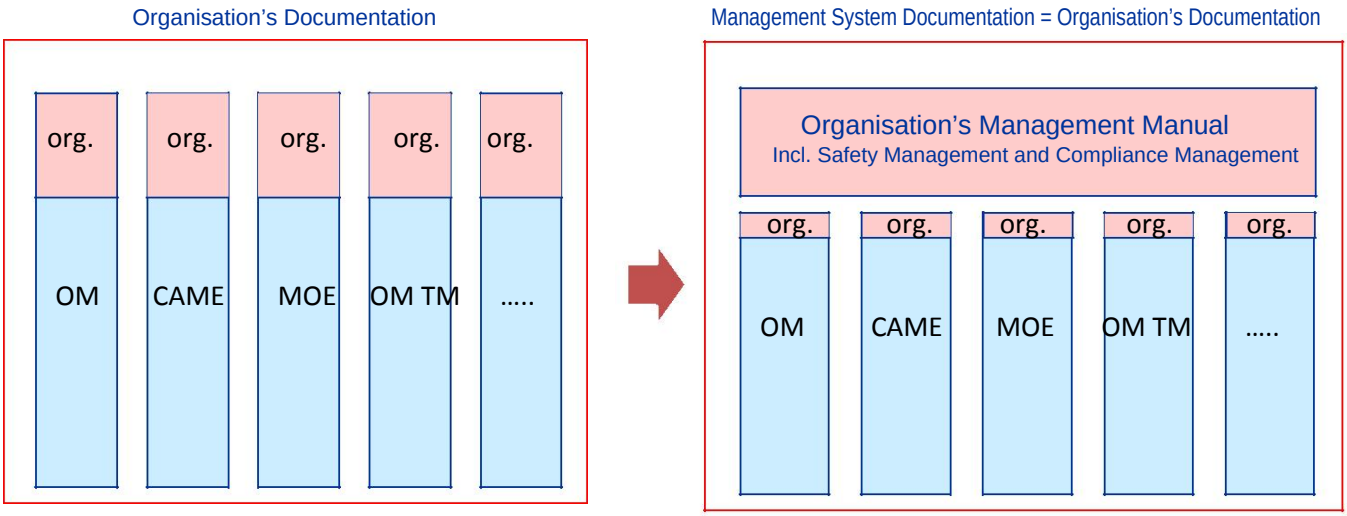


Figure 1: Management System Documentation

2.4.1 Safety Management System and Compliance Monitoring System

Annex III: Part -ORO (Organisation Requirements Air Operations) and Annex VII; Part-ORA (Organisation Requirements Aircrew) stipulate within the requirements of the Management System that the organisations also have to establish and maintain:

1. *a Safety Management System (SMS); and*
2. *a Compliance Monitoring System (CMS).*

The EASA clearly states that these requirements do not impose a separate Safety Management System or a separate Compliance Monitoring System.

Instead of an add-on-approach, which would lead to a separate SMS Manual and a separate CMS Manual in addition to the Organisation's Management Manual, it is strongly recommended to strive for an integrated system, where safety is one of the parameters to be taken into account with each decision.

Integrated management enables managers to recognise and take into account all significant influences

on their organisation, such as the strategic direction of their business, relevant legislation and standards, internal policies and culture, risks and hazards, resource requirements and the needs of those who may be affected by any aspect of the organisation's operation.

2.4.2 What happened to the earlier Quality System?

In the early stages of the development of the new requirements EASA pointed out the metamorphosis of the Quality System:

"The Agency would like to emphasise that the quality system concept, as known under the JAA system and in existing EASA Parts, is integrated as a compliance monitoring system becoming an element of the management system of an organisation".

In terms of Quality Systems the Agency proposes to retain what the regulator is really interested in when requiring the organisations to implement a quality system: compliance with the rules.

As a consequence the Agency believes that it is necessary to simply require a Compliance Monitoring System instead of a Quality System as part of the Management System.

Conclusion:

Organisations which in the past maintained an effective Safety and Quality Management System had a very good basis to further develop their organisation to be compliant with the Implementing Rules.

What in the past we called the Quality System including its quality assurance activities (e.g. audits, inspections, management evaluation) is now called Compliance Monitoring System, which itself is part of the Organisation's Management System & Manual.

2.5 Processes and Procedures

The content of the organisation's documentation – independent of the activity of an organisation – consists of philosophies, principles, policies, processes, procedures, tasks and subtasks.

The Regulation Air Operations (Annex III: Part-ORO) and the Regulation Aircrew (Annex VII: Part-ORA) require amongst others, that the lines of responsibility and accountability throughout the organisation and the key processes of the organisations are defined and documented.

To be complete and meaningful, the processes and procedures defined in the manuals must as a minimum, provide information in order to answer the following questions:

- What must be done?
- Who does it?
- How, when and where must it be done?
- Which tools / forms have to be used?

The state-of-the-art to document management systems is to consistently follow the process-oriented approach. This is partially in contradiction with the legal requirements set in force in aviation, which demand a specific structure of the manuals.

Nevertheless and to avoid plain text descriptions, it is recommended to document the required processes by means of flow-charts or – in a simpler but also meaningful way – by means of matrix-diagrams:

Example:

Activity	Remarks	Tool	Responsibility
Establish audit plan	• Consider changes in -organisation -legislation -infrastructure • Consider required scopes as defined in …	Audit plan (Template)	Compliance Monitoring Manager
Assign auditors	Consider independency and competence / qualification	List of auditors	Compliance Monitoring Manager
Prepare audit …	• Establish audit programme • … •	Audit programme (Template) •	Auditor

This way of documenting processes and procedures clearly provide information to the reader on how to answer the mentioned questions:

Activity	What must be done?
Responsibility	Who does it?
Remarks	How, when and where must it be done?
Tool	Which tools / forms have to be used?

It is a matter of fact, that the effectiveness of documents (manuals, concepts, procedures, etc.) is only given, if the ”internal customer”, the employee, who must adhere to the standards, has easy access to the document and easily understands it!

2.6 Language

The organisation shall ensure that all personnel are able to understand the language in which those parts of the organisation’s documentation - which pertain to their duties and responsibilities - are written. The content of the documentation shall be presented in a form that can be used without difficulty and observes human factor principles.

A respective requirement can be found for Air Operations in Regulation for Air Operations, Annex III: Part-ORO: ORO.MLR.100(k) Operations manual – general.

As a consequence, the organisation shall establish the documentation in a common language, but also consider the (future) collaboration with other persons and organisations (e.g. contractors). This can lead to the use of different languages in different parts of the organisation's documentation (Management System).

3 Organisational Elements and Requirements

3.1 Format of Manual and Documents

- The quality of the organisation's documentation and especially the internal processes related to its validation, distribution and control are the determining factors as to the capacity of the organisation to ensure consistent adherence by the employees and to demonstrate effective compliance towards the competent authority.

- Due to the fact, that HCAA does not approve the organisation's documentation as such, but only specific elements thereof, it is important, that the revision status of the specific element is consistent with the issued approval;

- It is recommended that the OMM is prepared in the English language. In addition, the manual or parts thereof may be translated into another language.
- Organisation's documentation can be established as a paper manual and/or as an electronic document (HCAA approval required in case part of it is used during flight or other critical for the safety situation).
- Explanations and definitions of terms and words needed for the use of document systems shall be directly available in the manual concerned (e.g. Definitions & Abbreviations).
- The manual system shall be presented in a format which can be used without difficulty:

    - The format of the manual shall be uniquely identifiable and the page layout explained;
    - The manual / layout shall be designed in a form that is easy to revise;
    - Chapters shall be separated by dividers;
    - Each chapter shall represent an area of document development and should be divided into subchapters and subsections which are chronologically numbered;
    - The manual shall have the effective date and the revision status on each page concerned;
    - The pages shall be numbered;
    - References must be comprehensible and correspond to the wording used in the different manuals; for example:
    - Refer to the Operations Manual Part B, Chapter 4 Performance "En-Route climb limits"

Example of Record of Revisions

- Record of Issue / Revisions:

Issue No	*Revision No*	*Effective Date*	*Entered by*	*Date*
1	*0*	*dd.mm.yy*	K.X	*dd.mm.yy*
1	*1*	*dd.mm.yy*	K.X	*dd.mm.yy*
1	*2*	*dd.mm.yy*	K.X	*dd.mm.yy*
1	*3*	*dd.mm.yy*	K.X	*dd.mm.yy*
…				

- Record of Temporary Revision:

Temporary Revision Number	*Effective Date*	*Entered by*	*Date*	*Validity*	*Cancellation*	*Removed by*	*Date*
01	*dd.mm.yy*	*K.X*	*dd.mm.yy*	*dd.mm.yy*			
…							

- List of effective Chapters and/or pages

Chapter	*Issue No*	*Revision No*	*Effective Date*
1.1	*1*	*0*	*dd.mm.yy*
1.1.1	*1*	*2*	*dd.mm.yy*
1.2	*1*	*1*	*dd.mm.yy*
…			

- Highlights of latest Amendment (or list of effective pages)

Revision	*Highlights of Revision*
01 / 01	*Implementation of the Organisations Management Manual within the organisations documentation*
01 / 02	*Mission, vision and safety policy amended, legal standards and requirements corrected*

Example of page annotation.

Header

Organisation Management Manual (OMM)	**Chapter 4 Safety Management**	All Greek Airlines

Footer

OMM	**Revision: 2/ 27-5-2014**	**Effective date: 1-6-2014**	**Page 10 of 25**

3.2 Electronic Data Processing (EDP)

- If an organisation decides to present the relevant documentation in an EDP solution and / or if records related to the management system are stored by EDP solutions only, the accessibility, usability and reliability including the back-up system, shall be described. The documented concept should include specific procedures and responsibilities.

- Accessibility:
  - User must have access to hardware, software and data 24 hours a day:
  - User must be supplied with controlled hardware together with the required software and data concerned;

- Reliability including Back-Up System:
  - Data mirroring (data saved onto two separate hard drives) and automatically, a periodical or instant save on another data medium/carrier;
  - It is recommended to include data recovery with periodic spot checks to verify the effectiveness of the back-up;
  - Notice should be made of the compatibility of the EDP solution to the system/software used internally and externally of the organisation;
  - The EDP solution shall be tested, functional and well implemented.

- Usability:
  - The EDP solution should be presented in a form, in which it can be applied / executed without difficulty. Either established with standard software solution or specific training needs to be implemented for all users. Information / files / data should be easily and quickly downloaded and / or up-dated e.g. specific online tools accessible via internet;

- Physical Security:
  - A description of the security policy;
  - A description of the handling and exposure of hardware/software components in general
  - Instructions in the handling of access rights and passwords;
  - Instruction, how the securing of hardware shall take place within the operation;
  - The provision of an anti-virus systems;
  - Information concerning Data corruption and protection;
  - Explanation on preventive use of dedicated Hard Disk Drive partitions.

3.3 Structure of the Management System Documentation

- The organisation should state the manuals, which are in place to comprehensively define the lines of responsibility and accountability as well as the organisation's key processes. The illustration by the organisation should provide an overview over the hierarchy and interrelation of the manuals thus creating the Management System of the organisation.

- The organisation's Management System Documentation may be included in a separate manual or in (one of) the manual(s) as required by the applicable Subpart(s).

- It is not required to duplicate information in several manuals. The information may be contained in any of the organisation's manuals (e.g. operations manual, training manual), which may also be combined, and

- the organisation may also choose to document some of the required information in separate documents (e.g. procedures). In this case, it should be ensured that manuals contain adequate references to any documents kept separately. Any such documents are then to be considered an integral part of the organisation's Management System Documentation.

Example of an overview:

OMM	*Organisation's Management Manual*	*The Organisation's Management Manual documents all superior aspects of the company such as philosophies, policies, processes, guidelines and responsibilities.*
OM A	*General / Basic*	*The Operations Manual Part A comprises all non-aeroplane type related operational policies, instructions and procedures.*
OM B	*Aeroplane XYZ*	*Aeroplane type XYZ operating matters, comprises all aeroplane type XYZ related instructions and procedures including minimum equipment list (MEL)*
OM B	*Aeroplane ABC*	*Aeroplane type ABC operating matters, comprises all aeroplane type ABC related instructions and procedures including the minimum equipment list (MEL).*
OM C	*Route/role/area and aerodrome/operating site instructions and information*	*The Operations Manual Part C comprises all instructions and information for route and aerodromes needed in accordance with the area of operation. It refers to the services of company "Route ManualSample Service Ltd" and contains procedures for distribution, revision and a description of accessibility and usability.*
OM D	*Training*	*The Operations Manual Part D comprises the organisation's training concept, training and checking programme and its associated procedures and instructions.*
CAME	*Continuing Airworthiness Management Exposition*	*The Continuing Airworthiness Management Exposition comprises instructions and procedures to be followed by the maintenance management personnel and the subcontracted Part 145 maintenance organisation.*
...	*...*	*...*

3.3.1. Organisation Management Manual (OMM)

- For the purpose of maintaining a certain degree of standardisation and if the organisation has decided to develop a seperate Organisation Management Manual, it is strongly recommended, to implement the instructions and guidelines of this Info Bulletin.

- If the organisation decides, due to its size and nature, not to produce a seperate Organisation Management Manual and to pursue an integrated approach within an existing manual system, the instructions, guidelines and principles reffered to this IB shall be implemented in the respective chapters of that manual system. In this case, the "Management System" elements shall be incorporated in chapter 3 of Part A of OM (following the HCAA "EASA Operations Manual Template(s)"). In this case content and structure of the chapter shall follow the basic structure of paragraph 3.3.2 bellow.

- As part of the Management System the OMM shall contain all common / general definitions related to the organisational requirements. This, in addition to specific definitions provided in other manuals such as OM, CAME, MOE, etc.

- Together with other manuals, the OMM covers:
  - defined lines of responsibility and accountability throughout the organisation;
  - a description of the overall philosophies and principles of the organisation with regard to safety, referred to as safety policy;
  - the identification of aviation safety hazards entailed by the activities of the organisation, their evaluation and the management of associated risks, including taking actions to mitigate the risk and verify their effectiveness;
  - maintaining personnel trained and competent to perform their tasks;
  - documentation of all Management System key processes, including a process for making personnel aware of their responsibilities and the procedure for amending this documentation.

Example introductory text:
This Organisation's Management Manual (OMM) has been created to demonstrate and harmonise companywide processes and systems such as Safety and Compliance Management. The OMM has been developed with considerations to Annex III to the Regulation on Air Operations Part ORO, Management System and relevant Acceptable Means of Compliance (AMC) and Guidance Material (GM). The OMM documents all superior aspects of the company such as philosophies, policies, processes, guidelines and responsibilities.

3.3.2 Overview - Basic Structure of an Organisation's Management Manual

OMM Chapter		Subchapter
1	The Organisation and Scope of Activity	• Safety Policy • The Organisation – Vision, Mission, Values and Strategy • Introduction • Scope of Activity • Statement of Complexity • Relevant Standards and Requirements • Compliance Statement

		• Exemptions and Derogations (Flexibility Provisions) • Alternative Means of Compliance • Locations, Facilities and Infrastructure • Power of Authority
2	Organisation Documentation, System of Amendment and Revision	• Overview of the Organisation Documentation • System and Form of Distribution • System of Amendment and Revision • Changes/Elements requiring prior Approval • Changes/Elements not requiring prior Approval • Control of External/Foreign Documents
3	Organisational Structure, Duties, Responsibilities and Accountabilities	• Organisational Structure • Management Personnel – Name and Contacts • Duties, Responsibilities and Accountabilities • Accountable Manager • Safety Manager • Compliance Monitoring Manager
4	Safety Management	• Safety Policy (if not presented at the beginning of the manual) • Hazard Identification and Risk Management • Flight Data Monitoring Programme • Change Management • Safety Board (SRB) • Safety Action Group (SAG) • Safety Performance Monitoring and Measurement • Safety Promotion • Safety -Studies, -Reviews, -Surveys and Investigation
5	Compliance Management	• Compliance Monitoring Programme • Audits and Inspections • Auditors and Inspectors • Findings, Corrective- and Preventive Actions • Classification of Findings
6	Management Evaluation	• Management Evaluation •Continuous Improvement
7	Reporting Scheme	• Reporting- and Feedback System • Occurrence Reporting
8	Emergency Response Planning	• Objectives and Scope • Concept and Planning
9	Management System Training	• Management System Basic Training • Management System Advanced Training • Management System Continuous Training
10	Record Keeping	• Record Keeping and Archiving
11	Contracting and Leasing	• Contracting and Monitoring of Contractors • Leasing • Code-Share Agreement

3.4 System of Amendment and Revision

The quality of the organisation's documentation and especially the internal processes related to its validation, distribution and control are determining factors as to the capacity of the organisation in order to ensure consistent adherence by the employees and to demonstrate effective compliance towards the competent authority.

The amendment procedure shall ensure that unforeseen changes should be notified at the earliest opportunity, in order to enable the competent authority to determine compliance with the applicable requirements and to amend the certificate and related terms of approval if necessary.

The amendment procedure must consider all interactions with the competent authority and effective distribution:

- submission of proposed revision / new issue after internal compliance verification;
- statement that the documentation sent to the competent authority has been verified and found in compliance with the applicable requirements;
- insertion of effective date after approval;
- provision of final edition to authority;
- effective distribution of manual without delay to employees concerned;
- ensuring awareness of personnel regarding the changes that are relevant to their duties;
- ensuring that all personnel have easy access to the portions of the OM that are relevant for their duties.

A clear reference to the applicable system of amendment and revision is necessary.

The document responsible/owner must be clearly defined.

3.5 Types of Revisions (Definitions)

Depending on the situation, the revisions may be carried out as:

- Standard revision:
  Regularly and permanently performed changes on specific subjects in Parts, Chapters and/or Subchapters;

- Temporary Revision
  Time limited changes or amendments, published additionally to the revision in effect.

  Temporary Revisions are to be cancelled after expiration or if no longer valid, appropriate or applicable. Temporary revisions are printed on yellow paper. The start and end date of the temporary revision is printed on the lower left-hand corner;

- Urgent Revision

When immediate amendments or revisions are required in the interest of safety, they may be published and implemented immediately, provided that any required approval has been applied for and HCAA is supplied with the intended revision. Immediate revisions may be published time limited as Temporary Revision or Standard Revision.

The above are graphically presented in Figure 2 bellow.

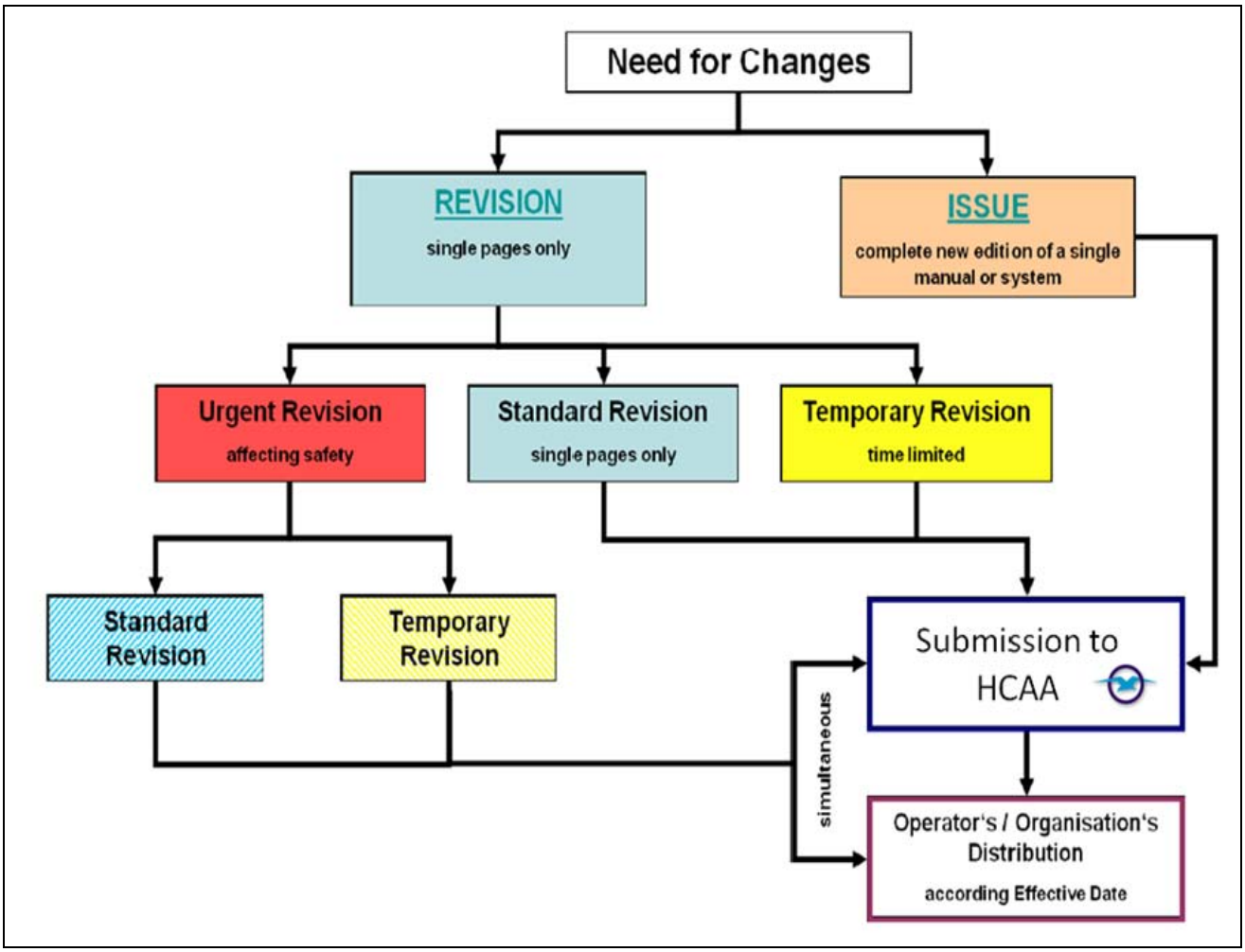


Figure 2. Types of revision

Example Responsibility Matrix:

Document	Owner	Content	Format	Content Owner								
				ACM	SM	CMM	NP FO	NP CT	NP GO	NP CAM	SECO	...
Management System	*CMM*	*Complete Organisation Documentation*	*EDP/Text-Paper*	X								
OMM	*ACM*	*Safety Management*	*EDP*		X							
		Compliance Monitoring	*EDP/Text-paper*			X						
		Occurrence Reporting	*EDP/Text-paper*				X					
		...										
OM A	*NPFO*	*Flight Procedures*					X					
		Ground Operations	*Text-Paper*						X			
		Operational Control	*Text-Paper*						X			
		...										
OM B Type A	*NPFO*	*Operating Procedures*					X					
OM B Type B	*NPFO*	*Operating Procedures*					X					
OM C	*NPFO*	*Route and Aerodrome*					X					
OM D	*NPCT*	*Flight Crew Training*						X				
		Cabin Crew Training						X				
		Management System Training				X						
		Security Training									X	
		...										
CAME	*CAM*									X		
....												

