C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH



# C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

#### Regulation governing the Safety Management System of Frankfurt Airport

Operational safety is the highest priority for Fraport AG and takes precedence over economic, ecological, operational, or social interests. We undertake to provide adequate and appropriate resources to this end.

The overall concept for the SMS activities of Fraport AG is the Fraport AG Safety Policy for Frankfurt Airport. Fraport AG has a clear expectation that the requirements contained in the Safety Policy will be embodied in practice by all persons and organizations involved in airport operations. Service providers working on our flight operations areas must satisfy our operational safety standards as a minimum.

The Fraport AG SMS is committed to upholding the "Just Culture" declaration of the European Union.

To further improve operational safety and the high safety level, we expect all persons and organizations involved in airport operations who work on the flight operations areas to actively participate.

The SMS Regulation is binding for all persons and organizations involved in airport operations. They must actively participate in Fraport AG's safety management system (SMS).

Fraport AG, Frankfurt, June 1, 2023

Dr. Stefan Schulte
Chairman of the Executive Board

Alexander Laukenmann EASA Accountable Manager C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

# Version

Version	Date	Comment	Author
1.0	November 4, 2005	Created	R. Baier
1.01	November 9, 2005	Revised	R. Baier
1.02	November 11, 2005	Revised	R. Baier
1.03	June 28, 2006	Revised	R. Baier
2.0	July 23, 2009	Created	I. Mowinski
2.1	October 2, 2009	Revised	I. Mowinski
3.0	August 1, 2010	Created	H. Kühn
3.1	June 1, 2012	Revised	H. Kühn
4.0	November 1, 2017	Created	FTU-BS
4.1	May 31, 2019	Revised	FTU-BS
5.0	July 1, 2022	Revised	AVN-EM
5.1	June 1, 2023	Safety Targets, Safety Policy	AVN-EM

Status	To be published in:	
☐ Entwurf	✓ Skynet	
Freigegeben	✓ GalaxyNet	
	✓ Internet	
	Publication on Galaxynet or on the Internet is only possible if the guideline is available in German and English.	

To improve readability considering the comprehensive revisions made, changes / deletions are not marked.

# **Contents**

List of F 1.	iguresLegal Basis and Scope	
1.1 1.2 1.3	Legal BasisScopeAerodrome Manual	6
2.	Responsibilities in airport operations	7
2.1 2.2	Nominated Persons at Fraport AG	
3.	Responsibilities within the Framework of the SMS	8
3.1	EASA Safety Manager	8
3.1.1 3.1.2 3.1.3	The Responsibilities of the EASA Safety Manager The Competences of the EASA Safety Manager Safety Service Office	8
3.2 3.3 3.4 3.5	Heads of Department and Process Owners/ Managers  Staff with Personal Appointments  Executive Responsibility for Implementation  Organizations and Persons Involved in Airport Operations	9
3.5.1 3.5.2 3.5.3	Declaration on Operational Safety	10
4.	The Safety Management System	11
4.1 4.2	Organization of the Safety Management SystemField of Activity	
4.2.1 4.2.2 4.2.3 4.2.4 4.2.5	Identification of Risks and Hazards  Documentation of Incidents  Change Management  Consulting Services  Overview of Range of Tasks	11 11
4.3 4.4	Documentation of the key Responsibilities for Operational Safety  Executive Bodies in the Safety Management System	
4.4.1 4.4.2 4.4.3	Safety Review Board (SRB) Safety Action Groups (SAG) Safety Committees	13
4.5	Coordination and Interplay of Third Parties in the Safety Management System of the Airport Operator	16
<b>5</b> .	Safety Policy and Safety Objectives	17
5.1 5.2	Safety Policy of Fraport AG for Frankfurt AirportSafety Objectives of Fraport AG	
6.	Documentation	19
6.1	Documentation and Data Protection by the SMS	19
6.1.1	SMS Contact List	19

6.1.2	Safety-Related Events	
6.1.3	Change Management	
6.1.4	Committee Meetings	
6.1.5 6.1.6	Safety ReportsInvestigation Reports	
6.1.7	Audit Findings	
6.1.8	Safety-Related Staff Meetings	
6.1.9	Company Declarations on Operational Safety	
6.2	Photo, Video and Audio Recordings	21
7.	Change Management	22
8.	Hazard Identification and Risk Assessments	
8.1	Identification of Hazards	24
8.1.1	Reactive Identification of Hazards	24
8.1.2	Proactive and Predictive Identification of Hazards	
8.1.3	Event-Related Identification of Hazards	25
8.2	Risk Assessment	25
8.2.1	Proactive (Including Predictive) Risk Assessment	25
8.2.2	Reactive Risk Assessment (ERC Event Risk Classification)	
8.3	Handling Risks	28
8.3.1	"Red Risks"	28
8.3.2	"Yellow Risks"	29
8.3.3	"Green Risks"	
8.3.4	Risk Mitigation	29
9.	Monitoring of the Safety Performance	
9.1	Measurement of Target Attainment	
9.2 10.	Monitoring of the Safety Performance Safety Reports	
10.1	Safety Reporting System	
10.2	Mandatory Safety Reports	
10.3 10.4	Investigation of reportable Incidents  Voluntary Safety Reports	
-		
11.	Continual Improvement of the Safety Management System	
11.1 11.2	Rights and Duties of the SMS  Methods	
11.2.1	Safety Reviews (Inspections)	33
11.2.2	Safety Assessments	
11.2.3	Safety Investigations	34
11.2.4	Safety Audits	34
11.3	Recommendations for Operational Safety	35
11.4	Just-Culture Principle	35
12.	Coordination of the Emergency Plan	36
13.	Safety Training	38
13.1	Basic Safety Training	
13.2	Advanced Safety Training	
13.3	Safety Refresher Training	39

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

14.1	SMS Regulation	40
14.2	Website	40
14.3	Safety News	40
14.4	Key Safety Figures	40
<i>15</i> .	Output of the Safety Management System	41
15.1	Safety Policy and Objectives	41
15.2	Coordination of the Emergency Plan	41
15.3	Risk Management	41
15.4	Change Management	41
15.5	FOD Control Program	41
15.6	Safety Reporting System	41
15.7	Analysis of Incidents	42
15.8	Improvement of Operational Safety	42
15.9	Promoting Operational Safety	42
15.10	Further Developing the Safety Management System	42
	43	
	Nominated Persons at Fraport AG	
	Safety Objectives of Fraport AG	
	Reportable events	
	List of the Valid Process Instructions	
	breviations	49
<b>Definitions</b>	s <i>50</i>	

# List of Figures

Figure 1: Safety Policy of Fraport AG	17
Figure 2: Classification of the probability of occurrence	26
Figure 3: Classification of the extent of damage	26
Figure 4: Tolerance matrix of the Fraport SMS based on ICAO Doc. 9859, SMM III	26
Figure 5: Severity of impact of ARMS (ERC) methodology	27
Figure 6: Effect classes based on the ARMS (ERC) methodology	28
Figure 7: Adjusted ERC risk assessment matrix based on the ARMS methodology	28

# 1. Legal Basis and Scope

#### 1.1 Legal Basis

The duties and responsibilities of the Fraport AG SMS and all persons and organizations involved in airport operations are based on Regulation (EU) No. 2018/1139 in conjunction with Regulation (EU) No. 139/2014, as well as other relevant legal standards as currently applicable.

The Safety Management System Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH (referred to in the following as the SMS Regulation) is a description of the general guidelines and principles of the airport operator concerning operational safety.

It regulates the procedures of the safety management system of Fraport AG as well as the obligations of all persons and organizations involved in the airport operations to cooperate.

#### 1.2 Scope

FRA-Vorfeldkontrolle GmbH does not operate its own SMS and uses the Fraport AG SMS.

For employees of Fraport AG and FRA-Vorfeldkontrolle GmbH, the SMS Regulation is a binding instruction in relation to operational safety.

Pursuant to Regulation (EU) No. 139/2014, on the basis of the contracts concluded with Fraport AG (e.g. license agreement) and the regulations of the Airport User Regulations, ID Card Regulations and the SMS Regulation, all persons and organizations involved in airport operations are included in the safety management system of Frankfurt Airport and are therefore required to take part in the SMS of Fraport AG in accordance with the provisions of the SMS Regulation.

The scope of the SMS Regulation covers all flight operations areas.

#### 1.3 Aerodrome Manual

The aerodrome manual documents processes, procedures and structures at Frankfurt Airport in line with the requirements of Regulation (EU) 2018/1139 and Regulation (EU) No. 139/2014.

The Airport User Regulations (part 2, chapter 1.1) require all persons working on the flight operations areas to have knowledge of the sections of the aerodrome manual that are relevant to them and the rules that apply here.

Fraport AG's guidelines and access to the aerodrome manual can be found on the Group website at www.fraport.com under Guidelines and Payment Terms.

Fraport AG's EASA Compliance Management provides access data to all organizations involved in airport operations.

# 2. Responsibilities in airport operations

#### 2.1 Nominated Persons at Fraport AG

The airport operating company has appointed the persons designated below for the airport operations in accordance with Regulation (EU) No. 139/2014 Annex III ADR.OR.D.015 (see *Annex A: Nominated Persons at Fraport AG*):

#### **Operations Manager (in the following: EASA Accountable Manager):**

The EASA accountable manager is furnished with the authority to ensure that all activities for fulfilling the relevant requirements can be financed and carried out. He/she is responsible for establishing and maintaining an effective management system.

#### **Operational Services Manager (in the following: EASA Operations Manager):**

This manager is responsible for the management and supervision of all tasks and interests of Frankfurt Airport related to flight operations.

#### Safety Management System Manager (in the following: EASA Safety Manager):

This manager is responsible for the development, maintenance, and day-to-day management of the safety management system.

#### Maintenance Manager (in the following: EASA Maintenance Manager):

This manager is responsible for the management and supervision of the maintenance and repair of all airside facilities on the grounds of Frankfurt Airport falling within the scope of Regulation (EU) No 139/2014.

#### Compliance Manager (in the following: EASA Compliance Manager):

This manager is responsible for monitoring and maintaining all aspects that form the basis of the certification of Frankfurt Airport.

#### 2.2 Rights and Duties of the Nominated Persons

The rights and responsibilities of the individual functions as well as the persons who are currently appointed can be found in the rules of procedure of the EASA nominated persons. To maintain operational safety, they have the authority to issue binding instructions to all persons and organizations involved in airport operations.

This is based on the regulations set out in the regulation (EU) and the contractual regulations with Fraport AG in conjunction with the Airport User Regulations, the General Airport Regulations, Traffic Regulations, ID Card Regulations and the SMS Regulation of Fraport AG.

# 3. Responsibilities within the Framework of the SMS

#### 3.1 EASA Safety Manager

The EASA Safety Manager is the central point of contact for the development, management, and maintenance of an effective SMS. He/she reports directly to the EASA Accountable Manager.

He/she is given a direct, immediate, and personal assignment from the Executive Board as well as the individual responsibility for the operation and further development of the safety management system at Frankfurt Airport.

