



# PG-EM-EK-001 SAFETY MANAGEMENT MANUAL

Prepared By/Written/Created By	Checked By	Approved By
Safety & ERP Senior Specialist	DCMM Approval Team OCMM Approval Team	Chief Safety and Security Officer CEO

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## ABBREVIATIONS

No abbreviations found.



## TR DGCA APPROVAL PAGE



**SİVİL HAVACILIK GENEL MÜDÜRLÜĞÜ**  
DIRECTORATE GENERAL OF CIVIL AVIATION

**ONAY SERTİFİKASI**  
APPROVAL CERTIFICATE

**SAFETY MANAGEMENT SYSTEM (SMS) MANUAL**  
**PEGASUS HAVA TAŞIMACILIK A.Ş.**  
PEGASUS

Revision Date : 17.05.2024      Revision No : 9

*This Safety Management Manual has been evaluated and inspected in accordance with SHT-SMS, SHT-ORA and SHT-OPS Instructions and approved by the Turkish DGCA*

Approved By:  Musa ARDOĞAN Head Of Airworthiness Department	Approved By:  Ayhan ERDOĞAN Head Of Flight Operations Department
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Approval Date  
07/06/2024

 e-İmzalıdır

  
T.C. ULAŞTIRMA VE  
ALTYAPI BAKANLIĞI



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End of Section

## 0 ADMINISTRATION AND CONTROL OF THE MANUAL

### 0.1 INTRODUCTION

The Safety Management Manual of Pegasus Airlines is hereby established, and hereafter is referred to as "SMM". All personnel shall conform to the provisions contained within this manual. The SMM is the key instrument for communicating the approach to safety for the whole of the organization and it documents all aspects of SMS, including the safety policy, objectives, procedures and individual safety responsibilities.

The SMM is maintained by the Chief Safety and Security Office. Pegasus Airlines may be referred as "The Company" throughout the manual.

The SMM complies with;

ICAO Annex 13,

ICAO Annex 19,

ICAO Doc 9803,

EASA regulations and directives,

SHT-SMS, SHT-FDM, SHT-OLAY and the relevant Turkish Civil Aviation regulations,

IOSA Standards Manual.

European aviation safety legislation (EU) 965/12 as amended by Regulation (EU) 2018/1042, the CAT.GEN.MPA.215 (Support Programmes) and AMC's related to this amendment, TDGCA regulation under the SHT-PSP and SHT-APAM.

### 0.2 RESPONSIBILITY

The Safety Manager is responsible for the overall control of the Safety Management Manual. The Safety Manager will authorize the content and the issue of amendments and revisions and will be responsible for recording the issue, production and distribution of amendments/revisions and amendment instructions to all manual holders.

### 0.3 SAFETY MANAGEMENT MANUAL COMPLIANCE STATEMENT

It is important to check all related documents in order to ensure compatibility between company documents when the SMM is revised. The Chief Safety and Security Office is responsible to ensure compliance of documents with two methods during the SMM revision. As stated in the PG-DU-EK-001 Documentation System Manual, when the documents are revised in Comply365 documentation system, reusable content should be used. If the document is in the TR-DGCA Manual Revision System, the Department Document Responsible revises the document online via this system and initiates the approval process. Revision of Reusable Content; some content needs to be used in multiple documents, in which case this content is set as reusable in source documents for use in other documents. When any change needs to be applied to the reusable content, the affected documents are revised and prepared as 'Temporary Revision' for documents requiring authority approval. For documents requiring internal approval, they are prepared as the next major revision.

Ensuring and maintaining the regulatory compliance of the SMM is also the responsibility of the Chief Safety and Security Office. SMM and other documents of the Chief Safety and Security Office (policy, procedure, instruction, form, etc.) are continuously reviewed to ensure compliance with the following regulations.

ICAO Doc 9859 Fourth Edition, ICAO Annex 13, ICAO Annex 19, ICAO Doc 9803, EASA regulations and directives, SHT-SMS, SHT-FDM, SHT-OLAY and the relevant Turkish Civil Aviation regulations and IOSA Standards Manual.

## 0.4 SYSTEM OF AMENDMENTS AND REVISIONS

Safety Management Manual (SMM) will be reviewed, updated and revised to ensure validity of its contents and documentation. To ensure the validity of the contents and documentation of this manual, an e-mail is sent automatically through the Comply365 system once a year in order to review all documents. Refer to PG-DU-EK-001 numbered "Documentation System Manual" for further details. This manual is published and distributed in electronic or hard copy format according to the distribution list by the Chief Safety and Security Office. Revisions are numbered and dated. Manual distribution is carried out via the Comply365 Documentation system; therefore, revision of information of in the manual is sent automatically to all company personnel as mail and recipients can access the manual via Comply365 at any time. Revisions are recorded on the revision record page.

In case of revision of documents as temporary revision, revised pages/chapters shall be distributed to the relevant departments in accordance with the determined distribution list in each document within 15 days of Temporary Revision date via Comply365. The temporary revisions become effective when the amendment is received by the holder via Pegasus. For detailed information on the publication, distribution and use of documents, please refer to the PG-DU-EK-001.

The holder of the manual is responsible for ensuring the prevention of any unintended use of an obsolete document.

## 0.5 ABBREVIATIONS

ASR	: Air Safety Report
ATC	: Air Traffic Control
ATCO	: Air Traffic Controllers
ATS	: Air Traffic Service
EASA	: European Aviation Safety Agency
EFB	: Electronic Flight Bag
ERP	: Emergency Response Program
FDA	: Flight Data Analysis
FDM	: Flight Data Monitoring
F/O	: First Officer
ICAO	: International Civil Aviation Organization
IMS	: Integrated Management System
IQSMS	: Integrated Quality and Safety Management System
LOSA	: Line Operations Safety Audit
MOR	: Mandatory Occurrence Report
IOCC	: Integrated Operations Control Centre
QDMS	: Quality Document Management System
SAG	: Safety Action Group
SDM	: Safety Department Meeting
SOM	: Safety Occurrence Meeting
SME	: Subject Matter Expert
SMS	: Safety Management System
SPARC	: Safety Performance Analysis Results of Captains
SIRA	: Safety Issue Risk Assessment
SRB	: Safety Review Board

SRM : Safety Risk Management  
SVP : Senior Vice President  
T-DGCA : Turkish Directorate General Civil Aviation  
TOSHID : Turkey Private Sector Aviation Operators Association  
TRI : Type Rating Instructor

## 0.6 SUMMARY OF CHANGES

Chapter	Change Summary
All	The name of the department has been changed to Chief Safety and Security Office.
All	Safety Manager title was changed to Chief Safety and Security Officer. The abbreviation of the new title has been changed to CSSO.
All	SMS Manager title has been changed to SMS Senior Manager.
All	The relevant parts of the manual have been revised to be Comply365 as the new documentation system.
All	The name of OCC department has been changed to IOCC.
0.3	Details about the features of Comply365 have been added to ensure compatibility between documents.
0.4	Important information on temporary revision and distribution lists of documents are indicated with reference to the Documentation System Manual.
2.2	General information about the new documentation system Comply365 was given.
2.6	The information in the table relevant with risk areas has been revised taking into account the current information.
2.9	In the Alert Level Setting section, the levels that were MDN +/- SD have been changed to AVG +/- SD, that is, the average of the values instead of the Median average.
2.9	SPIs and SPTs were also raised at the SRB meetings.
3.1	Nominated persons definition has been changed, Senior Management Level, Management Level and Non-Management Level definitions have been added. Corporate Manual numbered PG-YO-EK-001 is referenced.
3.1	PG-IK-BK-001 Board Organization Chart has been revised.
3.2	PG-YO-YN-011 has been revised and simplified to comply with the "Delegation Regulation".
3.3	PG-IK-BK-002 Chief Safety and Security Office Organization chart has been changed.
3.4.1	Accountable Executive Job Description has been changed.
3.4.3	Chief Safety and Security Officer Job Description has been changed.

3.4.3.12 3.4.3.13 3.4.3.14	Peer Pilot Group Representative, Peer Pilot and Safety Management System Leader CAMO&145 job descriptions have been added.
4.1	Definitions of risk analysis, risk assessment and risk management have been changed.
4.2.3	It is stated that the inspections will be carried out by the Compliance Monitoring Department on behalf of the Chief Safety and Security Office.
4.3	A note has been added to explain that the matrix used on the FRMS side is different from the matrix used on the SMS side.
4.4	It is stated that the Risk Analysis form numbered PG-EM-FR-049 is not used and risk analysis studies are conducted through the IQSMS system.
4.2.5.2	Information on data capture rate has been added.
4.7	It was stated that risk analysis and MOC studies are carried out through the IQSMS system and should be recorded as Risk Register. It was informed that the use of digital file will continue only for Risk picture.
4.10	NP Flight Operations and NP Ground Operations have changed their responsibilities regarding risk tolerability.
4.12	Information was provided regarding the Risk Management Procedure numbered PG-EM-PR-010.
4.13	Record Keeping List has been prepared.
5.1	In the Alert Level Setting section, the levels that were MDN +/- SD have been changed to AVG +/- SD, that is, the average of the values instead of the Median average.
5.3	The processes related to Management of Change have been changed to be managed through IQSMS.
5.3	In the New Destination Risk Management Study section, the Remote New Destination Checklist has been removed and only the New Destination Checklist numbered PG-EM-FR-001 is specified. Changes have been made to the relevant SMEs and some relevant points of the New Destination process.
6.2	Safety Communication methods and details have been added related with External Service Providers.
6.3.2	The monitoring process of operational departments safety trainings has been changed.
6.3.3	The monitoring process of management personnel recurrent training has been specified.
6.3.4	The monitoring process of Accountable Executive recurrent training has been specified.
6.3.5	The monitoring process of Safety Advisors recurrent training has been specified.
6.3.6	The monitoring process of Chief Safety and Security Office Personnel recurrent training has been specified.