Example Revision/Amendment Process

Step	***Remarks***
Monitoring and change Identification	*- Collection of suggestions and discrepancies* *- Findings, corrective and preventive actions* *- Changes in relevant standards and Requirements* *- Change in Management*
Change Initialisation	*- Identify/define type of revision:* *- Revision or new edition?* *- Standard Revision?* *- Temporary Revision?* *- Urgent Revision?*
Elements requiring prior approval	*- Identify elements requiring prior approval* *- Verify administrative requirements* *- Ensure Compliance Check prior HCAA submission*
Establish draft of revision/amendment	*- Edit and establish change* *-Mark any changes to previous version by a vertical line on the border of the page* *-Eliminate change indicators from the previous revision of that page*
Compliance check	*-Verify compliance, compatibility and completeness with standards, requirements and regulations, harmonisation with other documents, viability and appropriateness* *-Conduct assessment of risks, if required* *-Verify the requirement of a detailed audit* *-Ensure traceability of changes* *-Check completeness*
HCAA Submission	*-Prepare submission in accordance with the administrative requirement* *-Submit revised pages as draft at least 30 days before the date of the intended changes* *-In case of unforeseen changes: inform HCAA at the earliest opportunity*

Document Evaluation	*- Apply corrective actions* *- Agree implementation or conditions with HCAA* *- Implement HCAA prescribed conditions under which the organisation may operate during the implementation* *- Agree effective Date with HCAA*
Distribution	*-If approval by HCAA required, initiate distribution and implementation only after formal approval or approval is received by HCAA* *- Add effective date* *- Complete List of Highlights of Revision* *-Distribute new edition/revision/amendment (including HCAA)* *- Ensure withdrawal of old version documents if necessary* *- Instruct / inform employees*
Up-date document / manual	*- Enter revision/amendment correctly* *- Sign and date the change in the Record of Revision* *- Send the signed Letter of Revision to the document owner*
Monitor	*- Monitor the reception and completion of the revision of each document holder*

3.6. Legislation relevant to changes (Regulation (EU) No 965/2012)

ARO.GEN.310 Initial certification procedure — organisations

(c) To enable an organisation to implement changes without prior competent authority approval in accordance with ORO.GEN.130, the competent authority shall approve the procedure submitted by the organisation defining the scope of such changes and describing how such changes will be managed and notified.

ARO.GEN.330 Changes — organisations

(a) Upon receiving an application for a change that requires prior approval, the competent authority shall verify the organisation's compliance with the applicable requirements before issuing the approval.

The competent authority shall prescribe the conditions under which the organisation may operate during the change, unless the competent authority determines that the organisation's certificate needs to be suspended.

When satisfied that the organisation is in compliance with the applicable requirements, the competent authority shall approve the change.

(b) Without prejudice to any additional enforcement measures, when the organisation implements changes requiring prior approval without having received competent authority approval as defined in (a), the competent authority shall suspend, limit or revoke the organisation's certificate.

(c) For changes not requiring prior approval, the competent authority shall assess the information provided in the notification sent by the organisation in accordance with ORO.GEN.130 to verify compliance with the applicable requirements. In case of any non-compliance, the competent authority shall:

(1) notify the organisation about the non-compliance and request further changes;

(2) in case of level 1 or level 2 findings, act in accordance with ARO.GEN.350.

ORO.GEN.130 Changes

(a) Any change affecting:

(1) the scope of the certificate or the operations specifications of an operator; or

(2) any of the elements of the operator's management system as required in ORO.GEN.200(a)(1) and (a)(2), shall require prior approval by the competent authority.

(b) For any changes requiring prior approval in accordance with Regulation (EC) No 216/2008 and its Implementing Rules, the operator shall apply for and obtain an approval issued by the competent authority. The application shall be submitted before any such change takes place, in order to enable the competent authority to determine continued compliance with Regulation (EC) No 216/2008 and its Implementing Rules and to amend, if necessary, the operator certificate and related terms of approval attached to it.

The operator shall provide the competent authority with any relevant documentation.

The change shall only be implemented upon receipt of formal approval by the competent authority in accordance with ARO.GEN.330.

The operator shall operate under the conditions prescribed by the competent authority during such changes, as applicable.

(c) All changes not requiring prior approval shall be managed and notified to the competent authority as defined in the procedure approved by the competent authority in accordance with ARO.GEN.310(c).

3.7 Implementation of legislation relevant to "changes"

3.7.1 Changes / Elements requiring prior Approval

Changes requiring prior approval may only be implemented by the organisation upon receipt of formal approval by the competent authority.

To provide an overview of the elements requiring prior approval, the process should include a reference to the HCAA "List of Approvals".

The Operator may choose to integrate the handling of elements requiring prior approval into the system of amendment and revision process or establish a separate process, defining the administrative procedures with HCAA.

The amendment procedure must specify, that the application is submitted before any changes take

place.

The application for the amendment of a certificate (AOC and/or OPS SPECs) should be submitted at least 30 days before the date of the intended changes.

3.7.2 Changes / Elements NOT requiring prior Approval

Prior approval by the competent authority is required for any changes to the Operator's procedure describing how changes not requiring prior approval will be managed and notified to the competent authority. Consequently, the complete system of amendment and revision, established for each manual concerned, must be approved by the competent authority.

3.8 Procedure of changes requiring prior approval

3.8.1 Specific Approvals (SPA)

An operation need to be specifically approved consists a major change for an operator and the AOC (Ops Specs) has to be varied. This change is "reflected" in its OM, but also it affects OMM as it may introduces extra areas to Compliance Monitoring and/or Safety Management.

The following steps have to be followed:

PHASE A (pre-approval PHASE)

- Operator submits to HCAA/D2/C an "Intention Letter" stating its intention to perform a Specific Operation (ie LVO). As attachments to this letter the Operator submits:
  a) SOP's for the specific operation
  b) Training syllabi, and
  c) Any other relevant documentation
- The Inspector(s), assigned for the specific task, check the submitted documentation.
- If the documentation is according to Regulations and HCAA procedures, a pre-Approval letter is sent to the Operator stating that they can proceed with crew training, etc. If the documentation is not in compliance with Regulations and procedures it is returned to the Operator in written.

PHASE B
If the Operator finishes the tasks that were approved according to PHASE A above (or in parallel to the extent this is possible), then:

- Operator submits an AOC variation file which includes:
  A cover letter addressed to HCAA/D2/C, and the following attachments:
  - AOC Variation Application Form
  - a "draft revision" of the relevant OM chapters (and/or chapters of other manuals which maybe affected),
  - the HCAA "Changes Application Form",
  - the relevant SPA Conformance/Application, and

- all other relevant documentation according to HCAA Specific Approvals procedures.

- The Inspector(s), assigned for the specific task, do a preliminary check of the submitted documentation to see if the application file is complete.
- If the file is complete the relevant HCAA procedure starts for the SPA. If the file is not complete it is returned to the Operator in written.
- After the assessment, if the Inspector(s) conclude that file is compliant to Regulations and Procedures, then an effective date is agreed with the Operator.
- HCAA/D2 issues a SPA approval letter, if this is required by D2/A (for example a DG Specific Approval is handled exclusively by D2/C Section, so this approval is not needed).
- The assigned inspector(s) complete accordingly the HCAA "Changes Application Form". The completed form consists the "Operations Approval" required by Legislation (EC) 216/2008 and its Implementing Rules. In this case the Form needs to be signed (besides the Inspector) by both the Head of Flight Ops Section and the FSDirector. The original copy is kept with the HCAA files and a copy is given to the Operator.
- The Operator distributes the OM revision (one copy of which is given to the HCAA), stating clearly the effective date.
- A new Ops Specs is issued by HCAA with effective date the one arranged above.

3.8.2 All other changes requiring approval

Such changes are for example: procedure for notification of changes, training programmes, fuel policy, the items referred to ORO.GEN.130 (a)(1)(2), adding an a/f, etc. A full list of all needed approvals is given at "HCAA Approval lists". The approval is granted "indirect" by approving the relevant OM revision, by completing the HCAA "Changes Application Form" (signed by the Inspector, the Head of Flight Ops Section and the FSDirector) and by issuing a new AOC/OPS Specs (if applicable).

The following steps have to be followed:

- Operator submits a "changes file" which includes:
  A cover letter addressed to HCAA/D2/C, and the following attachments:
  - AOC Variation Application Form (if applicable)
  - the HCAA "Changes Application Form",
  - a "draft revision" of the relevant OM chapters, and
  - all other supporting documentation (as applicable – for example the adding New Aircraft checklist completed and signed, etc)).
- The Inspector(s), assigned for the specific task, do a preliminary check of the submitted documentation, to see if the submitted file is complete.
- If the file is not complete it is returned to the Operator in written.
- If the Inspector(s), after the assessment, conclude that the file is compliant to Regulations and Procedures, an effective date for the OM revision is agreed with the Operator.
- The assigned inspector(s) complete accordingly the HCAA "Changes Application Form". The completed form consists the "Operations Approval" required by Legislation (EC) 216/2008 and its Implementing Rules. In this case the Form needs to be signed (besides the Inspector) by

both the Head of Flight Ops Section and the FSDirector. The original copy is kept with the HCAA files and a copy is given to the Operator.

- The Operator distributes the OM revision (one copy of which is given to the HCAA), stating clearly the effective date.
- A new Ops Specs or AOC is issued by HCAA (if applicable) with effective date the one arranged above .

Figure 3 shows graphically the procedures for changes requiring approval by HCAA.

3.9 Procedure of changes NOT requiring prior approval but Required to be notified to the HCAA

Changes not requiring prior approval by HCAA have to be notified to HCAA according to a procedure described in the OM and which need to be approved by the HCAA.

Such procedure of notification acceptable by HCAA is the following:

- Operator submits a "changes file" which includes: the HCAA "Changes Application Form" and the revision of the relevant OM chapters. The effective date of the proposed revision must be a date which gives HCAA at least a 30 day assessment period for the application.
- The date of the D2 protocol number given to the submitted file is that initiating a 30 days period in which HCAA has to communicate to the operator any objections to the proposed changes.
- HCAA Assessment. The assigned Inspector(s) must reply in written to the operator in 30 days only in case there are any changes required to the proposed revision or the revision is rejected all together.
- If there are no objections or required changes by HCAA the revision is valid from its effective date onwards.
- The assigned inspector(s) complete accordingly HCAA "Changes Application Form". The completed form consists the "approval" required by Legislation (EC) 216/2008 and its Implementing Rules. The original copy is kept with the HCAA files and a copy is given to the Operator.
- The Operator after the 30 days period has passed (and has not been notified otherwise by the HCAA) proceeds to the incorporation of its revision even if there is a delay of the "Changes Application Form" completed copy to arrive.

Figure 4 shows graphically the procedure for notification to HCAA changes which do not require prior approval by HCAA.

NOTE 1: When immediate amendments or revisions are required in the interest of safety, they may be published and applied immediately, provided that any approval required has been applied for.

HCAA will review the amendment in due time and may request further changes to it.

NOTE 2: The operator shall incorporate all amendments and revisions required by the competent authority.

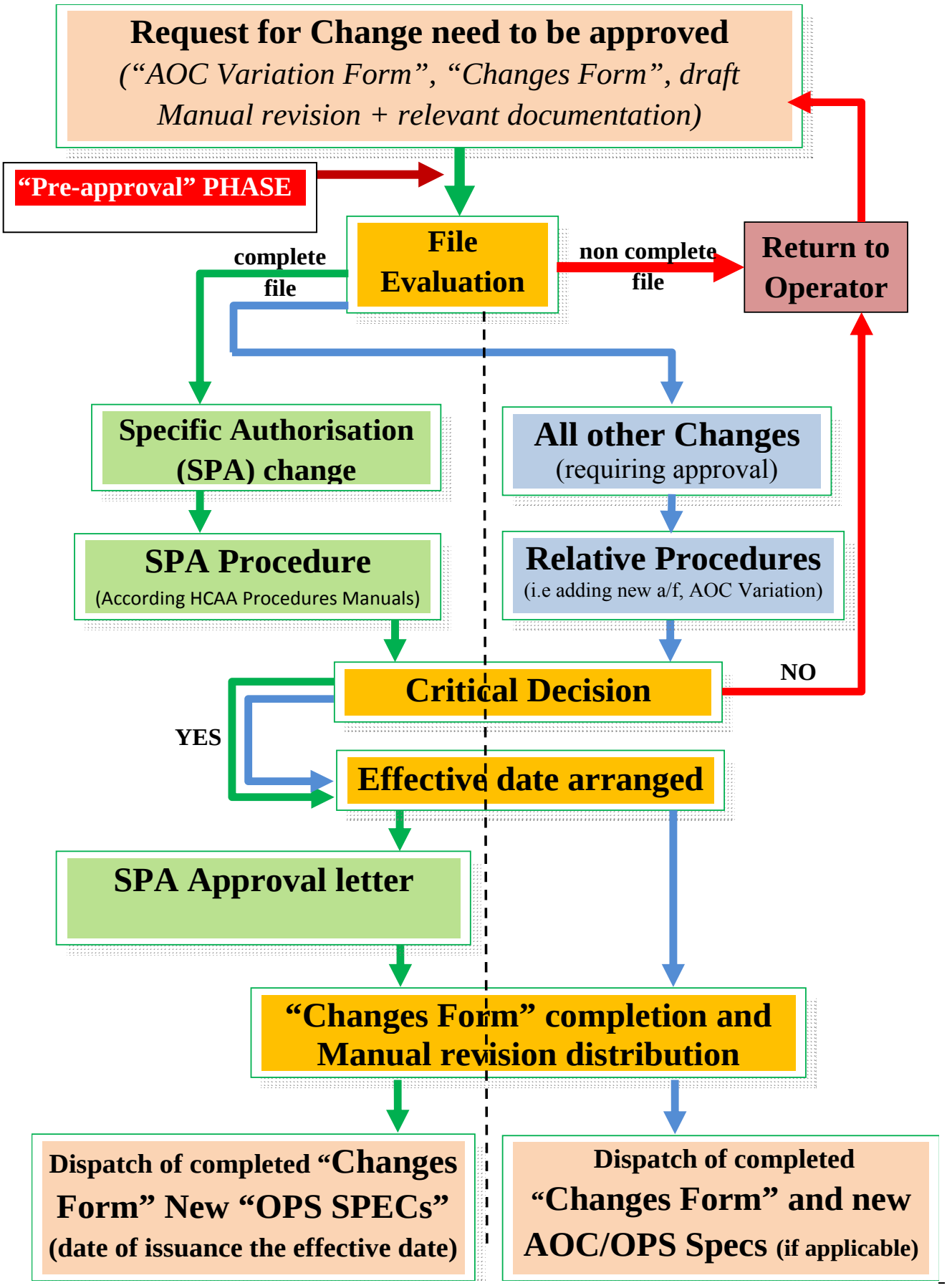

Request for Change need to be approved
("AOC Variation Form", "Changes Form", draft Manual revision + relevant documentation)
"Pre-approval" PHASE
File Evaluation
complete file
non complete file
Return to Operator
Specific Authorisation (SPA) change
All other Changes (requiring approval)
SPA Procedure
(According HCAA Procedures Manuals)
Relative Procedures
(i.e adding new a/f, AOC Variation)
Critical Decision
NO
YES
Effective date arranged
SPA Approval letter
"Changes Form" completion and Manual revision distribution
Dispatch of completed "Changes Form" New "OPS SPECs" (date of issuance the effective date)
Dispatch of completed "Changes Form" and new AOC/OPS Specs (if applicable)

Figure 3

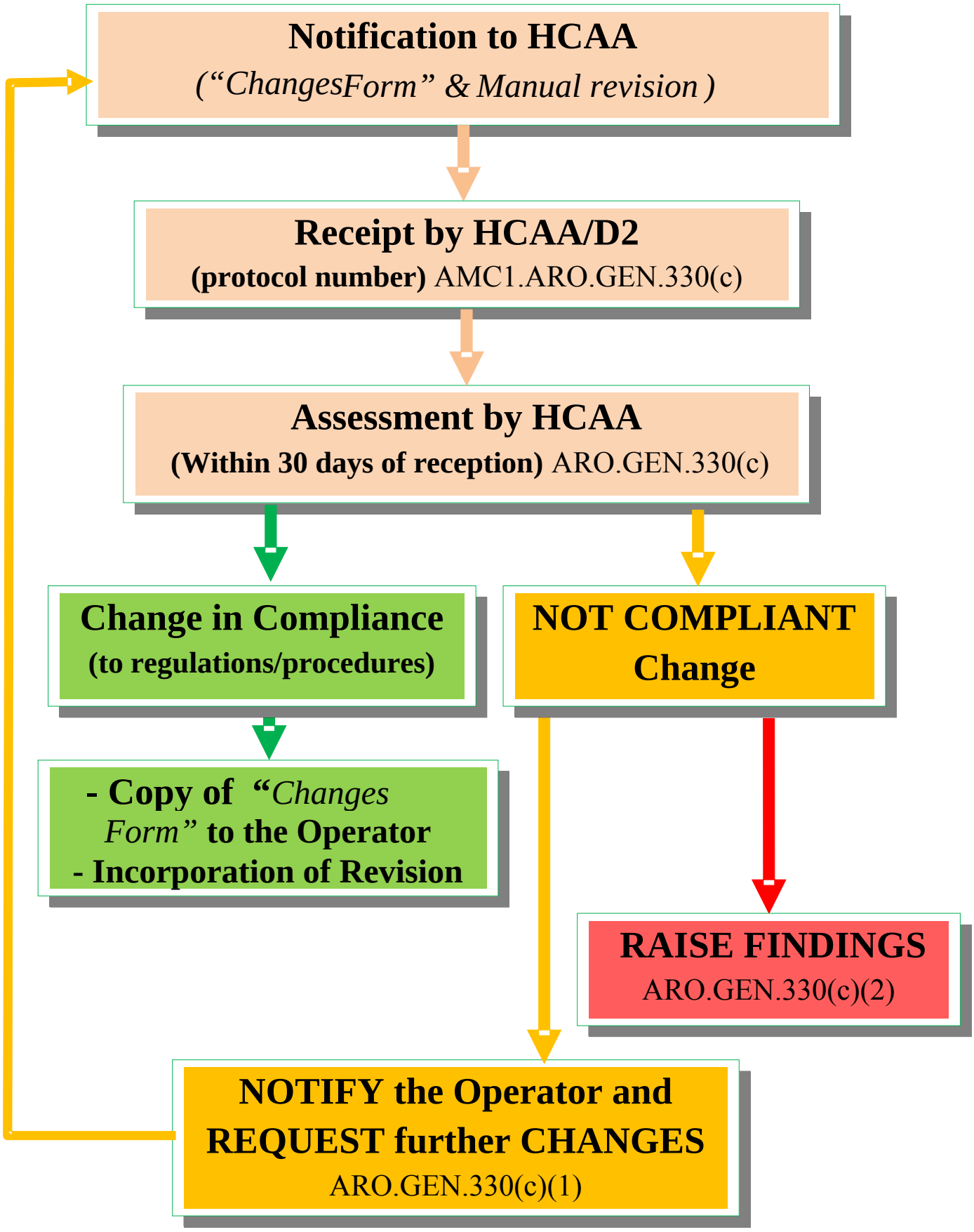

Notification to HCAA
("ChangesForm" & Manual revision)
Receipt by HCAA/D2
(protocol number) AMC1.ARO.GEN.330(c)
Assessment by HCAA
(Within 30 days of reception) ARO.GEN.330(c)
Change in Compliance
(to regulations/procedures)
NOT COMPLIANT
Change
- Copy of "Changes Form" to the Operator
- Incorporation of Revision
RAISE FINDINGS
ARO.GEN.330(c)(2)
NOTIFY the Operator and
REQUEST further CHANGES
ARO.GEN.330(c)(1)

Figure 4

3.10. Document Control of external / foreign Documents

- External documents are established and amended by third parties (e.g. law, international standards, manufacturers' documents, etc.). They have an impact on the organisation's activities and therefore often also on the organisation's standards.
- The amendment process shall ensure that new issues and revisions of foreign documents are identified.
- The process should specify who is responsible to identify changes in external (foreign) documents and who is in charge to identify the impact on the organisation's activities and specific standards. Major elements of such processes are :
  - Identify new issues and changes in external documents
  - Verify the impact on the companies processes
  - Trigger the amendment process
  - Ensure that old versions of documents are stored to ensure traceability
- Examples of external documents are: Aircraft Flight Manual, MMEL, Airworthiness Directives, Service Bulletins, commercially produced manuals or any kind of legal documents such as EASA Regulations.
- If the organisation decides to use material from another source for their Manual System they should either copy the applicable material and include it directly in the relevant part of the Manual, or the Manual should contain a statement, that the specific Manual(s) (or parts thereof) may be used instead.