In order to perform his/her duties comprehensively, the EASA Safety Manager works on a company-wide, inter-divisional, and independent basis. The EASA Safety Manager must be granted direct access to the EASA Accountable Manager and the Executive Board as well as to each department of the organization or of the organizations engaged by Fraport AG.

As far as safety matters are concerned, the EASA Safety Manager is assigned a cross-divisional supervisory function within the organization of Fraport AG in order to perform the duties assigned to him/her. In this function, the EASA Safety Manager has the right and the duty to issue to other persons or units that are not assigned to him/her for disciplinary purposes higher-level specialist instructions for their area of responsibility.

#### 3.1.1 The Responsibilities of the EASA Safety Manager

The EASA Safety Manager is responsible for the following issues:

- Supporting the process owners in the preparation of hazard and risk analyses;
- Supporting all organizations and persons involved in airport operations in all matters of operational safety;
- Monitoring the implementation and functionality of the SMS, including the necessary safety measures
- Operating of the safety reporting system of Frankfurt Airport;
- Providing regular reports on the safety performance
- Ensuring that the safety management documentation is maintained
- Ensuring that training courses in safety management are available and fulfill acceptable standards
- Providing advice in safety issues and initiating and participating in internal investigations into malfunctions/accidents

#### 3.1.2 The Competences of the EASA Safety Manager

In order to fulfill his/her duties, the EASA Safety Manager has the right and the obligation to obtain information on operations, training, processes, and all other aspects related to operational safety from all organizations and persons involved in airport operations as well as to request related documents or to inspect them on site.

The EASA Safety Manager can assign the performance of his/her duties in the day-to-day business or in the event that he/she is absent to a suitable colleague. However, the responsibility for conducting the duties assigned remains with him/her.

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

#### 3.1.3 Safety Service Office

The Safety Services Office (SSO) is responsible for day-to-day business. The EASA Safety Manager and the Safety Service Office support the company management team, the department management teams, the process owners/managers, the EASA nominated persons and all persons and organizations involved in airport operations in all matters of operational safety and can obtain information directly about all situations that are of importance for the SMS.

#### 3.2 Heads of Department and Process Owners/ Managers

The responsibilities of each head of department include contributing, within his/her respective area, to the operational safety of the company. In order to guarantee operational safety, all department heads have to ensure the following:

- The department's processes that are significant for operational safety are regulated clearly and comprehensively.
- The responsibilities, competencies and necessary powers assigned to process (sub)owners for ensuring operational safety within their area are defined, known and documented.
- The acceptable level of safety (ALOS) of their relevant processes are defined and known to the process owners/managers and are also documented.
- The achievement of the safety targets defined by the Executive Board is supported within the framework of their competence.
- Before changes to safety-related processes, techniques are implemented, risks that
  may arise as a result are identified and documented; any risks that may have been
  identified are reported to the SMS; a risk assessment has been conducted, and any
  necessary risk mitigation measures are identified and, if necessary, implemented; the
  acceptable level of safety is met, and the steps implemented in the change process
  have been documented.
- Responsibilities remain clearly regulated in the event of organizational changes.
- The resources required to maintain operational safety are available.
- It is guaranteed that the staff are adequately trained for the duties that they have to perform and in operational safety.
- The staff concerned are informed and, if necessary, instructed in the operational safety concerning new procedures, processes, technical equipment, etc., before they are introduced.
- Supervision is carried out on a regular and verifiable basis.
- If the responsibility for operational safety should be delegated by the corporate management to the relevant process owner/manager, it must be ensured that, in addition to the duties, the necessary rights, powers and resources required for maintaining or restoring operational safety are available.

In the context of inspections, audits or investigations, the relevant documentary proof must be submitted to the EASA Safety Manager or kept available for inspection.

#### 3.3 Staff with Personal Appointments

For staff with personal appointments with or without authority to issue instructions, whose duties have or may have an impact on operational safety in the airport operations and who are not explicitly specified in this documents, the requirements placed on departments heads and process owners/managers shall apply mutatis mutandis.

#### 3.4 Executive Responsibility for Implementation

In addition to the responsibilities and duties to participate in the SMS that are specified in the Airport User Regulations, the General Airport Regulations and the SMS Regulation,

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

every manager is required to communicate recommendations of the Safety Review Board and of the EASA Safety Manager to their staff and the third parties they have engaged, comply with legal and safety-related requirements and standards and call on the employees assigned to them to do the same.

#### 3.5 Organizations and Persons Involved in Airport Operations

#### 3.5.1 Declaration on Operational Safety

In accordance with Regulation (EU) No 139/2014, the airport operator has to ensure that all organizations involved in airport operations have safety procedures in place to comply with the applicable requirements of Regulation (EU) No 2018/1139 and its implementing rules and the requirements laid down in the Aerodrome Manual.

To this end, Fraport AG uses the "Operational Safety Self-Assessment" form. This has to be completed in full by all organizations involved in airport operations and sent to the SMS of Fraport AG. It is also part of the set of agreements with Fraport AG.

The information sheet can be downloaded (in German and English) from www.fraport.com/sms.

#### 3.5.2 Organizational Obligations

Companies shall organize their processes, procedures and work instructions such that their employees are not forced to violate the applicable rules and regulations of the airport operator in order to perform their work.

#### 3.5.3 Participation in Reporting

All persons and organizations involved in handling airport operations are required to take part in the SMS reporting by reference to Regulation (EU) No 376/2014.

Within the meaning of the "Just Culture" declaration that has been adopted throughout Europe, the EASA Accountable Manager and the SMS encourage all staff involved in airport operations to report all safety-related incidents and potential weaknesses in operational safety to the Fraport AG SMS using the voluntary reporting system.

More extensive regulations on reporting are specified in chapter 10.

# 4. The Safety Management System

#### 4.1 Organization of the Safety Management System

The Safety Management System of Fraport AG is operated by the EASA Safety Manager. In organizational and line management terms, the EASA Safety Manager reports to the EASA Accountable Manager. The EASA Safety Manger exercises the technical supervision and line management of the staff of the SSO.

The duties of the SMS comprise providing support for the function owner specified in this regulation as well as for all persons and organizations involved in airport operations in guaranteeing operational safety in the course of handling the airport operations.

The process instructions applicable for all staff in the SMS as well as for any other employees of Fraport AG in relation to the safety management systems are contained in Annex D: List of the Valid Process Instructions, which is not available to the public.

#### 4.2 Field of Activity

#### 4.2.1 Identification of Risks and Hazards

Risks have to be identified and reduced to an extent that produces the highest possible degree of operational safety, but that at the same time remains workable and practicable for handling airport operations. To this end, competencies, procedures, operating processes, and responsibilities that are significant for operational safety are recorded, potential hazards are identified, the risk stemming from these hazards are assessed, and risk-mitigation measures are described and, where appropriate, instituted.

The risk assessment is based here on the ALARP principle (As Low As Reasonably Practicable) of ICAO. The potential of the hazards stemming from airport operations is examined systematically by the process owners/managers. When risks are identified, the corrective measures that are recognized to be necessary have to be established, documented and implemented by the process owner/manager. The SMS is informed promptly of the measures and their implementation.

More extensive regulations governing risk management are specified in chapter 8.

#### 4.2.2 Documentation of Incidents

The incidents that are significant for operational safety are recorded, clustered, assessed, and regularly reported to the managers concerned as well as the Safety Review Board (SRB) by the SMS reactively on the basis of the daily, situation and incident reports from the operational units in accordance with the procedures coordinated with the process owners. If necessary, the process owner/manager has to develop suitable risk-mitigation measures based on the evaluated statement of the SMS.

#### 4.2.3 Change Management

In addition to identifying and assessing new hazards that arise for operational safety and conducting a risk assessment in the event of changes to existing procedures and processes or the introduction of new procedures and processes, the process owner/manager also initiates the modification of measures for minimizing safety risks which may no longer be applicable or effective as a result of the planned changes. More

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

extensive regulations governing change management can be found in chapter 7. Information on hazard identification and safety assessments can be found in chapter 8.

#### 4.2.4 Consulting Services

The SMS stands ready as a consultant and safety expert for all parties involved in airport operations. It provides support for the process owners/managers and the management team in all concerns related to operational safety as well as in defining target levels of safety (TLOS), monitoring the safety services and measuring the operational safety.

#### 4.2.5 Overview of Range of Tasks

The SMS is independent and neutral when carrying out the following tasks:

- Advising the management team and the Safety Review Board (SRB) in all matters relating to the establishment, operation and further development of the safety management system as well as the process owners/managers in all issues of operational safety
- Operating the safety management system and further developing it in line with the requirements established by legal standards
- · Maintaining the hazard and risk register
- Advising the management team and the process owner/manager in the application of key performance indicators for monitoring operational safety in implementation of the State Safety Program Germany and the European Aviation Safety Program
- Monitoring and analyzing the operational safety and reports on this to the Safety Review Board
- Coordinating the emergency planning at Frankfurt Airport in accordance with Regulation (EU) No. 139/2014
- Auditing the processes relevant for operational safety within the framework of handling airport operations
- Training all staff employed in airport operations in their tasks and obligations to cooperate related to the SMS
- Operating a program to prevent accidents and incidents, including a reporting and analysis system, in coordination with the SRB and Occupational Health and Safety
- Representing Fraport AG on issues factually connected with the field of activity in national and international boards and associations on behalf of the EASA Accountable Manager
- Formally checking hazard identifications, risk assessments, and identified risk-mitigation measures
- Monitoring and supporting change processes, at the request of the process owners, in due consideration of the requirements of Regulation (EU) No 2018/1139 and Regulation (EU) No. 139/2014

#### 4.3 Documentation of the key Responsibilities for Operational Safety

EASA Compliance Management manages the responsibilities for operational safety as part of the verification of the certification of Frankfurt Airport. The EASA Safety Manager and the SSO have access to the documentation of the Compliance Manager concerning the responsibilities and processes in the competencies, procedures and operations that are significant for operational safety.

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

#### 4.4 Executive Bodies in the Safety Management System

#### 4.4.1 Safety Review Board (SRB)

The board is chaired by the EASA Accountable Manager. The minutes are taken by the EASA Safety Manager. The tasks of the SRB include:

- Advising the EASA Accountable Manager on all issues that could affect operational safety
- Monitoring safety-related points connected with procedures, technology and/or organizational structures concerning a general improvement of operational safety
- If necessary, convening Safety Action Groups and defining their tasks and objectives
- Auditing the effectiveness of the SMS
- · Deciding the safety objectives for resolution by the Fraport AG Executive Board
- Comparing the operational safety with the Safety Policy and the safety objectives
- Monitoring the effectiveness of the safety management processes
- Resolution on Safety Policy

The composition, cycle and functioning of the SRB are regulated in the applicable rules of procedure.

Other staff from Fraport AG as well as third parties can also take part in the meetings at the invitation of the SRB on a case-by-case basis, depending on the issues to be discussed.

#### 4.4.2 Safety Action Groups (SAG)

A SAG is set up by the SRB as and when necessary and comprises the persons appointed by the departments affected (executives and / or experts).