6.6	The monitoring process of External service provider safety trainings has been specified.
6.7.3 All	Risk Workshop meetings have been removed.
6.7.4	SAG participants have been changed, the agenda has been slightly modified and a clarification on meeting frequency has been added.
7.1	Using form list has been revised.
7.1.1	Safety forms have been revised.

## 0.7 APPLICABILITY

This SMM is applicable to all company employees.

It is the responsibility of all employees throughout the organisation to comply with the applicable laws, regulations and procedures in all locations where operations are conducted.

## 0.8 RECORD OF REVISIONS

Revision No	Revision Date
0 (old system)	11.07.2011
1 (old system)	01.08.2012
2 (old system)	26.06.2014
3 (old system)	31.03.2016
0	28.06.2017
1	05.09.2017
2	16.03.2018
2.01 (Temporary Revision)	22.06.2018
3	04.01.2019
3.01 (Temporary Revision)	18.02.2019
4	19.08.2019
5	07.09.2020
5.01 (Temporary Revision)	25.01.2021
6	14.07.2021
6.01 (Temporary Revision)	27.09.2021
6.02 (Temporary Revision)	09.10.2021
6.03 (Temporary Revision)	21.01.2022
7	25.05.2022
7.01 (Temporary Revision)	15.06.2022



8	10.06.2023
9	07.06.2024

## 0.9 TEMPORARY REVISION RECORDS

A temporary or supplementary information, instruction or directive shall be published, when the content:

- Is of a temporary nature,
- Requires immediate publication prior to a standard amendment,
- Is miscellaneous in character,
- Is too voluminous to be incorporated into the Manual,

Temporary revised documents are valid for maximum 12 months. The changed sections will be sent to the TR-DGCA for approval until the end of this period. A temporary revision shall be effective until a new main revision of the manual or superseded by a new temporary revision on the related section.

In case of revision of documents as temporary revision, revised pages/chapters shall be distributed to the relevant departments in accordance with the determined distribution list in each document within 15 days of Temporary Revision date via Comply365. The temporary revisions become effective when the amendment is received by the holder via Pegasus. Temporary revisions to the page/section background to draw the attention of the end user by the system is displayed in color. For detailed information on the publication, distribution and use of documents, please refer to the PG-DU-EK-001.

## 0.10 DISTRIBUTION LIST

SMM Recipients		Version			
Electronic Copies	Turkish DGCA	Turkish DGCA	Web Based	Manual	System
	Accountable Executive	Comply365	Document	Management	System
	Chief Operations Officer	Comply365	Document	Management	System
	Nominated Persons	Comply365	Document	Management	System
	Chief Safety and Security Officer (Safety Manager)	Comply365	Document	Management	System
	All Company Personnel	Comply365	Document	Management	System
	Subsidiary Company (if required)	Comply365	Document	Management	System
	Flight Safety File Master	Controlled	Soft Copy	Turkish DGCA	Approved
	Comply365 Documents	Approved Master Soft Copy			

End of Section

## 1 SAFETY MANAGEMENT SYSTEM

### 1.1 SAFETY POLICY

PG-EM-PO-001

We believe that Safety Management System can only be obtained with the participation of all employees. All levels of management and all employees are responsible for the delivering of this highest level of safety performance, starting with the CEO. Senior Management continually promote the safety policy to all personnel and demonstrate their commitment to it, provide necessary human and financial resources for its implementation and establish safety objectives and performance standards.

Our commitment is to:

**Support** the management of safety with the provision of all appropriate resources that will result in an organizational culture that fosters safe practices, encourages effective safety reporting and communication.

**Encourage** the management of safety as a primary responsibility of all managers and employees.

**Clearly define** for all staff including managers and employees, their responsibilities for the delivery of the organization's safety performance and the performance of the safety management system.

**Establish and operate** hazard identification and risk management processes that views all risks together in a way that can present the result holistically, support decision-making and deploy the resources needed to mitigate risks effectively.

**Implement** "Just Culture" and ensure that no action will be taken against any employee who discloses safety concern through the hazard reporting system, unless such disclosure indicates, beyond any reasonable doubt, an illegal act, gross negligence, or a deliberate or wilful disregard of regulations or procedures which are considered as unacceptable behaviours. Apart from these unacceptable acts, disciplinary action would not apply. The purpose of safety reporting and internal investigations is to improve safety, not to apportion blame to individuals.

**Comply with** legislative and regulatory requirements and standards and exceed those standards wherever possible.

**Ensure** that sufficient skilled and trained Pegasus employees are available to implement safety strategies and processes.

**Ensure** the effective implementation of Human Factor Principles into operational practices.

**Establish and measure** our safety performance by using realistic safety performance indicators and safety performance targets against safety policy and objectives.

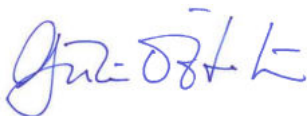
**Ensure** externally supplied systems and services to support our operations are meeting our safety performance standards.

**Publish** procedures, assign responsibilities and provide necessary authorization and equipment to ensure a coordinated execution of the corporate Emergency Response Plan.

**Carry out** implementing and monitoring activities within the scope of identifying fatigue hazards, determining and assessing fatigue risks, promoting fatigue reporting and analysis processes in order to maintain the company safety performance by managing the fatigue effect of flight duties on the flight crews.

**Encourage** the safe integration of new technologies, innovative solutions and operating concepts into the safety management system and facilitate the integration of such new technologies and solutions.

**Continuously** improve our safety performance.



Güliz ÖZTÜRK  
Accountable Executive / CEO



## 1.2 MANAGEMENT COMMITMENT AND RESPONSIBILITY

Safety holds the key to the Company's future and affects all its activities. The Company's management is committed to its SMS, provides leadership to the program and demonstrates through everyday actions, the commitment to safety and its priority in the achievements of the organization's safety objectives. The processes in place in SMS include the active involvement of all management personnel, who, through planning and review, continue to promote efforts for continued improvement in safety and safety performance. The key focus is the safe operations of airworthy aircraft.

The Pegasus Safety Policy is annually reviewed by the Safety Review Board to ensure it remains relevant and appropriate and revised if it is deemed necessary. In case the safety policy is revised, it will be ensured that all personnel is kept up to date by sharing information through the distribution list specified in Comply365.

Our Safety Policy is communicated at the beginning of each year by e-mail to all employees.

## 1.3 PEGASUS CORPORATE SAFETY STRATEGY

PG-EM-PO-003

Pegasus recognizes that SMS is a dynamic process and remains committed to continuous safety improvement. On this basis, Pegasus has developed a 3-year safety strategy; this strategy will identify focus areas and set strategic goals for each of these areas.

Pegasus Airlines Corporate Safety Strategy covers the 3 year period and will be updated on a yearly basis, as required, to cover subsequent 3-year periods. The strategy provides a roadmap on how to achieve our overall safety objectives while concurrently maintaining and improving on our high standards of safety performance.

The Chief Safety and Security Officer (Safety Manager) will maintain a Safety Strategy Report. The report will assign responsibilities for implementation, specify goals or other performance measures, assess any risks associated with any changes contained in the strategy.

The goals of the Safety Strategy are monitored in SRB Meetings.

## 1.4 NON-PUNITIVE POLICY

The reporting of accidents, incidents or events/errors is an essential element of SMS and is therefore non-punitive. All personnel must and can feel confident that they can disclose any such information without fear and retribution. Additionally, all information concerning safety is made freely available to personnel within Pegasus Airlines.

As such, we fully endorse non-punitive accident, incident or event/error reporting within Pegasus Airlines which develops and fosters a culture of trust and honesty.

It is understood and accepted that wilful violations of established policies, processes, procedures, regulatory requirements, regulations and/or gross negligence are not tolerated.

## 1.5 SAFETY ACCOUNTABILITIES

Overall responsibility for safety at Pegasus Airlines rests with the Accountable Executive (AE). The AE shall ensure there is an organisation wide commitment to ensure that safety is the highest of the operational priorities and that safety implications are considered when making business decisions.

The Chief Safety and Security Officer (Safety Manager) is the person nominated and delegated by the Accountable Executive to implement and maintain the Safety Management System.

A safety appraisal and continuing improvement review, shall identify any requirements for changes to the Safety Management System, including, but not limited to, issues arising from audits, organisational structure, reporting lines, authorities, responsibilities, policies, safety processes and procedures as well as the allocation of resources and identification of training needs.

Personnel shall be trained and competent to perform SMS duties. The scope of such training shall be appropriate to each individual's involvement in the SMS (For more details refer to SMM 6.3 Training and Education). Pegasus Airlines shall ensure that the personnel of external service providers are trained and competent to perform SMS duties. The scope of such training should be appropriate to individual involvement in the Pegasus SMS.

Pegasus aims to avoid conflicts of interest between personnel's safety responsibilities and their other organizational responsibilities and also to make it possible for them to discharge their SMS accountabilities and responsibilities, in a way that minimizes any overlaps and/or gaps.

Members of the Safety Review Board are collectively responsible for delivering the Pegasus safety policy and for ensuring that the Safety Management System is effective.

Accordingly, the delegation of authority and assignment of responsibilities for personnel within the Safety Management System shall include:

- (1) Liaising (on behalf of the Company) with the Regulatory Authorities, the Original Equipment Manufacturers (OEM) and other operational internal/external entities,
- (2) Ensuring that any contract or agreement will take into account requirements originating from external service providers, original equipment manufacturers, external maintenance organizations and any other applicable external sources,
- (3) Ensuring compliance with all regulatory safety requirements, internal policies and procedures,
- (4) Implementing and monitoring safety and security activities and processes that affect their area of operation including implementing corrective and preventative action(s) identified by compliance audits and/or safety investigations,
- (5) Ensuring that risks and threats to the safety and/or security of the operation are continually assessed and managed,
- (6) Ensuring that employees under their departments are trained to provide full awareness of their duties and responsibilities,
- (7) Reporting to the Accountable Executive on the performance of the Safety Management System and areas of improvement required,
- (8) Reviewing the safety information and data obtained from the Flight Data Monitoring System and implementing any required corrective actions based on identified trends,
- (9) Fostering a safety oriented organizational culture by communicating relevant information to management and non-management operational personnel through the current Pegasus communication system, and by ensuring management review of significant issues and implementation of improvements and corrective actions on issues and trends identified by the Safety and Emergency Response Management and the Fatigue Risk Management Systems,
- (10) In case of violation of the company's policies and procedures, implementing principles of Just Culture described in Chapter 2.3 of this manual to encourage the personnel in increasing voluntary and mandatory safety reporting,
- (11) Ensuring the management system for maintenance operations defines authorities and responsibilities of management and non-management personnel that perform functions relevant to aeroplane maintenance, managing liaison with the Authority and equipment manufacturers,
- (12) Ensuring control of ground handling operations and the management of safety and security outcomes,
- (13) Taking decisions which have an impact on the safety and/or security of operations within their area of responsibility,
- (14) Managing safety risks and security threats to aeroplane operations,

- (15) Ensuring that all operations are conducted in accordance with the conditions and restrictions of the Air Operator Certificate (AOC), and in compliance with all applicable regulations and Pegasus standards.

