



Directive

SMS-003

Safety Management System Assessment Guide

Reference / File Record: BAZL / 201-00002

- Legal Bases:
- ICAO Annexes 6, 8, 11 and 14
 - Commission Regulation (EU) No 965/2012
 - Artikel 103a der Luftfahrtverordnung (LFV, SR 748.01)
Sicherheitsmanagementsystem
 - Artikel 3 Absatz 1 der Verordnung über den
Flugsicherungsdienst (VFSD, SR 748.132.1)
Betriebsvorschriften
 - Eurocontrol Safety Regulatory Requirement - ESARR 3
 - Artikel 23a der Verordnung über die Infrastruktur der
Luftfahrt (VIL, SR 748.131.1)
Flugplatzhandbuch und Sicherheitsmanagement

-
- Consignees:
- FOCA Inspectors of the Safety Divisions
 - Flight Operators (CAT)
 - Maintenance Organisations (EASA Part 145 / EASA Part M)
 - Air Navigation Service Providers
 - Airports

Document Status: Published
Issue date actual version: 11.Feb.2013

Editor: FOCA SRM

Approved on /by: 11.Feb.2013 / FOCA Board



This document is based on FOCA's Directive SMS-002 "Safety Management System, Assessment Guide", Version 1.0 issued on 18.09.2009, the Evaluation-Tool prepared and distributed by the SM ICG Safety Management, International Collaboration Group, Version 1.0 (April 1, 2012), and the document "Safety Management Terminology prepared by the SM ICG, issued on July 25, 2012.

Index

I	Scope	3
II	Definitions	3
III	Organization's SMS Evaluation	4
1	Safety Policy and Objectives	12
1.1	Management Commitment and Responsibility	12
1.2	Safety Accountabilities of Managers	14
1.3	Appointment of Key Safety Personnel.....	16
1.4	Coordination of Emergency Response Planning	17
1.5	Documentation.....	18
2	Safety risk management	19
2.1	Hazard identification process	19
2.2	Risk assessment and mitigation process	21
3	Safety Assurance.....	22
3.1	Safety Performance Monitoring and Measurement	22
3.2	The Management of Change	24
3.3	Continuous Improvement of the SMS.....	25
4	Safety Promotion	26
4.1	Training and Education	26
4.2	Safety Communication	28



I. Scope

This document is intended to be used by FOCA-Inspectors to evaluate the degree of maturity of the Safety Management Systems (SMS) being implemented within the Swiss aviation industry. This guideline has to be used for initial assessment or ongoing surveillance and oversight.

Consistent use of this guideline in all domains implementing SMSs, will result in a standardized evaluation within Switzerland.

Furthermore this document provides guidelines to the organisations obliged to develop and implement an SMS according legal requirements. It demonstrates the basic expectations and best practice indicators of the authority for an organization's SMS which needs to be tailored to the size of the organization and the complexity of its operation.

II. Definitions

Term	Definition	Source	Notes
Acceptable Level of Safety Performance	The minimum level of safety performance of civil aviation in a State, as defined in its State Safety Program, or of a service provider, as defined in its Safety Management System, expressed in terms of safety performance targets and safety performance indicators. <i>Note.— An acceptable level of safety performance for the State can be demonstrated through the implementation and maintenance of the SSP as well as safety performance indicators and targets showing that safety is effectively managed, built on the foundation of implementation of existing safety-related SARPs.</i>	SM ICG	Definition from SM ICG and note from proposed ICAO Annex 19
Acceptable Risk	The level of risk that individuals or groups are willing to accept given the benefits gained. Each organization will have its own acceptable risk level, which is derived from its legal and regulatory compliance responsibilities, its threat profile, and its business/organizational drivers and impacts.	SM ICG	Adapted from Public Health Encyclopedia, Daniel Krewski, and Shon Harris, Risk Management Guide
Accident	An occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down, in which: a) a person is fatally or seriously injured as a result of: – being in the aircraft, or – direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or – direct exposure to jet blast, except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or	ICAO Annex 13	



	<p>b) the aircraft sustains damage or structural failure which:</p> <ul style="list-style-type: none"> – adversely affects the structural strength, performance or flight characteristics of the aircraft, and – would normally require major repair or replacement of the affected component, except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); <p>or</p> <p>c) the aircraft is missing or is completely inaccessible.</p> <p><i>Note 1 — For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.</i></p> <p><i>Note 2 — An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.</i></p> <p><i>Note 3 — The type of unmanned aircraft system to be investigated is addressed in 5.1 of Annex 13.</i></p> <p><i>Note 4 – Guidance for the determination of aircraft damage can be found in Attachment G of Annex 13.</i></p> <p>See also <i>Incident, Occurrence</i>.</p>		
Accountable Executive	<p>A single, identifiable person having final responsibility for the effective and efficient performance of an organization's SMS. Depending on the organization's size and complexity, the Accountable Executive may be:</p> <ul style="list-style-type: none"> a) the Chief Executive Officer (CEO); b) the Board of Directors' Chairperson; c) a partner; d) the proprietor; or e) other top management official. 	ICAO Doc. 9859	
Airplane	<p>A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight. Also spelled <i>Airplane</i> or <i>Aeroplane</i>.</p>	ICAO Annex 6	
Aircraft	<p>Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.</p>	ICAO Annex 6	
Alert Level	<p>An established level or criteria value outside of the normal operating range or out-of-control region that triggers a warning that an adjustment or evaluation is needed.</p>	SM ICG	
Aviation System	<p>The people, organizations, equipment, technology, and regulatory environment that interact to enable the development, production, operation, maintenance, and training associated with aircraft and aircraft components.</p>	SM ICG	
Best Practice	<p>A method or technique that has consistently shown results superior to those achieved with other means, and that is used as a benchmark.</p>	Business Dictionary	www.businessdictionary.com/definition/best-practice.html



