Technical Publication – TP 09

Safety Management Systems

Foreword

A Safety Management System can help you identify, classify and manage risks to the safety of your operation, and provides a framework on which to build a sound business.

The benefits become apparent once a Safety Management System is integrated into your operation.

A Safety Management System will help you:

- Market the safety standards of your operation;
- Guard against the direct and indirect costs of incidents and accidents;
- Improve communication, morale and productivity;
- Meet your legal responsibilities to manage safety.

It is a myth that Safety Management Systems are only suitable for large organisations like airlines.

Smaller organisations actually have an advantage when it comes to incorporating a Safety Management System. This is true whether you are involved in flying or maintenance or operations.

The smaller your operation, the easier it is to communicate and implement the changes required to run a successful system to manage safety.

This guidance material is designed to help your organisation implement a Safety Management System.

A Safety Management System is an investment with a high return over the long term.

I urge you to consider adopting a Safety Management System to manage safety in your operation.

Dritan Gjonbalaj
Director General
Civil Aviation Authority of the Republic of Kosovo
# List of Effective Pages

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Pages</th>
<th>Revision No.</th>
<th>Effective Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>2 of 16</td>
<td>Version 2</td>
<td>11 January 2013</td>
</tr>
<tr>
<td>List of Effective Pages</td>
<td>3 of 16</td>
<td>Version 2</td>
<td>11 January 2013</td>
</tr>
<tr>
<td>Table of Approval</td>
<td>3 of 16</td>
<td>Version 2</td>
<td>11 January 2013</td>
</tr>
<tr>
<td>Distribution List</td>
<td>4 of 16</td>
<td>Version 2</td>
<td>11 January 2013</td>
</tr>
<tr>
<td>Review Table</td>
<td>4 of 16</td>
<td>Version 2</td>
<td>11 January 2013</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>5 of 16</td>
<td>Version 2</td>
<td>11 January 2013</td>
</tr>
<tr>
<td>Terms and Definitions</td>
<td>6 of 16</td>
<td>Version 2</td>
<td>11 January 2013</td>
</tr>
<tr>
<td>Chapter 1 - How to Use this Information Guidance Material?</td>
<td>7 of 16</td>
<td>Version 2</td>
<td>11 January 2013</td>
</tr>
<tr>
<td>Chapter 2 - Safety Management Plan</td>
<td>8 of 16</td>
<td>Version 2</td>
<td>11 January 2013</td>
</tr>
<tr>
<td>Chapter 3 - Safety Oversight</td>
<td>9 of 16</td>
<td>Version 2</td>
<td>11 January 2013</td>
</tr>
<tr>
<td>Chapter 4 - Staff Training</td>
<td>10 of 16</td>
<td>Version 2</td>
<td>11 January 2013</td>
</tr>
<tr>
<td>Chapter 5 - Monitoring and Evaluation of SMS</td>
<td>11 of 16</td>
<td>Version 2</td>
<td>11 January 2013</td>
</tr>
<tr>
<td>Chapter 6 - Quality Assurance</td>
<td>12 of 16</td>
<td>Version 2</td>
<td>11 January 2013</td>
</tr>
<tr>
<td>Chapter 7 - Documentation</td>
<td>13 of 16</td>
<td>Version 2</td>
<td>11 January 2013</td>
</tr>
<tr>
<td>Chapter 8 - Emergency Response Preparedness</td>
<td>14 of 16</td>
<td>Version 2</td>
<td>11 January 2013</td>
</tr>
</tbody>
</table>

# Table of Approval

<table>
<thead>
<tr>
<th>Name and position</th>
<th>Date</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bajram Xhemaili, Airworthiness Inspector, Flight Safety Department</td>
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</tr>
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</tr>
<tr>
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<td>11 January 2013</td>
<td></td>
</tr>
</tbody>
</table>
## Distribution List

<table>
<thead>
<tr>
<th>Copy No.</th>
<th>Location</th>
<th>Media</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CAA Library</td>
<td>Original + Digital</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>CAA Server</td>
<td>Digital</td>
<td>1</td>
</tr>
</tbody>
</table>

## Review Table

<table>
<thead>
<tr>
<th>Rev. No.</th>
<th>Date</th>
<th>Prepared by:</th>
<th>Authorized by:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table of Contents

Foreword ........................................................................................................................................... 2
List of Effective Pages....................................................................................................................... 3
Table of Approval ............................................................................................................................. 3
Distribution List ................................................................................................................................ 4
Review Table ...................................................................................................................................... 4
Table of Contents .............................................................................................................................. 5
Terms and Definitions ...................................................................................................................... 6