## 1.6 OVERVIEW OF SAFETY MANAGEMENT SYSTEM

Pegasus Airlines Management is firmly committed to provide and maintain a safe operation. Safety is best expressed as “the way we do business” and is not to be compromised. No mission or activity is so important or time critical that it cannot be done in a safe manner. There are no excuses for unsafe acts. To maintain our safety goals, we have implemented a comprehensive Safety Management System.

The Pegasus Safety Management System (SMS) is a proactive and integrated approach to manage safety and reflects the corporate safety culture that covers management activities that contribute to safe operation.

Pegasus SMS is part of an overall management process that Pegasus has adopted in order to ensure that the safety objectives of the company are realized.

The Pegasus safety policy states that all levels of management and all employees are responsible for the delivering of the highest level of safety performance and it includes a commitment to continuously improve to ensure safety performance, comply with all legislative and regulatory requirements and standards and provide appropriate resources.

Pegasus has committed appropriate resources and necessary training for an effective Safety Management System (SMS).

SMS processes shall be monitored and assessed in order to maintain or continually improve the overall effectiveness of the SMS.

Pegasus shall ensure that externally supplied systems and services are delivered meeting our safety performance standards.

End of Section

## 2 MANAGEMENT OF SAFETY

### 2.1 INTRODUCTION

The SMM is the key instrument for communicating the approach to safety for the whole of the organization. This manual, documents all aspects of safety management, including the safety policy, objectives, procedures and individual safety responsibilities.

The manual complies with all the applicable regulations and with the terms and conditions of the Pegasus Air Operators Certificate (AOC). The SMM will be issued in an electronic format which will allow for easy access to all personnel.

The content of the SMM is presented in a form that can be used without difficulty and observes human factors principles. This manual contains written information that supports the human-system interface (the interaction of the person with the supporting systems in the workplace).

### 2.2 SMS TOOLS

Integrated Quality and Safety Management System (IQSMS) software is used in Pegasus Airlines for reporting, hazard/risk identification, risk management and auditing. IQSMS is a comprehensive and integrated set of tools to support safety management and compliance monitoring activities, covering functions from accident/incident reporting, analysis and investigation through to auditing and corrective action tracking.

AirFASE is an FDM software outsourced from Teledyne Controls. All flight data are analysed by AirFASE software. AirFASE is capable of analysing raw data automatically. It checks if any raw data are transmitted to Wireless Base Station. If there are data to analyse then, AirFASE automatically receives the data and processes.

CEFA FAS (Flight Animation System) Aviation, enhances pilot training and flight safety, developing world-leading 3D animation software and services. It can be recreated flights with high detail and accuracy based on data from aircraft flight recorders.

SPARC (Safety Performance Analysis Results of Captains) is a software to inform pilots about their personalized safety performance on various FDM events.

Jeppesen Concert software program allows for detailed monitoring and control of crew fatigue risk, from the holistic level, down to individual flights even into development of fatigue prevention and mitigation. Concert has the ability of ongoing scanning of each base, rank and fleet for limit violation and identify new trends in crew fatigue risk.

QDMS is the software through which all IMS activities (Action Management, Corrective Actions, etc.) are managed.

Comply365 is a cloud-based software that operates in the aviation and provides solutions for distributing documents and authoring content, including an end-to-end enterprise document management system.

The Document management system provides the following activities:

- Preparation of a new document,
- Definition of changes and up-to-date revision status,
- Review, revision and reapproval of documents,
- Related parties' approvals for documents prior to publication,
- Legibility and acknowledgment of documents with accurate information,
- Avoiding the use of abrogated documents by archiving them,
- Authorization of all employees to access up-to-date documents,
- Specification of storage periods and disposal methods for records.

IATA Global Aviation Data Management (GADM) program is a data management platform which integrates all sources of operational data received from various channels. These include IATA-unique programs, which all feed into a common, interlinked database structure.

The Incident Data eXchange (IDX) is IATA's safety and security incident data management program. Safety and Security information is shown on key performance indicators to benchmark our performance and establish safety performance targets in accordance with ICAO requirements for Safety Management Systems. With the IDX program, critical trends are highlighted on a regional and global scale, allowing for comparative evaluation, so that operational challenges at specific airports are anticipated, and critical incident trends are determined whilst setting targets for improvement.

Flight Data eXchange (FDX) is one of Global Aviation Data Management Programs encompassing an aggregated de-identified database of flight data. The purpose of the FDX program is to provide with a comparative overview to highlight areas of flight safety concern, with benchmarking available at a global, regional and airport level. It identifies commercial flight safety issues comparatively for standard aviation risk areas.

## 2.3 JUST CULTURE

"Just Culture" means a culture in which front-line operators or other persons are not punished for actions, omissions or decisions taken by them that are commensurate with their experience and training, but in which gross negligence, wilful violations and destructive acts are not tolerated.

To foster a safe working environment Pegasus Airlines has approved the implementation of a "Just Culture". A "Just Culture" fosters an atmosphere of trust in which people are encouraged, even rewarded, for providing essential safety related information, but in which they are also clear about where the line must be drawn between acceptable and unacceptable behaviour. A "Just Culture" does the following:

- Eliminates the notion that blame is a useful concept. The root cause for error will never be identified if the only goal is to find someone to blame. Holding individuals responsible for their actions is different than laying blame.
- Defines clear lines between acceptable and unacceptable performance. Once the lines have been drawn, individuals need to know what is expected of them and understand that they will be held responsible for their performance.
- In cases of non-compliance, provides clear guidelines about what should happen. We often fail to determine the reason for the non-compliance. Before sanctions are applied, it is imperative that the reason(s) for the non-compliance be identified. Only then can appropriate action be taken.

The ideal safety culture is where staff and systems work supportively and constructively together in an environment in which discovered errors are recognized and utilized in a positive and constructive way with a no-blame culture as back ground. Therefore, the adopted culture is intended to encourage an open reporting culture based on learning from experiences and failures and seeking to handle all deviations in relation to a "Just Culture" for all involved. A "Just culture" ensures that human error is recognized as "normal and non-repetitive". This culture seeks to resolve and improve on all contributing factors while still maintaining a clear distinction between human error, negligent conduct, reckless conduct, and intentional violations.

Our "Just Culture" is a combination of four complimentary cultures:

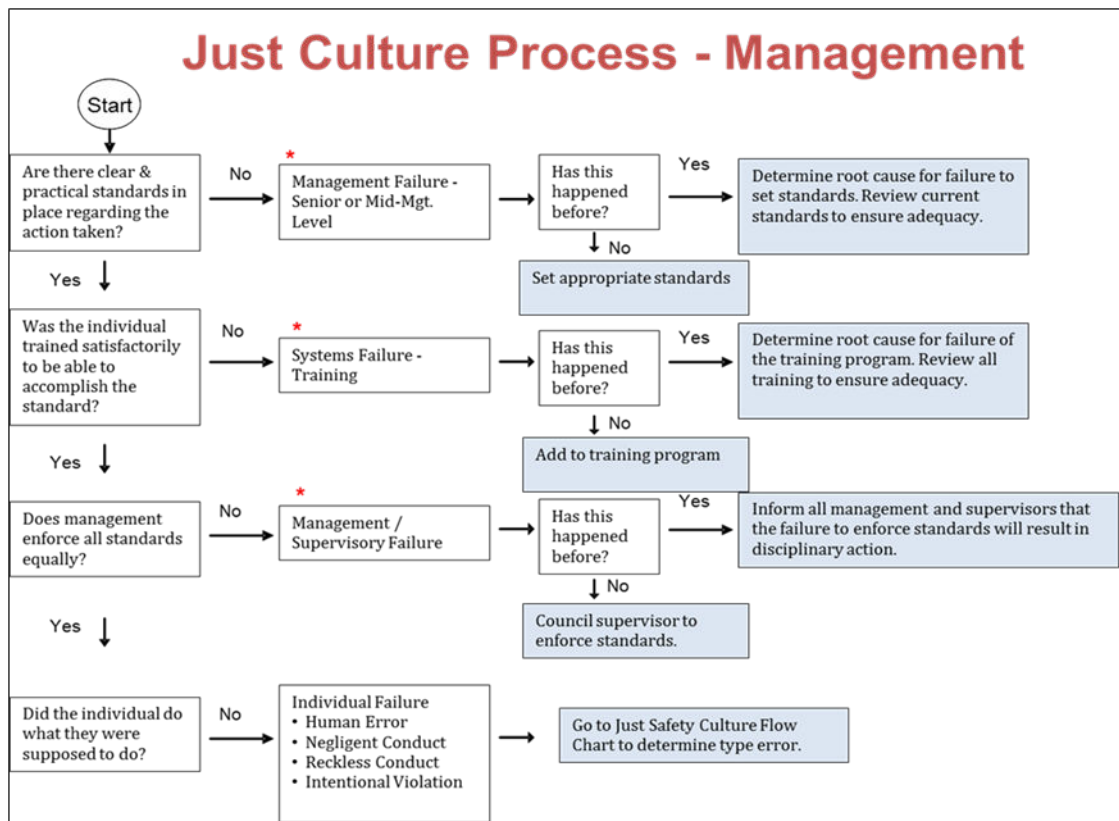
- An "Informative" culture, which requires the management of all systems to have a positive knowledge view concerning human, technical, organizational and environmental factors which impact/contribute to the organization, allowing for errors to occur.
- A "Flexible" culture open for changes based on "learning from experiences" and a solid safety culture with priorities on safety.