Consequence	Actual or potential impact of a hazard that can be expressed qualitatively and/or quantitatively. More than one consequence may evolve from an event.	SM ICG	Adapted from EASA CRD 2009-02c
Corrective Action	Action to eliminate the cause of or reduce the effects of a detected hazard or potentially hazardous situation in order to prevent its recurrence.	SM ICG	Adapted from FAA Advisory Circular (AC) 120-92a Appendix 1
Emergency Response Plan	A written approach addressing the organizational structure, external / internal systems, responsible parties and their roles, communication procedures, safety, equipment, and actions to be taken in reacting to an occurrence, to ensure that there is an orderly and efficient transition from normal to emergency operations.	SM ICG	Adapted from ICAO Doc. 9859
Error	Non-intentional action or inaction by a person that may lead to deviations from accepted procedures or	SM ICG	
Failure	The inability of a system, subsystem, component, or part to perform its required function within specified limits, under specified conditions for a specified duration.	FAA Safety Handbook, Appendix A	
Gap Analysis	A technique that assists in identifying the disparity between the current and the desired future state.	SM ICG	
Hazard	A condition that could cause or contribute to an aircraft incident or accident.	SM ICG	
Hazard Analysis	Analysis performed to identify hazards, hazard effects, and hazard causal factors used to determine system risk.	SM ICG	Adapted from Hazard Analysis Techniques for System Safety - Clifton A. Ericson, 2005
Hazard Identification	A process to establish a list of hazards relevant to the activity and the causes/threats that could release them.	SM ICG	
Helicopter	A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes. <i>Note - Some States use the term "rotorcraft" as an alternative to "helicopter".</i>	ICAO Annex 6	
High Risk	Unacceptable level of risk. The activity cannot be continued unless hazards are further mitigated so that risk is reduced to an acceptable level.	SM ICG	Adapted from FAA System Safety Handbook, Ch. 3
Human Factors	Principles that apply to aviation system design, certification, training, operations, and maintenance and seek a safe interface between the human and other system components by giving proper consideration to human performance.	ICAO Annex 6, Part I, Definitions	
Incident	An occurrence other than an accident, associated with the operation of an aircraft, which affects or could affect the safety of operation. - See also <i>Accident, Occurrence.</i>	ICAO Annex 13	
Investigation	A process conducted for the purpose of accident prevention which includes the gathering and analysis of information, the drawing of conclusions, including the determination of causes and, when appropriate, the making of safety recommendations.	ICAO Annex 13	



Latent Conditions	Existing conditions in the system that can be triggered by an event or a set of events whose adverse consequences may lie dormant.	SM ICG	Adapted from Airport Cooperative Research Program Report 1, Vol. 2
Level of Safety	The degree of safety of a system. A measurement of the effectiveness of a system's safety based on the probability of tolerable incidents that can occur.	SM ICG	Adapted from ICAO 9859, Section 6.4.6
Likelihood	The frequency, in quantitative or qualitative terms, that an unsafe event may occur.	SM ICG	
Likelihood – Extremely Improbable	Almost inconceivable that the event will occur.	ICAO Doc. 9859	
Likelihood - Frequent	Likely to occur many times.	ICAO Doc. 9859	
Likelihood - Improbable	Very unlikely to occur.	ICAO Doc. 9859	
Likelihood - Occasional	Likely to occur sometimes.	ICAO Doc. 9859	
Likelihood - Remote	Unlikely, but may possibly occur.	UK CAA Safety Regulation Group (SRG)	
Low Risk	A level of risk in which the identified hazards are not usually required to be actively managed, but are	SM ICG	Adapted from FAA AC 150/5200-37
Management of Change	Managing the implementation of change in an organization in a planned and communicative manner to minimize any negative consequences and maximize the opportunities presented. A synonym for Change Management.	CASA 3	
Medium Risk	A level of risk that may be acceptable with review by the appropriate authority, but tracking and management are required.	SM ICG	Adapted from FAA AC 150/5200-37
Occurrence	An accident or incident or other undesired safety-related event. <i>See also Accident, Incident.</i>	SM ICG	Adapted from CAST/ ICAO Common Taxonomy Team http://intlaviationstandards.org/
Open Reporting Culture	An organizational perspective that actively encourages effective safety reporting by defining acceptable behavior (often unintended errors) and unacceptable behavior (such as recklessness, violations or sabotage), and provides fair protection to reporters.	SM ICG	Adapted from ICAO 9859
Operational personnel	Personnel involved in aviation activities who are in a position to report safety information. <i>Note</i> — Such personnel include, but are not limited to: flight crews; air traffic controllers; aeronautical station operators; maintenance technicians; aircraft, engines and propellers designers and manufacturers; cabin crews; flight dispatchers; apron personnel, and ground handling personnel.	ICAO Annex 13	Added <i>ground handling personnel</i> to ICAO Annex 13, Attachment E
Organizational Hazard	Hazards which arise from an organization's policies, priorities and the manner in which work is carried out.	SM ICG	