The tasks of an SAG include on an order-related and ad hoc basis:

- · Auditing and analyzing a defined problem
- Identifying suitable risk-mitigation measures
- · Presenting the measures selected to the SRB
- Ensuring the implementation of the risk-mitigation measures decided upon before process changes are implemented or new technology is introduced
- Validating identified safety recommendations

#### 4.4.3 Safety Committees

The Safety Committees described below have been established at Frankfurt Airport. They are managed by the SMS itself or in accordance with the regulated responsibilities. They help increase operational safety.

#### **Runway Safety Team (RWST)**

The key tasks of the Runway Safety Team include:

- Continually analyzing the hazards and risks at Frankfurt Airport in relation to runway safety
- Taking note of anonymized safety-related events arising in the area of runway safety
- Initiating and coordinating information campaigns on runway safety to raise awareness among people on the ground and those affected and to make recommendations to them
- Comprehensively examining safety aspects in the processing of the air traffic in relation to flight operations areas, in particular runways and related taxiways, with the objective

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

of identifying and describing ways to improve safety, developing measures and monitoring implementation of these measures

- Analyzing safety-related incidents, while applying a forward-looking and preventative approach
- · Monitoring the effectiveness of its recommendations on an ongoing basis.

The Runway Safety Team does not take the place of the existing responsibilities within the companies involved, nor is it in competition with them. It is independent, it is not subject to any instructions from third parties when processing the contents of its tasks, and it does not get involved in the clarification of questions of fault.

The Runway Safety Team at Frankfurt Airport is managed by Deutsche Flugsicherung (DFS – German Air Navigation Services).

The composition, cycle and functioning of the RWST are regulated in the applicable rules of procedure. EASA Operations Managers, EASA Maintenance Managers and EASA Safety Managers are members for Fraport AG.

Fraport AG has the right to take over the management of the RST at any time. Should DFS relinquish the management of the Runway Safety Team, this will be taken over by the Fraport AG.

#### Ramp Safety Committee (RSC)

The key tasks of the Ramp Safety Committee include:

- Continually analyzing the hazards, risks and safety situation in the vicinity of the Frankfurt Airport apron, including on the basis of (anonymous) reports on safety-related incidents
- Comprehensively examining safety aspects in the processing of the air traffic in relation
  to flight operations areas on the apron and where this meets the maneuvering area, as
  well as all other areas relating to flight operations areas, with the objective of identifying
  and describing ways to improve safety, developing measures and monitoring
  implementation of these measures
- Upon request or on a case-by-case basis: Helping identify hazards and deficits and advising the process owners
- Issuing safety recommendations and properly communicating the results of safety audits
- · Auditing the effectiveness of the recommendation made
- Analyzing and evaluating preventative measures to prevent FOD

The Ramp Safety Committee does not take the place of the existing responsibilities within the companies involved, nor is it in competition with them. It is independent, it is not subject to any instructions from third parties when processing the contents of its tasks, and it does not get involved in the clarification of questions of fault.

The Ramp Safety Committee at Frankfurt Airport is a Fraport AG organization. The RSC at Frankfurt Airport is managed by the SMS of Fraport AG.

The composition, cycle and functioning of the RSC are regulated in the applicable rules of procedure. Representatives of the EASA Safety Management, EASA Operations Management and Ground Handling are members for Fraport AG.

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

#### **Construction and Obstacle Routine (COR)**

The key tasks of Construction and Obstacle Routine – if they have a factual connection here – include:

- Analyzing and assessing the operational safety on the flight operations areas of Frankfurt Airport with regard to (planned) construction works and obstacles to aviation
- · Assessing possible and identified hazards and risks
- Discussing and recommending possible corrective measures
- Analyzing and evaluating preventative measures to prevent FOD as part of construction works

The Construction and Obstacle Routine does not take the place of the existing responsibilities within the companies involved, nor is it in competition with them. It is independent, it is not subject to any instructions from third parties when processing the contents of its tasks, and it does not get involved in the clarification of questions of fault.

Operational safety issues affecting the infrastructure, construction works taking place on the infrastructure, and obstacles to aviation are a key element of the Construction and Obstacle Routine meeting, which is held on a weekly basis.

This is a Fraport AG organization, represented by the EASA Maintenance Manager or a deputy appointed by him/her. The minutes are kept by an employee in the Airside Infrastructure Development department. Participants include representatives of the Airside Infrastructure department, Flight Operations, Airport Duty Management and the SSO.

#### FRA Wildlife Control Committee (WCC)

The operational safety issues to do with wildlife and environmental hazards are a key element of the FRA Wildlife Control Committee (WCC).

The tasks of the WCC include:

- Discussing the bird strike data that has been collected as well as the observations made by the bird strike officers;
- Evaluating wildlife hazards, identifying and assessing trends and determining which countermeasures have to be taken;
- Ensuring the communication, cooperation and coordination between the most varied of interest groups on the issue of wildlife hazard management;
- Identifying dangerous wildlife situations, implementing complex habitat controls or developing strategies for protected or rare species

The Wildlife Control Committee does not take the place of the existing responsibilities within the companies involved, nor is it in competition with them. It is independent, it is not subject to any instructions from third parties when processing the contents of its tasks, and it does not get involved in the clarification of questions of fault.

The Wildlife Control Committee at Frankfurt Airport is a Fraport AG organization. The WCC at Frankfurt Airport is managed by the Head of Wildlife Management at Fraport AG.

The Wildlife Control Committee meets each year at the beginning of the migration seasons to coordinate and develop measures to monitor and enhance operational safety.

The group of participants on the committee is determined by the head of Wildlife Management

Page 16/51

C Organization

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

#### **Emergency Planning Routine (EPR)**

The SSO meets with the Emergency Management of Fraport AG concerning the Emergency Planning Routine each month. The topics include:

- Key contents of the emergency plan;
- Further development of the emergency plan;
- · Debriefing on actual incidents;
- Planning of and debriefing on emergency exercises;

# 4.5 Coordination and Interplay of Third Parties in the Safety Management System of the Airport Operator

All organizations as well as their employees that work or perform services at the airport are required to take part in the SMS of the airport operator in accordance with the general legal conditions.

This involves implementing the requirements of the SMS of the airport operator, complying with all safety regulations as well as other measures at the request of the airport operator, such as the training, instruction and advanced training of their employees in operational safety, coordinate procedures, technology and organizational structures, cooperate in safety committees and participate in the SMS reporting system.

# 5. Safety Policy and Safety Objectives

#### 5.1 Safety Policy of Fraport AG for Frankfurt Airport

8.1.SMS.5.1 zur SMS-Ordnung der Fraport AG C.4.6



#### Safety Policy for Frankfurt Airport

Operational safety has the highest organizational priority for us and in doubt exceeds economical, environmental, social or operational interests. Our goal is to continuously develop strategies, processes and procedures to ensure that the highest possible safety level is reached and maintained at the Frankfurt Airport at all times. In order to do so, Fraport AG has committed itself to provide all necessary resources needed. Management and employees have an active role to participate in the safety management system (SMS).

We expect our management and process owners, to

- continuously demonstrate participation in the SMS and to actively promote and endorse the safety policy to their employees,
- ensure that all operational activities are always safety driven,
- proactively identify hazards, assess possible risks and develop and implement mitigation actions
  to lower risks to an acceptable level of safety and provide the documentation to the SMS,
- ensure compliance with all pertinent regulations and standards,
- provide the appropriate and necessary resources to ensure for safety,
- develop safety targets, performance standards and indicators and communicate these throughout the organization,
- ensure that incidents and accidents according to EU VO Nr. 376/2014 are reported to the SMS.

Every employee is informed about the safety management system, is properly trained to conduct their business and adheres to operational safety when performing their tasks. In order to create a transparent safety culture and to increase safety awareness amongst employees we provide a safety reporting. We encourage all airport users to report observed incidents and accidents or safety concerns to the SMS. For this sake we have made different means of reporting available:

- Per email: sms@fraport.de,
- Per fax: +49 (0) 69 690 5 83 79,
- Per mail to SMS: Fraport AG, SMS, 60547 Frankfurt
- Per mail to SMS, Fraport AG, SMS, 60547 Frankfult
   Personally at the Safety Service Office, located in building 181, entrance B, level 8

Safety reports to the SMS do not entail negative effects or disciplinary actions for the person that reports. Reports can also be filed anonymously. Exemptions can be made by criminal liability, gross negligence or willful intent.

The performance of third party service providers and their requirements for operational safety must meet our expectations and standards. The participation in the SMS, especially the safety reporting, is strongly desired

Alexander Laukenmann Accountable Manager

Gültig ab: 01.06.2023 Ersteller: AVN-EM Freigeber: Accountable Manager Unterstrichen: Änderung

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Figure 1: Safety Policy of Fraport AG

Page 18/51

C Organization

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

The SRB decides on the Safety Policy proposed by the EASA Safety Manager. The EASA Accountable Manager confirms his/her support for the Safety Policy by providing his/her signature. The Safety Policy is sent to all organizations involved in airport operations, which must ensure that employees are aware of the Safety Policy.

The Safety Policy forms the basis of the safety philosophy and is binding for all persons and organizations involved in airport operations.

The SRB regularly reviews the Safety Policy and the safety objectives to ensure they are relevant and appropriate, define the necessary strategic targets and check whether they have been achieved.

Executives and process owners must design their processes in a way that guarantees operational safety at all times.

Every employee working in airport operations plays their part in the operational safety of Frankfurt Airport within the context of their individual responsibility.

The Safety Policy is a key element in the training and continuous professional development on the subject of the SMS. It is thus guaranteed that the executives and staff of Fraport AG and all persons and organizations involved in airport operations are aware of both the Safety Policy and the safety objectives and that these can be applied.

#### 5.2 Safety Objectives of Fraport AG

Operational safety is the top priority in commercial aviation. Air traffic at Frankfurt Airport has increased significantly over the past few decades, and the safety standards have remained at a constantly high level during this time.

Appropriate precautions are taken by the EU, the Federal Republic of Germany and also by Fraport AG to ensure that the high safety level will be maintained in the course of the forecast increase in passenger and traffic volume.

The Executive Board of Fraport AG defines annual safety objectives for Fraport AG – based on the recommendations of the Safety Review Board and in consultation with the EASA Accountable Manager – that are binding for all persons and organizations involved in the airport operations.

The EASA Safety Manager sends the safety objectives to all organizations involved in airport operations, which must ensure that employees are aware of the safety objectives.

The safety objectives that are currently applicable can be found in Annex B: Safety Objectives of Fraport AG.

#### 6. Documentation

#### 6.1 Documentation and Data Protection by the SMS

In compliance with German and European provisions governing data protection, the works agreements in force and also the principle of appropriateness, the SMS documents information and records that are the subject of the SMS and that are directly related to the provisions of Regulation (EU) 2018/1139, Regulation (EU) 139/2014, Regulation (EU) 376/2014, ICAO Annex 19 and ICAO Doc. 9859.

All staff of the SMS are trained in confidentiality and in compliance with the relevant regulations of data protection law in accordance with the requirements of Fraport AG.

#### **Standard Retention Period**

The storage periods for personal data are based on the provisions set out in Regulation (EU) 139/2014 and Regulation (EU) 376/2014. All other data is stored indefinitely.