- A "Reporting" culture based on an open organizational climate where all involved are encouraged to report all occurrences deviating from known standards and requirements, hazards and errors without any retribution.
- A "Learning" culture willing to perform proactive and corrective actions, and take appropriate action and decisions based on conclusions from relevant information, and willing to implement major reforms where deemed necessary.

To maintain a safe operation, all staff need a positive questioning attitude, and be resistant to complacency and be committed to excellence. Bear in mind that Safe Operation does not mean Risk Free. The "Just Culture" is intended to emphasize responsibility and a corporate self-regulatory attitude in all safety related matters. It relies on the organization, corporate structure and all staff involved to allow active identification of safety related issues and to ensure proper action is taken.

The Process of the "Just Culture" is explained in Figure 1 Below.

#### Just Culture Process - Management



#### NOTE

\* Indicates a System's Failure. Managers and supervisors must evaluate what part of the system failed and what corrective and preventative action is required. Corrective and preventative action shall be documented for management review.

Management and supervisors are responsible for setting clear and practical standards. While you cannot be expected to set standards for all behaviour, setting basic standards and general guidelines regarding what you expect from employees is essential. Failure to set standards is a management failure, not an individual failure.

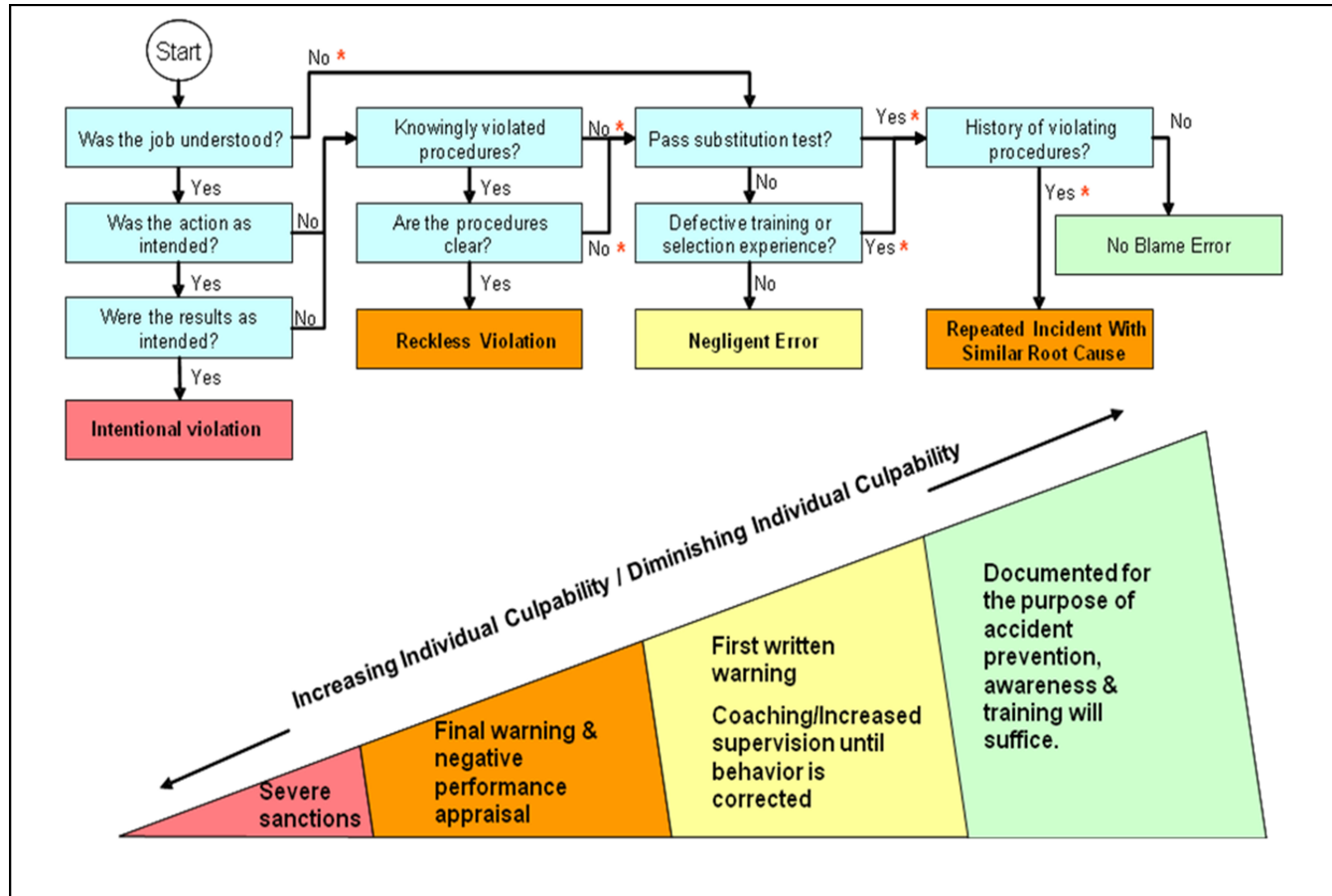
Appropriate training to accomplish standards is essential. While you cannot be expected to train common sense standards you need to provide guidelines to employees in what the organization expects them to do in situations where there are no clear written standards. Failure to provide training is not an individual failure but a failure in the training system.



Managers and supervisors must enforce the standards. Inconsistency in the enforcement of standards is a management/supervisory failure, not an individual failure.

When standards are clear, training appropriate, and supervisors enforce the standards we expect individuals to do the right thing. When they don't, we need to know what type of error was made before we can take the appropriate corrective action.

The "Just Culture" Flow Chart in Figure 2 is used to determine individual error.



#### NOTE

Substitution Test: Ask "Would a reasonable sample of the organization have done the same thing or made the same error?"

\* Indicates a System's Induced Error. Managers and supervisors must evaluate what part of the system failed in order to determine what corrective and preventative action is required. Corrective and preventative action shall be documented for management review.

PG-EM-FR-006 Just Culture Process Form is used for evaluating the occurrence in the course of the safety occurrence meeting (SOM). If any error, violation, or negligence related to the occurrence and in the event of an occurrence leading to an investigation is identified in the SOM meeting, the Just Culture Process Form is used.

## 2.4 HUMAN FACTOR PRINCIPLES

People can be both a source and a solution of safety risks by contributing to an accident or incident through variable performance due to human limitations, anticipating and taking appropriate actions to avoid a hazardous situation and solving problems, making decisions and taking actions to mitigate risks. Therefore, the consideration of human factors is an integral part of safety management, necessary to understand, identify and mitigate risks as well as to optimize the human contributions to organizational safety.

Pegasus Airlines SMS is aware that human factors can contribute to an incident and an accident. Accordingly, the human factors principles are taken into consideration with the following implementations;

Employees are encouraged to report what has critical importance to obtain information (Non-Punitive Policy).

Safety investigations are carried out to identify the causes of errors in a positive and constructive way with a no-blame culture (Just Culture). Employees are cognizant that they should report any safety concern and error without hesitation, and they are aware of the procedures and policies used to carry out safety investigations.

Pegasus Airlines conducts safety investigations taking into account the human factor principles that may have caused or contributed to an event.

LOSA is an organizational tool used to identify threats to aviation safety, minimize the risks such threats may generate and implement measures to manage human error in operational contexts. Pegasus aims to increase safety and operational human performance by better understanding the human factors in flight operations with LOSA observations.

Human Factors issues have been considered and being addressed as part of the change management process.

Human Factors are considered as part of the development of risk controls.

The human factors issues below are considered during the safety risk management process;

#### **ENVIRONMENTAL/SYSTEM DESIGN (ENVR)**

- Operating Environment/Design
- Physical Environment
- Environmental Conditions
- Task Environment/Design

#### **EXPERIENCE/KNOWLEDGE (KNOW)**

- Experience
- Qualifications/Training
- Knowledge

#### **ORGANIZATIONAL OVERSIGHT (ORGN)**

- Oversight
- Operational Planning/Scheduling/Resource Management
- Policy/Procedures
- Culture
- Training Program
- Documentation/Record Keeping
- Enforcement
- Safety Program

#### **PERCEPTUAL (PERC)**

- Situational Awareness
- Spatial Disorientation/Illusions

#### **PHYSICAL/SENSORY (PHYS)**

- Physical Characteristics



- Sensory Ability/Limitation
- Impairment/Incapacitation
- Health/Fitness
- Fatigue/Alertness

#### **PROCEDURAL/TASK PERFORMANCE (PROC)**

- Planning/Preparation
- Documentation/Record Keeping Tasks
- Information/Equipment Utilization
- Monitoring
- Workload Management
- Communication
- Coordination
- Violations
- Action/Inaction

#### **PSYCHOLOGICAL (PSYC)**

- Attention/Distraction
- Cognitive Limitation
- Information Processing/Decision Making
- Mental/Emotional State
- Personality/Attitude

## **2.5 PEGASUS AIRLINES OCCURRENCE CLASSIFICATION AND TAXONOMY**

Pegasus Airlines uses the ICAO ADREP taxonomy for accident, incident hazard reporting (AMC1 ORO.GEN.160), classification, investigation, evaluation and analysis in order to ensure international adoption of these standard descriptors by taking advantage of safety information benchmarking. The objective is to enhance significantly the value of aviation safety information by facilitating the sharing and exchange of safety information.