Oversight	A function performed by a regulator that ensures that an aviation organization complies with and uses safety-related standards, requirements, regulations, and associated procedures. This also includes the assessment of an organization's safety management.	SM ICG	
Performance Based Standards	Standards that use a set of performance metrics to determine whether the system is operating in accordance with design expectations.	SM ICG	Adapted from ICAO Doc. 9859, Sec 6.4, Acceptable Level of Safety (ALoS)
Predictive	Any method that continuously analyzes current and historical information to forecast potential future occurrences. See also <i>Proactive, Reactive</i> .	SM ICG	
Prescriptive Standards	Standards that specify methods for complying with safety requirements.	SM ICG	Adapted from ICAO Doc. 9859, Sec 6.4, ALoS.
Preventive Action	Preemptive action to eliminate or mitigate the potential cause or reduce the future consequence of a hazard.	SM ICG	Adapted from FAA Manufacturers SMS. Other sources use similar definition.
Proactive	Any method that actively searches for potential safety risks through the analysis of an organization's activities prior to occurrence. See also <i>Predictive, Reactive</i> .	SM ICG	
Reactive	Any method that responds to past occurrences. See also <i>Proactive, Predictive</i> .	SM ICG	
Risk	The assessed predicted likelihood and severity of the consequence(s) or outcome(s) of a hazard.	SM ICG	
Risk Analysis	Process whereby possible consequences of hazards are objectively characterized for their severity and probability. The process can be qualitative and/or quantitative.	SM ICG	Adapted from FAA Monitor Safety/Analyze Data (MSAD) Order 8110.107
Risk Assessment	The identification, evaluation, and estimation of the level of risk.	SM ICG	Adapted from http://www.businesdictionary.com/definition/risk-assessment.html
Risk Control	Activities that ensure that safety policies, procedures, and processes minimize the risk of an aviation accident or incident.	SM ICG	
Risk Management	An organizational function that assesses the organization's system design and verifies that the system adequately controls risk. A formal risk management process describes a system, assesses hazards, analyzes those hazards to evaluate the risk, and establishes controls to manage those risks.	SM ICG	
Risk Matrix	A table that allows for the identification of the risk tolerability level through the combination of probability and severity.	SM ICG	
Safety	The state in which risks associated with aviation activities are reduced and controlled to an acceptable level.	Proposed ICAO Annex 19	
Safety Action Plan	A plan that identifies a set of activities to be undertaken to achieve a safer aviation environment.	SM ICG	



Safety Assurance	Processes used to ensure risk controls developed under the risk management process achieve their intended objectives throughout the life cycle of a system. This process may also reveal hazards not previously identified and identify or assess the need for new risk control, as well as the need to eliminate or modify existing controls. This is one of the four components of SMS.	SM ICG	
Safety Case	A documented body of evidence that provides a demonstrable and valid argument that a system is adequately safe for a given application and environment over its lifetime.	UK CAA CAP 760	
Safety Culture	An enduring set of values, norms, attitudes, and practices within an organization concerned with minimizing exposure of the workforce and the general public to dangerous or hazardous conditions. In a positive safety culture, a shared concern for, commitment to, and accountability for safety is promoted.	CASA 3	
Safety Library	An organized set of safety-related records including hazards identified, occurrences, actions taken, and lessons learned.	SM ICG	
Safety Management	An organizational function that strives to continually identify all safety hazards and to assess and manage the associated safety risks through a systematic approach that includes the necessary organizational structure, accountabilities, policies, and procedures.	SM ICG	Adapted from SKYbrary
Safety Management Implementation Plan	A plan for the implementation of a State Safety Program or Safety Management System (SMS) that will meet regulatory requirements and the organization's safety objectives while supporting effective and efficient delivery of services. The implementation plan details the actions to be taken and includes assignment of tasks and timeframes.	SM ICG	Adapted from ICAO Doc. 9859
Safety Management System (SMS)	A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies, and procedures.	ICAO Annex 6, Part I - Definitions	Also Annexes 1, 8, 11 and 14
Safety Manager	The responsible individual and focal point for the implementation and maintenance of an effective Safety Management System.	ICAO SMS Framework	
Safety Performance	A State or a service provider's safety achievement as defined by its safety performance targets and safety performance indicators.	Proposed ICAO Annex 19	
Safety Performance Indicator	A data-based parameter used for monitoring and assessing a State's or a service provider's performance. <i>See also Safety Performance Target.</i>	Proposed ICAO Annex 19	
Safety Performance Target	The planned or intended objective for a safety performance indicator(s) over a given period. <i>See Safety Performance Indicator.</i>	Proposed ICAO Annex 19	
Safety Policy	An organization's fundamental approach to managing safety that is to be adopted within an organization and further defines the organization management's commitment to safety and overall safety vision. This is one of the four components of SMS.	FAA AC 150/5200-37	