CHAPTER 1 - HOW TO USE THIS INFORMATION GUIDANCE MATERIAL? ......................... 7

CHAPTER 2 - SAFETY MANAGEMENT PLAN .............................................................................. 8
  2.1 SAFETY POLICY ........................................................................................................................... 8
  2.2 ROLES AND RESPONSIBILITIES ................................................................................................... 8
  2.3 MANAGEMENT REVIEW .............................................................................................................. 9

CHAPTER 3 - SAFETY OVERSIGHT ........................................................................................... 10
  3.1 SAFETY REPORTING .................................................................................................................. 10
  3.2 HAZARD IDENTIFICATION AND RISK ASSESSMENT ................................................................. 10
  3.3 ACCIDENT / INCIDENT INVESTIGATION .................................................................................. 11

CHAPTER 4 - STAFF TRAINING ................................................................................................ 12
  4.1 INITIAL AND RECURRENT TRAINING ...................................................................................... 12

CHAPTER 5 - MONITORING AND EVALUATION OF SMS ................................................ 13
  5.1 SMS REVIEW .............................................................................................................................. 13

CHAPTER 6 - QUALITY ASSURANCE ...................................................................................... 14
  6.1 PROGRAM DESCRIPTION OBJECTIVE ..................................................................................... 14

CHAPTER 7 - DOCUMENTATION ............................................................................................ 15
  7.1 DOCUMENTATION OF PROCESSES AND PROCEDURES ....................................................... 15
  7.2 RECORD AND REPORT MANAGEMENT .................................................................................... 15

CHAPTER 8 - EMERGENCY RESPONSE PREPAREDNESS .................................................. 16
  8.1 EMERGENCY PREPAREDNESS POLICY .................................................................................. 16
  8.2 EMERGENCY RESPONSE PLAN ............................................................................................... 16
## Terms and Definitions

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hazard</strong></td>
<td>Any situation or condition that has the potential to cause damage or injury.</td>
</tr>
<tr>
<td><strong>Risk</strong></td>
<td>A potential adverse consequence of a hazard assessed in terms of severity and likelihood.</td>
</tr>
<tr>
<td><strong>Mitigation</strong></td>
<td>Measure needed either to eradicate the hazard, or to reduce the severity or likelihood of the risks.</td>
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<tr>
<td><strong>Safety Management System</strong></td>
<td>A systematic approach to managing safety including the necessary organizational structure, accountabilities, policies and procedures.</td>
</tr>
<tr>
<td><strong>Safety Programme</strong></td>
<td>An integrated set of regulations and activities aimed at improving safety.</td>
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<tr>
<td><strong>Safety Performance Indicator</strong></td>
<td>Measure used to express the safety performance in a system.</td>
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<tr>
<td><strong>Safety Performance Target</strong></td>
<td>One or more safety performance indicators, together with desired outcomes expressed in terms of those indicators. (ICAO Doc.9859 - Safety Management Manual describes safety performance indicators and safety performance targets within the concept of an &quot;acceptable level of safety&quot;).</td>
</tr>
<tr>
<td><strong>Safety Requirements</strong></td>
<td>Steps needed to be taken to achieve the safety performance targets. They include the operational procedures, technology systems and programmes to which measures of reliability, availability, performance and/or accuracy can be specified.</td>
</tr>
</tbody>
</table>
Chapter 1

How to Use this Information Guidance Material?

This guidance material is designed to help small maintenance organizations and flight operations organizations to document the processes and procedures required for a Safety Management System (SMS) Manual. The finished product could be a separate stand-alone document or it could be incorporated into an existing control manual, as required.

Technical Publication – TP 10 “Safety Management System Manual - Template for Maintenance and Flight Operations Organizations” provides the template to write your manual. The suggested template is one way in which an operator can meet the documentation requirements of SMS. Operators may choose to develop their own structure to meet the regulatory requirements.

Remember that small operations will have very basic and simple processes compared to a larger company.

The guidance material is formatted in the following manner:

- Chapters;
- Section headings and sub-sections with numbering;
- Objective; and
- Criteria.

Below each numbered section heading is a description of the objective for that section. The objective is what you, as the manual writer, are expected to achieve. The criteria, located in a box below the Objective, define the scope of what must be considered when writing the section. These are the same criteria that Civil Aviation Authority of Kosovo will use in the assessment of the documentation for approval and continuing compliance of the SMS with the regulations.

Operations that require approval of manuals may choose to place policy and specific procedures related to SMS in their appropriate manual. For operations that do not require an approved manual, the policy and procedures can be expressed in this manual.
Chapter 2

Safety Management Plan

2.1. Safety Policy

Objective
Describe the organization’s intentions, management principles, and commitment to improving safety in the company. A safety policy should be a short description similar to a mission statement.