#### **Other Retention Periods**

The following documentation is subject to a retention period extending a minimum of two years after the documentation has ceased to be valid:

- · Agreements with other organizations
- · Manuals for airport equipment or systems used at the airport
- Safety reviews for systems, procedures or work

#### 6.1.1 SMS Contact List

To manage and document relevant activities, SMS creates and stores a general contact list of committee members, internal auditors, process owners and process and safety owners of companies located at the airport with access to the flight operations areas.

This contact list includes the name, company, specific job title and e-mail address of the persons performing this function. The data is updated accordingly and deleted no more than two years after the end of the contract if the person leaves the company or committee or the contract ends, unless SMS is legally required under EASA provisions to retain the data for an additional, specific period of time.

Names and e-mail addresses are deleted after the relevant storage period. Only the job title is retained.

#### 6.1.2 Safety-Related Events

Events related to air operations are documented in the central SMS documentation system (SMART) and evaluated in terms of relevance for safety. No personal data is stored in SMART.

#### 6.1.3 Change Management

The SMS documents the changes covered by the EASA regulations, including the name of the originator and party that issued approval, in an Excel list.

Personal data is deleted after the end of the statutory retention period stipulated by EASA. Only the processes are retained.

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

#### 6.1.4 Committee Meetings

The SMS documents meetings and participants of the Safety Review Board, Ramp Safety Committee, Runway Safety Team and Wildlife Committee in the SMART system. To do so, this is linked in the system to the SMS contact list. Personal data is deleted after the end of the statutory retention period stipulated by EASA. Only the description of the function is retained.

#### 6.1.5 Safety Reports

Safety reports can be submitted directly to the SMART system in person, by e-mail, by mail or on the Fraport AG intranet.

The safety reports are documented in the SMART system and evaluated in terms of relevance for safety. The processing status is documented. If the safety report was submitted via the SMART system and contains personal data, these are deleted by the SMS and stored separately in the SMS directory. No personal data is documented or processed in the SMART system for this purpose.

The SMS is required to record and save all necessary information on safety-related events. In this context, personal data of persons involved in connection with the event may also be collected. Personal data used during the analysis is stored by the investigator and deleted six months after completing the analysis.

If known, the name of the person submitting a safety report is recorded, stored on the SMS and deleted no more than six months after the process has been completed, unless this person has requested a response to the safety report. In this case, contact details are retained until the results of the investigation have been sent.

#### 6.1.6 Investigation Reports

Investigation reports are a detailed analysis on a safety-related event.

The SMS is required to record and save all necessary information on safety-related events. In this context, personal data of persons involved in connection with the event may also be collected.

Personal data used during the analysis is stored by the investigator and deleted six months after completing the analysis.

Investigation reports for event-related investigations are stored in the SMART system and do not include any personal data.

Investigation reports prepared for safety-related events and sent to the LBA and EASA do not include any personal data.

#### 6.1.7 Audit Findings

Audit findings and information on process owners and auditors are documented in the SMART system. To do so, this is linked in the system to the SMS contact list.

#### 6.1.8 Safety-Related Staff Meetings

No personal data is reported when documenting safety-related staff meetings.

#### 6.1.9 Company Declarations on Operational Safety

Contractual parties of Fraport AG (e.g. license agreements) that employ at least one employee with a yellow or red Airport ID Card are required under Regulation (EU) No.

Page 21/51

C Organization

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

139/2014 to complete the "Operational Safety Self-Assessment" form – attached as an Annex to the agreement – and send it to the SMS.

In particular, the form contains contact details for the management and for the persons at the company responsible for the SMS and/or occupational health and safety.

The forms are stored on the SMS directory for the duration of the contract and deleted five years after the end of the contract or five years after sending an updated version.

#### 6.2 Photo, Video and Audio Recordings

Image and video files are created by the SMS for analysis or training on an ad hoc basis and taking into consideration data privacy, the general internal Fraport requirements and the works agreements in force. The image and video files that are created are used to prevent damage on the basis of Regulation (EU) No -2018/1139 in conjunction with Regulation (EU) No 139/2014.

# 7. Change Management

The SMS operates a change management process in order to identify and assess safety-related changes in advance.

In principle, changes to the operation (organization, processes, procedures and services) and the infrastructure of Frankfurt Airport can result in new hazards or changes to the potential risks in relation to operational safety.

EASA Compliance Management must also be involved if changes are made to EASA infrastructure. The relevant infrastructure is listed in chapter 4.4 in the "Rules of Procedure for EASA Nominated Persons in accordance with Regulation (EU) 139/2014". The rules of procedure can be viewed in the aerodrome manual.

Among other things, this concerns:

- The airport operating license of Frankfurt Airport;
- Amendments to the aerodrome manual;
- Changes to the certification base, on the basis of which the certificate is issued;
- Changes to the way in which the airport fulfills the relevant requirements pursuant to Regulation (EU) No. 2018/1139 and its implementing provisions;
- Changes to the verification for the appropriateness of the resources for the operation of the airport in accordance with the relevant requirements;
- Changes to the declarations of the provider of apron control services;
- Modifications to process instructions, process descriptions and operating instructions, agreements and guidelines that affect or may affect operational safety;
- Major or complex construction projects on the apron and maneuvering area or projects of this kind that deviate from methods and procedures that have previously been practiced and found to be safe;
- Changes to the Aeronautical Information Publication of the Federal Republic of Germany (AIP Germany), if these are initiated by the airport operator.

Corresponding changes must be reported to the Fraport AG SMS in a timely manner so that the impact of the changes on operational safety can be evaluated.

The basis for the hazard identification and safety assessment of changes is provided by:

- The certification database of the EASA Compliance Manager;
- The hazard identifications and safety assessments carried out by the relevant process owners/managers;
- Criticality and stability of the processes and of the infrastructure;
- Previous operational safety;
- Previous practical knowledge.

The obligations of the relevant process owners/managers to participate in the hazard identification and safety assessment before changes are made at the airport, to its operation, the organization or the management system are:

• To identify the interdependencies with other parties affected and, if relevant, to plan and implement a safety assessment in coordination with these organizations

Page 23/51

C Organization

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

- If relevant, to discuss assumptions and mitigation measures in a systematic way with the parties in question
- If relevant, to ensure a comprehensive assessment of the changes, including any necessary interactions
- If relevant, to ensure that complete and valid arguments, records and safety criteria are defined and documented in support of the safety assessment

In addition to identifying and assessing new hazards that arise for operational safety and conducting a risk assessment, the process owner/manager arranges for measures for minimizing safety risks to be canceled or modified if these may no longer be applicable or should no longer be effective in their existing form as a result of the planned changes. If probabilities of occurrence and/or impacts in the event of occurrence can be evaluated only by expert when the safety assessments are carried out, the safety assessment has to be validated.

More extensive regulations governing the performance of hazard identifications and of the safety assessments are specified in chapter 8.

#### 8. Hazard Identification and Risk Assessments

A central task within the framework of the SMS is to identify hazards and provide support for the process owner/manager in carrying out risk assessments.

It is only the knowledge of actual or potential hazards that allows operational safety measures to be taken in order to improve the safety services.

The identification and assessment of the hazards and risks is performed by the relevant process owners/managers. They decide whether and, if applicable, which risk-mitigation measures are necessary in order to maintain and/or restore orderly operations – where appropriate within an implementation time frame that has to be defined for this purpose. The basis for deciding which risks are acceptable in handling airport operations is provided by the relevant requirements established by legal standards, defined safety criteria, and compliance with the acceptable level of risk (ALOR) specified by the relevant departmental management, where appropriate in consultation with the EASA nominated persons.

#### 8.1 Identification of Hazards

Hazards in airport operations are identified and recorded reactively by evaluating daily report logs, accident reports, safety reports, audits, and observations made by the SMS.

This is carried out on a forward-looking basis by identifying potential hazards before major changes to the competencies, procedures, operational workflows and systems that are material for operational safety are implemented by the relevant process owner/manager.

The following methods are applied in the evaluation of facilities, equipment, procedures and documentation in order to identify hazards:

- Reactive evaluation in order to review the effectiveness of the system for monitoring and mitigating safety risks;
- Proactive (including predictive) evaluation in order to identify potential hazards for operational safety and to monitor and mitigate these in advance;
- Event-related evaluation of reportable incidents;
- Trend analyses.

#### 8.1.1 Reactive Identification of Hazards

Hazards in airport operations are identified and recorded reactively among other things by evaluating daily reports and other information that is sent on a regular basis. The SMS can also receive other logs / reports on request if necessary. The SMS draws up a register of hazards on the basis of this information and other sources, such as safety reports, audit reports, surveys, studies, analyses and its own observations.

Analyses concerning emerging trends in relation to SMS-related events are carried out on the basis of the regular evaluation of daily logs, etc. In addition, the events are analyzed for possible hotspots, for example.

#### 8.1.2 Proactive and Predictive Identification of Hazards

The handling of airport operations at Frankfurt Airport continuously undergoes changes as a result of expansions and upgrading, modifications to or the replacement of systems and equipment, organizational changes as well as the introduction of new or amended procedures and processes.

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

A hazard identification process and also a risk assessment have to be conducted and documented by the process owner/manager as part of the change management before changes to the competencies, processes, operational workflows, systems and infrastructure that are material for the operational safety are implemented. A copy of the documentation has to be given to the SMS. The hazards that have been identified and that are specified in the documentation are included by the SMS in the register of hazards that it maintains.

Hazards that have been eliminated after modification are deleted from the register of hazards.

#### 8.1.3 Event-Related Identification of Hazards

In addition to these regular activities, an in-depth analysis and assessment is always carried out if there has been a (temporary) clustering of safety-related events.

Furthermore, a hazard identification process and safety assessment also have to be conducted if processes, operational workflows, technology, human factors or organizational structures were the cause of a reportable event within the meaning of Regulation (EU) No. 376/2014.

#### 8.2 Risk Assessment

The descriptions and tables listed in this chapter are based on the fourth edition of the ICAO Doc 9859 (Safety Management Manual). Further information and explanations on the issue can be found under 2.5.3. et seq. These can be used to assist with the assessment.

#### 8.2.1 Proactive (Including Predictive) Risk Assessment

Proactive (including predictive) risk assessments serve to classify a risk in order to identify any corresponding need for action. There are three risk classes, which lead to different actions by the process owner/manager:

- Red risks (ICAO: Intolerable high risk):
   Measures that are subject to an intolerable risk are not carried out.
- Yellow risks (ICAO: Tolerable moderate risk):
   Decision on how to handle the measure in future by the process owner/manager, if appropriate in consultation with the EASA nominated persons. Consideration in the predictive assessment by the SMS.
- Green risks (ICAO: Acceptable low risk):
   Measure can be implemented. Consideration in the predictive assessment by the SMS.

The risk class is produced from a combination of the probability of occurrence of an event and the expected extent of damage (tolerance matrix). How the relevant risks have to be handled is described in chapter 8.38.3.