Safety Promotion	A combination of safety culture, training, and information sharing activities that support the implementation and operation of an SMS in an organization. This is one of the four components of SMS.	FAA AC 150/5200-37	Other sources used the same definition
Safety Risk Management	A process used to assess system design and verify that the system adequately controls risk. A formal risk management process describes a system, assesses hazards, analyzes those hazards to evaluate the risk, and establishes controls to manage those risks. This is one of the four components of SMS.	EASA	
Serious Incident	An incident involving circumstances indicating that an accident nearly occurred.	ICAO Annex 13	
Serious Injury	An injury which is sustained by a person in an accident and which: a) requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received; or b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or c) involves lacerations which cause severe hemorrhage, nerve, muscle, or tendon damage; or d) involves injury to any internal organ; or e) involves second or third degree burns, or any burns affecting more than 5 per cent of the body surface; or f) involves verified exposure to infectious substances or injurious radiation.		
Service Provider	An organization engaged in the delivery of aviation products or services. Preferred to synonym <i>Product / Service Provider</i> .	SM ICG	
Severity	The extent of loss or harm associated with consequences of a hazard.	SM ICG	
Severity - Catastrophic	Results in multiple fatalities and/or loss of the aircraft.	SM ICG	Adapted from UK CAA SRG
Severity - Hazardous	A large reduction in safety margins, physical distress, or workload such that organizations cannot be relied upon to perform their tasks accurately or completely. Serious injury or death to a small number of aircraft occupants, ground personnel, and/or general public. Major equipment damage.	SM ICG	Adapted from UK CAA SRG and E.R. Vaidogas Lecture, 2009, Vilnius Gedimino Technikos Universitetas
Severity – Major	A significant reduction in safety margins and a reduction in the ability of organizations to cope with adverse operating conditions as a result of an increase in workload, significant discomfort, or conditions impairing their efficiency. Serious incident with physical distress to occupants of aircraft, injuries, and equipment damage.	SM ICG	Same sources as Severity - Hazardous
Severity - Minor	Does not significantly reduce system safety and operator actions are well within their capabilities. May include slight reduction in safety margins, operating limitations, slight increase in workload, some physical discomfort, and/or minor equipment damage.	SM ICG	Same sources as Severity - Hazardous
Severity - Negligible	Little consequence. Has no effect on safety.	SM ICG	Same sources as Severity - Hazardous



State Safety Oversight	A function by means of which States ensure effective implementation of the safety-related Standards and Recommended Practices and associated procedures contained in the Annexes to the Convention on International Civil Aviation and related ICAO documents.	SM ICG	Chapter 3; Appendix 1
State Safety Program (SSP)	An integrated set of regulations and activities developed by a State aimed at managing civil aviation safety. Also spelled <i>State Safety Programme</i> .	Proposed ICAO Annex 19	
Surveillance	The act of closely observing, evaluating, and assessing the effectiveness of an organization in a systematic way to verify compliance with regulations; and operation in accordance with its processes.	SM ICG	Adapted from FAA Order 8000.369
System Description	A description of an aviation organization's system including its structure, policies, communications, processes, products, and operations to understand critical factors for the purpose of identifying hazards. It is updated whenever there is a newly introduced element or change to the internal or external situation that could affect risk.	SM ICG	
Tolerable Risk	Risk that has not been reduced to the desired level however further reduction is impracticable or the cost is disproportionate to the improvement that would be gained.	SM ICG	Adapted from ICAO Doc. 9859, Section 5.3

III. Organization's SMS Evaluation

This tool evaluates the compliance and effectiveness of the SMS through a series of indicators. It is set out using the 12 elements of the ICAO SMS Framework with the Framework definition followed by an effectiveness statement for that element. For each element a series of 'indicators for compliance and performance, basic requirements' is listed followed by a series of 'indicators for best practice'. Each indicator should be reviewed to determine whether the indicator is present, suitable, operating, and effective – using the definitions and guidance set out below, so that the overall effectiveness of the element can be justified and supported.

After the collection of assessment information (evidence) is complete, observations are prepared by use of the notes taken during the evaluation. The process of determining the degree of maturity of the SMS is based on the four criteria provided within the tables below:

P – Present

There is evidence that the 'indicator' is clearly visible and is documented within the organization's SMS Documentation.

S - Suitable

The indicator is suitable based on the size, nature, complexity of the organization and the inherent risk in the activity, including consideration of the industry sector.

O - Operative

There is evidence that the indicator is in use and an output is being produced.

E - Effective

There is evidence that the indicator is effective and achieving the desired outcome.

As the experience in SMS and its evaluation is expected to grow within FOCA as well as within the aviation industry this guideline will be developed further, also in correlation with international bodies and including stakeholder involvement.



Evidence

Evidence includes documentation, reports, records of interviews and discussions and is likely to vary for different levels of indicator assessment. For example, for an indicator to be present the evidence is likely to be documented only, whereas for assessing whether it is operating it may involve assessing records as well as face to face discussions with personnel within an organization.

'How it is achieved' should include summary statements and any references to documentation and records.

Verification

The Verification Column should be for the regulator to record any observations, conversations, records and documents sampled.