Criteria
A safety policy is in existence and appropriate to the size and complexity of the organization. The safety policy states the organization’s intentions, management principles and commitment to continuous improvement in the safety level. The safety policy is approved by the accountable executive. The safety policy is promoted by the accountable executive. The safety policy is reviewed periodically.

Personnel at all levels are involved in the establishment and maintenance of the safety management system. The safety policy is communicated to all employees with the intent that they are made aware of their individual safety obligations.

2.2. Roles and Responsibilities

Objective
Describe the safety authorities, responsibilities and accountabilities for personnel involved in the organization. This would include the accountable executive, directors and managers. A simple statement explaining the responsibility of each employee to the success of the SMS should also be included. In many cases this can also be described more effectively if an Organizational Chart is included.
Criteria
An accountable executive has been appointed with responsibility for ensuring that the safety management system is properly implemented and performing to requirements in all areas of the organization.

Safety authorities, responsibilities and accountabilities of personnel at all levels of the organization are defined and documented. Safety authorities, responsibilities and accountabilities are reviewed after any significant organizational change. Safety authorities, responsibilities and accountabilities are promulgated to all personnel in key documentation and communication media.

All personnel understand their authorities, responsibilities and accountabilities in regards to all safety management processes, decision and actions.

2.3. Management Review

Objective
Describe how you plan to review the effectiveness of your SMS. This includes the safety performance of the company by reviewing the safety goals and performance indicators as well as the effectiveness of your hazard and incident reporting system.

Criteria
Regular and periodic, planned reviews of company safety performance and achievement including an examination of the company’s Safety Management System to ensure its continuing suitability, adequacy and effectiveness.
Chapter 3

Safety Oversight

3.1. Safety Reporting

Objective
A reporting system can be designed to handle both Accident/Incident reports (reactive) and Hazard reports (proactive). Describe how your reporting system is designed and how it works. Factors to consider include: report format, confidentiality (may not be practical in small operations), data collection and analysis, distribution of safety information, corrective and preventive actions.

Criteria
The organization has a process or system that provides for the capture of internal information including incidents, accidents, hazards and other data relevant to SMS.

The reporting process is simple, accessible and commensurate with the size of the organization. Reports are reviewed at the appropriate level of management. There is a feedback process to notify contributors that their reports have been received and to share the results of the analysis. The report form(s) is (are) simple, standardized and accessible across the organization.

There is a process to ensure that information is received from all areas of the organization within the scope of the SMS. There is a process in place to monitor and analyze trends. The organization has a process for the systematic investigation and analysis of operational conditions or activities that have been identified as potentially hazardous. Data collection processes throughout the safety critical areas of the company permit companywide analysis of safety issues. Corrective and preventive actions are generated in response to hazard and event analysis.

3.2. Hazard Identification and Risk Assessment

Objective
Describe how reported hazards are investigated. Describe your process for a preliminary risk assessment and how you rank hazards to determine the need for a documented risk assessment. Describe how your risk assessment process is conducted and how preventive action plans are implemented.
Criteria

There is a structured process for the assessment of risk associated with identified hazards, expressed in terms of severity, level of exposure and probability of occurrence. There is a criterion for evaluating risk and the tolerable level of risk the organization is willing to accept. The organization has risk control strategies that include corrective/preventive action plans to prevent recurrence of reported occurrences and deficiencies. The organization has a process for evaluating the effectiveness of the corrective/preventive measures that have been developed. Corrective/preventive actions, including timelines, are documented.

3.3. Accident/Incident Investigation

Objective

Describe how accidents/incidents are investigated. Explain how the contributing factors to an accident/incident are determined and what corrective action is recommended to prevent reoccurrence.

Criteria

There is a structured process for the assessment of risk associated with identified hazards, expressed in terms of severity, level of exposure and probability of occurrence. There is a criterion for evaluating risk and the tolerable level of risk the organization is willing to accept.

The organization has risk control strategies that include corrective/preventive action plans to prevent recurrence of reported occurrences and deficiencies. The organization has a process for evaluating the effectiveness of the corrective/preventive measures that have been developed. Corrective/preventive actions, including timelines, are documented.
Chapter 4

Staff Training

4.1. Initial and Recurrent Training

Objective
Describe the type of safety training that staff receives and the process for measuring the effectiveness of the training (methods of testing). Describe how this training is documented.

Criteria
Training requirements are documented. There is a validation process that measures the effectiveness of training. The training includes initial, recurrent and update training, as applicable. The organization’s safety management training is incorporated into indoctrination training upon employment.
Chapter 5

Monitoring and Evaluation of SMS

5.1. SMS Review

Objective
Describe the process for reviewing the effectiveness of your SMS. Who is involved? How often is it conducted? What SMS processes are reviewed?