### **Evaluation of the Probability of Occurrence of an SMS-Related Incident**

#### **Evaluation of the Extent of Damage of an SMS-Related Occurrence**

The table below shows the extent of damage to be used in the risk assessment:

Extent of damage	Description	Class	
Catastrophic	Total loss of an aircraft and/or relevant infrastructure	А	
Catastrophic	Multiple deaths		
	Extensive damage to aircraft and/or relevant infrastructure		
Hazardous	Some deaths and serious injuries		
	A substantial reduction in the safety margin, substantial stress situation or workload that meant security personnel could no longer reliably complete their core tasks		
	Major damage to aircraft and/or relevant infrastructure		
Major	Multiple injuries	С	
	A significant reduction in the safety margin, significant stress situation or workload that meant security personnel could no longer reliably complete their core tasks		
Minor	Minor damage to aircraft and/or infrastructure/equipment		
WILLO	Minor injuries		
Nogligible	Small-scale losses at most	E	
Negligible	No personal injury		

Figure 3: Classification of the extent of damage

#### **Overall Assessment of SMS-Related Occurrences**

The process owners/managers carry out an evaluation of the occurrences in accordance with the classifications described in chapters 8.2.100. When necessary, a relevant form (8.1 SMS 4.2) can be provided by the SMS of Fraport AG.

	Catastrophic Crash	Hazardous Major fire	Major Accident	Minor Emergency	Negligible
	A	В	C	procedure D	E
Frequent 5	5A	5B	5C	5D	5E
Occasional 4	4A	4B	4C	4D	4E
Remote 3	3A	3B	3C	3D	3E
Improbable 2	2A	2B	2C	2D	2E
Extremely improbable 1	1A	1B	1C	1D	1E

Figure 4: Tolerance matrix of the Fraport SMS based on ICAO Doc. 9859, SMM III

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

Decisions on the acceptance or tolerance of risks for operational safety are supported transparently by the tolerance matrix.

The definition of the contents of the matrix is generally laid down by the process owners/managers and department heads.

If in the course of the risk assessments that they have carried out department heads have applied a matrix deviating from the guidelines of ICAO and their other applicable documents on the basis of the acceptable level of risk that they have defined, this fact must be documented in the accompanying documentation, with an indication of the reasons, and notified to the SMS.

#### 8.2.2 Reactive Risk Assessment (ERC Event Risk Classification)

Reactive risk assessments serve among other things to validate the results of proactive (including predictive) risk assessments and also to review the operational safety of (sub) processes. These have to be carried out by the relevant process owners/managers.

In addition, the SMS assesses together with the relevant process owners/managers the operational safety of the handling of airport operations on the basis of the reports and notifications available.

The reactive risk assessment is made in the form of an "Event Risk Classification", ERC, and is documented. The main objective of the assessment based on the ERC method is to provide a quick evaluation of whether measures to reduce risks are immediately necessary in connection with the reported or recorded safety-related events. This evaluation is generally carried out within two to three days after the event and is drawn up by the SSO.

The following questions are considered in the course of the ERC:

- If the reported event had led to an accident, what would have been the biggest, most likely accident that could have been assumed?
- How effective were the remaining safety barriers ("defense mechanisms") that prevented an accident in the reported event?

#### **Categories of Impact Severity**

In order to assess to what extent ad hoc measures to minimize risk have to be instituted, it must first be identified how severe the impacts could have been in the event of the biggest or most likely accident that could be assumed. The severity of the impact is assigned to one of four defined categories, A to D.

Se	Severity of impact				
Definition		Meaning			
Α	Catastrophic	Total loss of an aircraft or event with multiple deaths.			
В	Serious accident	Event with one or two deaths, numerous serious injuries, substantial damage to aircraft			
С	Minor accident	Event with minor injuries and/or minor damage to aircraft			
D	No impacts	No potential damage or injuries			

Figure 5: Severity of impact of ARMS (ERC) methodology

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

#### Categories of the Effectiveness of the Defense Mechanisms

The effectiveness of the defense mechanism (safety barrier), whose complete or partial failure led to the event, is assessed. The effectiveness is classified into the following four categories:

Effectiveness	Effectiveness of the defense mechanisms			
Definition	on Meaning			
Ineffective	The defense mechanisms were not effective, with the result that no safety barriers could have prevented an accident.			
Minimal	The defense mechanisms were effective only to the degree that existing safety barriers prevented an accident, but a safety-related event occurred that was not under control and that could easily have led to an accident.			
Limited	The defense mechanisms were largely effective and it was possible to bring a safety-related event under control with them.			
Effective	The defense mechanisms were completely effective and it was possible to prevent a safety-related event before it happened using these mechanisms.			

Figure 6: Effect classes based on the ARMS (ERC) methodology

#### **Risk Assessment Matrix**

The risk is identified and assessed using the following assessment matrix:

Effectiveness of the defense mechanisms						
Category of severity	Class	Ineffective	Minimal	Limited	Effective	
Accidents	А	2500	502	102	50	
Serious incidents	В	500	101	21	10	
Moderate incidents	С	100	20	4	2	
No impacts	D	11	5	1	1	

Figure 7: Adjusted ERC risk assessment matrix based on the ARMS methodology

The category determined for the severity of the impact is compared with the effectiveness of the defense mechanisms in order to determine the risk class. Furthermore, a quantitative value that illustrates the intensity of the event under consideration is allotted to each safety-related event as a result.

#### 8.3 Handling Risks

#### 8.3.1 "Red Risks"

Red risks cannot be tolerated under the given circumstances. The probability of occurrence and/or the extent of damage are so high that immediate measures to eliminate the risks or as a minimum to reduce them to an at least tolerable degree have to be initiated.

Suitable precautions have to be taken in order to

- Reduce the probability of occurrence of the risk and/or
- Reduce the possible impacts if a damage event were to occur.

Page 29/51

C Organization

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

If the risk cannot be eliminated or at least reduced to a level accepted by the responsible department management, if necessary in consultation with the EASA nominated persons, the trigger for the safety risk (e.g. process, plant operation, etc.) must be suspended.

If the risk can be reduced only to the tolerable range (yellow), the following process steps for "yellow risks" have to be implemented.

#### 8.3.2 "Yellow Risks"

Yellow risks have to be investigated by the relevant process owner/manager in cooperation with the SMS. They can be tolerated subject to reservations if the accepted level of risk is not exceeded.

The definition of the acceptable level of risk (ALOR) and the decision on how to handle the measure in the future are made by the process owner/manager, if necessary in consultation with the department management team and the EASA nominated persons. The investigation must be carried out within a time frame that is appropriate to the risk. Consideration of the risk in the predictive assessment by the SMS.

After the investigation has been concluded, the process owner/manager or the department management, if necessary in consultation with the EASA nominated persons, decides whether and which risk-mitigation measures should be implemented and at what expense. The investigation, the result and the well-founded decision based on the investigation as well as the implementation have to be documented and promptly reported to the SMS.

The SMS is also to be informed if no measures that reduce the safety risk to green are (can be) implemented after the investigation has been concluded. The same applies if the measures are not or cannot be implemented within a reasonable time frame.

#### 8.3.3 "Green Risks"

Green risks do not require any measures to be taken if there are no irregularities to be recorded.

In principle, the risk should be reduced as far as possible at reasonable expense in accordance with the ALARP principle.

An ALARP level means that a risk can then be classed as tolerable if the costs for further risk reductions are significantly higher than the costs that can be expected if the safety risk were to occur.

#### 8.3.4 Risk Mitigation

The tolerable level of risk is defined for each risk by the relevant department management, if necessary in consultation with the EASA nominated persons.

The process owners/managers are required to reduce the red operational risks at least to a yellow risk – if the risk is then lower than the acceptable level of risk defined by the department management team.

A risk-benefit analysis is permissible for the assessment of whether the benefits outweigh the residual risk for this purpose. These analyses have to be carried out and documented by the relevant process owners/managers. They are to be disclosed to the SMS/SRB upon request.

# 9. Monitoring of the Safety Performance

#### 9.1 Measurement of Target Attainment

The fulfillment of the targets set by the Executive Board and the EASA Accountable Manager (see chapter 5.2) is reviewed by the SMS and the results are reported to the Executive Board and the SRB.

In the event of serious and persistent deviations from the targets, advice on suitable countermeasures is provided by the SRB and proposed to the EASA Accountable Manager.

Regular communication on the attainment of targets is conducted by the EASA Accountable Manager with all organizations and persons involved in airport operations.

#### 9.2 Monitoring of the Safety Performance

The safety performance in handling airport operations is verified on the basis of the safety objectives that have been adopted and the requirements of the Safety Policy, as well as the evaluation in the Safety Review Board.

It is thus ensured that previously identified risks have actually been reduced after agreed measures have been implemented. If the assessments show that risks have not been appropriately reduced, the risk-mitigation strategies may have to be reviewed and adjusted.

The following serve as the basis for monitoring operational safety:

- The reporting on events relating to airport operations
- The SMS hazard register
- Risk assessments by the process owner
- Mandatory and voluntary safety reports
- Analyses
- Inspections and audits
- Safety investigations
- · Findings from committee meetings

Any trend in the development of operational safety can be identified by comparing the number of safety-related occurrences while taking traffic figures into consideration. Unusual clusters of events in the processes that are related to operational safety are identified on the basis of performance indicators.

The SSO can provide other evaluations regarding occurrence rates on request if these have recorded by the process owners/managers in the past and the data has been sent to the SMS.

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

# 10. Safety Reports

#### 10.1 Safety Reporting System

In order to promote safety at the airport and the safe use of its facilities, Fraport AG has set up a safety reporting system in accordance with Regulation (EU) No. 139/2014 that has to be applied by all persons and organizations that work or perform services at the airport.

The safety reporting system can be used for both mandatory and voluntary safety reports.

A safety report can be submitted (informally) to the SMS of Fraport AG through the following channels:

- By phone using the safety hotline: +49 69 690 2 44 44
- The website at www.fraport.com/SMS
- By e-mail to SMS@fraport.de
- By internal or normal mail to the SMS: Fraport AG, SMS, Letter Box No. 181/B004 60547 Frankfurt, Germany
- In person at the Safety Services Office: building 181, entrance B, level 8

The reports are recorded directly in the event database of the SMS and can be viewed only by the EASA Safety Manager and the SSO.

The EASA nominated persons can also be allowed to view the content of the report immediately if their viewing of the content is factually connected to the tasks and responsibilities that have been assigned to them. This protects the identity of the person filing the report.

The SMS will treat the safety reports in line with a "Just Culture Principle".

#### 10.2 Mandatory Safety Reports

The Fraport AG SMS and all organizations involved in airport operations are subject to reporting duties after safety-related incidents in connection with airport operations (including ground services) in accordance with Regulation (EU) No. 376/2014 and Commission Implementing Regulation (EU) No. 2015/1018 (Annex IV) and Regulation (EU) No. 139/2014. The Fraport AG SMS files these reports for Fraport AG and its subsidiaries.

All other companies must report these events to the responsible government agencies themselves. The deadline for reporting the events is 72 hours. In addition, Fraport AG must be informed immediately if such an event occurs.

A list of all parties with reporting obligations pursuant to Commission Implementing Regulation (EU) No 2015/1018 as well as the events that have to be reported to the competent authorities can be found in *Annex C: Reportable events*.