Summary comments

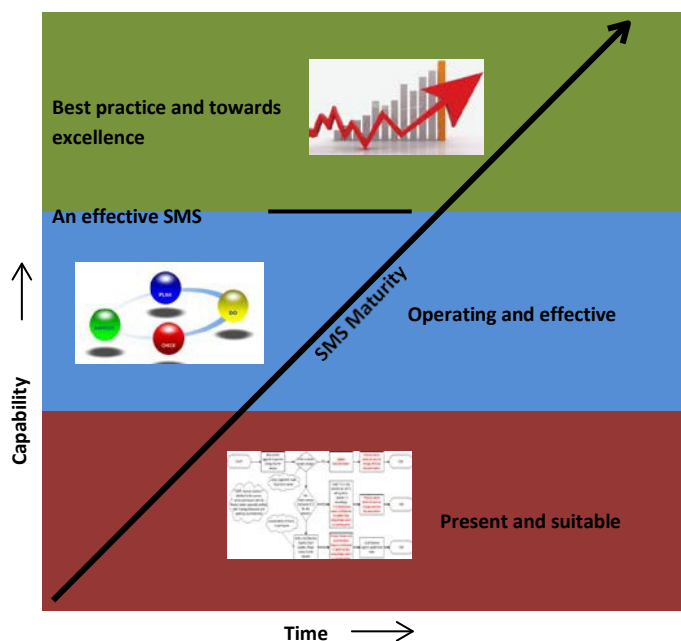
Once all indicators have been assessed by the regulator, a judgement can be made on whether the overall effectiveness of the ICAO element has been achieved; this should be noted in the summary comments box.

The SMS Journey

For most organizations SMS will take time to implement and several years to mature to a level where it is effective. The following diagram shows the different levels of SMS maturity as an organization implements and develops its SMS and it also shows how the tool is used to assess the indicators against the service provider's SMS maturity.

The evaluation tool can be used in stages looking initially for whether the key elements (basic requirements) of an SMS are present and suitable. At a later stage the SMS can be assessed for how well it is operating and effective. These two stages can be evaluated by this assessment tool.

Nevertheless as effective SMS's will continuously improve – in a third stage they are moving towards best practice and excellence. Also this stage can be evaluated with this tool, using the "best practice indicators".





1 Safety Policy and Objectives

1.1 Management Commitment and Responsibility

The organization shall define its safety policy which shall be in accordance with international and national requirements, and which shall be signed by the Accountable Executive of the organization. The safety policy shall reflect organizational commitments regarding safety; include a clear statement about the provision of the necessary human and financial resources for its implementation; and be communicated, with visible endorsement, throughout the organization. The safety policy shall be periodically reviewed to ensure it remains relevant and appropriate to the organization.

EFFECTIVENESS is achieved when the organisation has defined its safety policy that clearly states its intentions, safety objectives and philosophies and there is visible evidence of safety leadership and management 'walking the talk' and demonstrating by example.

Indicators of compliance and performance			P	S	O	E	How is it achieved	Verification
Basic Requirements	1.1.1	There is a safety policy that includes a commitment towards achieving the highest safety standards signed by the Accountable Executive.						
	1.1.2	The organization has based its safety management system on the safety policy.						
	1.1.3	The Accountable Executive and the senior management team promote and demonstrate their commitment to the Safety Policy through active and visible participation in the safety management system.						
	1.1.4	The safety policy is communicated to all personnel with the intent that they are made aware of their individual contributions and obligations with regard to safety.						
	1.1.5	The safety policy includes a commitment to observe all applicable legal requirements, standards and best practice providing appropriate resources and defining safety as a primary responsibility of all Managers.						
	1.1.6	The safety policy actively encourages safety reporting.						
	1.1.7	The safety policy states the organization's intentions, management principles and commitment to continuous improvement in the safety level.						
	1.1.8	The safety policy is reviewed periodically to ensure it remains current.						
	1.1.9	There is commitment of the organization's senior management to the development and ongoing improvement of the safety management system.						



Indicators of compliance and performance		P	S	O	E	How is it achieved	Verification
Basic Requirements	1.1.10						
	1.1.11						
Best Practice Indicators	1.1.12						
	1.1.13						
	1.1.14						
	1.1.15						
	1.1.16						
	1.1.17						
	1.1.18						
1.1 SUMMARY COMMENTS							



1.2 Safety Accountabilities of Managers

The organization shall identify the accountable executive who, irrespective of other functions, shall have ultimate responsibility and accountability, on behalf of the organization, for the implementation and maintenance of the SMS. The organization shall also identify the safety accountabilities of all members of senior management, irrespective of other functions. Safety accountabilities and authorities shall be documented and communicated throughout the organization.

EFFECTIVENESS is achieved when there are clear lines of safety accountabilities throughout the organization including an accountable person who has ultimate accountability for the SMS and the Accountable Executive and management team fully understand the risks faced by the organization.

Indicators of compliance and performance			P	S	O	E	How is it achieved	Verification
Basic Requirements	1.2.1	An Accountable Executive has been appointed with full responsibility and ultimate accountability for the SMS to ensure it is properly implemented and performing effectively.						
	1.2.2	The Accountable Executive has control of the financial and human resources required for the proper implementation of an effective SMS.						
	1.2.3	The Accountable Executive is fully aware of their SMS roles and responsibilities in respect of the safety policy, safety standards and safety culture of the organization.						
	1.2.4	Safety accountabilities, authorities and responsibilities are defined and documented throughout the organization.						
	1.2.5	Personnel at all levels are aware of and understand their safety accountabilities, authorities and responsibilities regarding all safety management processes, decisions and actions.						
	1.2.6	Safety management is shared across the organization (and is not just the responsibility of the Safety Manager and their team).						
	1.2.7	There are documented management organizational diagrams and job descriptions for all personnel.						