3.11. Organisational Strategic Planning

- Strategic planning is an organisation's process of defining its strategy or direction, and making sustainable decisions on allocating its resources to pursue the predefined strategy. In order to determine the direction of the organisation, it is necessary to understand its current position and the possible options through which it can pursue a particular course of action. Generally, strategic planning deals with the following three key questions:
  - What do we do?
  - For whom do we do it?
  - How do we excel our competitors?

- In many organisations this is viewed as a process for determining the direction of an organisation over the next year (short term) or more typically over the next 3 to 5 years (long-term).

- The key components of strategic planning include an understanding of the Organisation's Vision, Mission, Values and Strategies. This is often as well referred to as the Organisation's Vision and Mission Statement. The terms Vision, Mission, Values and Strategy will be further explained:

- **Vision:** Outlines what the organisation wants to be, or how it wants the world in which it operates to be. This is an idealised view of the world. It is a long-term view and concentrates on the future. It can be emotive and is a source of inspiration.

- **Mission:** Defines the fundamental purpose of an organisation, concisely describing why it exists and what it does to achieve its vision.

- **Values:** Believes that are shared among the stakeholders and employees of an organisation. Values drive an organisation's culture, priorities and the way an organisation is operating. Values provide a framework in which decisions are made.

- **Strategy:** A strategy is a roadmap which is the path chosen to work towards the final vision. The most important part of implementing the strategy is ensuring the company is going in the right direction. Common tools to achieve a strategy are goals for which the organisation is striving and policies by which the organisation is seeking to get there.

• For an organisation's vision and mission to be effective, they must become assimilated into the organisation's culture. They should also be assessed internally and externally. The internal assessment should focus on how employees interpret their mission statement. The external one is valuable since it offers a different perspective. The discrepancies between these two evaluation methods can provide valuable information into their effectiveness.

Example for an Organisational Vision, Mission and Value:

Our Vision	*Be the leading and most successful VIP Business Operator:* *We are constantly innovating our services, taking the smallest detail into account in our pursuit of excellence and perfection.*
Our Mission	*Sophisticated, reliable and discreet travel experience around the world:* *• We are providing a full range of high quality hospitality and travel experience for our distinguished guests.* *• We are always one step ahead and anticipating our distinguished guests requests or desires throughout the entire service chain.*
Our Values	*Safety is paramount and the top priority in all our endeavours:* *• We are committed to a sustainable economical and ecological operation.* *• We are social, respectful and esteem cultural differences.* *• We believe in strong team behaviour and highly motivated employees through individual responsibility.*

3.12 The Company and its Scope of Activity

3.12.1 Scope of Activity

There shall be a description of the types of activities conducted by the organization.

- The detailed list of activities (e.g. specific approvals, type of training provided) should be defined in the respective manuals (e.g. Training Manual, MOE). As a consequence, a respective cross-reference from the OMM to the respective manual (e.g. Training Manual, MOE) must be established.

3.12.2 The Complexity of an Organisation

- The organisation shall be categorised in accordance with its scope, complexity, terms of risk criteria, full-time equivalent and terms of approval.

- If one of the certificate holders (e.g. AOC, ATO etc.) within the organisation is complex then the whole organisation is to be considered as complex even if one of the certificate holders is non-complex.

- An organisation 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.

- Organisations 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 comprising the following factors:

  - in terms of complexity, the extent and scope of contracted activities subject to the approval;
  - in terms of risk criteria, whether any of the following are present:
    I. operations requiring the following specific approvals: performance-based navigation (PBN), low visibility operation (LVO), extended range operations with two-engined aeroplanes (ETOPS), helicopter hoist operation (HHO), helicopter emergency medical service (HEMS), night vision imaging system (NVIS) and dangerous goods (DG);
    II. different types of aircraft used;
  - the environment (offshore, mountainous area etc.).

Example statement of complexity for complex organisation:

>20FTE	<20FTE	PBN	LVO	ETOPS	HHO	HEMS	NVIS	DG	Types	Mount.
YES	-	-	-	-	YES	YES	YES	YES	1	YES

Due to the size of the company and the kind of activities listed under the chapter "scope of activity" and the table above, the Organisation has to be considered complex.

Example statement of complexity for Non-Complex organisation:

>20FTE	<20FTE	PBN	LVO	ETOPS	HHO	HEMS	NVIS	DG	Types	Mount.
-	YES	NO	NO	NO	NO	NO	NO	NO	1	YES

Due to the size of the company and the kind of activities listed under the chapter "scope of activity", the table above and the associated risk assessment, in which the hazards for mountainous area are addressed, the organisation can be considered as non-complex.

3.13. Relevant legal Requirements and Standards

- The organisation shall list all legal requirements and standards relevant to its activities.

Example for Air Operator Certificate (AOC) holder, operating with cabin crew:

- **Basic Regulation** (EC) No 216/2008 of 20/02/2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency;

- Commission Regulation (EU) No 965/2012 of 05/10/2012 laying down technical requirements and administrative procedures related to **air operations**;

- Commission Regulation (EU) No 1178/2011 of 03/11/2011 laying down technical requirements and administrative procedures related to civil aviation **aircrew**;

- Commission Regulation (EU) No 290/2012 30/03/2012 (amending Regulation (EU) No 1178/2011) laying down technical requirements and administrative procedures related to civil aviation **aircrew**;

- Commission Regulation (EC) No 2042/2003 of 20 November 2003 on the **continuing airworthiness** of aircraft and aeronautical products, parts and appliances, and on the approval of organisations and personnel involved in these tasks;

- Legilation based on Directive 2003/42/EC of the European Parliament and of the Council of 13 June 2003 on **occurrence reporting** in civil aviation: P.D.120/2007 (FEK 121/A/16-6-07), Regulation (EC) No 1321/2007 and Regulation (EC) No 1330/2007.

3.14. Compliance Statement

Master text:

The undersigned declares, that

- our organisation's documentation (Management System) has been established and will be maintained in full compliance with the provisions of the legal requirements as stated in Chapter "Relevant Standards and Requirements" and that it complies with the terms and conditions of the company's Approval(s) and Certificate(s);

- I am responsible for the content of the Management System and confirm, that besides the requirements stated in Chapter "Relevant Standards and Requirements" all relevant national rules and regulations as well as ICAO standards and procedures are reflected in the different chapters;

- I am familiar with and understand the content and meaning of the Management System and will perform all duties in full accordance with it;

- the detailed knowledge of the relevant content is mandatory to all personnel concerned and we commit to make sure that they comply with the instructions given in the Management System and;

- I am aware of the fact, that HCAA does not approve/accept the organisation's documentation as such, but only specific elements thereof, as indicated on the respective compliance list. The responsibility for the completeness and the correctness of the organisation's documentation remains therefore solely with the organisation.

Accountable Manager:

Name:_____ Signature:_____

3.15 Flexibility Provision

- A Flexibility Provision is an exemption or derogation from (EC) 216/2008 (Basic Regulation) and its Implementing Rules.
- If an organisation needs an exemption or derogation with or without limited duration and can provide the same level of safety, the organisation has to provide HCAA with:

  - A written application;

- A full description of the exemption/derogation,
- The proposed revision/amendment or temporary amendment of the manual system reflecting the exemption or derogation; and
- A documented assessment including risk-assessment, demonstrating that Regulation (EC) No 216/2008 and its Implementing Rules are met.

- HCAA may prescribe conditions under which the organisation may operate during the exemption or derogation;
- The organisation must not implement an exemption or a derogation without having received the formal approval;
- Formal approval will be granted on specific documentation issued by HCAA and effective only after the organisation has received respective documentation.
- Approved exemption and derogations including those of limited duration, are to be stated in the management system documentation.

  - Those with limited duration, are listed by the temporary revision record;
  - The list for exemptions or derogations with unlimited duration should include:
    - Legal Reference;
    - Short description;
    - Date of Approval: and
    - a reference to the evidence and documentation of the exemption or derogation.

Note: Formal approval by HCAA will only be granted to the Organisation after EASA has approved the exemption or derogation to HCAA.

3.16. Alternative Means of Compliance (Alt MOC)

- Instead of using EASA Acceptable Means of Compliance (AMC), Alternative Means of Compliance (Alt MOC) may be established to ensure compliance with the Implementing Rules, provided the same level of safety is ensured.

- An organisation shall notify HCAA when it intends to use Alternative Means of Compliance
- HCAA has to be provided with:
  - An application;
  - A full description of the Alternative Means of Compliance,
  - The proposed revision/amendment of the manual system reflecting the application of the alternative means of compliance; and
  - A documented assessment, demonstrating that Regulation (EC) No 216/2008 and its Implementing Rules are met.

- In order to demonstrate that the Implementing Rules are met, the assessment shall include a documented risk-assessment. The result of this risk-assessment should demonstrate that an

equivalent level of safety as the one established by the Acceptable Means of Compliance (AMC) adopted by the EASA is reached.

- HCAA may prescribe conditions under which the organisation may operate during the implementation of an Alternative Means of Compliance;
- The organisation must not implement Alternative Means of Compliance without having received the formal approval;
- Formal approval will be granted on specific documentation issued by HCAA and effective only after the organisation has received respective documentation.

- Approved Alternative Means of Compliance are to be listed in the management system documentation. The list should include:

  - Legal Reference
  - Short description
  - Date of Approval: and
  - a reference to the evidence and documentation of the Alternative Means of Compliance

Example: List of approved Alternative Means of Compliance with a brief description:

Legal Reference	**Short Description**	**Date of Approval**	**Reference**
ORO.MLR.101	*Difference in the sequence of OM-A subchapter in Chapter 8 "Operating Procedures".*	*DD.MM.YYYY*	*Alt MOC HCAA Ref No*
…			

3.17. Location, Facilities and Infrastructure

A description of all Facilities and their use, the Location and the Infrastructure of the Operator shall be included in the OMM. A plan of the premises (if possible) should be included also.

3.18. Access and Power of Authorities

- The organisation shall specify how access is granted to the competent authority:

Master text:

a) For the purpose of determining compliance with the relevant requirements of Regulation (EC) No. 216/2008 and its Implementing Rules, the organisation shall grant access to any facility, aircraft, document, records, data, procedures or any other material relevant to its activity subject to certification, whether it is contracted or not, to any person authorised by HCAA.

b) Any person authorised by the HCAA is permitted to board and fly in any aeroplane operated in accordance with the AOC at any time, and to enter and remain on the flight deck. Any person authorised by the competent civil aviation authority of an EASA member state is permitted to enter the Aircraft and to perform inspections on its territory.

However, the commander may refuse access to the flight deck if he believes the safety of the aeroplane would be endangered.

4 Organisation, Lines of Responsibilities and Accountabilities

4.1. Organisational Structure – General Concept

- Lines of Responsibilities means a graphic representation of the structure of an organisation showing the relationships of the positions also referred to organisation chart;

- This chapter should provide a definition of the organisational structure e.g. by means of organigram(s) / organisational chart(s), which show all relevant functions including their hierarchy. This, preferably without names, in order to avoid duplications with the subsequent list of nominated persons and management personnel as well as with Chapter 1 of the OM.

- According to the scope and complexity of the organisation, the organisation's subordination and reporting lines shall clearly show the relationship between divisions, departments and functions defined and shall represent the organisation as a whole. Additionally, the organisation chart should show the lines of responsibility between nominated persons.

- The Safety Review Board (SRB) (relevant for complex organisations) should be part of the organisational structure and therefore be visualised in the organisation chart.

- To summarise, the OMM contains a general organigram which includes the general functions only, and a cross-reference to subordinated organisational structures as defined in other relevant manuals.

  Figure 5 below gives a simplified sample of Organisational Structure.

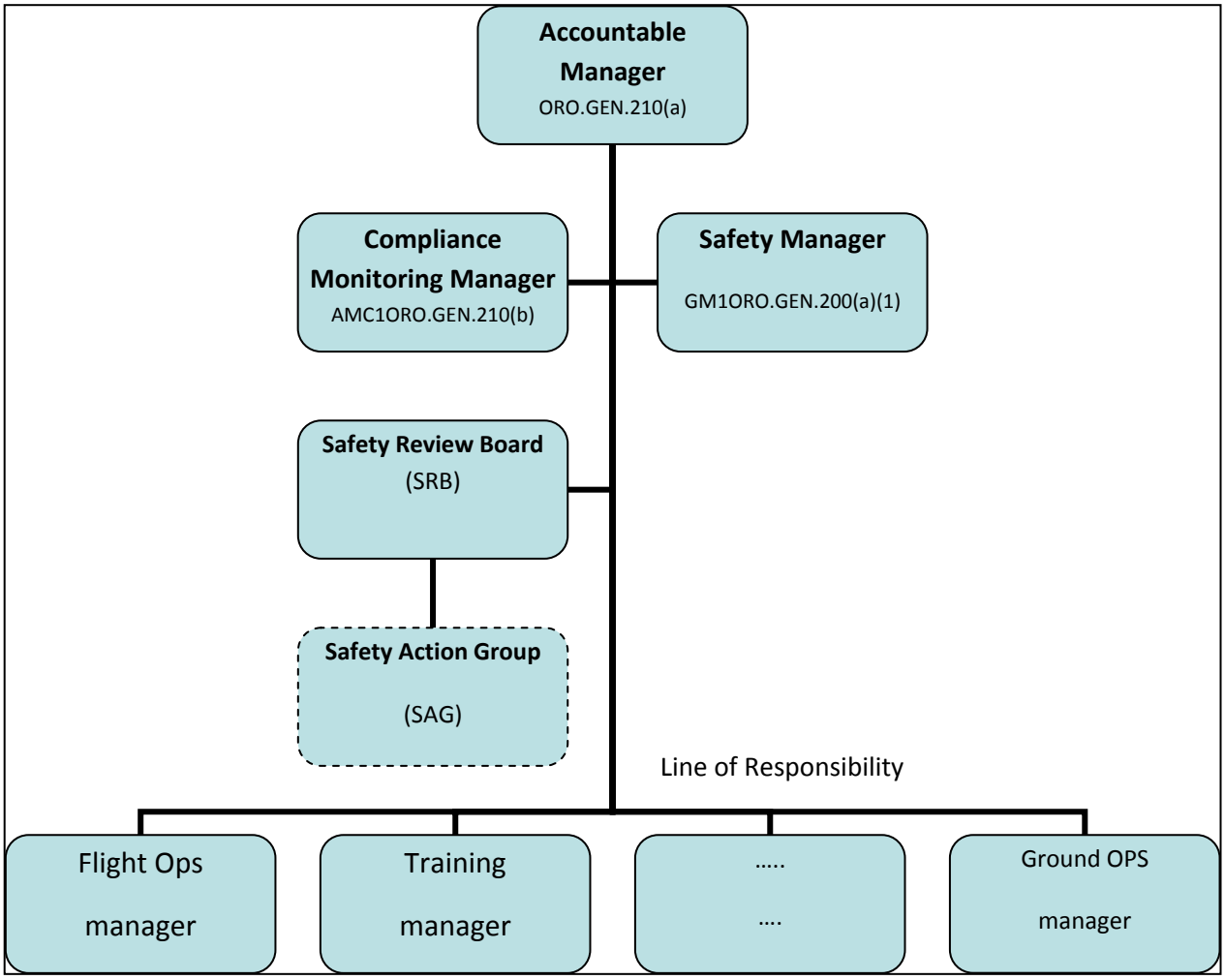


Figure 5: Organisational Structure

4.2. Personnel Requirements

General:

- The following functions must be assigned:
  - Accountable Manager;
  - Safety Manager;
  - Compliance Monitoring Manager.
- Additionally, persons responsible for the management and supervision of the following areas, shall be assigned:
  - flight operations;
  - crew training;
  - ground operations;
  - continuing airworthiness in accordance with Regulation (EC) No 2042/2003.
- Those persons may not act as Compliance Monitoring Manager.
- The person nominated by the holder of an AOC should not be nominated by another holder of

an AOC, unless agreed with HCAA.

Non Complex Organisation

- The Accountable Manager may exercise the task as Compliance Monitoring Manager and/or Safety Manager.

4.3 Management Personnel – Name and Contacts

- The list of management personnel shall include:
  - The function;
  - Name of the function holder;
  - Name of deputy;
  - Contact details: Phone Number, Mobile Number and Email.

Note: A duplication of names and contact details shall be avoided. The example below avoids duplications by refereeing to Chapter 1 of the OM for the names and contact details of the nominated persons.

Example: Management Personnel – Name and Contacts

Function	***Name of Function Holder*** ***Name of Deputy***	***Contact details***
Accountable Manager	*A.M*	*Office No* XYZ street *ph: +30210 .....* *mobile: +3069.....* *am@airline.gr*
	D.A	*Office No* *XYZ street* *ph: +30210 .....* *mobile: +3069.....* *daz@airline.gr*
Safety Manager (SM)	S.M	
	D.S	
Compliance Monitoring Manager (CMM)	C.M	
	D.C	
Flight Operations NPFO	*Refer to OM A chapter 1.xx*	
Crew Training NPCT	*Refer to OM A chapter 1.xx*	
Ground Operations NPGO	*Refer to OM A chapter 1.xx*	
…….		

4.4. Duties, Responsibilities and Accountabilities – Concept

There should be a comprehensive concept on how the accountability, duties and responsibilities are defined and listed in the document system.

Accountability is the liability created for the use of authority. Authority is the right or power assigned to an executive or a manager in order to achieve certain organisational objectives.

The following paragraph is a concept guideline for designating duties, responsibilities and authority within the Organisation's Manual System:

- As a main concept, the functions/duties and responsibilities of the Accountable Manager (ACM), Safety Manager (SM), Compliance Monitoring Manager (CMM), shall be defined in the OMM. It is recommended to specify the subordinated functions and nominated persons (including duties and responsibilities) in the respective manual (e.g. OM, CAME, MOE) to avoid duplications.

- Ideally duties and responsibilities are to be established in a simple but logical order:
  - Short, brief description of the accountability and the function;
  - Reporting to (subordination);
  - Duties and responsibilities;
  - Power and authority.

- Besides the duties, responsibilities and accountabilities as required by the respective organisation and/or part of the duties and responsibilities concerning the Management System, the following are to be included in the duties and responsibilities for each nominated person:

  - Allocation of responsibilities and duties and issuing instructions to individuals, sufficient for implementation of the safety policy and the safety standards, in their area of activity;
  - Monitoring of safety standards, including the adherence of employees to these standards, also by means of inspections;
  - Evaluation of safety performance indicators in their field of activity;
  - Evaluation of safety relevant records in order to avoid the occurrence of undesirable trends;
  - Recording and analysis of any deviations from company specific standards and ensuring correction, corrective action and preventive action within the organisational unit;
  - Compilation of periodical data evaluation as an input to management evaluation activities;
  - Promotes corporate culture of safety and quality, philosophy, policies and overall standard of performance, risk awareness and associated behaviour;
  - Assurance of a comprehensive document and record management/ storage/ archive and liaising with HCAA regarding administration and coordination;
  - Assurance that all subordinates meet the qualification requirements for their respective activities, management and planning of continuous education/ currentness and career development of the subordinates.