Technical malfunctions, breaches of technical system limitations, special safety-related events and irregular circumstances have to be reported by the office of the airport operator that is responsible for the system to the organization for the design of airport equipment (Regulation (EU) No 139/2014, Annex III, ADR.OR.C.030 b). A copy has to be sent to the SMS of the airport operator.

Furthermore, all accidents, damage events and damage to property have to be reported to the SLS in accordance with the Traffic Regulations of Fraport AG.

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

The Fraport AG SMS evaluates the reported event and, where applicable, conducts a reactive safety assessment with the participation of the process owner/manager.

#### 10.3 Investigation of reportable Incidents

Reportable events in accordance with Regulation (EU) No 376/2014 are analyzed by the SMS and investigated in more detail as required. All information, technical records and documentation are provided to the SMS for this purpose as part of the duties to participate in the SMS.

If necessary, the SMS interviews any people involved, their superiors or other process owners / parties involved in the process. Everyone who is interviewed is instructed that their statements are made in connection with an investigation and may be included in the report.

The SMS is not assigned to identify personal blame or to take part in the clarification of questions of fault after incidents and accidents have occurred. The investigation report does not contain any personal data.

The investigation of an incident by the SMS does not take the place of any investigations conducted by the German Federal Bureau of Aircraft Accidents Investigation (FBU) or other official bodies.

#### 10.4 Voluntary Safety Reports

Every employee at Frankfurt Airport has the opportunity – irrespective of their employer – to use the safety reporting system of Fraport AG to report information on safety-related events, hazardous situations in airport operations or suggestions for improving operational safety directly to the SMS of Fraport AG.

Voluntary safety reports can be made via all channels of the SMS (see section 10.110.1). They are generally treated confidentially and can be made anonymously.

Information from the voluntary reports are used exclusively to obtain information on potential hazards as well as to identify existing or possible safety problems.

Voluntary reports to the SMS do not result in any disciplinary measures against the person submitting the report in principle. Exceptions to this can exist in the event of criminal action on the part of the person submitting the report.

After a report has been received, it is promptly evaluated in terms of relevance for operational safety. It is also checked whether this or a similar incident has already been reported and whether an investigation and, if appropriate, corrective measures have been instituted.

The person who makes the report receives feedback on the receipt of their report as well as on the results of the analysis or investigation if this is possible and the report was not made anonymously.

The SMS reports regularly to the SRB on the voluntary reports that have been received and the measures that have been derived from them.

# 11. Continual Improvement of the Safety Management System

#### 11.1 Rights and Duties of the SMS

The safety management system is an important element for improving operational safety. In order to constantly improve the system, the SMS employs a continual improvement process.

As part of its tasks, the SMS is entitled to obtain information on all circumstances that are of importance for operational safety. The persons, divisions and companies concerned provide the SMS with the data necessary for this. All persons and organizations involved in airport operations must participate in the methods to improve operational safety described below and support the SMS of Fraport AG in the tasks that are assigned to it and in the fulfillment of its duties.

The SMS has to explain its procedures to the persons and organizations involved in the airport operations and is accountable to the EASA Accountable Manager and the SRB.

#### 11.2 Methods

The safety management system can achieve its desired effect only if all the processes that are material for operational safety are executed in application of the requirements derived from legal standards, the safety performance is monitored and identified weaknesses are rectified.

In order to fulfill its duties, the SMS can apply various methods to improve operational safety.

#### 11.2.1 Safety Reviews (Inspections)

Safety reviews are used to selectively review compliance with standards and requirements. Safety reviews can relate to processes, infrastructure and compliance with requirements. They help identify trends and directly improve operational safety.

If desired, all persons and organizations involved in airport operations can contact the SMS of Fraport AG to perform joint inspections.

#### 11.2.2 Safety Assessments

Safety assessments are carried out on a case-by-case and ad hoc basis, especially while systems and technologies are under development, before they are introduced or before changes to them are made as well as when processes are changed and/or new or amended processes are introduced.

They form part of the change management. The objective of a safety assessment is to evaluate the safety risks that are connected with the introduction of a system or process.

Planned changes are assessed in terms of the following questions:

- Have a hazard identification process and a safety risk assessment been conducted by the process owner/manager?
- Do the proposed changes contribute to minimizing the existing safety risks?
- Are new safety risks created by the change and how are these countered?
- Are the responsibilities clearly regulated and communicated?

Page 34/51

C Organization

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

- Does the operational personnel have the necessary competences?
- Will the changes be communicated to all agencies affected?
- Have continuity plans been drawn up for individual processors?

The answers to the above questions have to be entered in a form and added to the assessment process.

If the SMS does not have any safety concerns, this is documented by the EASA Safety Manager signing the signature page of process and operating instructions.

If the SMS does have safety concerns, a list with all the safety concerns is drawn up, which is sent to the process owner/manager and which should contain recommendations. This process is carried out informally, generally by e-mail, for practical operating reasons. These e-mails are documented and archived by the SMS.

It is the responsibility of the respective process owners/managers to dispel the concerns or to minimize the safety risks related to the changes. If necessary, a new safety assessment is carried out to identify and document a corresponding reduction in the safety risks.

#### 11.2.3 Safety Investigations

Safety investigations can also be necessary in other cases in addition to the analyses pursuant to Regulation (EU) No 376/2014.

The aim of the safety investigation is to identify hazards and weaknesses. The findings of the investigation are documented in a report. This is provided to the process owner/manager.

The findings should be prepared in such a way that they provide the process owner/manager with effective support in developing and implementing corrective measures, rectify or minimize the defects or weaknesses that have been discovered and prevent an event of this kind or a comparable event from being repeated.

The development and implementation of measures is the responsibility of the process owners/managers. These can request the SMS to arrange for a new investigation after the measures have been implemented.

#### 11.2.4 Safety Audits

An audit can be triggered by factors including findings by the SMS (e.g. trends identified during inspections), specific events or tasks of the EASA nominated persons.

Furthermore, audits can also be arranged by the EASA Safety Manager at the request of all organizations and persons involved in airport operations and the SRB. Processes, structures, technologies and procedures that affect operational safety can be audited.

As a matter of principle, audits are announced in a timely manner. Audits can be conducted without advance notice only in exceptional cases. If a process owner/manager refuses a planned audit, this is to be documented together with the reasons and reported promptly to the SRB by the SMS.

The audits are conducted and documented in a structured and verifiable way in accordance with current audit methods. The audit report is sent to the company/area under audit.

Audits can also be conducted jointly, for example with EASA Compliance Management. In this case, both areas agree on a lead auditor and on the aspects to be audited.

Page 35/51

C Organization

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

As part of the QM audits within the Fraport certification group, additional SMS aspects are also audited.

#### 11.3 Recommendations for Operational Safety

The EASA Safety Manager can issue recommendations for operational safety as a result of the activities performed by the SMS. These recommendations are addressed to the process owner/manager and can also be forwarded to the EASA Accountable Manager and, where appropriate, to the EASA nominated persons.

If the process owners/managers – and the company management, which has ultimate liability – do not follow a recommendation that has been issued, the EASA Safety Manager can demand that the company management provide a written presentation of the reasons why the recommendation has not been complied with.

#### 11.4 Just-Culture Principle

As set out in the Just Culture principle, the SMS does not carry out a clarification regarding any fault for the event. In due consideration of the German Data Protection Act (Datenschutzgesetz) and of the relevant work agreements, personal data is requested and used only insofar as this is necessary for the analyses.

# 12. Coordination of the Emergency Plan

The emergency plan regulates the responsibilities and also the processes for the coordinated handling of emergencies and irregular events at Frankfurt Airport.

The aim is to:

- · Prevent or minimize personal injuries and damage to property;
- Take control of an event as quickly as possible;
- Continue operations in a safe way;
- · Restore normal operating conditions.

The emergency plan and also the creation of the emergency plan are located within the Emergency Management at Fraport AG. This also involves discussions with third parties. As the operator of the SMS, the SSO plays a coordinating role here in ensuring that the emergency plan is continually developed and improved and also that the emergency plan of Frankfurt Airport is coordinated with other organizations that are involved.

The tasks involved in this coordination include:

- Regularly reviewing the structure of the emergency plan in terms of the delegated powers and the assigned responsibilities in emergencies;
- Ensuring coordination processes for key persons in an emergency and for the restoration of normal operations;
- Identifying external organizations that interact with the airport operator in emergencies in order to coordinate the relevant procedures;
- Develop new procedures as soon as new hazards have been identified by the safety management system.

Changes to the emergency plan and to the relevant procedures are discussed, agreed and assessed with the SMS as part of the coordination of the emergency plan. The EASA Safety Manager co-signs the emergency plan.

The following measures are taken by the SMS specifically:

- Regular meetings of the SMS with Emergency Management. The emergency situations that are newly identified in the course of the risk assessment or that were previously negligible are assessed in this process, among other things. Where necessary, these situations have to be planned and prepared for by the divisions concerned so that they can then be included in the emergency plan;
- Appointment of an emergency plan officer of the SMS in the Safety Service Office.
   This officer is directly involved in the creation and amendment of the emergency plan:
- The follow-up on real situations and events directly or indirectly related to airport
  operations can be triggered by the Safety Service Office if this has not already
  been initiated by the units concerned. It is not only situations and events occurred
  at Frankfurt Airport that have to be considered in this process, but insofar as this
  is possible and meaningful also those occurred at other Fraport Group
  companies or third parties.
- Training exercises in the emergency procedures have to be practiced on a regular basis in accordance with the statutory requirements. The training scenario is agreed with the SMS in advance. When developing training scenarios it is

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

important that consideration is given to the findings from previous exercises and from actual events as well as to parts of the emergency plan that have not been practiced for a long time.

- After a (sub) exercise, the SMS and Emergency Management conduct a joint
  assessment in respect of the relevant parts of the emergency plan for the aspects
  that are directly or indirectly related to airport operations.
- The findings from the follow-up / subsequent review are included in an optimized emergency plan (within the meaning of best practice and a continual improvement process). Changes to the emergency procedures have to be planned and prepared for by the divisions concerned if necessary so that they can then be included in the emergency plan.
- The SMS is involved in the performance of the exercises.

The aim of the coordination and also of the overall review of the emergency plan by the SMS is to ensure compliance with the international and national legal requirements as well as to implement "lessons learned". The continual development of the emergency plan with all the parties involved is an essential element of the coordination.

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

# 13. Safety Training

On the basis of the requirement in Regulation (EU) No 139/2014 (ADR.OR.D.017), Fraport AG has established a training program for the persons involved in the management, operation and maintenance of the airport as well as all unaccompanied persons who work within the movement areas or other operating areas of the airport (red and yellow ID cards).

The training serves to communicate the objectives and contents of the safety management system and also the duties to participate in it to the organizations and persons involved in airport operations. Training requirements are ensured by a multilevel training program. Compulsory participation is linked to membership of the organization and the function performed. Training is carried out in a multilevel system. Content meets the requirements of GM1.ADR.OR.D.005(b)(8).

## 13.1 Basic Safety Training

Basic safety training must be completely by all employees authorized to access the flight operations areas before the Airport ID Card is issued (see C4.3. ID Card Regulations, chapter 2.2.3). Training sessions use web-based training provided by Fraport AG. Training by third parties cannot be recognized on the basis of the requirements of Regulation (EU) No. 139/2014. The minimum requirements governing the contents of the training program correspond to the EASA requirements. The safety training describes the responsibilities related to operational safety, including compliance with all operating and safety procedures as well as the recognition and reporting of hazards.