Reference / File Record: BAZL / 201-00002

Indicators of compliance and performance			P	S	O	E	How is it achieved	Verification
Best Practice Indicators	1.2.8	There is evidence of personnel involvement and consultation in the establishment and operation of the SMS.						
	1.2.9	There is evidence that safety management system principles have penetrated all levels of the organization and safety is part of the everyday language.						
	1.2.10	Safety accountabilities throughout the organization are clearly documented and individuals sign for their accountabilities.						
	1.2.11	Key safety activities are clearly described in senior management duties and responsibilities are incorporated into personnel performance targets.						
	1.2.12	There is evidence that senior management recognizes the significance of contributions from all levels of the organization and has a mechanism for acknowledging those contributions.						
1.2 Summary Comments								



1.3 Appointment of Key Safety Personnel

The organization shall identify a person to be the responsible individual and focal point for the implementation and maintenance of an effective SMS.

EFFECTIVENESS is achieved when the SMS is facilitated by the responsible individual and there is a safety structure of key personnel from the various operational areas of the organization. Business area heads are actively engaged in the safety management system.

Indicators of compliance and performance			P	S	O	E	How is it achieved	Verification
Basic Requirements	1.3.1	A competent person with the appropriate knowledge, skills and experience has been nominated to manage the operation of the SMS.						
	1.3.2	The person managing the operation of the SMS fulfills the required job functions and responsibilities.						
	1.3.3	There is a direct reporting line between the Safety Manager and the Accountable Executive.						
	1.3.4	The organization has allocated sufficient resources to manage the SMS including manpower for safety investigation, analysis, auditing and promotion.						
	1.3.5	Personnel in key safety roles are kept current through additional training and attendance at conferences and seminars.						
Best Practice Indicator	1.3.6	The organization has established a structured safety committee or equivalent, appropriate for the size and complexity of the organization, consisting of a full range of senior management representatives.						
	1.3.7	The Safety Committee or its equivalent monitors the safety performance of the operations and the effectiveness of the SMS and is normally chaired by the Accountable Executive.						
	1.3.8	The person (s) responsible for managing and maintaining the SMS is/are given appropriate status in the organization reflecting the importance of the safety role within the organization.						
	1.3.9	Safety committees include stakeholders and significant contracted organizations.						
	1.3.10	Safety committees are focused on safety issues and all attendees fully participate.						

1.3 Summary Comments



1.4 Coordination of Emergency Response Planning

The organization shall develop, coordinate and maintain an emergency response plan (ERP) that ensures orderly and efficient transition from normal to emergency operations, and return to normal operations.

EFFECTIVENESS is achieved when the organization has SMS documentation that describes their approach to the management of safety that is used throughout the organization and is regularly reviewed and updated. The documentation meets the safety objectives of the organization.

Indicators of compliance and performance			P	S	O	E	How is it achieved	Verification
Basic Requirements	1.4.1	An emergency response plan (ERP) that reflects the size, nature and complexity of the operation has been developed and defines the procedures, roles, responsibilities and actions of the various organizations and key personnel.						
	1.4.2	Key personnel in an emergency have easy access to the ERP at all times.						
	1.4.3	The organization has a process to distribute the ERP procedures and to communicate the content to all personnel.						
	1.4.4	The ERP is periodically tested for the adequacy of the plan and the results reviewed to improve its effectiveness.						
Best Practice Indicators	1.4.5	The organization has Memorandums of Understanding (MoUs) or agreements with other organizations for mutual aid and the provision of emergency services.						
	1.4.6	The organization has implemented Critical Incident Stress Management for its personnel.						
1.4 Summary Comments								



1.5 Documentation

The organization shall develop and maintain SMS documentation to describe the safety policy and objectives, the SMS elements, the SMS procedures and processes, the accountabilities, responsibilities and authorities for procedures and processes, and the SMS outputs.

The organization shall incorporate the SMS documentation in its existing organization documentation, or shall develop and maintain a safety management manual (SMM), in order to communicate its approach to safety throughout the organization.

EFFECTIVENESS is achieved when the organization has SMS documentation that describes their approach to the management of safety that is used throughout the organization and is regularly reviewed and updated. The documentation meets the safety objectives of the organization.

Indicators of compliance and performance			P	S	O	E	How is it achieved	Verification
Basic Requirements	1.5.1	There is documentation that describes the safety management system and the interrelationships between all of its elements.						
	1.5.2	SMS documentation is regularly reviewed and updated with appropriate version control in place.						
	1.5.3	SMS documentation is readily available to all personnel.						
	1.5.4	The SMS documentation details and references the means for the storage of other SMS related records.						
Best Practice Indicators	1.5.5	Safety management processes are integrated into existing organizational manuals.						
	1.5.6	The organization has analyzed and uses the most appropriate medium for the delivery of documentation at both the corporate and operational levels.						

1.5 Summary Comments



2 Safety risk management

2.1 Hazard identification process

The organization shall develop and maintain a formal process for effectively collecting, recording, acting on and generating feedback about hazards in operations, based on a combination of reactive, proactive and predictive methods of safety data collection.

EFFECTIVENESS is achieved when aviation safety hazards are being identified and reported throughout the organization. Hazards are captured in a hazard register and assessed in a systematic and timely manner.