The ADREP taxonomy is a set of terms used by ICAO to categorize aircraft accidents and incidents and allow safety trend analysis on these categories. The ADREP taxonomy is part of the ICAO accident reporting system and is tracked via the link below;

["https://www.icao.int/safety/airnavigation/AIG/Pages/ADREP-Taxonomies.aspx"](https://www.icao.int/safety/airnavigation/AIG/Pages/ADREP-Taxonomies.aspx)

The Commercial Aviation Safety Team (CAST) / ICAO Common Taxonomy Team (CICTT) is charged with developing common taxonomies and definitions for aviation accident and incident reporting systems. CCIT guidelines are used for classification of safety data and information. Detailed information may be found in link ["http://www.intlaviationstandards.org."](http://www.intlaviationstandards.org)

#### **Aviation Occurrence Categories**

- (1) ABNORMAL RUNWAY CONTACT (ARC)
- (2) ABRUPT MANEUVER (AMAN)
- (3) AERODROME (ADRM)
- (4) AIRPROX/TCAS ALERT/LOSS OF SEPARATION/NEAR MID AIR COLLISIONS/MID AIR COLLISIONS (MAC)

- (5) ATM/CNS (ATM)
- (6) BIRD (BIRD)
- (7) CABIN SAFETY EVENTS (CABIN)
- (8) COLLISION WITH OBSTACLE(S) DURING TAKEOFF AND LANDING (CTOL)
- (9) CONTROLLED FLIGHT INTO OR TOWARD TERRAIN (CFIT)
- (10) EVACUATION (EVAC)
- (11) EXTERNAL LOAD RELATED OCCURRENCES (EXTL)
- (12) FIRE/SMOKE (NON-IMPACT) (F–NI)
- (13) FIRE/SMOKE (POST-IMPACT) (F–POST)
- (14) FUEL RELATED (FUEL)
- (15) GLIDER TOWING RELATED EVENTS (GTOW)
- (16) GROUND COLLISION (GCOL)
- (17) GROUND HANDLING (RAMP)
- (18) ICING (ICE)
- (19) LOSS OF CONTROL–GROUND (LOC–G)
- (20) LOSS OF CONTROL–INFLIGHT (LOC–I)
- (21) LOSS OF LIFTING CONDITIONS EN ROUTE (LOLI)
- (22) LOW ALTITUDE OPERATIONS (LALT)
- (23) MEDICAL (MED)
- (24) NAVIGATION ERRORS (NAV)
- (25) OTHER (OTHR)
- (26) RUNWAY EXCURSION (RE)
- (27) RUNWAY INCURSION (RI)
- (28) SECURITY RELATED (SEC)
- (29) SYSTEM/COMPONENT FAILURE OR MALFUNCTION (NON-POWERPLANT) (SCF–NP)
- (30) SYSTEM/COMPONENT FAILURE OR MALFUNCTION (POWERPLANT) (SCF–PP)
- (31) TURBULENCE ENCOUNTER (TURB)
- (32) UNDERSHOOT/OVERSHOOT (USOS)
- (33) UNINTENDED FLIGHT IN IMC (UIMC)
- (34) UNKNOWN OR UNDETERMINED (UNK)
- (35) WILDLIFE (WILD)
- (36) WIND SHEAR OR THUNDERSTORM (WSTRW)
- (37) VOLCANIC ASH CLOUDS ENCOUNTERED DURING FLIGHT

## 2.6 PEGASUS OPERATIONAL RISK AREAS - (PORAS)

Based on the Pegasus Airlines Safety Strategy Priorities, Pegasus Airlines identifies eight Operational Risk Areas to aviation safety which may be called Significant 8. The main risk areas are listed as Pegasus Operational Risk Areas (PORAs). All personnel involved in the operation must first know the risk areas of

Pegasus Airlines and act with sufficient awareness of the tasks associated with their duties according to the risk areas below.

Each department within Pegasus Airlines is responsible for developing, maintaining and monitoring their own SPI's in accordance with PORAs.

Identification of these risk areas have been accomplished via analysing the sources below:

- Operational experience,
- Feedback from the front line through the focus group meetings, recurrent trainings, etc.
- Analysis of company hazard/risk identification sources,
- Assessment of below published documents:
  - Global operational safety risks (ICAO Global Aviation Safety Plan – GASP)
  - Regional operational safety risks (ICAO European Regional Aviation Safety Plan - EUR RASP, European Plan for Aviation Safety – EPAS
  - National operational safety risks (Turkish DGCA State Safety Plan and analysis)
  - Annual Safety Reviews of EASA and Safety Report of IATA

<b>Pegasus Operation al Risk Areas (PORAs)</b>	<b>ICAO GASP 2020 -2022 (High-risk categories of occurrences)</b>	<b>EASA EPAS 2019-2023 (Safety Risk Areas)</b>	<b>EASA ASR 2018 (2013-2017 Key Risk Areas)</b>	<b>EASA ASR 2019 (Key Risk Areas)</b>	<b>EUR RASP 2019– 2023</b>	<b>IATA Safety Report 2019</b>
Controlled Flight Into Terrain	Controlled Flight Into Terrain	Airborne Collision	Airborne Collision	Airborne Collision	Aircraft Upset in Flight	Runway Excursion
Runway Excursion	Loss of Control In-flight	Aircraft Upset	Runway Excursion	Runway Collision	Runway Safety	Loss of Control in- Flight
Runway Incursion	Mid-Air Collision	Runway Collision	Runway Collision	Aircraft Upset	Airborne Conflict	Controlled Flight into Terrain
Loss of Control – In Flight	Runway Excursion	Excursion	Aircraft Upset	Runway Excursion	Terrain Collision	
Mid Air Collision	Runway Incursion	Fire/ smoke/ pressurisa tion	Ground Damage	Ground Damage/ Collision	Aircraft Environme nt	
Fire/Smoke (non- impact)		Ground damage	Fire/ Smoke/ Pressurisa tion	Obstacle Collision in flight	Miscellane ous	

Ground Collision		Obstacle collision in flight	Obstacle Collision in flight	Fire/ Smoke/ Pressurisation		
Ground Handling		Terrain collision	Other Injuries	Other Injuries		
		Other injuries	Taxiway/ Apron Excursion	Terrain Collision		
		Security		Taxiway/ Apron Excursion		

Resources:

ICAO GASP 2020 -2022, ICAO Global Aviation Safety Plan Doc 10004, 2023 — 2025 Edition

EASA EPAS 2024, EASA European Plan for Aviation Safety, 23 January 2024

EASA ASR 2022, EASA Annual Safety Review, 31 August 2022

EASA ASR 2023, EASA Annual Safety Review, 16 August 2023

EUR RASP 2020–2022, EUR Regional Aviation Safety Plan

IATA Safety Report, Safety Report 2022, Edition 59

The company identifies eight Pegasus Operational Risk Areas (PORAs), as indicated in Table above, to enhance aviation safety by using the ICAO ADREP taxonomy to group events including precursor categories for statistical analysis and trending. PORAs are monitored by Event Risk Assessment methodology which is based on initial assessment of the reports via IQSMS in conjunction with meaningful Safety Performance Indicators (SPIs) and the stated organizational safety objectives with their associated SPIs and FDM PORA pre-cursors. The monitoring of these SPI's and Safety Objectives will allow the Chief Safety and Security Office to identify weaknesses or strengths in the preventive and recovery barriers. Pegasus Airlines PORAs are reviewed once a year by the Chief Safety and Security Office using IQSMS reports, SPIs and safety objectives and are presented to SRB members at the first SRB of the year.

The establishment of Safety Objectives and associated Safety Performance Indicators are not limited to PORAs. Each Operational Department is responsible for establishing additional Safety Objectives according to safety risks in their area and considering operational factors. From these further SPIs are selected to measure performance against those objectives.

### **Pegasus Operational Risk Areas (PORAs)**

**PORA-1: CFIT (Controlled flight into or toward terrain):** Inflight collision or near collision with terrain, water, or obstacle without indication of loss of control

- Only for airborne phases of flight.
- Includes collisions with those objects extending above the surface (for example, towers, trees, power lines, cable car support, transport wires, power cables, telephone lines and aerial masts).
- Can occur during either Instrument Meteorological Conditions (IMC) or Visual Meteorological Conditions (VMC).
- Includes flying into terrain during transition into forward flight.

**PORA-2: RE (Runway Excursion):** A veer off or overrun off the runway surface •

- Only applicable during either the takeoff or landing phase.
- The excursion may be intentional or unintentional. For example, the deliberate veer off to avoid a collision, brought about by a Runway Incursion. In this case, code both categories.

- RE is in all cases where the aircraft left the runway regardless of whether the excursion was the consequence of another event or not.

**PORA-3: RI (Runway Incursion):** Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle or person on the protected area of a surface designated for the landing and take-off of aircraft.

- Includes occurrences where an airborne aircraft lands on an aircraft stopped or moving on a runway in use.
- Runway incursions may occur at controlled or uncontrolled airports.

**PORA-4: LOC-I (Loss of control - Inflight):** Loss of aircraft control while or deviation from intended flightpath inflight.

- Loss of control inflight is an extreme manifestation of a deviation from intended flightpath. The phrase "loss of control" may cover only some of the cases during which an unintended deviation occurred.
- Loss of control can occur during either Instrument Meteorological Conditions (Instrument Meteorological Conditions (IMC)) or Visual Meteorological Conditions (Visual Meteorological Conditions (VMC)).
- The loss of control during flight may occur as a result of a deliberate maneuver .
- Stalls are considered loss of control. Activation of any part of the stall warning system other than intentional activation during Maintenance Check Flight activities are included in the PORA.
- Includes Pilot induced or assisted oscillations.

**PORA-5: MAC (Airprox/ ACAS alert/ loss of separation/ (near) midair collisions):** Airprox, ACAS alerts, loss of separation as well as near collisions or collisions between aircraft in flight.

- Includes all collisions between aircraft while both aircraft are airborne.
- Both air traffic control and cockpit crew separation-related occurrences are included.
- Genuine TCAS alerts are included here.

**PORA-6: F-NI (Fire/smoke (non-impact)):** Fire or smoke in or on the aircraft, in flight or on the ground, which is not the result of impact.

- Includes fire due to a combustive explosion from an accidental ignition source.
- Includes fire and smoke from system/component failures/malfunctions in the cockpit, passenger cabin, or cargo area.
- Fire/Smoke resulting from an accident impact is Fire/Smoke (post-impact) (F-POST).