4.4.1 Accountable Manager (ACM)

- The accountability, responsibilities and duties of the Accountable Manager shall include:
  - His duty to endorse the safety policy;
  - His responsibility of establishing and maintaining an effective Management System;
  - His authority to ensure that all activities can be financed and carried out in accordance with the applicable requirements;
  - His authority to designate the Compliance Monitoring Manager;
  - His duty to grant direct access to nominated persons and the Compliance Monitoring Manager;

- His duty to ensure that sufficient resources are allocated, taking into account the size of the organisation and the nature and complexity of its activities.
- His accountability in relation to Safety Policy, that the management personnel (senior management):
  - continually promote the Safety Policy to all personnel and demonstrate their commitment to it;
  - provide necessary human and financial resources for its implementation; and establish safety objectives and performance standards
  - to endorse the Safety Policy

Non-Complex Organisations:

- The Accountable Manager may exercise the task as Compliance Monitoring Manager provided he has demonstrated having the appropriate defined competence and that audits are conducted by an independent body.
- The Accountable Manager may exercise the task as Safety Manager and Compliance Monitoring Manager.

4.4.2 Safety Manager (SM)

- The safety manager should act as the HCAA point and be responsible for the development, administration and maintenance of an effective safety management system.
- The functions of the safety manager should be to:
  - facilitate hazard identification, risk analysis and management;
  - monitor the implementation of actions taken to mitigate risks and evaluates their results/effectiveness;
  - provide periodic reports on safety performance;
  - ensure maintenance of safety management documentation;
  - ensure that there is safety management training available and that it meets acceptable standards;
  - provide advice on safety matters; and
  - ensure initiation and follow-up of internal occurrence / accident investigations.
  - actively promotes corporate culture for safety;

- The Safety Manager may be assisted by additional safety personnel.

- The function of the Safety Manager may be combined with the Compliance Monitoring Manager. In such cases, the Accountable Manager should ensure that sufficient resources are allocated to both functions.

Complex Organisations:

- The Safety Manager may attend, as appropriate, Safety Review Board meetings. He may communicate to the Accountable Manager all information, when necessary, to allow decision-

making based on safety data.

Non-Complex Organisations:

- The Safety Manager may be the Accountable Manager or a person with an operational role within the organisation.

4.4.3 Compliance Monitoring Manager (CMM)

The Compliance Monitoring Manager should be designated by the Accountable Manager.

The responsibilities, duties and competences of the Compliance Monitoring Manager should include:

- Ensuring that the activities of the organisation are monitored for compliance with the applicable regulatory requirements and standards, as well as any additional requirements as established by the organisation;
- Ensuring that these activities are being carried out properly under the supervision of the relevant head of the respective functional area;
- Responsibility to ensure that the compliance monitoring programme is properly implemented, maintained, continually reviewed and improved;
- Performing of audits and inspections provided he has the related competence in the area of audits/inspections to be conducted. He may appoint one or more auditors by choosing personnel having the related competences either from within or outside the organisation, assuring their independence.
- Direct accessibility to the Accountable Manager;
- Not being one of the other persons (Nominated Person - NP) referred to:
  - Flight Operations
  - Crew Training
  - Ground Operations
  - Continuing Airworthiness
- Ability to demonstrate relevant knowledge, background and appropriate experience related to the activities of the organisation, including knowledge and experience in compliance monitoring; and
- Accessibility to all parts of the organisation, and if necessary, any contracted organisation.

In case, that the same person acts as Compliance Monitoring Manager and as Safety Manager, the Accountable Manager should ensure that sufficient resources are allocated to both functions.

Non-Complex Organisations:

The task as Compliance Monitoring Manager may be exercised by the Accountable Manager provided he has demonstrated having the related competence.

5. Safety Management

5.1 Safety Policy

Safety Policy

- The Safety Policy is the means whereby the organisation states its intention to maintain and, where practicable, improve safety levels in all its activities and to minimise its contribution to the risk of an aircraft accident as far as is reasonably practical.

- The safety policy should be endorsed by the Accountable Manager.

- Safety policies are to reflect organisational commitments regarding safety and its proactive and systematic management.
- As a minimum, Safety Policies should include commitment:
  - to improve towards the highest safety standards;
  - to comply with all applicable legislation, meet all applicable standards and consider best practices;
  - to provide appropriate resources;
  - to enforce safety as one primary responsibility of all managers; and
  - not to blame someone for reporting something which would not have been otherwise detected

Safety Policy Deployment

- The organisation should define how the Safety Policy is deployed within the organisation. Preferably, this should be combined with the business planning and steering process of the organisation, where the definition and communication of annual goals are part of it.

- The promotion of the safety policy is part of the management activities of all management personnel. Beside the publication the safety policy should be actively disseminate in the various training events, meetings, decision process and in any other daily activity.

Example Safety Policy:

XX is committed to ensure the safest operation possible satisfying Authorities and our customers' expectations –Our philosophy is to create and maintain a company which is healthy, proactive, safe, and successfully focused on business continuity. Therefore, it is imperative that all employees have uninhibited access to report accidents, incidents and occurrences.

Every employee is expected to show commitment to communicate in writing, or verbally to the Flight Safety Organisation, any incident that may affect the integrity of safety, including Flight, Maintenance and Ground safety; this communication shall be free of reprisal.

XX will not initiate disciplinary action against any employee who discloses an occurrence involving safety, in accordance with the company's Just Safety Culture.

Occurrences with elements of gross neglect, intentional violations (SOP/MOP) or criminal act are exempt from the above statement and will not be tolerated.

Company Safety should be the concern of all employees at any level in the organisation; however the primary responsibility rests with the Management.

Procedures for collecting, recording and disseminating information have been developed to protect the identity of any employee who provides safety information to the extent permissible by law.

The Reporting Systems, including the above-mentioned Non Reprisal Policy, are: Mandatory Occurrence Reporting Systems (FSR/MOR)
Company Safety Reports Other confidential information

The sole purpose of safety reporting and internal investigations is to improve safety and not to apportion blame to individuals.

XX urges all employees to use the implemented Safety Management System in order to attain the highest level of safety in relation to our common goals.

Distribution of safety documents to sources outside of XX by any employee will be considered a violation of the confidentiality statement, which is accepted by the employee in his/her individual employment agreement and according to the Company Business Policy.

Accountable Manager:

*Name:*_____ *Signature:*_____

Safety Culture

The ideal safety culture is where staff and systems work supportively and constructively together in an environment where discovered errors are recognised and utilised in a positive and constructive way with a no-blame culture, i.e. with a Just Safety Culture as background.

- An "Informative" culture, which requires the management of all systems to have a positive knowledge view concerning human, technical, organisational and environmental factors with impact/contribute to the organisation, allowing for errors to occur.

- A "Flexible" culture open for changes based on "learning from experiences" and a solid safety culture with priorities for example on SAFETY – SCHEDULE – COMFORT- ECONOMY configuring the business in a timely and controlled manner to new challenges, changing conditions, environment and regulations.

- A "Reporting" culture based on an open organisational climate where all involved are encouraged to report all occurrences deviating from known standards and requirements,

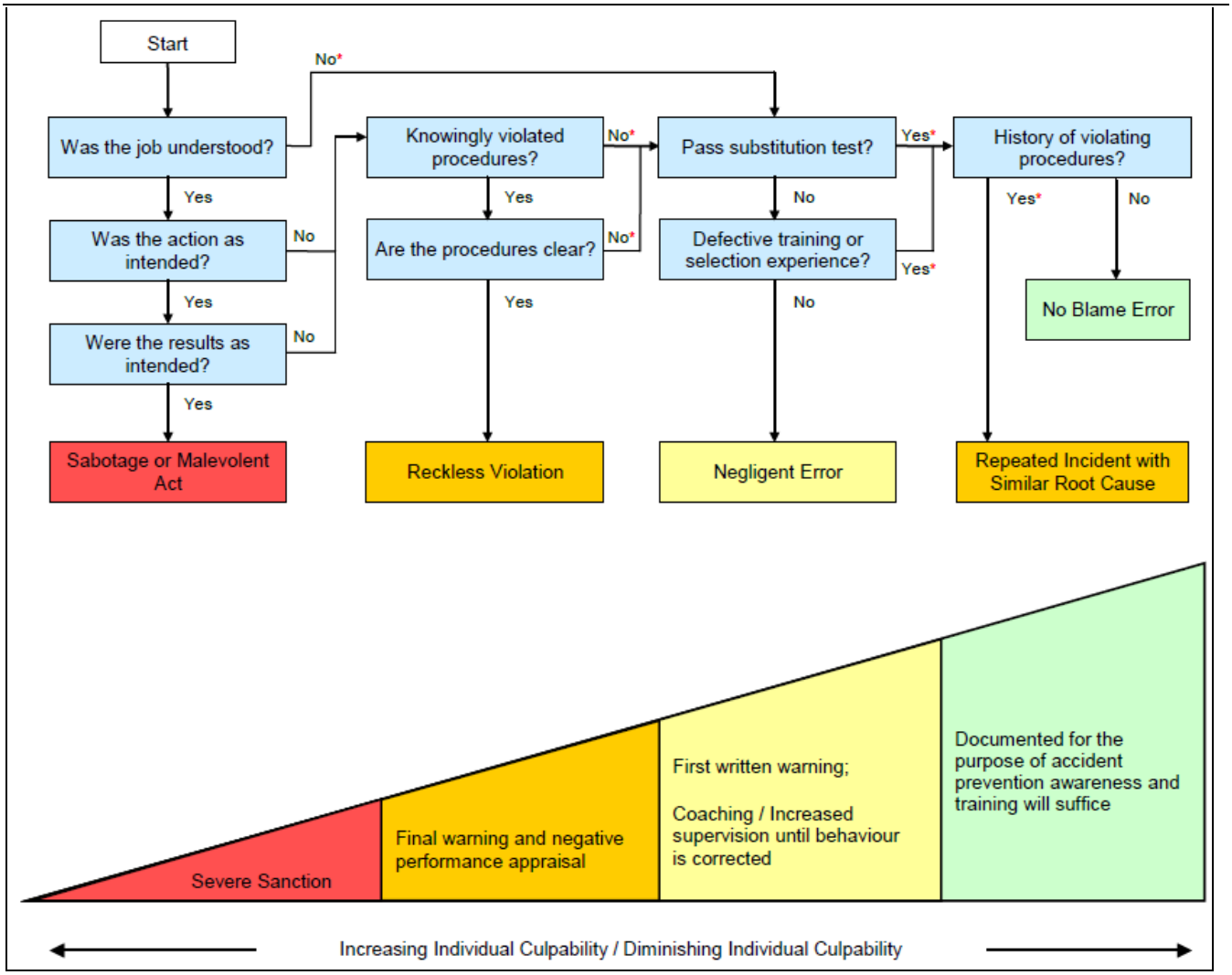
hazards and errors without any retribution.

- A “Learning” culture willing to perform proactive and corrective actions, and take appropriate action and decisions based on conclusions from relevant information. Willing to implement major reforms where deemed necessary.

Decision Tree for Unsafe Acts Culpability:

- In order to strongly support and foster the organisation’s Just Safety Culture the implementation of the below Decision Tree for Unsafe Acts Culpability is recommended. The organisation may use the decision tree when analysing an adverse event or error. This will help to identify how human factors and organisational system deficiencies have contributed to the event.

- The below box and question “Pass Substitution Test” requires some further explanation: Would three other individuals with similar experience act in the same manner, in a similar situation and environment as the person being evaluated? If the answer is “Yes”, the problem is not the individual, but more likely the environment that would lead most individuals to that action. If the answer is “No”, it is more likely that the individual being evaluated is more culpable and accountable.



(*) Indicates a "System" induced error. Management personnel must evaluate the part of the system that failed and what corrective action and preventive action is required. Corrective and preventative action shall be documented for management review/evaluation.

Figure 6: Decision Tree for Unsafe Acts Culpability

5.2 Hazard Identification and Risk Management

- The management system shall include the identification of aviation safety hazards entailed by the activities of the organisation, their evaluation and the management of associated risks, including taking actions to mitigate the risk and verify their effectiveness.

  A formal risk management process shall be developed and shall be maintained to ensure that analysis, in terms of likelihood and severity of occurrence; assessment, in terms of tolerability; and control, in terms of mitigation of risks to an acceptable level. Additionally, the levels of management who have the authority to make decisions regarding the tolerability of safety risks shall be specified.

The hazard identification process is the formal means of collecting, recording, analysing, acting on and generating feedback about hazards and the associated risks that affect the safety of the Company's operational activities.

Complex Organisations

- In complex organisations the Safety Manager should facilitate hazard identification and risk analyses management. The Safety Management System which is an integrated part of the Management System should include hazard identification and risk management schemes which address reactive, proactive and predictive schemes.

  The reactive approach consists of analysing accidents and incidents which have already occurred. The proactive approach consists of analysing the organisations activities without having an occurrence. The predictive approach captures the system performance in real-time to identify potential problems, it characterises a mature system.

  The process should address the identification of the hazards, a risk assessment in terms of tolerability and a mitigation process

Non-Complex Organisations

- The Safety and Risk Management may be performed using hazard checklist (refer to the example GAR-Model and example for hazard checklist for operational area planning)

Definition and explanation for hazard identification and risk management

- Definitions of hazard and risk

  Hazard: Condition or object with the potential of causing injuries to personnel, damage to equipment or structures, loss of material, or reduction of ability to perform a prescribed function**.**

  Risk: The assessment, expressed in terms of predicted probability and severity, of the consequence(s) of a hazard taking as reference the worst foreseeable situation.

- Relation between Risk Management and Safety Assurance

  The Risk-Management and Safety Assurance activities are both very important elements, refer to the following scheme:

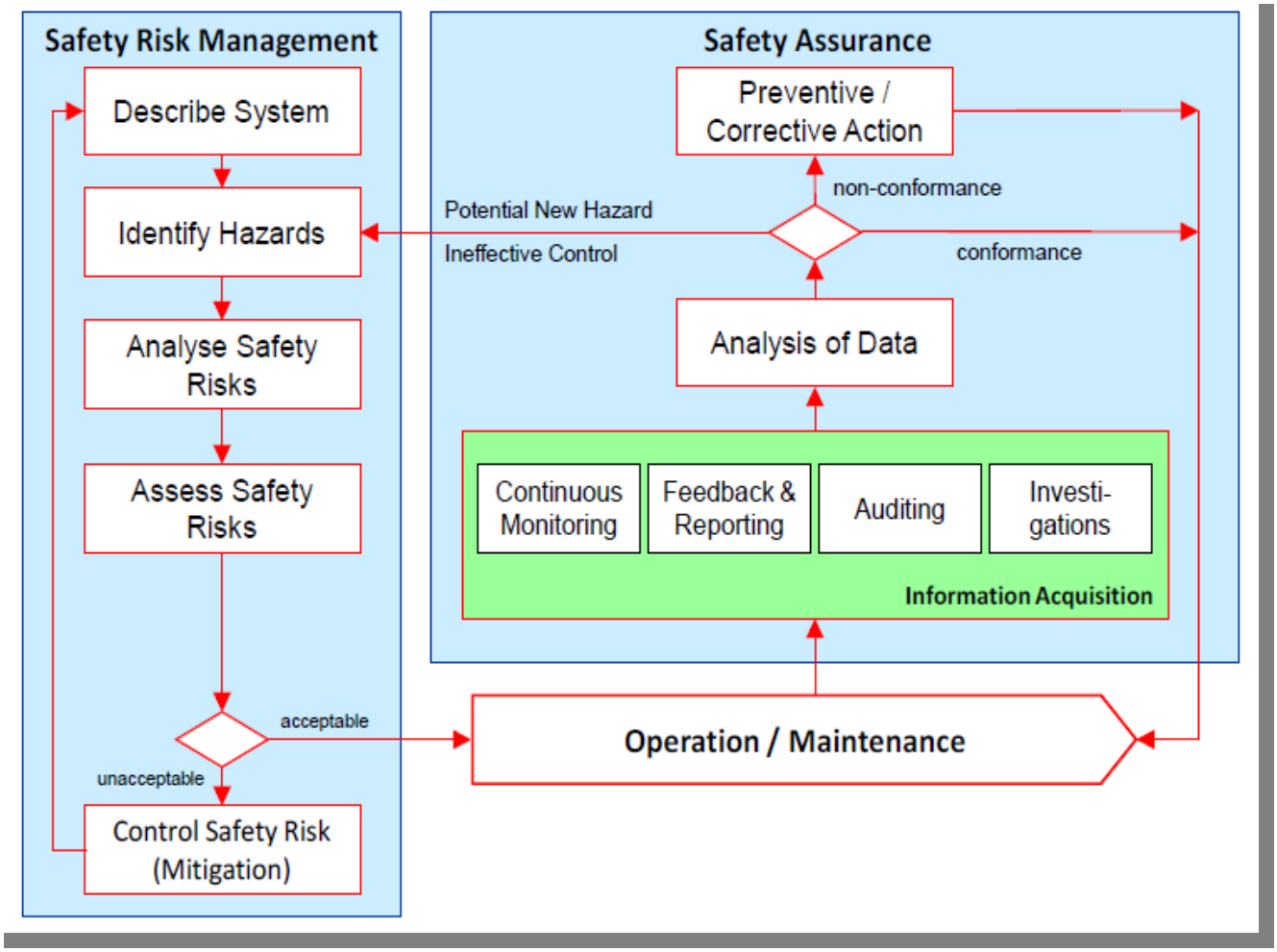


Figure 7: Risk-Management and Safety Assurance activities

- Hazard and Risk Mitigation Process

  All employees are obliged to report any condition or object with the potential of causing injuries to personnel, damage to equipment or structures, loss of material, or reduction of ability to perform a prescribed function (Hazard) to the Safety Manager. The Safety Manager is responsible to note and identify the reported hazard and asses its consequences and its risk in terms of probability and severity, considering existing mitigations (refer to Hazard Form for Safety Manager). Depending on the Risk, defenses to mitigate the risk have to be defined until the risk is considered acceptable and thereafter be controlled for their effectiveness.