Indicators of compliance and performance			P	S	O	E	How is it achieved	Verification
Basic Requirements	2.1.1	The organization has a reporting system to captures errors, hazards and near misses that is simple to use and accessible to all personnel.						
	2.1.2	The organization has proactively identified all the major hazards and assessed the risks related to its current activities.						
	2.1.3	The safety reporting system provides feedback to the reporter of any actions taken (or not taken) and, where appropriate, to the rest of the organization.						
	2.1.4	Safety investigations are carried out to identify underlying causes and potential hazards for existing and future operations.						
	2.1.5	Safety reports are acted on in a timely manner.						
	2.1.6	Hazard identification is an ongoing process and involves all key personnel and appropriate stakeholders.						
	2.1.7	Personnel responsible for investigating reports are trained in investigation techniques.						
	2.1.8	Investigations establish causal / contributing factors (why it happened, not just what happened).						
	2.1.9	Personnel express confidence and trust in the organizations reporting policy and process.						
	2.1.10	The hazards identified are documented and kept available for future reference.						
	2.1.11	The organization uses the results of investigation of incidents and accidents as a source for hazard identification in the system.						



Indicators of compliance and performance			P	S	O	E	How is it achieved	Verification
Best Practice Indicators	2.1.12	There is an active reporting system indicated by reporting levels of more than, on average, 1 report per person per year.						
	2.1.13	Safety Reports include the reporter's own errors and events that the reporter would not normally report (events where no-one was watching).						
	2.1.14	The reporting system empowers personnel to propose preventative and corrective actions.						
	2.1.15	There is evidence that the reporting system is actively used throughout the entire organization (in each department and in each location).						
	2.1.16	The reporting system is available to contracted organizations and customers to make reports.						
	2.1.17	There is a process in place to analyze reports and hazard logs to look for trends and gain useable management information.						
2.1 Summary Comments								



2.2 Risk assessment and mitigation process

The organization shall develop and maintain a formal risk management process that ensures analysis (in terms of probability and severity of occurrence), assessment (in terms of tolerability) and control (in terms of mitigation) of risks to an acceptable level. The organization shall also define those levels of management with authority to make decisions regarding safety risks tolerability.

EFFECTIVENESS is achieved when there is a formal process that ensures analysis, assessment and control of the safety risks in operations to an acceptable level.

Indicators of compliance and performance			P	S	O	E	How is it achieved	Verification
Basic Requirements	2.2.1	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.						
	2.2.2	There are criteria for evaluating the level of risk the organization is willing to accept.						
	2.2.3	The organization has risk control strategies that include hazard elimination, risk control, risk avoidance, risk acceptance, risk mitigation, and where applicable an action plan.						
	2.2.4	Mitigating actions resulting from the risk assessment, including timelines and allocation of responsibilities are documented.						
	2.2.5	Risk management is routinely applied in decision making processes.						
	2.2.6	Effective and robust mitigations and controls are implemented.						
	2.2.7	Risk assessments and risk ratings are appropriately justified.						
	2.2.8	Senior management has visibility of medium and high risk hazards and their mitigation and controls.						
Best Practice Indicators	2.2.9	There is evidence that risks are being managed to as low as reasonably practical.						
	2.2.10	The organization uses its risks management results to develop best practice guidelines that it shares with the industry.						
	2.2.11	The risk management processes are reviewed and improved on a periodic basis.						

2.2 Summary Comments

--



3 Safety Assurance

3.1 Safety Performance Monitoring and Measurement

The organization shall develop and maintain the means to verify the safety performance of the organization compared to the safety policy and objectives, and to validate the effectiveness of safety risks controls. The safety reporting procedures related to safety performance and monitoring shall clearly indicate which types of operational behaviors are acceptable or unacceptable, and include the conditions under which immunity from disciplinary action would be considered.

EFFECTIVENESS is achieved when the organization has developed a series of safety performance indicators that are appropriate to the type of operation. There is a means to measure and monitor trends and take appropriate action when necessary.

Indicators of compliance and performance			P	S	O	E	How is it achieved	Verification
Basic Requirements	3.1.1	Safety objectives have been established.						
	3.1.2	Safety performance indicators have been defined, promulgated and are being monitored and analyzed for trends.						
	3.1.3	Risk mitigations and controls are being verified / audited to confirm they are working and effective.						
	3.1.4	Safety audits are carried out that focus on the safety performance of the organization and its services and assess normal operations.						
	3.1.5	Safety objectives and performance indicators are reviewed and updated periodically.						
	3.1.6	Safety objectives and targets are specific, measurable, agreed to, relevant and time-based.						
	3.1.7	Information obtained from Safety Assurance and Compliance Monitoring activities feeds back into the safety risk management process.						
	3.1.8	Safety assurance will monitor the effectiveness of risk controls including those applied by contracted organizations.						