**PORA-7: GCOL (Ground Collision):** Collision while taxiing to or from a runway in use.

- Includes collisions with an aircraft, person, animal, ground vehicle, obstacle, building, structure, etc. while on a surface other than the runway used for landing or intended for takeoff.
- Ground collisions resulting from events categorized under Runway Incursion (RI) or Ground Handling (RAMP) are excluded from this category.

**PORA-8: RAMP (Ground Handling):** Occurrences during (or as a result of) ground handling operations.

- Includes collisions that occur while servicing, boarding, loading, and deplaning the aircraft also during boarding and disembarking.
- Includes injuries to people from propeller/main rotor/tail rotor/fan blade strikes.
- Includes pushback/powerback/towing events.
- Includes Jet Blast and Prop/rotor down wash ground handling occurrences.
- Includes aircraft external preflight configuration errors (examples: improper loading and improperly secured doors and latches) that lead to subsequent events.

- Includes all parking areas (ramp, gate, tiedowns).
- Except for powerback events, which are coded here, if a collision occurs while the aircraft is moving under its own power in the gate, ramp, or tiedown area, code it as a ground collision (GCOL).
- Includes operations at aerodromes and unprepared operating sites.

## 2.7 FLIGHT SAFETY ANALYSIS PROGRAM (FSAP)

Pegasus Airlines has a formal Flight Safety Analysis Program to aid the collection and analysis of operational information and data for the purpose of identifying hazards and supporting the risk management process in order to prevent accidents or incidents associated with aircraft operations.

### 2.7.1 RESPONSIBILITIES

The Chief Safety and Security Officer (Safety Manager), oversees the implementation of all activities and processes associated with the FSAP.

The Chief Safety and Security Officer (Safety Manager) is also responsible for the maintenance of the flight safety database which, via the Safety Review Board (SRB), provides data to assist operational managers in their role of ensuring safe and secure operations and aiding continual improvement. Such data might include an up-to-date status of operational performance against stated performance measures. (SPIs, SPTs).

Detailed responsibilities:

PROGRAM ELEMENT	RESPONSIBILITY
Investigation of operational accidents, incidents and irregularities	Chief Safety and Security Office with cooperation of Safety Advisors
Liaison with regulatory and investigative authorities	SMS Senior Manager
Hazard/risk identification and risk management	Related Nominated persons and Safety advisors
Collection and analysis of flight data and information	FDM Senior Manager
Review and analysis of flight safety e-reports	Safety Advisors
Review and analysis of flight Confidential e-reports	Chief Safety and Security Officer (Safety Manager), FDM Senior Manager, SMS Senior Manager and SMS Leader
Generation of operational safety performance statistics	SMS Senior Manager

### 2.7.2 FLIGHT SAFETY ANALYSIS PROGRAM ELEMENTS

Insert paragraph here

### 2.7.2.1 INVESTIGATION OF OPERATIONAL ACCIDENTS, INCIDENTS AND IRREGULARITIES

The objective of any Pegasus Airlines investigation is to improve safety by identifying what happened, where it happened, when it happened, why it happened and what should be done to prevent recurrence and reduce the number of incidents/accidents. It is not the purpose of any such investigation report to apportion blame or liability.

For more details refer to SMM 4.2.6 INVESTIGATIONS

### 2.7.2.2 HAZARD/RISK IDENTIFICATION AND RISK MANAGEMENT

Objective of hazard/risk identification is to identify hazards which either currently exist and can cause an immediate problem or may pose potential hazards in the future. The SMS Hazard Process is based on the principle of cause and effect. All harms have a cause and do not occur by chance. Identifying hazards and threats is the first step in risk management. The SMS is about managing, controlling, or eliminating threats in all the Company systems.

For details refer to SMM 4.2 HAZARD/RISK IDENTIFICATION PROCESS

Pegasus airlines safety risk assessment process is defined as a systematic approach to managing risks, including the necessary organizational structures, accountabilities, policies and procedures. According to the Pegasus Airlines safety risk assessment process, nominated persons are responsible for the risk management and mitigating process. The Safety Manager is responsible for monitoring and the assurance of the safety risk assessment process and applicability of safety risk controls.

For more details refer to the SMM 4.10 ORGANIZATIONAL IMPLEMENTATION OF THE PROCESS / Risk Evaluation, Acceptance And Decision Making.

### 2.7.2.3 COLLECTION AND ANALYSIS OF FLIGHT DATA AND INFORMATION

Pegasus Airlines Flight Data Monitoring program is part of the Pegasus Airlines Flight Safety Analysis program. In the Pegasus Airlines Collection and the analysis of flight data and information is done via the FDM program. The Flight Data Monitoring (FDM) program is systematic and involves the non-punitive use of the digital flight data from routine operations with the primary purpose to improve flight safety.

The FDM program provides the opportunity to:

- Identify areas of operational risk and quantify current safety margins.
- Identify and quantify operational risks by highlighting when non-standard, unusual or unsafe circumstances occur.
- Use the FDM information on the frequency of occurrence, combined with an estimation of the level of severity, to assess the safety risks and to determine which may become unacceptable if the discovered trend continues.
- Put in place appropriate procedures for remedial action once an unacceptable risk, either flight safety risk actually present or predicted by trending, has been identified.
- Confirm the effectiveness of any remedial action by continued monitoring.
- In addition, the program may be used to analyse technical aircraft data to:
- Support defect troubleshooting after specific occurrences.
- Monitor the automatic approach and autoland capabilities.

For details refer to SMM 4.2.5 FLIGHT DATA MONITORING SYSTEM

### 2.7.2.4 REVIEW AND ANALYSIS OF AIR SAFETY REPORTS (ASRs)

Reporting, investigation and analysis of incidents are highly effective means of the SMS. The fundamental purpose of the Pegasus Airlines Safety Incident Reporting System is to establish circumstances that lead to a sequence of events and to use such data as basis for an effective SMS. Integrated Quality and Safety



Management System (IQSMS) software is used in Pegasus Airlines for reporting, auditing, hazard/risk identification.

All Pegasus family members can access the IQSMS via the company intranet page and application which can be installed on any mobile devices. The IQSMS ensures the generation and retention of all records necessary to document and support operational requirements.

In the confidential reporting system, the aim is to protect the identity of the reporter. This is one way of ensuring that the voluntary reporting systems are non-punitive. Confidentiality is usually achieved by deidentification, and any identifying information about the reporter is known only to “gatekeepers” in order to allow for follow-up or “fill in voids” in the reported event(s).

For more details refer to SMM 4.2.1 OCCURRENCE AND HAZARD REPORTING

### **2.7.2.5 GENERATION OF OPERATIONAL SAFETY PERFORMANCE STATISTICS**

The primary task of safety assurance is control. This is achieved through safety performance monitoring and measurement, the process by which the safety performance of the organization is verified in comparison with the safety policy and approved safety objectives. Safety assurance control is conducted by monitoring and measuring the outcomes of activities that operational personnel must engage in for the delivery of services by the organization. Performance measures are set in operational departments in accordance with safety objectives and monitored in Safety Action Group Meetings. When targets are not achieved and/or alert levels are breached, the corrective or follow-up action is taken by related department and monitored by Chief Safety and Security Office by trend monitoring, auditing and reporting.

Information for safety performance and monitoring comes from various sources, including auditing and evaluation, investigations, monitoring of day-to-day activities, and input from employees. These sources contribute to validating the effectiveness of safety risk controls. Information sources for safety performance monitoring and measurement include but are not limited to:

- Safety audits
- Safety surveys
- Safety reporting system
- Safety studies
- Safety reviews
- Safety trends
- Internal safety investigations

For more details refer to SMM 5.1 SAFETY PERFORMANCE MONITORING AND MEASUREMENT

## **2.8 CONTRACTED ACTIVITIES (EXTERNAL SERVICE PROVIDER)**

Pegasus Airlines may decide to contract certain activities to external organizations.

A written agreement shall exist between Pegasus Airlines and the contracted organization clearly defining the contracted activities, the applicable requirements, the safety related services and quality to be provided.

Pegasus Airlines will ensure that the contracted organization has the necessary authorization or approval when required and commands the resources and competence to undertake the task.

When contracting or purchasing any services or products as part of its operations, Pegasus Airlines shall review the following regarding safety issues;

- Contracted organization or service providers have mature SMS to ensure the requirements that affect the safety of operations are being fulfilled.
- Contracted organization or service provider’s accessibility to the Pegasus Airlines Safety Policy and Pegasus SMM,



- Safety hazards associated with the contracted organization or purchased services or products are considered by the Pegasus Airlines' risk management system. The Risk Assessment results should be shared with the contracted organization or service providers when it is deemed necessary.

Pegasus Airlines shall ensure personnel of external service providers are trained and competent to perform SMS duties. For details refer to SMM 6.6 EXTERNAL SERVICE PROVIDER TRAINING.

Pegasus Airlines is responsible for ensuring outsourced operational functions are conducted in a manner that meets its own operational safety and security requirements. Contracted organizations are monitored, as required, by the Pegasus Compliance Monitoring Department to verify continued compliance, ensuring the operational safety and security needs of the company are being fulfilled.

## 2.9 SAFETY OBJECTIVES

Safety objectives are brief high-level statements of safety achievement or desired outcome to be accomplished by the PGS SMS. Pegasus Airlines primary safety objective is to provide safe and secure air transport for all passengers and crew, free from accidents and serious incidents. Safety objectives are developed from PGS Airlines top safety risks and are taken into consideration during the subsequent development of safety performance indicators and targets.

Pegasus Airlines determines its safety objectives before the first Safety Review Board Meeting of each year. Each operational departments including ATO sets its objectives according to the risk area and considering relevant operational factors which are linked to the safety performance indicators. Subsequently, the determined safety objectives are validated at the meetings organized by the Chief Safety and Security Office with the participation of the relevant operational departments. Safety objectives are designed to be challenging, which, in turn, enhances the effectiveness of the risk management system. When safety objectives are established they are published in PG-EM-FR-019 Safety Performance Indicators and Safety Objectives Form. The objectives are followed up by the Chief Safety and Security Office to measure safety performances. When necessary, the objectives are reviewed during the SRB meeting in order to decide on periodic resource allocation and a revision can be made if necessary, depending on the results achieved.