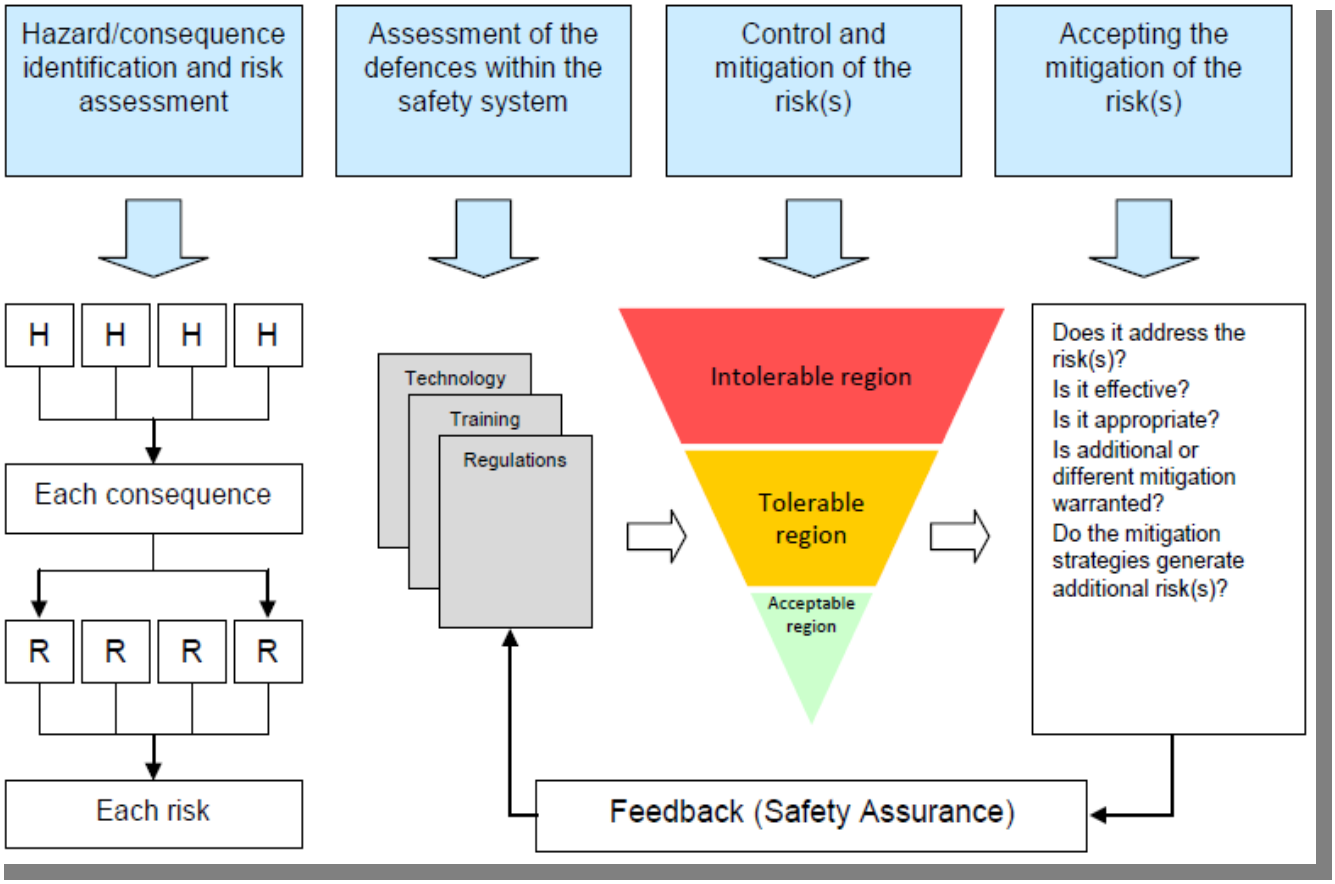


Figure 8: Hazard and Risk Mitigation Process

Example Hazard reporting form:

Description of Hazard (situation which could lead to an incident/accident)		
Proposal for preventive action: *Avoiding that an occurrence/accident occurs*		
Date &Signatures		
Reporter (s)	***Safety Manager***	***Line Manager***

Example: Hazard Identification form for Safety Managers

1. Hazard Reference:		***Title:***			
		No: ***H-YYYY-xxx*** *(e.g. H-2013-001)*			
2. Area : *(Specify the system to be considered. Does the hazard apply to a subset or the whole System?)*					
3. Hazard Description: *(Describe the Scenario)*					
4. Hazard Causes: *(Categories: Software, Hardware, Environment, Liveware i.e. Human Factors, Interfaces)*					
5. Hazard Consequence: *(Include any existing mitigations or assumptions which limit theconsequences)*					
6. Suggested Close Out Action(s): *(Include any safety analyses required)*					
7. Information Provider		Date/Signature			
8. Initial Hazard / Risk Ranking / Pre-mitigation actions					
Hazard Frequency: *(How often an event may occur)*	√	***Accident Severity:*** *(The severity of the potential accident arising from a hazard)*	√	***Risk Classification:*** *(Initial qualitative judgement)*	√
Frequent		*Catastrophic*		*Unacceptable*	
Occasional		*Hazardous*		*Tolerable*	
Remote		*Major*		*Acceptable*	
Improbable		*Minor*			
Extremely improbable		*No Significant Safety Effect*			
9. Division Manager *Responsible for Oversight of Mitigation Actions*		***10. Action***	***Responsible***		***Due Date***
		1.			
		2.			
		3.			
11. Approval of Accountable Manager			*Date/Signature*		

Example: Probability Classification

Probability Clasification	**Definition**	
Frequent 5	***Qualitative***	*Likely to occur many times (has occurred frequently)*
	Qualitative (System/Fleet)	*May occur several times during operational life of the system*
	Quantitative	*Probability of occurrence per operational hour is greater than 1 x 10^{-3}*
Occasional 4	***Qualitative***	*Likely to occur sometime (has occurred infrequently)*
	Qualitative (System/Fleet)	*May occur once during total operational life of the system*
	Quantitative	*Probability of occurrence per operational hour is between 1 x 10^{-3} to 1 x 10^{-5}*
Remote 3	***Qualitative***	*Unlikely but possible to occur (has occurred rarely)*
	Qualitative (System/Fleet)	*Unlikely to occur during total operational life of each system but may occur several times when considering several systems of the same type*
	Quantitative	*Probability of occurrence per operational hour is between 1 x 10^{-5} to 1 x 10^{-7}*
Improbable 2	***Qualitative***	*Very unlikely to occur (not known to have occurred)*
	Qualitative (System/Fleet)	*Unlikely to occur when considering several systems of the same type, but nevertheless,has to be considered as being possible*
	Quantitative	*Probability of occurrence per operational hour between 1x10^{-7} to 1x10^{-9}*
Extremely improbable 1	***Qualitative***	*Almost inconceivable that the event will occur*
	Qualitative (System/Fleet)	*Has never occurred yet throughout the total operational life of an entire system or fleet*
	Quantitative	*Probability of occurrence per operational hour is less than 1x10^{-9}*

Example: Severity classification

Severity Classification	***Severity Indicators***			
	Level of damage	***Level of injury***	***Safety Barriers*** *(e.g. Emergency procedures, technical systems)*	***Operational / Human Factors***
Catastrophic 5	*- Loss of Aircraft - Equipment destroyed*	*Multiple fatalities*	*No safety barriers remaining*	*- Complete reduction of operational capability - Complete loss of control - Outcome is not under control - Operator is unable to avoid accident*
Hazardous 4	*Substantial aircraft or equipment damage*	*Fatal or Serious injuries to a number of people*	*None or very few safety barriers remaining*	*- Large reduction of operational capability - Physical distress - Excessive workload such that operators cannot be relied upon to perform required tasks accurately or completely*
Major 3	*Minor damage to aircraft or equipment*	*Individual Serious injuries butno fatalities*	*Several safety barriers remaining*	*- A significant reduction in the capability of the operators to cope with adverse operating condition - Significant increase in operator workload, and - significant concern over the consequences of failure - Conditions impairing operator efficiency or creating significant discomfort - Physical distress to passengers and operators*
Minor 2	*Insignificant damage to aircraft or equipment*	*Individual minor injuries*	*Multiple safety barriers remaining Alternate/ emergency procedures are able to compensate for functional loss/ nuisance*	*-Actions required by operators are well within their capabilities but cause slightly increased - workload/operation limitations/loss of efficiency - Some physical discomfort to passengers (not to operators) - Nuisance*
No Significant Safety Effect 1	*No damage to aircraft or equipment*	*No injury*	*Existing safety barriers come into play to avoid the event turning into a minor incident*	*-Nuisance/Failure can be eliminated by routine action, or -does not require action at all*

Example Risk Matrix:

		Risk Severity				
Risk probability		***Catastrophic***	***Hazardous***	***Major***	***Minor***	***No Significant Safety Effect***
		5	***4***	***3***	***2***	***1***
Frequent	***5***	*25*	*20*	*15*	*10*	*05*
Occasional	***4***	*20*	*16*	*12*	*08*	*04*
Remote	***3***	*15*	*12*	*09*	*06*	*03*
Improbable	***2***	*10*	*08*	*06*	*04*	*02*
Extremely Improbable	***1***	*05*	*04*	*03*	*02*	*01*

Example: Definition of tolerability matrix:

Classification	*Definition*
Unacceptable	*A risk falling into this region is regarded as unacceptable whatever the level of benefits associated with the activity. Any activity or practice giving rise to risks falling in that region would, as a matter of principle, be ruled out unless the activity or practice can be modified to reduce the degree of risk so that it falls in one of the regions below, or there are exceptional reasons for the activity or practice to be retained.*
Tolerable	*Risks in that region are typical of the risks from activities that people are prepared to tolerate in order to secure benefits, in the expectation that:* *• the nature and level of the risks are properly assessed and the results used properly to determine control measures. The assessment of the risks needs to be based on the best available scientific evidence and, where evidence is lacking, on the best available scientific advice;* *• the residual risks are not unduly high and kept as low as reasonably practicable (the ALARP principle); and* *• the risks are periodically reviewed to ensure that they still meet the ALARP criteria, for example, by ascertaining whether further or new control measures need to be introduced to take into account changes over time, such as new knowledge about the risk or the availability of new techniques for reducing or eliminating risks.*
Broadly acceptable	*Risks falling into this region are generally regarded as insignificant and adequately controlled. The levels of risk characterising this region are comparable to those that people regard as insignificant or trivial in their daily lives. They are typical of the risk from activities that are inherently not very hazardous or from hazardous activities that can be, and are, readily controlled to produce very low risks.*

Example: The GAR-Model

The GAR- Model (Green/Amber/Red-Model) is one possible simple methodology to identify operational hazards and assess inherent risk. Generally, there are six operational areas, where safety hazards can be identified:

1. *Supervision*
   Supervisory Control considers how qualified the supervisor is and whether effective supervision is taking place. Even if a person is qualified to perform a task, supervision acts as a control to minimise risk. This may simply be someone checking what is being done to ensure it is being done correctly. The higher the risk, the more the supervisor needs to be focused on observing and checking. A supervisor who is actively involved in a task (doing something) is easily distracted and should not be considered an effective safety observer in moderate to high-risk conditions.
2. *Planning*
   Planning and preparation should consider how much information you have, how clear it is, and how much time you have to plan the development or evaluate the situation.
3. *Team Selection*
   Team selection should consider the qualifications and experience level of the individuals used for the specific event/development. Individuals may need to be replaced during the event/development and the experience level of the new team members should be assessed.
4. *Team Fitness*
   Team fitness should consider the physical and mental state of the crew. This is a function of the amount and quality of rest a crewmember has had. Quality of rest should consider the accommodation, potential sleep length, and any interruptions. Fatigue normally becomes a factor after 18 hours without rest; however, lack of quality sleep builds a deficit that worsens the effects of fatigue.
5. *Environment*
   Environment should consider factors affecting personnel performance as well as the performance of the asset or resource. This includes, but is not limited to, time of day, temperature, humidity, precipitation, wind conditions, proximity of aerial/navigational hazards and other exposures.
6. *Operational Complexity*
   Operational complexity should consider both the required time and the situation. Generally, the longer one is exposed to a hazard, the greater are the risks. However, each circumstance is unique. For example, more iterations of an operation can increase the opportunity for a loss to occur, but may have the positive effect of improving the proficiency of the team, thus possibly decreasing the chance of error. This would depend upon the experience level of the team. The situation includes considering how long the environmental conditions will remain stable and the complexity of the work.

Workflow:

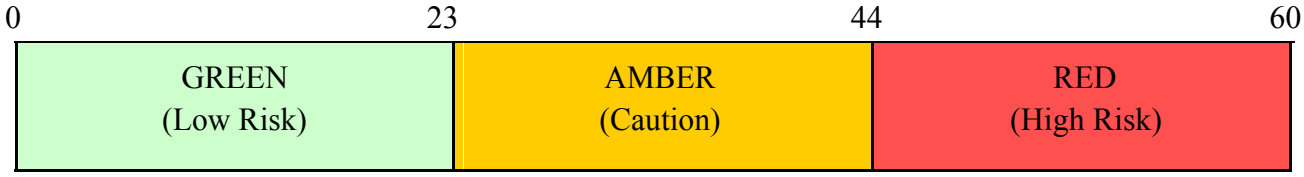
1. Define the hazards and assign a risk code to each hazard in each operational sub area from 0 to 10 (0=no risk, 10= maximum risk).
2. To get the risk of the operational area: add up all values (for the example below, "Hazard Checklist for operational area planning": 3+3+4+8=18. To get the risk value for the operational area divide 18 by 4 =4.5.
3. Repeat step 1+2 for each operational area.
4. Add up the risk values for each operational area (for the example below, "Hazard Checklist for operational area planning", the risk value is 4.5).
5. The result shows the risk for the overall risk for the whole operation/mission.

Operational Area	***Operational Sub-Area***	***Task***	***Risk***
Supervision	*-Organisational Supervision* *-Crew Supervision* *-Observation* *-Cross-Checking &* *- Monitoring* *-Policies* *-Processes* *-SOP's* *-Guidelines* *-Checklists*	*Consider Type, Quality and Quantity of the Supervision. Identify Hazards and assess the relevant Risk.*	*Assign a Risk Value from 0 to 10.*
Planning	*-Accuracy of information* *-Amount of information* *-Availability of information* *-Time available*	*Identify Hazards during the planning phase and assess the relevant Risk.*	*Assign a Risk Value from 0 to 10.*
Team Selection	*-Experience Level: Flying Hours, Mission Type, Area of Knowledge, Equipment of Knowledge, Route and Aerodrome Competence.* *-Crew Composition: Interaction, Communication, Cohesiveness, Changes to the crew.*	*Identify Hazards during the planning phase and assess the relevant Risk.*	*Assign a Risk Value from 0 to 10.*

Team Fitness	*-Physical State* *-Medical Problems* *-Fatigue* *-Rest Time* *-Mental State* *-Stress Factors* *-Pressure on the Team*	*Identify Hazards during the planning phase and assess the relevant Risk.*	*Assign a Risk Value from 0 to 10.*
Environment	*-Physical Environment: Temperature, Time of Day, Visibility, Organisational Culture, Management Philosophy, Mission Pressure, Attitudes, Norms.* *-Operational Environment: Traffic Density, Terrain Considerations, Controlled vs. Uncontrolled Airspace, Radar vs. Non-Radar Environment, Language Difficulties.*	*Identify environmental Hazards and assess the relevant Risk*	*Assign a Risk Value from 0to 10.*
Operational Complexity	*-Complexity of the task* *-Time to complete the Task* *-Number of Iterations* *-Level of Stability*	*Identify the Event or Evaluation Complexity Hazards and assess the relevant Risk.*	*Assign a Risk Value from 0 to 10.*
Total Risk Score (add up the value for each operational area)			***Σ = ...***

The mission risk can be visualized using the colours of a traffic light. If the total risk value falls in the GREEN ZONE (1-23), risk is rated as low. If the total risk value falls in the AMBER ZONE (24-44), risk is moderate and you should consider adopting corrective and preventive actions to minimise the risk. If the total value falls in the RED ZONE (45-60), you should implement measures to reduce the risk prior to starting the operation.

GAR Evaluation Scale – Colour Coding the Level of Risk



The ability to assign numerical values or "colour codes" to hazards using the GAR-Model is not the most important part of risk assessment. What is critical to this step is team discussions leading to an understanding of the risks and how they will be managed.

Example: Hazard Checklist for operational area planning:

Before a mission starts consider each operational area:

Operational Area	***Operational Sub-Area***	***Question***	***Risk Value 1-10***	***Mitigation Action***	***Implem/tion Date***	***Implemented by***
Planning	*1.Accuracy of information*	*Is the information accurate?*	*3*			
	2.Amount of information	*Do we have all the information needed for the intended mission?*	*3*			
	3.Availability ofinformation	*Is information available?*	*4*			
	4.Time available	*Do we have enough time for planning?*	*8*	*More time for planning and better information to Pilots*	*dd.mm.yyyy*	*X.X*
Risk value for Planning (=18 divided by the amount of operational sub areas, 4)			*4.5*			

Result: The total risk for planning is within the green range (low risk). Even though it is in the green range you can see in the sub area "time available for planning" that the risk value is quite high (8 out of 10), therefore mitigation action should be considered for this operational sub area.

5.3 Change Management

- The process to manage safety risk related to a change should make use of the organisation's existing hazard identification, risk assessment and mitigation processes.
- Changes that could have a negative impact on safety could come from:
  - implementation of new, or modification of processes / procedures;
  - contracting new providers;
  - implementation of new or modification of tools;
  - implementation of new or modification of aircrafts;
  - evaluation of new stations;
  - definition of alternative means of compliance;
  - any kind of projects with safety relevance.

Example Change Process:

Task	***Note***	***Responsible***
Identify scope of change	• ……	*Responsible Manager (Project Manager)*
Perform initial impact assessment	• *Impact on SOP's* • *Work-instructions* • *Infrastructure* • *Equipment* • *Personnel*	*Project Manager with Safety Manger*
Perform Safety Risk Analyses	• ***Identify Hazards (refer to risk assessment)***	*Project Manger with Safety Manager*
Define mitigation actions	• *Preventive barriers*	*Domain Manager/SM*
Identify key personnel	• *Key personnel who assists the implementation of the change*	*Project Manager*
Define implementation plan	• *Timelines and also SPI's*	*Project Manager*
Assess related financial costs	• *budgeting*	*Project Manger*
Check overall effects through Safety Performance Monitoring	*Refer to management evaluation*	*Safety Manager*

5.4 Safety Review Board (SRB)

Complex Organisation:

- The Safety Review Board (SRB):
  - should be a high level committee that considers matters of strategic safety in support of the Accountable Manager's safety accountability;
  - should be chaired by the Accountable Manager and be composed of heads of functional areas;
  - should monitor:
    - safety performance against the safety policy and objectives;
    - that any safety action is taken in a timely manner; and
    - the effectiveness of the organisation's safety management processes.
  - should ensure that appropriate resources are allocated to achieve the established safety performance.

- The SRB should be part of the organisational structure.
- The Safety Manager or any other relevant person may attend, as appropriate, Safety Review Board meetings;
- He may communicate to the Accountable Manager all information, as necessary, to allow decision-making based on safety data.
- The SRB should provide strategic direction to the safety action group.
- The management evaluation activities conducted under former legal requirements are typical activities which should be assigned to the SRB to evaluate the safety performance and to ensure continuous improvement.
- The SRB and the Safety Action Group (SAG) may be combined.

5.5 Safety Action Group (SAG)

Complex Organisation

- A Safety Action Group may be established as a standing group or as an ad-hoc group to assist or act on behalf of the Safety Review Board.
- More than one Safety Action Group may be established depending on the scope of the task and specific expertise required.
- The Safety Action Group should report to and take strategic direction from the Safety Review Board and should be comprised of managers, supervisors and personnel from operational areas.
- The Safety Action Group should:
  - monitor operational safety;

- resolve identified risks;
- assess the impact on safety of operational changes; and
- ensure that safety actions are implemented within agreed timescales.

- The Safety Action Group should review the effectiveness of previous safety recommendations and safety promotion.
- The SRB and the Safety Action Group (SAG) may be combined.

5.6 Safety Performance Monitoring and Measurement

Complex Organisation:

- Definition and Explanation:

  - The Safety Performance Monitoring and Measurement should be a process by which the safety performance of the organisation is verified in comparison to the safety policy and objectives.
  - **Safety.** The state in which the possibility of harm to persons or of property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and safety risk management.
  - **Level of safety** is the degree of safety of a system. It is an emerging property of the system, which represents the quality of the system, safety-wise. It is expressed through safety indicators.
  - **Safety indicators** are the parameters that characterise and/or indicate the level of safety of a system.
  - **Safety targets** are the concrete objectives of the level of safety.
  - **Acceptable level of safety** is the minimum degree of safety that must be assured by a system in actual practice.
  - **Safety indicator value** is the quantification of a safety indicator.
  - **Safety target value** is the quantification of a safety target.
  - **Safety Performance** is defined as the level of safety achievement against the Safety Performance Objectives or Targets (SPO's), using specific Safety Performance Indicators (SPI's). The Safety Performance reflects the ability of the organisation to effectively manage
    risks.

General

- At different levels of maturity of the Safety Management System, the amount of quality safety data differ. Therefore, HCAA recommends, a gradual approach for safety performance measurement:

- At the first stage, the focus should be on the establishing of a functioning reporting system (refer also to Chapter 6 “Reporting Scheme”). It is of utmost importance to receive enough reports in order to get evidence for analysing and improving the system concerned. Therefore, all employees need to be informed about the importance of the reporting (refer also to Safety Policy, culture).

- At the second stage, the measurement can begin. The management should set safety targets and define Safety Performance Indicators (SPI's) which are in-line with the safety policy. The targets can be of a quantitative (numerical) or of a qualitative (non-numerical) nature. The Safety Performance should then be verified and communicated on a regular basis.

- At the starting of the measurement the indicators might be of a more simple kind, such as simple counting of reports. Once the Safety Management is in place and compliance with requirements has been achieved, new more sophisticated SPI's will need to be introduced to achieve improvement of safety performance.

- At the maturity level where the compliance and an effective hazard and risk assessment process are established, safety issues can be identified, mitigation measures introduced and their effectiveness monitored. At this stage the focus should also be on continuous improvement of the system.

Example of Indicators

- Quantitative indicators:
  - the number of safety reviews performed;
  - the number of staff who received training in Safety Management;
  - the number of internal audits performed versus number of audits planned;
  - the number of voluntary safety reports per staff member per year;
  - the number of risk assessments performed following organisational changes;
  - average lead time for completing corrective actions following internal audit;
  - number of suggestions for safety improvements;
  - frequency and effectiveness of safety briefings;
  - number of hazard reports received;
  - relation number of high risk to low risk occurrences in relation to flight hours flown;
  - number of occurrence reports in relation to flight hours flown;
  - solidity of risk controls (defences) per 1 year;
  - risk value (total risk values/number of reports/flight hours per month).

- Qualitative indicators:
  - feedback received from staff on the safety policy;
  - feedback received from staff on new procedures implemented in the area of internal occurrence reporting or hazard identification.

Example Safety Performance Indicators

Item	*Objective*	*Year YYYY*											
		1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
		1st Quarter			*2nd Quarter*			*3rd Quarter*			*4th Quarter*		
		1st Half						*2nd Half*					
number of safety reviews performed													
number of internal audits performed versus number of audits planned													
number of voluntary occurrence reports perstaff member													
number of mandatory occurrence reports raised/flight hour													
number of hazard reports received/flight hour													
number of risk assessments performed													
average lead time for completing corrective actions following internal audit													
number of suggestions for safety improvements													
relation number of high risk to low risk occurrences in relation to flight hours													
Risk value	*3.5*	*4*	*4*	*4.5*	*4.2*	*3.8*	*3.4*	*3.3*	*3.2*	*3.1*	*2.8*	*2.8*	*2.8*
……													

5.7 Safety Promotion and Communication

- Safety Promotion:
  - The Safety Promotion is a process aimed to promoting a culture of safety by ensuring that, all personnel in an organisation are aware that, at their level and in their day-to-day activity, they are key players in safety and that everyone, therefore, contributes to an effective safety management.
  - Managers are an important driving force of effective safety management. It is the responsibility of each manager to demonstrate his/her commitment to safety, to promote safety in everyday activities and to lead by example.
  - Training and effective communication on safety are two important processes supporting safety promotion.