Employees of organizations that do not satisfy the training obligation will be refused access to the flight operations areas after the expiry of a pre-defined period of time to complete the training required.

Basic safety training must be repeated every two years. Fraport AG will inform employees of this in a timely manner before the validitiy of their last training session expires.

## 13.2 Advanced Safety Training

Additional SMS advanced training is required for managers at Fraport AG and subsidiaries (majority-owned affiliated companies) based at FRA who are responsible for airport operations processes. All executives (levels 1–5 and team leaders) of Fraport AG and the comparable executives at its majority-owned affiliated companies at Frankfurt Airport who are responsible for airport operations processes are required to undergo the Advanced SMS Training I. The Advanced SMS Training I is also provided as part of an e-learning program.

All executives (levels 1–2) of Fraport AG and comparable positions as well as managing directors at its majority-owned affiliated companies at Frankfurt Airport who are responsible for airport operations processes are required to undergo the Advanced SMS Training II.

The Advanced SMS Training III is intended for the Accountable Manager of Fraport AG at Frankfurt Airport and is carried out by an external provider.

Page 39/51

C Organization

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

# 13.3 Safety Refresher Training

In accordance with Regulation (EU) No. 139/2014 in the version amended by Regulation (EU) No. 2020/2148, personnel who have been continuously absent for three months must undergo refresher training, while initial training must be repeated in the event of an absence of more than 12 consecutive months before authorization to access flight operations areas can be renewed (see C4.3. ID Card Regulations, chapter 2.2.3). Both qualifications must be acquired by repeating the basic SMS training.

The employer must request access data for the WBT of Fraport AG at <u>Safety-Schulung@fraport.de</u> or at the Airport ID Card Service Center (SCF).

The employers must ensure that there is no unaccompanied access to flight operations areas until the basic SMS training has been repeated.

Repeating the basic SMS training due to an absence of more than three months does not affect the period for regular repeat training.

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

# 14. Safety Communication

The SMS uses various communication channels to actively convey the objectives and procedures of the SMS to all persons and organizations involved in airport operations. The goal is to communicate safety-critical information and convey the background to why certain measures are instituted and why safety procedures are introduced. All persons and organizations involved in airport operations must keep themselves informed of the objectives, procedures and requirements of the SMS.

# 14.1 SMS Regulation

All key elements of the SMS are detailed in the SMS Regulation. It specifies key responsibilities in relation to operational safety.

#### 14.2 Website

The SMS operates web pages on the Fraport and Group intranet. Employees of Fraport AG and its subsidiaries can find more extensive information here on the safety management system and safety-related incidents.

General information on the safety management system, including a description of the SMS reporting system, can be found on the Fraport AG Group website at www.fraport.com/sms.

#### 14.3 Safety News

Moreover, safety news is regularly published on the central news site.

The SMS ensures that managers and employees of both Fraport AG and its subsidiaries as well as of third parties are made aware of the hazards and risks that exist in handling airport operations through a variety of media (including SMS websites and SMS posters) and are also introduced to avoidance strategies.

## 14.4 Key Safety Figures

The Fraport AG SMS provides selected key figures on operational safety to all persons and organizations involved in airport operations upon request

# 15. Output of the Safety Management System

The output of the safety management system can be summarized as follows:

### 15.1 Safety Policy and Objectives

The SMS develops, publishes and promotes the Safety Policy of Fraport AG.

The SMS additionally provides support for the senior management in the definition of the safety objectives. The SMS measures the attainment of targets and conducts a variance analysis when necessary.

The Safety Policy and Safety Objectives are binding for all persons and organizations involved in airport operations.

# 15.2 Coordination of the Emergency Plan

In relation to the emergency plan of Fraport AG, the SMS plays a coordinating role in ensuring that the emergency plan is continually developed and improved and also that the emergency plan of Frankfurt Airport is coordinated with other organizations that are involved.

## 15.3 Risk Management

The SMS lays down the system for identifying and assessing risks. In addition, how the risks of the respective risk classes are expected to be handled is also defined.

The SMS of Fraport AG provides support to all persons and organizations in all relevant aspects of the safety management system.

## 15.4 Change Management

The SMS of Fraport AG operates a change management process in order to identify and assess safety-related changes in advance.

Change management includes changes to processes and infrastructure that are relevant to airport operations. The relevant infrastructure is listed in the Rules of Procedure for nominated persons, which can be viewed in the Fraport AG aerodrome manual and on the intranet (for Fraport AG employees only).

### 15.5 FOD Control Program

The Safety Services Office is responsible for Fraport AG's FOD control program.

The program is described in the document "FOD Management@FRA (8.1. SMS 5.2 for SMS Regulation of Fraport AG C.4.6) and can be viewed on the SMS website (fraport.com/SMS).

All persons and organizations involved in airport operations must conduct themselves in accordance with the principles of the program.

#### 15.6 Safety Reporting System

The SMS of Fraport AG has set up a reporting system that is intended to be used by all persons and organizations to submit safety reports.

Page 42/51

C Organization

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

## 15.7 Analysis of Incidents

The SMS of Fraport AG conducts investigations into safety-related incidents on the basis of Regulation (EU) No 376/2014 or on the instruction of the EASA Safety Manager. The key results are presented during the meetings of the SRB.

# 15.8 Improvement of Operational Safety

The SMS monitors the contributions made by persons and organizations to operational safety. This forms the basis for identifying possible trends or problem areas and any necessary programs for enhancing safety.

# 15.9 Promoting Operational Safety

In order to promote operational safety, the SMS ensures that the necessary SMS training programs are carried out for Fraport AG and third parties and that inadequately trained employees are not issued an airport ID card for the flight operations areas.

The SMS regularly provides information about safety-related aspects of the airport operations on an ad hoc basis and by reference to the relevant issues. This includes changes to the Safety Policy and the safety objectives, the attainment of targets, hazards that have been identified and safety performance.

# 15.10 Further Developing the Safety Management System

In summary, the aim is to constantly enhance operational safety by continually improving the safety management system. The procedures, investigations and audits, etc., described in this regulation are used for this purpose.

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

# **Annexes**

# Annex A: Nominated Persons at Fraport AG

The following persons have been appointed as nominated persons by the Executive Board of Fraport AG in accordance with section 1.4 of the rules of procedure:

- Alexander Laukenmann, AVN, EASA Accountable Manager in accordance with ADR.OR.D.015(a)
- Dr. Daniel Kösters, AVN-EM, EASA Operations Manager pursuant to Regulation (EU) No 139/2014 Annex III ADR.OR.D.015(b)(1)
- Patrick Spijkers, AVN-AR, EASA Maintenance Manager pursuant to Regulation (EU) No 139/2014 Annex III ADR.OR.D.015(b)(2)
- Boris Wilke, AVN-EM, EASA Maintenance Manager pursuant to Regulation (EU) No 139/2014 Annex III ADR.OR.D.015(b)(11)
- Martin Bülow, AVN-EM, EASA Safety Manager pursuant to Regulation (EU) 139/2014 Annex III ADR.OR.D.015(c)

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

# Annex B: Safety Objectives of Fraport AG

The safety objectives (SKPI: Safety Key Performance Indicator) of Fraport AG for <u>2023</u> were proposed by the Safety Review Board on April 24, 2023, and adopted by the Executive Board of Fraport AG on May 09, 2023.

The SKPIs are based on the German State Safety Program published in May 2020 and cover the following occurrences:

- (1) Runway incursions
- (2) Runway excursions
- (3) Accidents / serious incidents with moving aircrafts (Accidents according to Regulation (EU) No 996/2010), aircraft damage during taxi, severe incidents with towed aircrafts
- (4) Severe near misses during taxiing and push backs
- (5) Severe aircraft damages during ground handling caused by airport staff

The SKPIs for 2023 have been defined as followed:

- (1) Runway Incursions: <u>0.215</u> per 10,000 movements
- (2) Runway Excursions: Maintain the very high safety standard
- (3) Accidents / serious incidents with taxiing aircraft: 0.335 per 10,000 movements
- (4) Severe near misses during taxiing and push backs: 1.850 per 10.000 movements
- (5) Severe aircraft damages during ground handling: 0.560 per 10.000 movements

They apply for all persons and organizations involved in airport operations.

# Annex C: Reportable events

The following events in connection with airports and ground services have to be reported in accordance with Regulation (EU) No 376/2014 and Commission Implementing Regulation (EU) 2015/1018 Annex IV (the Commission Implementing Regulation as currently amended applies) if they might represent a significant risk to aviation safety:

### SAFETY MANAGEMENT OF AN AERODROME

- 1.1. Aircraft- and obstacle-related occurrences
- (1) A collision or near collision, on the ground or in the air, between an aircraft and another aircraft, terrain or obstacle (including vehicles)
- (2) Wildlife strike including bird strike
- (3) Taxiway or runway excursion
- (4) Actual or potential taxiway or runway incursion
- (5) Final Approach and Take-off Area (FATO) incursion or excursion
- (6) Aircraft or vehicle failure to follow clearance, instruction or restriction while operating on the apron or maneuvering area of an aerodrome (for example: wrong runway, taxiway or restricted part of an aerodrome)
- (7) Foreign object on the apron or maneuvering area which has or could have endangered the aircraft, its occupants or any other person
- (8) Presence of obstacles on the aerodrome or in the vicinity of the aerodrome which are not published in the AIP (Aeronautical Information Publication) or by NOTAM (Notice to Airmen) and/or that are not marked or lighted properly
- (9) Push-back, power-back or taxi interference by vehicle, equipment or person
- (10) Passengers or unauthorized person left unsupervised on apron
- (11) Jet blast, rotor down wash or propeller blast effect
- (12) Declaration of an emergency ('Mayday' or 'PAN' call)
- 1.2. Degradation or total loss of services or functions
- (1) Loss or failure of communication between:
  - (a) aerodrome, vehicle or other ground personnel and air traffic services unit or apron management service unit;
  - (b) apron management service unit and aircraft, vehicle or air traffic services unit
- (2) Significant failure, malfunction or defect of aerodrome equipment or system which has or could have endangered the aircraft or its occupants
- (3) Significant deficiencies in aerodrome lighting, marking or signs
- (4) Failure of the aerodrome emergency alerting system
- (5) Rescue and firefighting services not available according to applicable requirements
- 1.3. Other occurrences

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

- (1) Fire, smoke, explosions in aerodrome facilities, vicinities and equipment which has or could have endangered the aircraft, its occupants or any other person
- (2) Aerodrome security related occurrences (for example: unlawful entry, sabotage, bomb threat)
- (3) Absence of reporting of a significant change in aerodrome operating conditions which has or could have endangered the aircraft, its occupants or any other person
- (4) Missing, incorrect or inadequate de-icing/anti-icing treatment
- (5) Significant spillage during fueling operations
- (6) Loading of contaminated or incorrect type of fuel or other essential fluids (including oxygen, nitrogen, oil and potable water)
- (7) Failure to handle poor runway surface conditions
- (8) Any occurrence where the human performance has directly contributed to or could have contributed to an accident or a serious incident