### • Safety Performance Indicators

Safety performance indicators (SPIs) are a measure of the safety performance. SPIs should be easy to measure and be linked to the safety objectives that have been established by the PGS SMS.

Setting the SPIs supports the safety objectives as an element of the Safety Assurance component of the SMS framework.

The use of SPIs is an effective method to determine whether desired safety outcomes are being achieved, and to focus attention on the performance of the organization in managing operational risks and maintaining compliance with relevant regulatory requirements.

SPIs may be set in almost any operations or maintenance area. Some possible examples include:

- (1) Flight operations (e.g., takeoff and landing tail strikes, unsatisfactory line or training evaluations);
- (2) Operational control (e.g., flight diversions due to fuel);
- (3) Engineering and maintenance (HIL ratio, in-flight engine shutdowns, aircraft component/equipment failures);
- (4) Cabin operations (inadvertent slide deployments);
- (5) Ground handling (aircraft damages due to vehicles or equipment);
- (6) Cargo operations (dangerous goods spills);
- (7) Operational security (unauthorized interference or access events).

A SPI is any measured or monitored trend, event rate, absolute or cumulative number, related to a safety occurrence. SPIs are created through statistical analysis of data gathered from the various safety reporting

system, FDM, training data and audits. By setting SPIs, we can track and compare our operational performance against objectives. All SPIs are monitored in SAG Meetings.

PG-EM-FR-019 Safety Performance Indicators and Safety Objectives Form are used for safety objectives and SPIs.

- **Types of Safety Performance Indicators:**

Lagging SPIs – Lagging or reactive indicators are most commonly used to assess the effectiveness of safety policy, procedures and practices. Under certain conditions, they can be used for benchmarking against similar organizations or industry trends. The investigation of accidents, serious incidents and other operational occurrences are examples lagging or of reactive indicators. In all cases, an event must occur to trigger the measurement of the indicator, non-routine operational occurrence and irregularities are examples of reactive indicators. This methodology involves the analysis of past outcomes or events. Hazards are identified through investigation of safety occurrences. Incidents and accidents are clear indicators of system deficiencies and therefore, can be used to determine the hazards that either contributed to the event or are latent.

The Safety Manager will describe, risk assess and prioritize all occurrence reports on a weekly basis, with associated trend monitoring in the form of charts. Key safety risks are identified and are subject to review and ongoing monitoring. The Safety Manager produces action & warning limits to individual event trends to indicate abnormal statistical deviations. This can be the catalyst for remedial management action.

Leading SPIs – Leading or proactive indicators are most useful as a precursor to safety degradation for early management reaction. Mandatory and voluntary reporting systems, safety audits, scientific research and safety surveys are examples of proactive indicators. In most cases, proactive indicators are present where minor triggering events, with little or no consequence, are present. They are good pointers to latent system failures and weaknesses. This methodology involves the analysis of existing or real-time situations, which is the primary task of the safety assurance function with its audits, evaluations, employee reporting, and associated analysis and assessment processes. This involves actively seeking hazards in the existing processes. A risk management strategy includes identifying hazards before they materialize into incidents or accidents and taking the necessary actions to reduce identified safety risks. The process of proactive safety management includes the routine review and analysis of mandatory and voluntary reports, FDM data, safety audits, safety surveys, routine audits and inspections, risk assessment, new destinations, outsourcing operational functions, etc.

Predictive SPIs – Predictive indicators are those derived from normal operations, where no trigger occurrence may have taken place. Predictive indicators include hazard reporting, analysis of normal operational feedback and observations, and identification of adverse trends in the FDM data analysis. Analysis of reports for Industry forums may also provide the basis for predictive risk metrics. This methodology involves data gathering in order to identify possible negative future outcomes or events, analysing system processes and the environment to identify potential future hazards and initiating mitigating actions.

- **Alert Level Setting**

The alert level is calculated for each SPIs using average (AVG) and standard deviation (SD) of the previous year's data. The three alert lines are  $AVG + SD$  (yellow),  $AVG + 2*SD$  (amber) and  $AVG + 3*SD$  (red). Also the alert level for negative trending such as go-around due to unstable approach is monitored by using the same calculation/method.

**NOTE**

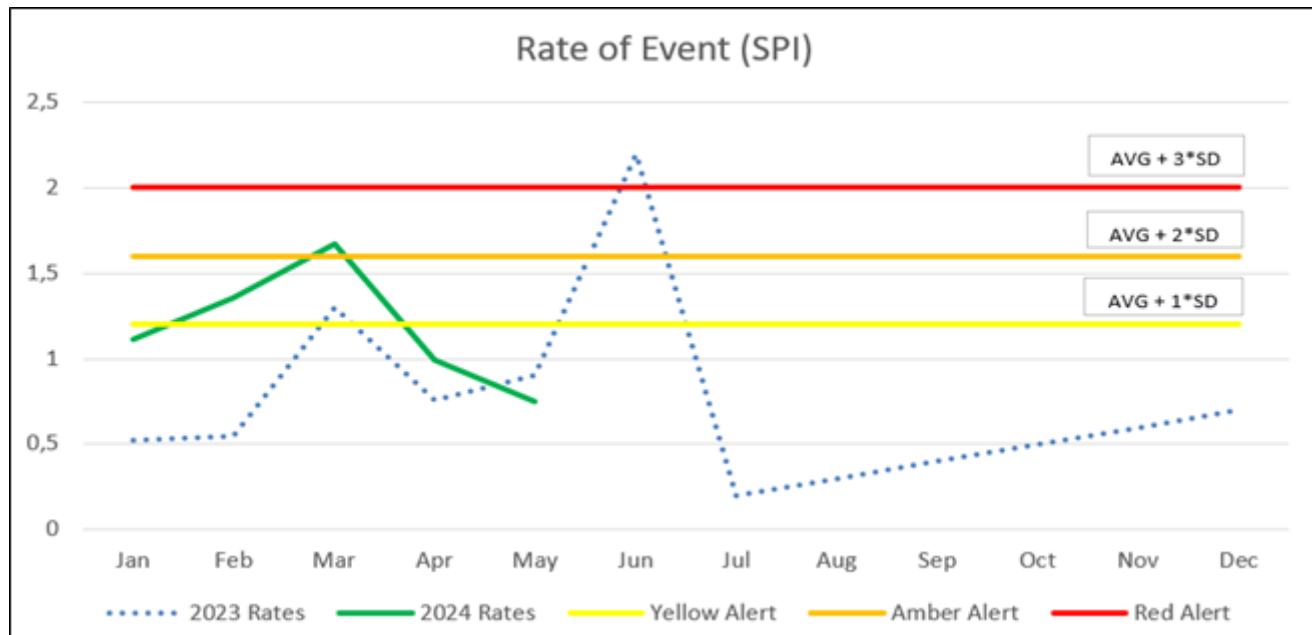
*Note: Colours are represented in ALOSP and SPI Control Chart.*

- **Alert Level Trigger**

An alert (abnormal/unacceptable trend) is indicated if any of the conditions below are met for the current monitoring period (current year):

- (1) Passing  $AVG \pm SD$  level for three consecutive months

- (2) Passing  $AVG \pm 2*SD$  level for two consecutive months
- (3) Passing  $AVG \pm 3*SD$  level for any single point



When an alert is triggered, trigger values serve to start an evaluation, decision, adjustment or remedial action related to the particular indicator. These actions may include detailed analysis and root cause analysis of the relevant exceedance. Following evaluation of the alert status, safety risk assessment may be undertaken and mitigating actions should be determined to decrease/increase the number/rate of the indicator to an acceptable level of safety performance.

#### • Target Level Setting (Planned Improvement)

The target level setting may be less structured than the alert level setting, e.g. a target whether the new (current year) monitoring period's average rate is to be better than, say the preceding period's average value.

#### • Alert and Target Levels — Validity Period

Alert and target levels should be reviewed/reset for each new monitoring period, based on the equivalent preceding period's average rate and SD, as applicable. The output from Pegasus's safety data collection and analysis system is presented to the Safety Review Board (SRB) by the Safety Manager. A data trending chart shall be used to track outcomes. Outcome occurrences should normally be tracked as occurrence rates rather than absolute numbers.

Safety performance targets are monitored quarterly and presented in SAG Meetings. When targets are not achieved and/or alert levels are breached, the corrective or follow-up action is taken by the related department and monitored by Chief Safety and Security Office by trend monitoring, auditing and reporting. Target and alert levels may be revised or necessary preventive actions taken (i.e. procedure changes).

Default alert levels and necessary actions for safety targets are as follows;

95% - 100% Success Rate: Green Colour – No action is necessary

75% - 94% Success Rate: Yellow Colour – No action is necessary, but it is discussed in SAG Meetings.

50% - 74% Success Rate: Orange Colour – Action is assigned to relevant department via QDMS.

0% - 49% Success Rate: Red Colour – RCA, action is assigned to relevant department via QDMS.

In conjunction with such indicators, alert as well as desired improvement target levels should be set for each indicator, where applicable. These will then serve as markers to define what is an abnormal/unacceptable occurrence rate as well as the desired target (improvement) rate for the indicator. With such

defined alert and target settings, it becomes apparent that a qualitative/quantitative performance outcome can be derived at the end of any given period.

End of Section

### 3 SAFETY ACCOUNTABILITIES AND RESPONSIBILITIES

Pegasus Airlines' management is firmly committed to providing and maintaining a safe and healthy working environment. To accomplish this all individuals will be held responsible for their role in the SMS.

#### 3.1 DEFINITIONS

**Accountability:** The obligation to accept ultimate responsibility for decisions and policies, and for the performance of applicable functions, duties, tasks or actions; this implies being answerable (i.e. accountable) for ensuring that such responsibility is executed or performed. Accountability may not be delegated. In the context of a Safety Management System, accountability means being ultimately responsible for safety performance (Accountable Executive).