- Communication:
  - The organisation should establish communication about safety matters which:
    a) Ensures that all personnel are aware of the safety management activities as appropriate for their responsibilities;
    b) Conveys safety critical information, especially relating to assessed risk and analysed hazards;
    c) Explains why particular actions are taken; and
    d) Explains why safety procedures are introduced or changed.
  - Regular meetings with personnel where information, actions and procedures are discussed may be used to communicate safety matters.

Example safety communication concept:

Tool	***Information***	***Frequency/Year***	***Responsibility***
Safety Newsletter	*International/National Safety development. General Information about Safety Issues.*	*12*	*SM*
E-Mail	*Special Information*	*When needed*	*Domain Manager*
Safety Meetings	*Information about company developments: OR, Hazard Reporting statistics, mitigation actions etc.*	*12*	*SM*
……	……	……	……

5.8 Safety- Studies, -Reviews, -Surveys, -Investigation

Safety Studies

- Safety Studies are rather large analyses encompassing broad safety concerns, which could be at state or global level. To underline some safety concerns it is not enough to argument on isolated occurrences and anecdotal information. Therefore, safety studies are addressed when a company has to analyse a system safety deficiency which requires a major change rather than indentify specific, individual hazards (e.g.: incorrect procedures, incorrect instructions....).

Example Safety Study Procedure:

Step	***Remark***	***Tool***	***Responsibility***
Identify the need for a safety study	• *Conclude order to Safety Action Group (SAG)*	…	*Safety Review Board (SRB)*
Plan Safety Study	• *Define activities* • *Define specialists*	…	*Safety Action Group (SAG)*
Conduct Study	• *Define scope* • *Define method of* • *study* • *Define hypothesis* • *Empiricism* • *Analyses* • *Define Hazards* • *Define Risk* • *Define possible mitigation actions including SPI's*	*Hazard identification process*	*SAG*
Communication to SRB	• *SRB Meeting*	*Power Point presentation*	*Safety Manager*
Decision of Implementation	• *Board of Directors*	…	*Accountable Manager*
Implementation Action	• …	…	*SAG*
Controlling	*Monitoring of effectiveness of implementation*	*Management Evaluation Tool*	*SRB*

Safety Reviews:

- Safety Reviews are actually a trend monitoring of the overall safety development of the organisation. With the Safety Review the actual performance of the organisation in relation to the targeted performance objectives is compared. This data should be reflected in the Management Review.

Safety Surveys:

- Safety Surveys examine particular procedures of a specific operation, problem areas or bottlenecks in the daily operation. Safety surveys may be conducted with questionnaires or confidential interviews. Since surveys are subjective, verification may be needed before corrective action.

Internal Safety Investigation:

- Internal Safety Investigations include occurrences and events that are not required to be investigated or reported to the State. For example: frequency congestion (ATC), ramp vehicle operation (aerodrome). Nevertheless, they could have a safety and also a financial impact.

Example Process Internal Safety Investigation:

Step	***Remark***	***Tool***	***Responsibility***
Decision to launch an Investigation	*Put together investigation team.*	*…*	*AM/SM*
Activity planning	*• Define and breakdown the activities* *• Define the investigation needs*	*Project management tool*	*SAG*
Data collection	*• Collect Data about the event. Possible sources:* *• Physical examination, documentation and files, interviews, observation of actions, simulations, expert consultancy, safety database.*	*Tool xyz...*	*SAG*
Scenario identification	*Identify and reconstruct the scenario.*	*Risk Assessment form*	*SAG*
Scenario analyses	*• Analyse the facts, determine the causes and identify the associated hazards.* *• Integrate all investigation elements.*	*• Just culture process* *•Reason model*	*SAG/SM*
Risk Assessment	*Determine risk level and assess risk acceptability*	*Risk Assessment tool*	*SAG/SM*
Correction/prevention	*Determine corrective and preventive action*	*Risk assessment form*	*SAG/SM*
Safety communication	*Communicate the result of the investigation toall involved*	*E-Mail*	*SM*
Controlling	*Check effectiveness of mitigation action*	*Management evaluation*	*SM*
Completion of the investigation	*Close and archive file*		*SM*

6. Reporting Scheme

6.1 Reporting- and Feedback System

- As a main concept, the processing of reporting shall be defined in the OMM and specific reporting procedures including sample of forms as required by the organisation and its terms of approval, shall be detailed and presented in the relevant manual. Reporting procedures are to be established for the relevant personnel for easy use and access. However, duplications should be avoided.

- Reporting schemes are an essential part of the overall monitoring function with the aim to improve aviation safety, and additionally, increase product quality, efficiency, job satisfaction and adding value. The introductory text should mention, that the overall purpose of a reporting scheme is to use reported information to improve the level of safety performance of the organisation and not to attribute blame.

- The following reporting are subject to the Reporting and Feedback System:
  - Mandatory reporting;
  - Voluntary reporting;
  - Anonymous reporting; and
  - Hazard reporting.
- A Reporting and Feedback System shall contain the following essential elements:
  - Possibility and means to report;
  - Analysis and assessment of the implications;
  - Definition of the any necessary action;
  - Implementation of corrective and preventive action;
  - Feedback to the reporter;
  - Monitoring of effectiveness of corrective and preventive actions;
  - Specific retaining and archiving system;
  - Promulgation of relevant information so that other persons and organisations may learn from them.
- Reporting processes are to be defined for easy use and access. The following information shall be provided:
  - What is to be reported / What are the reportable circumstances/issues;
  - Who has to report;
  - What resources/means should be used for reporting / What kind of forms have to be used;
  - Which are the relevant addresses and contacts;
  - What are the different time frames for submission (dispatch provisions).
- In other words, who is responsible to file which form/means to which address within which time

6.2 Occurrence Reporting

- The introductory text is to include that:
  - all persons involved in civil aviation are to report any occurrence endangering or potentially endangering safety of operation;
  - the procedures are to ensure that knowledge of relevant incidents and accidents is disseminated, so that other persons and organisations may learn from them;
  - the reporting scheme is complementary to the normal day-to-day procedures and 'control' systems and is not intended to duplicate or supersede any of them.
- Occurrence reports shall be processed as defined in the Reporting- and Feedback System. Additionally, they should include:
  - Reporting-Forms as required by the kind of occurrence as stipulated by the regulation and provisions for the organisation and its terms of approval;
  - an assessment of the safety implications of each relevant incident and accident, including previous similar occurrences, so that any necessary action can be initiated;
  - Notification of the competent authority within 72 hours of identifying the occurrence to which the report relates to. Immediate notification is required in case of a serious incident or accident;
  - Notification to internal and external parties involved and/or interested;
  - Implementation of corrective and preventive action to avoid similar occurrences in the future. Measures taken shall be reported to the competent authority.

    Note: Duplications of the information included in this chapter and in chapter 11 of the OM shall be avoided.

Example of a follow-up process for handling occurrence reports:

Step	***Task***	***Tool***	***Responsibility***
Data Input	*Collect and sort*	*Specific reporting means*	
Initial Analysis	*Evaluate and classify data*	*Reporting means*	*SM*
Notification	*Notify HCAA at the latest within 72 hours*	*Reporting Procedures as relevant to the case Refer Manual XX, ChapterXY*	*NP of the area concerned*
Hazard Identification	*Identify Hazard*	*Hazard Identification Form, Refer XX*	*SM*
Risk Assessment	*Assess the Risk Transfer to Risk portfolio*	*Risk Assessment Tool, Refer XX Risk Portfolio*	*SM*
Tolerability Assessment	*Check tolerability*	*Tolerability Matrix, Refer XX*	*SM*
Mitigation	*Define corrective action and preventive measures*	*…*	*SM and NP of the area concerned*
Notification	*Notify HCAA regarding corrective action and preventive measures*	*Communication means*	*SM and NP of the area concerned*
Feedback	*Provide the sender of the report with a feedback*	*Form XY*	*SM*
Information	*Notification of internal and external parties involved and/or interested*	*Reporting schemes of external parties and/or Means as adequate to the case including investigation documentation or parts thereof*	*SM*
Implementation	*Implement corrective action and preventive measures*	*…*	*NP of the area concerned*
Monitor	*Monitor the effectiveness*	*Risk Portfolio*	*SM*
…			

7 Compliance Management (CM)

7.1 Compliance Monitoring Function and Programme

- The Compliance Monitoring is the function, that monitors the compliance of the organisation with all relevant requirements and standards, including those of the Safety Management. The verification of the compliance is mainly conducted through the audit and inspection processes.

- The Compliance Monitoring Function is managed by the Compliance Monitoring Manager.

- Organisational set-up:
  - The basic structure of the organisational set-up of the Compliance Monitoring Function shall be tailored to the size, complexity and activity of the organisation. The set-up should be defined and illustrated within the organisational structure of the organisation. This means possible multiple functions/positions? For management functions, different levels and sophistication of tools and means used for the Compliance Monitoring.

- The Compliance Monitoring Programme shall include, as a minimum:
  - Audit and inspection procedures including related documents (e.g. audit/inspection report);
  - Scope and area of audit and inspection, including related checklist;
  - The schedule for the programme (e.g. audit-schedule);
  - Follow-up and corrective action procedures;
  - Feedback to the Accountable Manager;
  - Record and archiving system;
  - Compliance Monitoring Training.

- The Compliance Monitoring Programme shall be properly implemented, maintained and continuously reviewed and improved.
- It is strongly recommended, that the Compliance Monitoring Programme requires, that all aspects of the organisation are reviewed periodically, within a defined cycle;
- Scope to be monitored:

  - As a minimum, the organisation should monitor compliance with the procedures they have designed, and where appropriate, monitor:
    - privileges of the organisation and the scope of approved activities/terms of approval;
    - management system procedures including those of the safety management;
    - manuals, logs and records;
    - training standards.

7.2 Audit and Inspections

- Definition and Explanation:

  - '**Audit**' means a systematic, independent and documented process for obtaining evidence and evaluating it objectively to determine the extent to which requirements are complied to.
  - '**Inspection**' means an independent, documented conformity evaluation by observation and judgement, accompanied, as appropriate by measurement, testing or gauging, in order to verify compliance with applicable requirements.
  - While internal audits are often thought of as a test or "grading" of an organisation's activities, they are an essential tool for safety assurance. They help managers in charge of activities supporting the delivery of services, to control that - once safety risk controls have been implemented - they continue to perform and are effective in maintaining continued operational safety.
  - Audits should go beyond just checking compliance with regulatory requirements and conformance with the organisation's standards. The auditor should assess whether the procedures in use are appropriate and whether there are any work practices that could have unforeseen safety consequences.
  - There is no need to categorise audits according to the focus of the audit (e.g. safety audit, compliance audit etc.)

- Audit- and Inspection Procedures:
  - Audit- and Inspection procedures shall contain the following essential steps:
    1. Planning;
    2. Preparation;
    3. Execution;
    4. Reporting;
    5. Initiation of action;
    6. Monitoring of implementation of measures; and
    7. Monitoring of effectiveness.

  - In accordance with the compliance monitoring, the scope and area of audit and inspection shall be defined.

  - The procedure should include, that follow-up events are scheduled, when necessary, to verify that corrective actions were carried out and that they were effective.

  - To ensure flexibility for recording audits/inspections performed and for scheduling additional events, the plan should be maintained as a separate document or file.

  - The Inspections procedure should consider ad-hoc inspections.

- Audit Schedule and Plan:

  - The audit scopes are to be defined in the "Audit Plan". Whatever the plan is named and designed, the basics of an Audit Plan are:
    -Listing of all audit scopes, as required by the compliance monitoring;
    -Reference to checklists, records and means used for the audit;
    -Date of the audit and scheduled duration;
    -Auditor by name.

  - The schedule of audits should be flexible and allow unscheduled audits when trends are identified.

  - To ensure that all aspects of the organisation are reviewed periodically, it is strongly recommended to specify an interval between audits, covering the same scope and focus. Ideally, all aspects should be reviewed within a period of 12 consecutive months. The organisation may increase the frequency up to 24 months. However, it is unlikely, that an interval between audits greater than 24 months is effective.

- Inspection Plan:

  - Areas to be inspected should be defined in an "Inspection Plan" and include a schedule of inspections to be carried out in a year. Whatever the plan is named and designed, the major elements of an Inspection Plan are:

    -Listing of all subject area, as required by the compliance monitoring;
    -Topic to be inspected;
    - Period/frequency;
    -Checklists, records and means used to inspect the concerned topic;
    -Responsible function for the subject to be inspected.

- Audit and Inspection Report Format:

  - The audit report means a written evaluation by the auditor of the results of the audit.
  - The inspection report means a written evaluation by the inspector of the result of the inspection.
  - Audit and Report forms may be combined.
  - Template for report forms may include the following key information:
    - Report identification and reference system;
    - Audit summary;
    - Assignment to the defined category of the scope/area;
    - Finding and level of finding; or

observation;
- Corrective action and prioritised list of measures with suggested timeline; or recommendation;
- Signatures.

Complex Operator:

- Air Operators should monitor compliance with the operational procedures they have designed to ensure safe operations, airworthy aircraft and the serviceability of both operational and safety equipment.

- Typical **audits** scopes are, as applicable:
  - operational procedures;
  - flight safety procedures;
  - operational control and supervision;
  - aircraft performance;
  - all weather operations;
  - communication and navigational equipment and practices;
  - mass, balance and aircraft loading;
  - instruments and safety equipment;
  - ground operations;
  - flight and duty time limitations, rest requirements, and scheduling;
  - aircraft maintenance/operations interface;
  - use of the MEL;
  - flight crew;
  - cabin crew;
  - dangerous goods;
  - security.

- Typical areas for **inspections** are, as applicable:
  - actual flight operations;
  - ground de-icing/anti-icing;
  - flight support services;
  - load control;
  - technical standards.

Example of an Audit plan:

				Year YYYY											
Scope of Audit	***Department***	***Auditor***	***Tool***	***January***	***February***	***March***	***April***	***May***	***June***	***July***	***August***	***September***	***October***	***November***	***December***
Safety Management	*Safety Manager*	*A.B*	*Checklist XX*			*X*					*X*				
Operational Control	*Dispatch*	*C.D*	*Checklist XX*					*X*							
Mass & Balance	*Flight Operations*	*E.F*	*Checklist XX*					*X*							
Anti- / De-Icing	*Ground Operations*	*G.H*	*Checklist XX*	*X*											*X*
Subcontractor XY	*Line Maintenance*	*I.J*							*X*						
FSTD technical status	*FSTD*	*K.L*	*Checklist XX*										*X*		
….															

Example Audit Report:

Date of Audit:
Scope of Audit:
Department audited:
Auditee:
Auditors:

List of Findings

Legal Reference	**Ref. Manual**	**Finding**	**Class of Finding**	**Required Action**	**Responsible**	**Due date**
ORO.GEN .160	*OMM Chapter xx*	Occurrence Reporting: The organisation does not have any process for occurrence reporting and does not send any OR to HCAA.	*2*	*Establish Occurrence Process within the company and inform the employees about the procedure accordingly*	*AM*	*DD.MM.YYYY*
…	…	…				

Non-Complex Operator:

- Compliance monitoring audits and inspections may be documented on a 'Compliance Monitoring Checklist', and any findings recorded in a 'Non-compliance Report'.
- As stipulated and illustrated by the GM3-ORO.GEN.200, the following example may be used for this purpose:

Compliance Monitoring Checklist ***Year:***			
Subject	***Date Checked***	***Checked by***	***Comments / Non-compliance Report No.***
Flight Operations			
Aircraft checklists checked for accuracy and validity			
Minimum five flight plans checked and verified for proper and correct information			
Flight planning facilities checked for updated manuals, documents and access to relevant flight information			
Incident reports evaluated and reported to the appropriate competent authority			
Ground Handling			
Contracts with ground handling organisations established and valid, if applicable			
Instructions regarding fuelling and de-icing issued, if applicable			
Instructions regarding dangerous goods issued and known by all relevant personnel, if applicable			
Mass and Balance			
Min. five load sheets checked and verified for proper and correct information, if applicable			

Aircraft fleet checked for valid weight check, if applicable			
Minimum one check per aircraft of correct loading and distribution, if applicable			
Training			
Training records updated and accurate			
All pilot licenses checked for currentness, correct ratings and valid medical check			
All pilots received recurrent training			
Training facilities & Instructors approved			
All pilots received daily inspection (DI) training			
Documentation			
All issues of operations manual (OM) checked for correct amendment status			
AOC checked for validity and appropriate operations specifications			
Aviation requirements applicable and updated			
Crew flight and duty time record updated, ifapplicable			
Flight documents record checked and updated			
Compliance monitoring records checked and updated			
Safety Management			

Safety Manager is appointed and qualified			
The safety policy is communicated and includes a commitment towards achieving the highest safety standards, signed by the Accountable Manager			
There are documented management organisational diagrams and job descriptions for all personnel			
The organisation has a reporting system to captures errors, hazards and near misses that is simple to use andaccessible to all personnel			
The organisation has proactively identified all the major hazards and assessed the risks related to its currentactivities			
Investigations establish causal / contributing factors (why it happened, not just what happened)			
The safety reporting system provides feedback to the reporting person of any actions taken (or not taken) and, where appropriate, to the rest of the organisation			
There is a structured process for the management of risk that includes the assessment of risk associated with identified hazards, expressed in terms of severity and probability			

Non-Compliance Report			***Number:***
To Compliance Monitoring Manager		***Reported by:***	***Date:***
Category	□ *Flight Operations*	□ *Ground Handling*	□ *Mass and Balance*
	□ *Training*	□ *Documentation*	□ *Other*
Description:			*Reference:*
Level of Finding:			
Root-cause of non-compliance:			
Suggested correction:			
Compliance Monitoring Manager: □ *Corrective action required*		□ *Corrective action not required*	
Responsible person:		*Time limitation:*	
Corrective action:		*Reference:*	
Signature responsible person:		*Date:*	
Compliance Monitoring Manager: □ *Correction and corrective action verified*		□ *Report closed*	
Signature Compliance Monitoring Manager:			*Date:*

7.3 Auditors and Inspectors

- The Compliance Monitoring Manager may perform all audits and inspections himself/herself or appoint one or more auditors by choosing personnel having the related competence either from within or outside the organisation.

- Inspections and audits should be carried out by personnel not responsible for the function, procedures or products being audited.

- Auditors and inspectors should have and demonstrate relevant knowledge, background and experience as appropriate to the activities being audited or inspected; including knowledge and experience in compliance monitoring.

- If external personnel are used to perform compliance audits or inspections:
  - any such audits or inspections are performed under the responsibility of the Compliance Monitoring Manager; and
  - the organisation remains responsible to ensure that the external personnel have relevant knowledge, background and experience as appropriate to the activities being audited or inspected; including knowledge and experience in compliance monitoring.
  - The organisation retains the ultimate responsibility for the effectiveness of the compliance monitoring function in particular for the effective implementation and follow-up of all corrective actions.

- Auditors are to be listed by name on the audit plan, including their scope of activity.

- On the defined inspection scopes, the function, responsible for the inspection should be named.

- The authority, duties and responsibilities of an auditor should include, as a minimum:
  - conducts audits and inspections in accordance with the defined processes;
  - evaluates safety management issues and procedures;
  - evaluates the compliance of the organisation in accordance with the Compliance Monitoring Programme;
  - supports the establishment of audit and/or inspection checklist;
  - establishes the audit and/or inspection report, as applicable
  - reports findings/deficiencies/concerns identified directly to the CMM/SM or as applicable, in accordance with the audit/inspection processes and provides recommendations for improving the organisation's operations, in terms of both efficient and effective performance;
  - refuses an audit / inspection if:
    - not trained and qualified as auditor;
    - not in the position to demonstrate relevant knowledge, background and

experience as appropriate to the activities being audited or inspected; and
- responsible for the function, procedure or product being audited (audit only).

Example List of internal Auditors:

Name of Auditor	*Scope of activity*	*Initial training performed*	*Recurrent training performed*	*Next recurrent training due*
H.Omorfi	*Management System*	*DD.MM.YYYY*	*DD.MM.YYYY*	*DD.MM:YYYY*
O.Magkas	*FSTD Evaluation Pilot aircraft type XY*	*DD.MM.YYYY*	*DD.MM.YYYY*	*DD.MM:YYYY*
H.Tsakpina	*FSTD QTG review aircraft type XY/FNPT MEP*	*DD.MM.YYYY*	*DD.MM.YYYY*	*DD.MM:YYYY*
...	...	...	...	