Criteria
Regular and periodic, planned reviews of company safety performance and achievement including an examination of the company’s Safety Management System to ensure its continuing suitability, adequacy and effectiveness.
Chapter 6

Quality Assurance

6.1. Program Description Objective

Describe your process for ensuring the quality of your product or service by means of a quality assurance review or audit. Identify the scope, criteria, frequency and methods that will be used to review/audit the company processes and procedures. This part may exist in other sections of your approved manuals.

Criteria

There exists an operationally independent audit function with the authority required to carry out an effective internal evaluation program. The quality assurance system covers all functions defined within the certificate(s). There is a documented procedure defining responsibilities and requirements for planning and conducting internal audits of:

- management policies, controls and procedures concerning all safety critical activities;
- the implementation and maintenance of Safety Management System requirements established by the organization.

There are defined audit scope, criteria, frequency and methods. Audit scope and criteria based on:

- the status and importance of the processes and areas to be audited;
- results of previous audits.

A selection/training process to ensure the objectivity and competence of auditors as well as the impartiality of the audit process. A documented procedure for reporting audit results and maintaining records. A documented procedure outlining requirements for timely corrective and preventive action in response to audit results. A documented procedure to record verification of action(s) taken and the reporting of verification results.

The organization performs a periodic Management review of safety critical functions and relevant safety or quality issues that arise from the internal evaluation program. Where contracted functions exist, the organization performs a quality assurance review on those functions.
Chapter 7

Documentation

7.1. Documentation of Processes and Procedures

Objective
This manual provides an excellent structure for documenting your SMS processes. Procedures would normally reside in the applicable approved manual, however, flight training units who are not required to maintain an approved manual may want to place their procedures in this separate controlled document.

Criteria

There is consolidated documentation that describes the safety management system and the interrelationship between all of its elements.

Manuals or controlled electronic media are used to document the system. This information resides or is incorporated by reference into approved documentation, such as Company Operations Manual, Maintenance Control Manual, Airport Operations Manual, as applicable, and where these approved documents are not required by regulation, the organization includes the information in a separate, controlled document. The consolidated documentation is readily accessible by personnel.

There is a process to periodically review safety management system documentation to ensure its continuing suitability, adequacy and effectiveness, and that changes to company documentation have been implemented. The organization has a records system that ensures the generation and retention of all records necessary to document and support operational requirements, and is in accordance with applicable regulatory requirements. The system shall provide the control processes necessary to ensure appropriate identification, legibility, storage, protection, archiving, retrieval, retention time, and disposition of records.

7.2. Record and Report Management

Objective
Describe your method of recording and storing records and reports.

Criteria

The organization has a records system that ensures the generation and retention of all records necessary to document and support operational requirements, and is in accordance with applicable regulatory requirements. The system shall provide the control processes necessary to ensure appropriate identification, legibility, storage, protection, archiving, retrieval, retention time, and disposition of records.
Chapter 8

Emergency Response Preparedness

8.1. Emergency Preparedness Policy

Objective
Describe the organization’s intentions and commitment to dealing with emergency situations and outline the roles and responsibilities of key personnel. An emergency policy should be a short description similar to a mission statement.

<table>
<thead>
<tr>
<th>Criteria</th>
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</thead>
<tbody>
<tr>
<td>The organization has an emergency preparedness policy that outlines roles and responsibilities in the event of an accident.</td>
</tr>
<tr>
<td>There is a notification process that includes an emergency call list and an internal mobilization process.</td>
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8.2. Emergency Response Plan

Objective
The Emergency Response Plan can be developed as a separate document or it can be placed in this manual.

<table>
<thead>
<tr>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organization has Memorandum of Understandings and agreements with other agencies for mutual aid and the provision of emergency services. The organization has documented procedures to follow in the event of an emergency.</td>
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<tr>
<td>There is a procedure for overseeing the welfare of all affected individuals. The organization has a procedure for notifying next of kin. The organization has established procedures for handling media related issues.</td>
</tr>
<tr>
<td>There are defined accident investigation responsibilities on behalf of the organization. The requirement for preservation of evidence is clearly stated. There is emergency preparedness and response training for affected personnel.</td>
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<tr>
<td>The procedures for communication with governmental agencies and securing the affected area must be included in the emergency preparedness policy.</td>
</tr>
<tr>
<td>A disabled aircraft removal plan is developed by the organization in consultation with aircraft owners and operators. A procedure exists for recording activities during an emergency response. There are procedures to deal with insurance.</td>
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