#### **GROUND HANDLING OF AN AIRCRAFT**

### 2.1. Aircraft- and aerodrome-related occurrences

- (1) A collision or near collision, on the ground or in the air, between an aircraft and another aircraft, terrain or obstacle (including vehicles)
- (2) Runway or taxiway incursion
- (3) Runway or taxiway excursion
- (4) Significant contamination of aircraft structure, systems and equipment arising from the carriage of baggage, mail or cargo
- (5) Push-back, power-back or taxi interference by vehicle, equipment or person
- (6) Foreign object on the aerodrome apron or maneuvering area which has or could have endangered the aircraft, its occupants or any other person
- (7) Passengers or unauthorized person left unsupervised on apron
- (8) Fire, smoke, explosions in aerodrome facilities, vicinities and equipment which has or could have endangered the aircraft, its occupants or any other person
- (9) Aerodrome security related occurrences (for example: unlawful entry, sabotage, bomb threat)

# 2.2. Degradation or total loss of services or functions

- (1) Loss or failure of communication with aircraft, vehicle, air traffic services unit or apron management service unit
- (2) Significant failure, malfunction or defect of aerodrome equipment or system which has or could have endangered the aircraft or its occupants
- (3) Significant deficiencies in aerodrome lighting, marking or signs
- 2.3. Ground handling specific occurrences

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

- (1) Incorrect handling or loading of passengers, baggage, mail or cargo, likely to have a significant effect on aircraft mass and/or balance (including significant errors in loadsheet calculations)
- (2) Boarding equipment removed leading to endangerment of aircraft occupants
- (3) Incorrect stowage or securing of baggage, mail or cargo likely in any way to endanger the aircraft, its equipment or occupants or to impede emergency evacuation
- (4) Transport, attempted transport or handling of dangerous goods which resulted or could have resulted in the safety of the operation being endangered or led to an unsafe condition (for example: dangerous goods incident or accident as defined in the ICAO Technical Instructions (Doc 9284))
- (5) Non-compliance on baggage or passenger reconciliation
- (6) Non-compliance with required aircraft ground handling and servicing procedures, especially in de-icing, refueling or loading procedures, including incorrect positioning or removal of equipment
- (7) Significant spillage during fueling operations
- (8) Loading of incorrect fuel quantities likely to have a significant effect on aircraft endurance, performance, balance or structural strength
- (9) Loading of contaminated or incorrect type of fuel or other essential fluids (including oxygen, nitrogen, oil and potable water)
- (10) Failure, malfunction or defect of ground equipment used for ground handling, resulting into damage or potential damage to the aircraft (for example: tow bar or GPU (Ground Power Unit))
- (11) Missing, incorrect or inadequate de-icing/anti-icing treatment
- (12) Damage to aircraft by ground handling equipment or vehicles including previously unreported damage
- (13) Any occurrence where the human performance has directly contributed to or could have contributed to an accident or a serious incident

# Annex D: List of the Valid Process Instructions

Note: This private annex is applicable only to employees of Fraport AG.

The SMS of Fraport AG works on the basis of the processes presented in the table. The form and entry into force are based on the requirements of the quality management system of Fraport AG. The table also shows which individual processes are relevant for which chapter of the SMS Regulation.

Aufstellung der für das Safetymanagement System gültigen Prozessanweisungen						Stand: 14.06.2022											
Nummer	Thema		Gültig ab	Version				Ť		//S Ordnung 10 11 12 13 14 15							
8.1SMS.1.1	Überwachung der Zielwerte für die betriebliche Sicherheit bei alternativer Nachweisführung in	gültig	15.06.2022	5	1	2	3 4	5	6	7 x	8	9	10	11 12	! 13	14	15
8.1SMS.1.2	der Zertifizierung  Weiterentwicklung, Veröffentlichung und Bewerbung der Safety Policy	gültig	15.06.2022	5		t		×				1	1		t	H	
8.1SMS.1.3	Reaktive Identifikation von Gefährdungen in der Flughafenbetriebsabwicklung	gültig	15.06.2022	6							x	_	x		t	H	
8.1SMS.1.4	Notfalleinsätze nachbereiten	gültig	01.01.2020	1			t					1	1	×	t	H	
8.1SMS.1.6	Überwachung, Messung und Kommunikation der betrieblichen Sicherheitsleistung	gültig	15.06.2022	5		+	x		x			x		+	+	x	x
8.1SMS.1.7				1			^		<u> </u> ^			^			+	_	_
	SMS Basisschulung für alle Mitarbeitenden	gültig	01.07.2017			+	+					-			х	H	
8.1SMS.1.8	SMS Aufbauschulung I für Führungskräfte	gültig	01.07.2017	1			+					-			х	L	
8.1SMS.1.9	SMS Aufbauschulung II für Führungskräfte	gültig	01.07.2017	1			-					_			х	L	
8.1SMS.1.10	SMS Aufbauschulung III für Führungskräfte	gültig	01.07.2017	1											х	L	
8.1SMS.1.11	SMS-Sicherheitsstudien erstellen	gültig	15.06.2022	5										×	L	L	
8.1 SMS 1.12	Aus- und Weiterbildung EASA Safety Manager und Mitarbeiter des Safety Service Office (SSO)	gültig	15.12.2018	1			(										
8.1SMS.1.13	Sicherheitsaudits durchführen	gültig	01.02.2018	3								x		x			
8.1SMS.1.14	Safety Inspektion durchführen	gültig	01.02.2018	4								x		x			
8.1SMS.1.16	Sicherheitsuntersuchungen anordnen und durchführen	gültig	15.06.2022	4			х					х		x			
8.1SMS.1.17	Sicherheitsempfehlungen aussprechen	gültig	15.06.2022	5			х							x	Ī		
8.1SMS.1.18	Änderungsmangement für Betriebsabläufen, Infrastruktur, Technik und Organisation, soweit für die betriebliche Sicherheit erheblich	gültig	15.06.2022	5						х					T	Ī	
8.1SMS.1.20	Veröffentlichung von Themen	gültig	01.02.2018	3												х	
8.1SMS1.25	Runway Safety Team einrichten und betreiben	gültig	15.06.2022	4			х								T	Г	
8.1SMS1.26	Ramp Safety Committee einrichten und betreiben	gültig	15.06.2022	4			х								T	Г	
8.1SMS1.27	Safety Review Board (SRB) einrichten und betreiben	gültig	15.06.2022	5			x								T	Ī	
8.1SMS.1.30	Reaktive Sicherheitsbewertung (SIRA-Methodik) durchführen	gültig	01.02.2018	4							х			x			
8.1SMS.1.31	Reaktive Sicherheitsbewertung (ERC-Methodik) durchführen	gültig	01.02.2018	5							x			x	Ī		
8.1SMS.1.32	Vorausschauende und vorhersagende Sicherheitsbewertung durchführen	gültig	15.06.2022	6							x			x			
8.1SMS.1.33	Vorausschauende und vorhersagende Identifikation von Gefährdungen	gültig	15.06.2022	5							х	T	T	x			
8.1SMS.1.41	Sicherheitsmeldung und verpflichtende Ereignismeldung	gültig	07.05.2019	6									х		Ī	Ī	
8.1SMS.1.43	Messung der Sicherheitsleistung durch Sicherheitsindikatoren	gültig	15.06.2022	5			T	x				x	1		T	T	

The current overview of the processes, the process map as well as the process instructions themselves can also be viewed on the intranet of Fraport AG under "My workplace – Knowledge – Management systems – 8.1 Fraport AG – 8.1S Safety Management".

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

# List of Abbreviations

Abbreviation	Definition
ADREP	Accident / Incident Data Reporting System
AFO	Allgemeine Flughafenordnung – General Airport Regulations
AIP	Aeronautical Information Publication (aerodrome manual)
ALARP	As Low As Reasonably Practicable
ALOR	Acceptable Level of Risk
ALOS	Acceptable Level of Safety
ARMS	Airlines Risk Management Solutions (Working Group)
BFU	Bundesstelle für Flugunfalluntersuchung – German Federal Bureau of Aircraft Accident Investigation
CIP	Continual Improvement Process
COR	Construction and Obstacle Routine
Doc.	Document
EASA	European Aviation Safety Agency
EPR	Emergency Planning Routine
ERC	Event Risk Classification
EU	European Union
FBO	Flughafen Benutzungsordnung – Airport User Regulations
ICAO	International Civil Aviation Organisation
ISO	International Organization for Standardization
MSF	Form
RWST	Runway Safety Team
SAG	Safety Action Group
SIRA	Safety Issue Risk Assessment
SLS	Safety and Security Control Center
SRB	Safety Review Board
SKPI	Safety Key Performance Indicator
SMM	Safety Management Manual
SMS	Safety Management System
SSO	Safety Service Office
WBT	Web-Based Training
WCC	FRA Airport Wildlife Control Committee

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

# **Definitions**

## **Safety Management System:**

The Safety Management System (SMS) describes a systematic procedure for handling (operational) safety, including the necessary organizational structure, responsibilities, guidelines and processes.

All organizations and persons involved in airport operations form part of this management system.

# Operational safety (in the following: safety):

Operational safety is the protection of airport operations against potential risks of an operational and technical nature.

The aim of the safety management system of Fraport AG is to provide process owners/managers with support in guaranteeing the operational safety and the implementation of safe airport operations at Frankfurt Airport.

As defined by ICAO (ICAO Doc. 9859, SMM III, chapter 1.1.1), safety describes a state in which the probability 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.

## **Hazard**

Based on the definition by ICAO (ICAO Doc. 9859, SMMIII, chapter 1.1.12), a hazard is a condition or a circumstance with the potential to cause death and/or personal injuries, destroy or damage equipment or facilities, cause damage to property, and/or reduce safety margins present in the system, and/or negatively impact the functionality of a complete system.

Hazards are component parts of every production or service company. When viewed in isolation, hazards do not have to result in risks, and risks also do not necessarily lead to damage or adverse impacts on the operations.

Safety risks may only arise if hazards coincide with operations handling.

#### Risk

Based on the definition by ICAO (ICAO Doc. 9859, SMMIII, chapter 1.1.14), risk is the product of the predicted probability of occurrence and the consequences or severity of an event upon the occurrence of the impact.

#### Acceptable Level of Risk (ALOR)

Not every risk that is identified needs a related risk measure. Which risks have to be actively dealt with and minimized and the definition of the acceptable level of risk is laid down for each organization by the head of department who is responsible on the basis of the applicable executive organization chart, if necessary in consultation with their relevant

Page 51/51

C Organization

C4 Aviation & Airport Security

C4.6 SMS Regulation of Fraport AG and FRA-Vorfeldkontrolle GmbH

superiors and the nominated persons appointed by the airport operator in accordance with Regulation (EU) No 139/2014 (referred to in the following as EASA nominated persons).

Possible parameters for determining an acceptable level of risk can include:

- Possible damage in the event of an incident;
- · Possible impacts in the event of an incident;
- Probability of occurrence;
- The ratio of expected damage to the costs of a risk measure;
- The criticality of the change or new implementation.