Indicators of compliance and performance			P	S	O	E	How is it achieved	Verification
Best Practice Indicators	3.1.9	The organization is monitoring its current, future and third party safety risks and is taking action to address unacceptable safety risks.						
	3.1.10	When establishing and reviewing objectives and performance indicators, the organization considers: - hazards and risks; financial, operational and business requirements; view of interested parties.						
	3.1.11	Safety objectives and performance indicators encompass all areas of the organization.						
	3.1.12	Performance measurements have been defined for serious safety risks identified on the safety risk profile.						
	3.1.13	Personnel at all levels are aware of the safety performance measurements in their areas of responsibility and the results of performance measurements are transmitted to them.						
	3.1.14	Safety performance indicators are linked to the organization's safety objectives, and State SPIs are considered where appropriate.						
	3.1.15	The analysis and allocation of resources are based on outputs from the performance measurement.						
3.1 Summary Comments								



3.2 The Management of Change

The organization shall develop and maintain a formal process to identify changes within the company which may affect established processes and services; to describe the arrangements to ensure safety performance before implementing changes; and to eliminate or modify safety risk controls that are no longer needed or effective due to changes in the operational environment.

EFFECTIVENESS is achieved when the organization uses the safety risk management system to proactively assess all major changes to the organization and its operations.

Indicators of compliance and performance			P	S	O	E	How is it achieved	Verification
Basic Requirements	3.2.1	The organization has established a process and conducts formal hazard analyses / risk assessment for major operational changes, major organizational changes and changes in key personnel.						
	3.2.2	Safety Case/Risk assessments are aviation safety focused.						
	3.2.3	Key stakeholders are involved in the change management process.						
	3.2.4	During the change management process previous risk assessments and existing hazards are reviewed for possible effect.						
Best Practice Indicators	3.2.5	Validation of the safety performance after organizational and operational changes have taken place to assure assumptions remain valid and the change was effective.						
	3.2.6	All organizational and operational changes are subject to the change management process.						
	3.2.7	Safety accountabilities, authorities and responsibilities are reviewed as part of the change.						

3.2 Summary Comments



3.3 Continuous Improvement of the SMS

The organization shall develop and maintain a formal process to identify the causes of sub-standard performance of the SMS, determine the implications of sub-standard performance in operations, and eliminate such causes.

EFFECTIVENESS is achieved when the organization routinely monitors the SMS performance to identify potential areas of improvement and the outcomes of this process lead to improvements to the safety management system.

Indicators of compliance and performance		P	S	O	E	How is it achieved	Verification
Basic Requirements	3.3.1					The Safety Committee has the necessary authority to make decisions related to the improvement and effectiveness of the SMS.	
	3.3.2					The SMS is periodically reviewed for improvements in safety performance.	
Best Practice Indicators	3.3.3					There is evidence of lessons learnt being incorporated into the policy and procedures.	
	3.3.4					The organization benchmarks its SMS against other organizations and is an active promoter of SMS within the aviation industry.	
	3.3.5					Best practice is sought and embraced.	
	3.3.6					Surveys and assessments of organizational culture are carried out regularly and acted upon.	
	3.3.7					For safety related services the organization requires contracted organizations not required by regulations to have an SMS.	
	3.3.8					Contracted organizations have the ability to participate and share information in the SMS.	

3.3 Summary Comments



4 Safety Promotion

4.1 Training and Education

The organization shall develop and maintain a safety training program that ensures that personnel are trained and competent to perform the SMS duties. The scope of the safety training shall be appropriate to each individual's involvement in the SMS.

EFFECTIVENESS is achieved when all personnel are trained and competent to perform their SMS related duties and the training programme is monitored for its effectiveness and updated.

Indicators of compliance and performance			P	S	O	E	How is it achieved	Verification
Basic Requirements	4.1.1	There is a documented process to identify Safety Management training requirements so that personnel are competent to perform their duties.						
	4.1.2	There is a process in place to measure the effectiveness of training and to take appropriate action to improve subsequent training.						
	4.1.3	There is a process that evaluates the individual's competence and takes appropriate remedial action when necessary.						
	4.1.4	Training includes initial and recurrent training.						
	4.1.5	A training record is maintained for each all personnel trained.						



Indicators of compliance and performance			P	S	O	E	How is it achieved	Verification
Best Practice Indicators	4.1.6	Training includes human and organizational factors including non-technical skills with the intent of reducing human error.						
	4.1.7	Training requirements are documented for each area of activity within the organization, including areas where training requirements are not defined by regulations.						
	4.1.8	A training needs analysis is carried out for all personnel and is regularly reviewed.						
	4.1.9	Training is provided for personnel working for contracted organizations related to the operation.						
	4.1.10	Personnel have a mechanism to request additional SMS training in relation to their role in SMS.						
	4.1.11	Management recognizes and uses informal opportunities to instruct all personnel on safety management.						
	4.1.12	Training includes attendance at symposiums and industry conferences.						
	4.1.13	Training exercises and methods for all personnel are kept current to reflect new techniques, technologies, results of investigations, corrective actions and regulatory changes.						
4.1 Summary Comments								



4.2 Safety Communication

The organization shall develop and maintain formal means for safety communication that ensures that all personnel are fully aware of the SMS; conveys safety critical information; and explains why particular safety actions are taken and why safety procedures are introduced or changed.

EFFECTIVENESS is achieved when all personnel are aware of the SMS, safety critical information and their role in respect of aviation safety.

Indicators of compliance and performance		P	S	O	E	How is it achieved	Verification
Basic Requirements	4.2.1						
	4.2.2						
Best Practice Indicators	4.2.3						
	4.2.4						
	4.2.5						
	4.2.6						

4.2 Summary Comments

Entry into effect: Mmmmmm DD, YYYY

Federal Office of Civil Aviation FOCA

Peter Müller
Director General

Ryan Hunninghaus
Head Safety Risk Management