7.4 Findings, Corrective and Preventive Actions

Definition and Explanations:

- Correction is the action to eliminate a detected non-compliance.
- Corrective action is the action to eliminate or mitigate the root cause(s) and prevent reoccurrence of an existing detected non-compliance or other undesirable condition or situation. Proper determination of the root cause is crucial for defining effective corrective actions to prevent reoccurrence.
- Preventive action is the action to eliminate the cause of a potential non-compliance or other undesirable potential situation.
- The handling of findings includes:
  - root cause analysis of the finding;
  - carrying out Corrective action;
  - implementation of Preventive action.
- The process related to findings should include the following steps:
  - identification of the root cause of the non-compliance;
  - establishment of a corrective action plan;
  - the corrective action;
  - implementation of the preventive action;
  - monitoring of implementation; and
  - monitoring of its effectiveness.

- The steps may be integrated in the audit and inspection process. In such cases, a separate process should be established to ensure, that measures and all other safety information, including airworthiness directives, mandated by third parties (e.g. by HCAA, EASA etc.) are implemented.

- For the monitoring of the implementation of corrective- and preventive action including its effectiveness, the organisation should establish a means to track the follow-up. Such a mean could include:
  - Reference to the case;
  - Brief description of the corrective action to be implemented;
  - Brief description of the preventive action to be implemented,
  - Responsible person, manager or function:
  - Time limit or Deadline:
  - A brief summary of the measures implemented:
  - Statement of status:
  - Signatures.

Example of a Follow Up File:

Nr.	***Ref.***	***Date***	***Corrective Action***	***Preventive Action***	***Time Limit***	***Measures Implemented***	***Status***	***Name***	***Sign***
01	*Inspection Report XXX*	*XX.XX.XX*	*The battery of the AED is to be replaced*	*Battery of the AED is to be checked regularly and the life cycle of the battery is to be monitored*	*XX.XX.XX*	*Battery replaced Process implemented and responsibilities assigned Control File implemented*	*closed*		
02	…								
03	…								

7.5 Classification of Findings

- Annex III to the Regulation on Air Operations Part ORO, do not provide guidance material or an acceptable means of compliance for the classification of findings. The best practice already experienced for the definition of classification of findings in the earlier stage of quality systems and in order not to breach the provisions of (EC) 2042/2003 on the continuing Airworthiness, should be according to Part-M:

- A level 1 finding is any significant non-compliance with Part-M / Part-145 requirements which lowers the safety standard and seriously hazards flight safety;
- A level 2 finding is any non-compliance with the Part-M / Part-145 requirements which could lower the safety standard and possibly hazard the flight safety.

Recommendation:

- By using the risk-assessment concept, which stipulates the classification of severity and the classification of the likelihood and the evaluation of the risk, the classification of finding levels could be defined as follows:

  Level 1: Safety is affected and impacts the red zone within the Risk-Matrix:
  a) no further operation / activity until closure of finding; and
  b) corresponds to level "unacceptable".

  Level 2: Safety might be affected and impacts the yellow zone within the Risk-Matrix:
  a) to be closed within due date (max. 2 months); and
  b) corresponds to level "tolerable".

8 Flight Data Monitoring

8.1 Flight Data Monitoring Programme

- A FDM Programme, sometimes referred to as FDM System or Flight Operations Quality Assurance (FOQA), provides an effective tool for the proactive identification of hazards.

- FDM Programmes generally involve systems that capture flight data, transform the data into an appropriate format for analysis, and generate reports and visualisation to assist in assessing the data. The level of sophistication of the equipment can vary widely. Typically, the following equipment is required for an effective FDM Programme:
  - an on-board device to capture and record flight data;
  - a means to transfer recorded flight data to a ground-based processing station;
  - a ground-based processing station and specialized software to analyse flight data;

- Typically, flight data derived from the FDM Programme is used for:
  - Exceedance detection;
  - Routine measurements;
  - Incident Investigation;
  - Continuing Airworthiness; and
  - Safety and trend analysis.

- FDM Programmes are often viewed as one of the most expensive safety systems in terms of the initial outlay, software agreements and personnel requirements. In reality, they have the potential to save considerable money by reducing the risk of major accidents, improving operating standards, identifying external factors affecting the operation and improving engineering monitoring programmes.

Implementing a FDM Programme:

- The following steps are required to implement a FDM Programme:
  - Definition of objectives and scope;
  - Implementation of pilot association agreements;
  - Establishment and verification of operational and data protection procedures;
  - Installation of on-board and ground-based equipment;
  - Selection and training of dedicated and experienced personnel to operate the programme;
  - Flight Crew information regarding operational and data protection procedures;
  - Notification to internal and external parties involved and/or interested.

- As a minimum the FDM Programme shall include, either:
  - a systematic download and analysis of electronically recorded aircraft flight data; or
  - a systematic acquisition, correlation and analysis of flight information derived from a combination of some or all of the following sources:
    - aircraft FDR readouts;
    - confidential flight and cabin crew operational safety reports;
    - flight and cabin crew interviews;
    - quality assurance findings;
    - flight and cabin crew evaluation reports;
    - aircraft engineering and maintenance reports.

- FDM Analysis Techniques shall compromise the following:
  - Exceedance detection: searching for deviations from aircraft flight manual limits and SOPs;
  - Flight Data measurement: a set of defined parameters and their tolerances;
  - Statistics: a series of data collected to support and generate rate information and trend analysis.

- Evaluation of a Flight Data Monitoring Service Provider:

  Some aircraft manufacturers actively support FDM Programmes for their aircraft. They provide packages including tools and software, handbooks to support their FDM methods, procedures, and additional assistance for implementing the FDM Programme. Additionally, there are third party Flight Data Monitoring Service Providers which tailor their services to the required standards and specification of the operator. Depending on the scope and size of the operator it is

recommended to outsource the complex ground-based processing to a third party provider in order to minimise installation, training and software license costs. This recommendation is especially to consider for small and low cycle operators. Other operators may choose to implement a fully fledged in-house FDM Programme. Ideally, there should be a list stipulating the aircraft registration, corresponding name of the FDM System and contracted service provider.

- De-identification of sensitive Flight and Crew Data:

  The procedure to prevent disclosure of sensitive flight data or crew identity shall be written in a document and signed by all parties such airline management, flight crew member representatives nominated either by the union or the flight crew themselves. This procedure shall, as a minimum, define:
  - the objective and scope of the FDM programme;
  - a data access and security policy that should restrict access to information to non-specifically authorised persons;
  - the method to obtain identified or de-identified flight crew feedback;
- the data retention policy and accountability including the measures to ensure the security of the data;
- the criteria and procedure under which an advisory briefing or remedial training should take place;
- the conditions under which the confidentiality may be withdrawn for reasons of gross negligence or significant continuing safety concern;
- the participation of flight crew member representative(s) in the assessment of the data, the action and review process and the consideration of recommendations; and
- the policy for publishing the findings resulting from FDM.

9 Contracting and Leasing

9.1 Contracting and Monitoring of Contractors

- Contracted activities include all activities within the organisation's scope of approval that are performed by another organisation either itself certified to carry out such activity or if not certified, working under the organisation's terms approval.

- The ultimate responsibility for contracted products or services provided by external organisations always remains with the organisation.
- Activities performed by contractors may have an impact on safety. Therefore, the contracted safety related activities need to be addressed through the organisation's safety management and compliance monitoring programme:
  - As part of the safety management, a risk analysis is to be carried out on any newly contracted activity as part of the change management process. If corrective and/or preventive actions need to be implemented, they are to be submitted in writing to the

contractors. Effective application of these measures need to be checked and monitored

- As part of the compliance monitoring programme, the organisation ensures that the contracted organisation has the necessary certificate, authorisations and approvals where required, and has the resources and competence to undertake the task. Compliance with applicable regulations, organisation defined philosophies, policies, procedures and requirements are to be verified and monitored.

- Contractors are to be supplied with the organisation's documentation or parts thereof as applicable. Depending on the product or service provided, contractors are to be trained on the organisation's defined philosophies, policies, procedures and requirements. This in particular concerns contracted organisations providing training and checking

- An Air Operator may contract certain activities to external organisations, typical areas are:
  - Ground de-icing/anti-icing
  - Ground handling
  - Flight support
  - Training
  - Manual preparation

Example of a list containing contracted activities:

Product / Service	***Contractor***	***Agreement***	***Customer Number***
Flight Planning Performance Calculation	*XX Company Ltd. 1, Aerodrome street YZ Aerodrome 54321 KL*	*Yes*	*CN-123456*
Organisation Documentation Publication	*YY Company Ltd 2, My street 54321 KL*	*Yes*	CN-789012
Recruitment of Personnel	*ZZ Company Ltd …*	*Yes*	*None*
Route-and Aerodrome Instructions and Information	*Refer to OM C, Chapter 1.X "Subscription to Commercially Produced Manual System"*		
Training	*Refer OM D, Chapter 1.2 "Contracted Training Facilities"*		
Audit and Inspections	*Refer to OMM, Chapter X.X "Audit and Inspections"*		
Base- and Line Maintenance	*Refer to CAME, Part 5 "Contracted Maintenance"*		
Continuing Airworthiness Management Tasks	*Refer to CAME, Part 5 "Continuing Airworthiness Management Tasks"*		

Example process for the evaluation of contractors

Step	*Remarks*	*Tool*	*Responsibility*
Definition of requirements and needs	*• define the product, service, activity or task to be contracted* *• specify the criteria for safety and quality and the standard of performance* *• define the standards of performance* *• establish budget and cap on costs*	*Contractor evaluation checklist*	*Project team*
Offer	*Request firm offer including evidences of certificates, authorisations and approvals*	*Offer documentation*	*Project team* *Contractor*
Release	*Release and approval of offer, conditions,budget and cap on costs*	*Project documentation*	*ACM*
Evaluation	*• Verify that the contractor holds the required certificates, authorisations and approvals* *• Verify the adequacy of the facilities and equipment as well as the availability of resources* *• Check the need to supply the contractor with organisation documentation or parts thereof* *• Verify the need to train the contractor on defined organisations philosophies, policies,procedures and requirements*	*Contractor evaluation checklist*	*Project team*
Safety Impact	*Decide whether risk assessment is necessary*	*Risk assessment tool* *Supplier risk analysis*	*Project team*
Compliance Check	*Decide whether a detailed audit is required*	*Contractor Evaluation Audit Checklist*	*Auditor*
Decision and Closing	*Decide upon suitability, adequacy and acceptability*	*Project documentation*	*ACM*
Request Contract	*Issue of contracts*	*Contract*	*Contractor*
Contract review	*• Evaluate contract, verify that the contracted activity, product or service is clearly defined* *• Verify costs*	*Contract*	*Project team*
Sign contract	*• Signing of contracts by the responsible function and Accountable Manager*	*Contract*	*ACM*

- *If there is a need for action, the preventive or corrective measure is submitted to the contractor in written form. To monitor the implementation, the corrective measure is tracked on the list of pending items.*
- *In case of negative trends, the relevant nominated person in collaboration with the Compliance Monitoring Manager decides about the necessity for the conduction of a contractor inspection/audit*

Example for the continuous monitoring of contractors

Service/Product/Activity	*Monitoring*	*Frequency*	*Responsibility*
Training	*• ensuring the validity of necessary certificates, authorisations and approvals*	*According to the validity of the individual certificates, authorisations and approvals*	*NPCT*
	• inspection/audit of training provided	*Acc. to risk assessment*	*NPCT*
	• analysis of trainee's feedback report *• treatment of feedback according to feedback & reporting*	*Each training* *OM D, Chapter "XY"*	*NPCT*
Maintenance	*• supervision of maintenance according to continuing airworthiness management exposition CAME*	*-*	*CAM*
Fuelling	*• fuel check according to OM A, Chapter 8.2* *• Occurrence report in case of occurrences*	*-*	*Pilot*
	• risk assessment	*Supplier Risk Assessment*	*NPGO*
	• audit of fuel providers*	*Acc. to risk assessment*	*…*
Ground Handling	*• supervision of ground handling activities according to OM A, Chapter 8.2*	*Each flight*	*Flight Crew*
	• sample checks (inspections) by crew based on checklist provided by dispatch	*…*	*Dispatch / Flight Crew*
	• risk assessment	*Supplier Risk Assessment*	*NPGO*
	*• audit**	*Acc. to risk assessment*	*…*
	• …	*…*	*…*
De-/Anti-Icing	*• Monitoring by crew according to OM A, Chapter 8.2* *• Occurrence report in case of occurrences*	*-*	*Commander*
	• risk assessment	*Supplier Risk Assessment*	*NPGO*
	• audit of de-/anti-icing providers*	*Acc. to risk assessment*	*…*

Flight Support	• …	…	…
Navigation Data Providers	• *Availability of Letter of Acceptance*	…	*CAM*
	• *Occurrence report in case of occurrences*	…	*Commander*
Flight Performance Data Provider	• *Comparison of delivered product with order*	…	*NPGO*
	• *Occurrence report in case of occurrences*	…	*Commander*
Providers of data for take-off performance calculation	• *Comparison of delivered product with order*	…	*NPGO*
	• *Occurrence report in case of occurrences*	…	*Pilot*
Flight Operations / Wet lease	• …	…	…
Dry lease of FSTD	• *Check qualification of FSTD* • *Daily check*	*Before use after dry lease*	*NPCT*
Maintenance of FSTD	• *ensuring the validity of necessary approval/qualification …)*	*According to the validity of the individual certificates, authorisations and approvals*	*CMM*
	• *verification of service report of provider*	*each report*	…
	• *check of function as release to service*	*before release to service*	….
FSTD engineering services	• *as a minimum an incoming inspection is required*	*before release to service*	*FFP*
FSTD Manual preparation	• *Verification of completeness, conformity & compliance with respective requirements*	*each service*	*FFP*
FSTD Navigation Data	• *check-up-date*	*Current within 3 Months (28 days for aerodrome competence trng!)*	*FFP*
FSTD Spare Parts	• *Provision and validity of certificate of spare part during the arrival of part*	*each delivery*	*FFP*
	• *Check of function of spare part after installation / fitting*	*each installation*	*FFP*
…	•		

9.2 Leasing

Any lease agreement concerning aircraft used by an operator certified according to part AOC is subject to prior approval by HCAA.
For details on leasing see FSD/OPS/IB-5-2014 “Lease-Codeshare”.
Note: Information appeared in Chapter 13 of the OM shall not be duplicated in here.

9.3 Code-Share Agreement

For details on Code-sharing see FSD/OPS/IB-5-2014 “Lease-Codeshare”.
Note: Information appeared in Chapter 13 of the OM shall not be duplicated in here.

10 Record Keeping

10.1 Record Keeping and Archiving

- The organisation shall establish a system of record that allows storage and reliable traceability of all its activities. The format should be specified in the organisation procedure and shall be stored in a manner that ensures protection from damage, alteration and theft.

- A record keeping includes the following cycle:
  - Create storage;
  - Maintain and monitor storage;
  - End of storage period - destroy or archive file/record.

- The record-keeping system should ensure that the records are always accessible and traceable throughout the retention period. The retention period starts when the record has been created. Computer system should have at least:
  - one backup system which should be updated within 24 hours of any new entry;
  - safeguarded against access by unauthorised personnel;
  - a minimum storage period of five years unless otherwise specified in the respective subpart

  All computer hardware used to ensure data backup should be stored in a different location from the one containing the working data. Special care should be taken when hard- or software changes take place making sure that all data continues to be accessible.

- Microfilming or optical storage of records may be carried out at any time. The record should be as legible as the original record and remain so for the required retention period.

Example for management system related records:

Document	*Responsibility*	*Type of Storage*	*Place of Storage*	*Storage Period*	*Follow-up*
Data evaluation of managers	*ACM*	*EDP*	*P://…/MgmtEval*	*5 years*	*-*
SPI-Reports	*…*	*…*	*…*	*5 years*	*…*
Management evaluation report	*ACM*	*EDP*	*P://…/MgmtEval*	*5 years*	*…*
Individual feedback reports	*…*	*…*	*…*	*5 years*	*archive*
Audit Plan	*…*	*…*	*…*	*…*	
Audit reports	*CMM*	*Hard Copy*	*Audit Folder*	*5 years*	*scan&destroy*
List ofinspections performed	*Nominated Persons*	*Electronically*	*P://…/Inspections*	*5 years*	*…*
Employees Introduction programme	*…*	*…*	*…*	*5 years*	*…*
Attendance records of Managment System and Safety Managment related training	*…*	*…*	*…*	*5 years*	*…*
List of pending items	*CMM*	*EDP*	*P://…/CorrActions*	*5 years*	
Report monitoring tool	*…*	*…*	*…*	*5 years*	
Company Risk Assessment	*ACM*	*…*	*…*	*5 years*	
Project Risk Assessment	*Project Manager*	*…*	*…*	*5 years*	*Scan & destroy*
Investigation results	*…*	*…*	*…*	*5 years*	*archive*
Flight Data Monitoring analysis reports	*…*	*…*	*…*	*5 years*	*…*
Results from Studies, Surveys, Reviews	*SM*	*…*	*…*	*5 years*	*…*
…	*…*	*…*	*…*	*5 years*	*…*

List of record keeping "preparation and execution of flight:"

Document	*Responsibility*	*Type of storage*	*Place of storage*	*Storage period*	*Follow-up*
Operational Flight plan	*NPFO*	*Hardcopy*	*Dispatch P://…/flightOps*	*3 Months*	*scan/destroy*
Route-specific notices (Notams, weather….)	*NPGO*	*EDP*	*P://…/flightOps*	*3 Months*	*-*
Mass&balance	…	……		*3 months*	
NOTOC	*NPFO*	*Hardcopy*	*Dispatch*	*3 months*	*destroy*
Journey log	*CAM*		…	*3 months*	…
Flight reports	…	…	….	*3 months*	…
…	…	…	…	…	..

List "personnel records to be stored":

Document	*Responsibility*	*Type of Storage*	*Place of Storage*	*Storage period*	*Followup*
Flight crew licence	*NPCT*	*Copy and EDP*	*Office NPCT P://…/Training*	*As long as the crew member is exercising the priileges of the licence for the aircraft operator*	*archive*
Cabin crew attestation	*CCC*	*Copy and EDP*	*Office NPCT P://…/CabinCrew*	*As long as the crew member is exercising the priileges of the licence for the aircraft operator*	*archive*
Crew member training, checking and qualifications	*NPCT*	*Copy and EDP*	*Office NPCT P://…/Training*	*3 years*	*archive*
Records on Crew member recent experience	…	…	…	*15 months*	…
Crew member route and aerodrome/ tasks and area of competence, as appropriate	…		…	*3 years*	…

Dangerous goods training	…		…	*3 years*	…
Training/qualification records of other personnel for whom a training programme is required	…		…	*Last two training records*	…

The operator shall maintain all training, checking and qualifications of each crew member, and make the records available, on request by the crew member.

11. Management Evaluation and Continuous Improvement

11.1 Management Evaluation

- The Management Evaluation is a comprehensive and systematic review by the management to evaluate the overall effectiveness of the organisation including the management system in regard to its policies, processes and barriers. The main function is controlling and mitigating risks over the whole organisation (including corporate risk, finance...). Performance Indicators from all departments are reported. This process is of utmost importance for the steering of the organisation.

- As explained in Chapter 4 of this document, it is important that targets are defined and communicated (not only Safety Targets). The management has then to decide which Performance Indicators are only reviewed and communicated within the concerned division and which SPI's are reviewed and communicated to the top Management and Board of Directors on a regular basis.

Example of indicators for the Management Evaluation:

Area	*Item*	*Objective*	*Year YYYY*											
			1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
			1st Quarter			*2nd Quarter*			*3rd Quarter*			*4th Quarter*		
			1st Half						**2nd Half**					
Finance	*Cash ratio*	*>40%*												
	Quick ratio	*>80*												
	Current ratio	*100%*												
	Cash burn rate	*>60 days*												
	Cash flow ratio	*>10%*												
	Equity ratio	*>40%*												
	...													
Marketing	*Return on sales*													
	Return on invested capital													
Safety	*Risk value*	*3.5*	*4*	*4*	*4.5*	*4.2*	*3.8*	*3.4*	*3.3*	*3.2*	*3.1*	*2.8*	*2.8*	*2.8*
	Risk ratio													
	…													
Maint.	*Reliability ratio*													
	…													
FSTD	*Availability*	*99%*	*99*	*92*	*98*	*100*	*100*	*99*	*…*	*…*				
	closed defects	*…*	*2*	*8*	*…*	*…*								
	Open discrepancies	*5*	*3*	*10*	*9*	*…*	*…*	*…*						
	…													

11.2. Continuous Improvement

Complex Organisation:

- The organisation should continuously seek to improve its safety performance. Continuous Improvement should be achieved through:
  - Proactive and reactive evaluations of facilities, equipment, documentation and procedures through audits and surveys;
  - Proactive evaluation of individuals' performance to verify the fulfilment of their safety mitigation of risk; and
  - Reactive evaluation in order to verify the effectiveness of the system for control and mitigation of risk.
- There are different means of how the organisations performance can be improved and the effectiveness increased. The Safety Manager should provide a report on safety performance on how safety is managed. These results should then be reported to the management via

management evaluation, (refer also to management evaluation). The data derives from:

- Safety Reviews
- Safety Studies
- Safety Surveys
- Internal Safety Investigation
- Audits and Inspections(refer to audit and inspection)
- Other...

12 Emergency Response Planning

12.1. Emergency Response Planning

- An Emergency Response Plan outlines systematically and in writing what should be done after an accident or aviation crisis and who is responsible for each action.
- The term Emergency Response Plan may be also known by different terms such as Contingency Plan, Crisis Management Plan, Continuing Airworthiness Support Plan, etc.
- Where there is a possibility of an organisation's aviation operations or activities being compromised by other crisis or emergencies originating from external sources such as a public health emergency or a pandemic, these scenarios should also be addressed in the ERP concept.
- The ERP should address all possible and likely scenarios and have appropriate mitigating actions or processes in place so that the organisation, its customers, the public and the industry at large may have a better level of safety assurance as well as service continuity.
- Successful response to an emergency begins with effective planning. An Emergency Response Plan provides the basis for a systemic approach to manage the organisation's affairs in the aftermath of a significant event – in the worst case, a major accident.
- Everyone involved in the initial response to a major aviation event will be suffering from some degree of disorientation. Therefore, the Emergency Response Plan should take advantage of the use of checklists. These checklists may form an integral part of the organisation's documentation or the emergency response manual.
- An Emergency Response Plan is a paper indication of intent. Hopefully, much of an ERP will never be tested under actual conditions. Nevertheless, comprehensive training is required to ensure that the described intentions are backed by operational capabilities. Furthermore, regular emergency response drills and exercises are strongly recommended. Some elements of the ERP, such as the call-out and communication plan may be tested by desktop exercises. Other aspects, such as on-site activities involving other agencies, need to be exercised at regular intervals. Such exercises have the advantage of disclosing deficiencies in the plan, which can be rectified before an actual emergency. For certain service providers such as airports, the periodic testing of the adequacy of the plan and the conduct of full scale emergency exercise may be mandatory.

Purpose and Effectiveness of an Emergency Response Plan:

- The purpose of an Emergency Response Plan is to ensure:
  - Delegation of the emergency authority;
  - Assignment of emergency responsibilities;
  - Documentation of emergency checklists, procedures and processes;
  - Safe continuation of essential operations, while the crisis is being managed;
  - Proactive identification of all possible emergency events or scenarios and their corresponding mitigation actions;
  - Coordination of emergency response efforts internally and with external parties.

- An effective Emergency Response Plan should:
  - Be Appropriate to the size, nature and complexity of the organisation;
  - Be readily accessible to all relevant personnel and other organisations where applicable;
  - Include checklists and procedures relevant to different or specific emergency situations;
  - Have quick reference contact details of relevant personnel;
  - Be regularly tested through practical exercises involving all relevant departments and personnel of the organisation;
  - Be periodically reviewed and updated when regulations, preconditions or other details change.

Emergency Response Plan Content:

- An ERP would normally be documented in the format of a manual and may include the following considerations:

- **Governing Policies:** The ERP should provide direction for responding to emergencies, based on governing laws and regulations for investigations, agreements with local authorities, company policies and priorities.

- **Organisation:** The ERP should outline management's and key personnel intentions, roles, responsibilities, reporting and communication lines, call-out plan for key personnel, organisational set-up, etc. with respect to the emergency.

- **Notifications:** The ERP should specify who in the organisation should be notified of an emergency, and who will make external notifications and by what means.

- **Go-Team:** Depending on the circumstances, a Go-Team may be dispatched to the accident site to augment local authorities and administer the organisation's interests.

- **Additional Assistance:** Employees with appropriate training and experience may provide useful support during the preparation and execution of an organisation's ERP. These employees may

fulfil different roles such as members of the Crisis Management Center or the Family Assistance Programme.

- **Crisis Management Centre (CMC):** The CMC, which is normally in standby mode, should be activated at the organisation's headquarter once the stipulated activation criteria have been met. In addition, a Command Post (CP) may be established at or near the accident site. The ERP should address issues such as round the clock staffing, communication, documentation, checklists and procedures, emergency response equipment, office furnishing and supplies.

- **Records:** In addition to the organisation's legal requirement to maintain logs of events and activities, the organisation will be required to provide information to a State investigation team. Special emphasis should be given on procedures for the retention of relevant data in safe custody pending their disposition as determined in accordance with ICAO Annex 13. Considered as relevant data are: FDR and CVR records, training and checking results, technical records, and flight planning relevant records.

- **Accident Site:** After a major accident, representatives from many jurisdictions have legitimate reasons for accessing the site, for example, police, fire-fighters, medics, airport authorities, coroners, State accident investigators and relief agencies (e.g. the Red Cross). Although coordination of the activities of these stakeholders is the responsibility of the State's police and/or investigating authority, the aircraft operator should clarify the following aspects of activity at the accident site: representative at the accident site, management of surviving victims, needs of relatives of victims, handling of human remains and personal property of the deceased, removal and security of the wreckage, preservation of assistance, etc.

- **News Media:** How the company responds to the media may affect how well the company recovers from the event, minimising reputational damage. The following issues should be thoroughly addressed in a comprehensive ERP: guidance regarding a prepared statement for immediate response to media queries, what information may be released and what information is protected by statute (FDR, CVR and ATC recordings, witness statements, etc.), designated speakers, timing and content of the initial statement, provisions for regular media updates.

- **Formal Investigations:** Guidance for company personnel dealing with State accident investigators and police should be provided in the ERP.

- **Family Assistance:** The ERP should provide guidance for personnel working in stressful situations. This may include specific duty limits and providing post-critical incident stress counselling. The ERP should also include guidance on the organisation's approach to assist the families of accident victims (crew and passengers post-critical incident stress counselling). A large number of employees will be required to support the organisation’s Family Assistance Programme. It is strongly recommended to provide Critical Incident Stress Management (CISM) Training to all employees who are dealing with survivors or family members.

- **Post-Occurrence Review:** Direction should be provided to ensure that, following the emergency, key personnel carry out a full debriefing and record all significant lessons learned. This may result in amendments being made to the ERP and associated checklists and procedures.

Emergency Response Planning Service Provider:

- There are third party Emergency Response Service Providers which tailor their services to the required standards and specification of the organisation. Those services may include a crisis management centre, crisis communication, media call centre, family assistance, disaster recovery services, etc.

- Depending on the scope and size of the organisation it might be advisable to outsource the complex, time-consuming and expensive set-up of certain emergency response elements to a third party service provider in order to minimise set-up, training and running costs. This recommendation is especially worth considering for small and low cycle operators. Other operators may choose to implement a fully fledged Emergency Response Plan. Ideally, there is a list stipulating which emergency response element is contracted to a specific service provider and under which circumstances and criteria those services are activated.

Example for a Statement regarding the Scope and Objectives of the ERP Concept:

- **ERP Scope:**
  - The ERP Concept has been designed in order to systematically assist the organisation in handling an Aviation Emergency, Accident or Serious Incident or any other event requiring activation of the Emergency Response Team.
  - The Plan provides processes and guidelines to personnel performing essential tasks to ensure continuous operation, emergency handling and full recovery of the organisation, addressing both legal and moral responsibilities.

- **ERP Objectives:** The ERP Concept has been designed in order to fulfil the following objectives:
  - Ensuring an orderly and safe transition from normal to emergency operations and return to normal operations;
  - Outlining a communication and notification plan, including communication and notification to the authorities and the emergency response team;
  - Defining composition, role and contact details of the emergency response team;
  - Providing guidelines and initial response procedures for the emergency response team members so that the initial tasks may be performed correctly;
  - Ensuring the welfare of employees, crew and passengers in a crisis situation.

Example for an Initial Notification of an Emergency:

Step	*Who / Responsibility*	*Means of Notification / Forms*	*Notification to / Address*	*Time Limit*
1	*Any Flight Crew Member*	*Radio Communication*	*Local ATS Frequency or MHz 121.50*	*Immediately*
2	*Commander or any person becoming aware of the Emergency*	*By the most practical mean*	*Notification of the Emergency Response Team (refer to OMM, Chapter X.X Composition, Role and Contact Details of the Emergency Response Team)*	*ASAP*
3	*Manager Emergency Response Planning* *Or* *Next available Person according to the Composition, Role and Contact Details of the Emergency Response Team. Proceed according to order number.*	*Phone*	*XYZ* *and* *NAA of the country where the emergency took place. Refer to the AIP of the State concerned.* *And HCAA*	*Immediately*

Example for Composition, Role and Contact Details of the Emergency Response Team:

Order	*Role*	*First Name / Family Name*	*Phone No 1*	*Phone No 2*
1	*Manager Emergency Response Planning*		…	…
2	*Deputy Manager Emergency Response Planning*		...	…
3	*Accountable Manager*		…	...
4	*NP Flight Operations*	…	…	...
5	…	…	…	...
6	…	…	…	...
…	…	…	…	...

Example for Initial Emergency Response Guidelines and Procedures:

Step	*Task*	*Responsibility*	*Verify/Check*	*Tool / Source*
1	*Verify the seriousness of the Emergency*	*Manager ERP*	*Aeroplane/Crew Location. Get additional first hand information.*	*Communication Means*
2	*Verify what kind of Emergency*	*Manager ERP*	*Accident or serious incident? Persons injured?*	*Local NAA or local Air Accident Investigation Branch*
3	*Consider to activate the CMC, Go-Team, Family Assistance, etc.*	*Manager ERP*	*Call-out list*	*OMM or ERP Manual*
4	*Initial Notification to HCAA ….*	*Manager ERP*	*Date, Time, Person*	*Initial Notification List*
5	*Collect Passenger Details*	*Manager ERP*	*Customer Files*	*Booking and Reservations Department*
6	*Collect Flight Documents and Crew Records*	*NP Flight Operations*	*Completeness*	*Dispatch, Outstation, Handling Agent, HR Department*
7	*Collect Aeroplane Documents*	*CAM*	*Completeness*	*CAMO, MRO*
8	…	…	…	…
…	…	…	…	…
xx	*Deactivation of the Emergency Response*	*ACM*	*All relevant ERP Tasks completed*	*OMM or ERP Manual*

13 Management System Training

13.1 General Requirements

- All training and checking programmes within an organisation should include training in those aspects of the management system and associated procedures that are relevant to the function and position in question. This means, that the Management System Training is an integral part of the organisation's training programme as required by the relevant requirements and standards for all functions. The concept should consider the requirements of all of employee levels and could be structured as follows:

- Basic Management System Training for all employees;
- Advanced Management System Training for management personnel, auditors and inspectors; and
- Continuous training.

- The Management System Training may consist of classroom instruction, self-study via media (newsletter, flight safety magazines, power point, e-learning, etc.) and has to be specified in the respective syllabus or lesson plans.
- The organisation's Management System Documentation may serve as training handout/documentation.
- Detailed lesson plans as used by the instructors need not be integrated within the organisation's manual system to ensure necessary flexibility for improvements / amendments.

13.2 Basic Training – All Employees

- A basic training for all employees should be based on the organisation's management system documentation.
- Based on the organisation's management system, the basic training consists of:

Training Subject	***Level of Training***	***Standard of Performance***	***Instructor***
The Organisation's Scope of Activity	*overview classroom*	*Knows the organisation, its facility and infrastructure Names the scope of activity*	*ACM*
Organisation's Strategic Planning and Safety Policy	*in-depth classroom*	*Understands the Safety Policy including Objectives and is able to actively apply the elements thereof; Names the organisation's vision, mission, values and strategy*	*ACM*
Organisation's Documentation including System of Amendment and Revision	*in-depth classroom*	*Names the organisation's documentation including manual system and knows the relevant documents, manuals and/or parts as required by his function*	*NPFO*
Organisational Structure,Duties, Responsibilities and Accountabilities	*in-depth classroom*	*Is able to find the defined organisational structures, management personnel including contacts, understands the role and function of the management personnel; Understands and knows the duties and responsibility as defined for his function and is proficient to perform the respective duty*	*NPFO*
Safety Management	*overview classroom*	*Understands and is able to explain the basic principles of the safety management Understands and knows the own role within the safety management*	*SM*

Compliance Management	*overview classroom*	*Understands and is able to explain the basic principles of the compliance management Understands and knows the own role within the compliance management*	*CMM*
Occurrence Reporting	*in-depth classroom*	*Understands the different types of reporting and is able to report according to the defined reporting procedures Understands and knows the own role within the occurrence reporting system*	*NPFO*
Emergency Response Planning	*overview classroom*	*Is able to find the ERP relevant documentation and knows the different functions within the ERP*	*NPFO*
Management Evaluation and Continuous Improvement	*overview classroom*	*Knows and understands the principles of the management evaluation and continuous improvement*	*ACM*

- For Flight Crew:
  - As a specific training module, the basic management system training shall be integrated within:
    - Conversion Course Changing Operator; and
    - Conversion Course Changing Operator and/or Aeroplane Type.

- For Cabin Crew:
  - As a specific training module, the basic management system training shall be integrated within:
    - Aircraft Type Specific Training and Conversion Course;
    - Refresher Training.

13.3. Advanced Training – Management Personnel, Auditors and Inspectors

- The advanced management system training shall ensure that the management personnel are able and skilled to establish, implement and maintain an effective management system. Additionally, all management functions, auditors and inspectors involved, shall have detailed and comprehensive knowledge of the organisation's structure, vision, mission and core values, scope of activity, philosophy, policies and procedures. Consequently, the content of the basic management system training shall be the prerequisite for advanced management system training or an integral part.

- Advanced Management System Training, as required by Management Function:

Training Subject	*Provider*	*AM*	*NP*	*SM*	*CMM*	*Auditor*	*Inspector*	*FSTD-FocalPoint*	*Standard of Performance*
Advanced Management System Training	*Internal*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*Gets expertise and comprehensive knowledge of the organisation's management system and associated procedures. Is competent to maintain an effective management system within the organisation. Is skilled to actively promote safety, to analyse and evaluate data for the purpose to identify trends and systematic weaknesses within the organisation and to maintain continuous improvement*
Safety Management Training	*External: Manual XX, Chapter"Training Provider"*			*X*					*Is qualified and skilled to implement and maintain an effective Safety Management*
Compliance Monitoring Management	*External: Manual XX, Chapter"Training Provider"*				*X*				*Is qualified and skilled to implementand maintain an effective Compliance Monitoring Management*
Audit and Inspection Techniques	*External: Manual XX, Chapter"Training Provider"*					*X*	*X*		*Is qualified and skilled to conduct, evaluate and document audits and inspections. Is competent to initiate measures and to monitor its effectiveness*
Relevant Standards and Requirements	*External: Manual XX, Chapter "Training Provider*		*X*	*X*	*X*			*X*	*Gets expertise and comprehensive knowledge of the relevant standards and requirements. Names the structure, content and is able to find relevant paragraphs. Is skilled to interpret legal paragraphs to ensure legal compliance*

- Based on the organisation's MS, the advanced management system training consists of:

Training Subject		***Standard of Performance***	***Instructor***
The Organisation and Scope of Activity	*• Safety Policy* *• The Organisation – Vision, Mission, Values and Strategy* *• Introduction* *• Scope of Activity* *•Statement of Complexity* *• Relevant Standards and Requirements* *• Compliance Statement* *• Exemption and Derogation* *• Alternative Means of Compliance* *• Locations, Facilities and Infrastructure* *• Power of Authority*	*• The Participant shall practically show the ability to create the company's safety policy based on the vision, mission, values and strategy, and to define the scope of activities for the company.* *• Additionally the Participant shall be able to define and/or fully understand the details concerning statement of complexity, relevant standards requirements, compliance statements, exemption and derogation, alternative means of compliance, locations, facilities and infrastructure, and the power of the Authority.*	*ACM*
Organisation Documentation, System of Amendment and Revision	*• Overview of the Organisation Documentation* *• System and Form of Distribution* *• System of Amendment and Revision* *• Changes/Elements requiring prior Approval* *• Changes/Elements not requiring prior Approval* *• Control of External/Foreign Documents*	*• The Participant shall fully understand the requirement for the organisation's documentation and its structures (including overview), distribution forms, and the control of external/foreign documents.* *• Additionally the system of amendment shall be explained together with the documentation "change management", also identifying items to be or not to be approved prior to the document's publication.* *• The Participant shall be able to support and/or lead the organisation's documentation needs and respective processes and document definitions, including changes.*	*NPFO*
Organisational Structure, Duties, Responsibilities and Accountabilities	*• Organisational Structure* *• Management Personnel – Name and Contacts* *• Duties, Responsibilities and Accountabilities* *• Accountable Manager* *• Safety Manager* *• Compliance Monitoring Manager*	*• The Participant shall know the required/applied organisational structure of the company in detail and shall be able to explain/define duties, responsibilities and accountabilities for the different management functions/posts.*	*ACM*

Safety Management	*• Safety Policy (if not presented at the beginning of the manual)* *• Hazard Identification and Risk Management* *• Flight Data Monitoring Programme* *• Change Management* *• Safety Board (SRB)* *• Safety Action Group (SAG)* *• Safety Performance Monitoring* *• Safety Promotion* *• Safety -Studies, -Reviews, -Surveys and Investigation*	*• The Participant shall fully support and enable the company's safety policy and shall be able to define respective changes and policies to international standards.* *• The Participant shall furthermore practice hazard identification and risk management, shall understand the data retrieved from flight data monitoring and shall enable or lead the processes for change management, of the SRB, SAG, safety performance monitoring, and safety studies, reviews and surveys.* *• The Participant shall also actively promote safety within the company and shall know the ways to do this.*	*SM*
Compliance Management	*• Compliance Monitoring Programme* *• Audit and Inspections* *• Auditors and Inspectors* *• Findings, Corrective- and Preventive Actions* *• Classification of Findings*	*• The Participant shall actively lead the compliance monitoring programme/processes and shall fully understand respective audit/inspection systems, checklists, finding classifications and resulting corrective and preventive actions.* *• The Participant shall be able to systematically communicate with auditors and inspectors, and, if within the activity scope, shall be able to lead these persons and to enable theirimportant role within the company.*	*CM*
Management Evaluation	*• Purpose and Scope* *•Process of Management Evaluation* *• Continuous Improvement*	*• The Participant shall apply the management evaluation process according to the scope of activities, and shall understand it for all management functions. Purpose and scope shall be fully understood/applied, and continuous improvement enabled.*	…
Occurrence Reporting Scheme	*• Reporting- and Feedback System* *• Occurrence Reporting*	*• The Participant is able to establish a reporting and feedback system including occurrence reporting and explains data storage and evaluation, including the ways/consequences/influences to the management evaluation, change management and continuous safety improvement.*	…

Emergency Response Planning	*• Objectives and Scope* *• Concept and Planning*	*• The Participant fully understands the background, requirements, objectives and scope of an emergency response plan and is able to either participate or to lead an emergency response team according to the role/concepts and planning given in the emergency response plan.*	…
Management System Training	*• Basic Training* *• Advanced Training* *• Continuous Training*	*• The Participant explains the concepts for basic and advanced management system training, is able to define objectives of a general or actuality based kind, or, according to the managerial role, practices both types of such training.*	…
Record Keeping	*• Record Keeping and Archiving*	*• The Participant designs a system for record keeping and archiving, respecting all requirements (i.e. storage periods, etc.) and is able to run it smoothly.*	…
Contracting and Leasing	*• Contracting and Monitoring of Contractors* *• Leasing* *• Code-Share Agreement*	*• The Participant fully understands the concept of contracting and sub-contracting and the processes required for monitoring (auditing/inspecting).* *• The leasing concepts and contracts are understood and correctly applied, as well ascode-share agreements.*	…
…			

13.4. Continuous Management System Training

- The purpose of the Continuous Management System Training is to ensure that the organisation and all employees are continuously maintaining and improving the Standard of Performance regarding all aspects, philosophies, policies and procedures of the management system.

- The Continuous Management System Training should be reviewed periodically for its effectiveness in order to ensure continuing relevance to the organisation.

- Continuous training, mostly named as recurrent training, should be based on a systematic analysis of factual data and results of:
  - Hazard identification and Risk Management;
  - Safety Performance Monitoring;
  - Studies, Investigations, Surveys and Reviews including Management Evaluation;
  - If applicable, Flight Data Monitoring;
  - Audit and Inspections, especially findings, corrective and preventive actions;
  - Reporting and Feedback System.

- For Flight Crew:
  - As a specific training module, the Continuous Management System Training shall be integrated within:
    - Recurrent Training and Checking.

- For Cabin Crew:
  - As a specific training module, the Continuous Management System Training shall be integrated within:
    - Recurrent Training; and
    - Refresher Training.

Ο *Προϊστάμενος*

Διεύθυνσης Πτητικών Προτύπων

Κ.Σφακιανάκης

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