**Responsibility:** An obligation to execute or perform assigned functions, duties, tasks or actions; this typically includes an appropriate level of delegated authority; and implies holding a specific office, title, or position of trust.

**Nominated Persons:** Approved by DGCA-TR and in compliance with SHY-6A, 965/2012 ORO.GEN.210, ORO.AOC.135, AMC1-2 ORO.AOC.135 (a), GM 1-2 ORO.AOC.135 (a) that are responsible for;

Pegasus Airlines Nominated Persons (A) are responsible for the management(B) and supervision(C) of the following areas:

- (1) Chief of Flight Operations – Responsible for entire Flight Operations of Pegasus Airlines,
- (2) Chief of Flight Academy – Responsible for crew member training of Pegasus Airlines,
- (3) Chief of Ground Operations – Responsible for ground operations of Pegasus Airlines,
- (4) Responsible for Continuing Airworthiness of Pegasus Airlines, in accordance with Regulation (EU) No 1321/2014.

(A) These managers are given form 4 by DGCA-TR and selected in accordance with position qualification requirements which are stipulated in each individual position's prerequisites and competency requirements to be in line with SHY-6A, SHT-OPS/ EC 965/2012. Such person(s) shall be ultimately responsible and direct reporting to the Accountable Manager.

(B) To ensure (in their respective defined operational areas) the management of safety risks and security threats to aircraft operations.

(C) To conduct the operations in accordance with conditions and restrictions of the Air Operator Certificate and in compliance with the applicable and up-to-date regulations and standards of Pegasus Airlines at all times.

Nominated Persons should have but not least practical experience and expertise in the application of aviation safety standards and safe operating practices.

In general, Nominated Persons shall have comprehensive knowledge of:

- The applicable EU safety regulations and any associated requirements and procedures
- Pegasus Airlines Operations Specifications;
- The need for, and content of, the relevant parts of the Pegasus Airlines Operations Manuals;
- Management systems, preferably in the area of aviation;
- Management practice via appropriate management experience, preferably in a comparable organization,

Requirements include 5 years of relevant work experience of which at least 2 years should be from the aeronautical industry in an appropriate position.

#### Senior Management Level:

Senior Management Persons (who are enlisted below) are approved by DGCA-TR in compliance with SHY-6A and 965/2012 (Nominated Persons) ORO.GEN.210, ORO.AOC.135, AMC1-2 ORO.AOC.135 (a), GM 1-2 ORO.AOC.135 (a).

The titles and names of persons referred to are as follows:

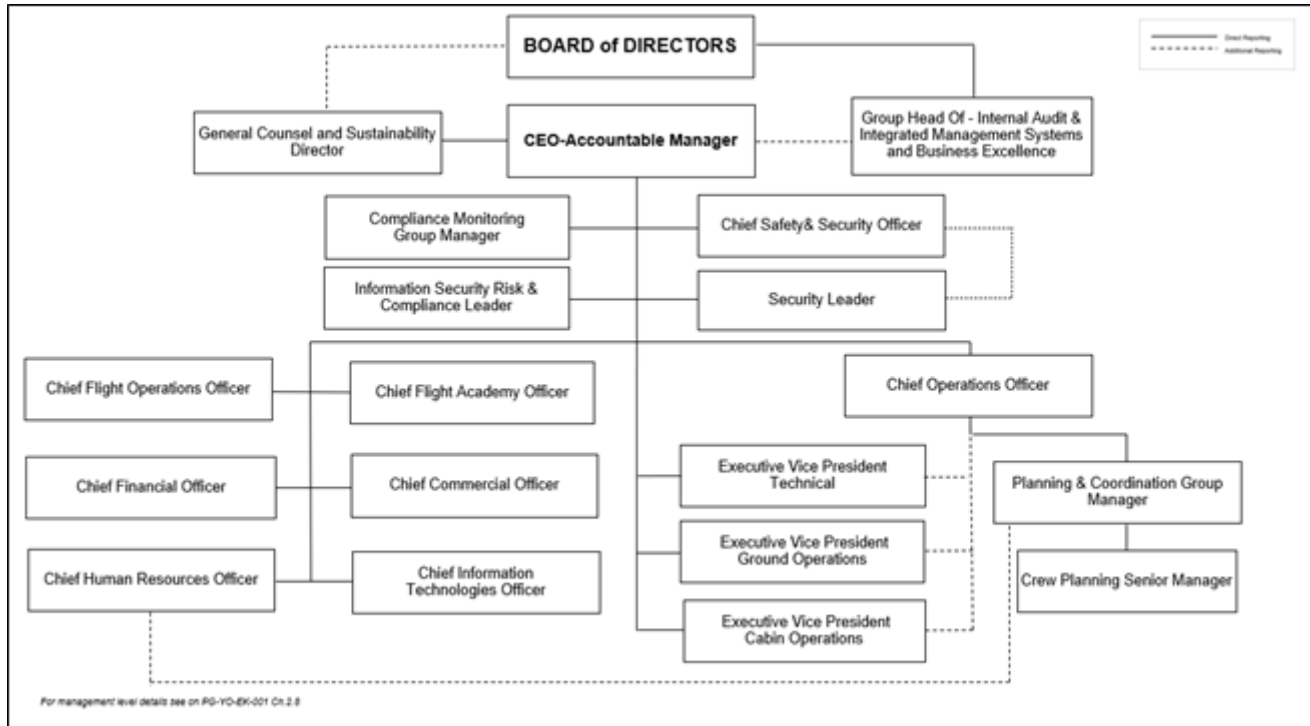
ORO/ORA.GEN.210 and ORO.AOC 135	Name
Accountable Executive/Manager	Mrs. Güliz ÖZTÜRK
Chief Flight Operations Officer	Capt. Gençer KARATEPE
Chief Flight Academy Officer /Head of Training	Capt. Yavuz Selim ÖZMEN
Executive Vice President – Technic	Mr. Tahsin İSTANBULLU
Executive Vice President – Ground Operations	Mr. Boğaç UĞURLUTEĞİN
Chief Safety and Security Officer	Capt. Murat TÜNAY
Executive Vice President- Cabin Operations	Mr. Ersel GEYİK
Aviation Security Leader (RP)	Mrs. Müge KARAPINAR
Compliance Monitoring Group Manager	Mr. Sinan Onur ÖZTUNA

**Management Level:** Organization chart and reporting lines are shown below Management Level Personnel are approved by DGCA-TR (except Group Head of - Cargo) in compliance with SHY-6A. The Management Level positions are essential to the company's mission and goals, though they have less responsibility, decision making and accountability than senior managers.

SHY-6A of DGCA-TR	Name
Chief Financial Officer	Mr. Mahmut Barbaros KUBATOĞLU
Deputy Vice President- AMO	Mr. Tarık Kemal KIZILTEPE
Deputy Vice President- CAMO	Mr. Kerem AĞARTAN
Technical Training Manager	Mr. Ferit SAİTOĞLU
Crew Planning Senior Manager	Mr. Murat HASANUSTA
Cabin Crew Training Group Manager	Mrs. Derya ŞİMŞEK
Ground Training Leader	Mrs. Ferhan VEYİSOĞLU
Head of Cyber Security	Mrs. Güller GÜNGÖRDÜ
Safety Management System Leader CAMO&145	Mr. Kerim Muammer YURDUSEVEN
Technical Compliance Monitoring Leader	Mrs. Ebru Gökçin KIZILKAYA
Group Head of - Cargo	Mr. Hasan ÖZDEMİR

**Non-Management Level:** All positions (include department head) excluding Accountable Manager, Senior Management and Management levels are considered as non-Management persons. Non-management persons are responsible for their own performance within the Pegasus organization. The duties and responsibilities of each of these roles are contained in the Job Descriptions held by the HR Department.

For detailed information about selection process basis of knowledge, skills, training and experience of management and non-management positions and their responsibilities, please refer to the Corporate Manual PG-YO-EK-001.



For details refer to, PG-İK-BK-001 Board Organization Chart.

### 3.2 DEPUTY ACTIVATION PROCESS

In the event of being away from duty for more than 3 working days due to annual leave, business trips or any other absenteeism reasons, a delegation of authority should be assigned to a pre-defined deputy for the positions of Accountable Executive/CEO, top managers directly reporting to the Accountable Executive/CEO, managers approved by the Turkish DGCA stated in Article 4, managers specified in the signature circular and operational department managers in Pegasus Hava Taşımacılığı A.Ş.

In compliance with the internal regulation of the company the deputy of the Chief Safety and Security Officer (Safety Manager) is SMS Senior Manager, FDM Senior Manager and Safety Management System Leader CAMO&145 within the scope of the Management of the Chief Safety and Security Office.

Refer to PG-YO-YN-011 "Delegation Regulation" for further details about the delegation of authority for operational and support departments and application principles.

### 3.3 ORGANIZATIONAL STRUCTURE AND RESPONSIBILITIES

#### CHIEF SAFETY & SECURITY OFFICE







#### The Accountable Executive:

- To be responsible for managing Pegasus Airlines organization under the terms of SHY 6A, SHT OPS, SHT UYUMLULUK İZLEME TALİMATI, EASA Air Operations Regulation 965/2012, EASA Air Crew Regulation 1178/2011, EASA TCO - Third Country Operators Regulation 452/2014, PART M, SHT-CAM, CAMO, SHT-145 /Part-145, SHT-66 / Part-66, SHT-147 / Part-147, ISO 9001, 14001, 45001, 27001, IOSA ISARPS and Company Procedures.
- To be responsible that Pegasus operates in accordance with AOC, Operations Specifications, CAMO, ATO, AMO, AMTO Approvals, Authorizations, Certifications and statutory, regulatory requirements and standards where operations are carried out.
- To be responsible for leading the development and execution of the Company's long-term strategy with a view to create shareholder value.
- To lead overall organization with strong coordination role.
- To oversee alignment between strategic priorities and resource allocation, and ensure consistent, transparent and well-supported decision-making when considering new or difficult programming and operational opportunities, and expenditures.
- To oversee budget, income statement, balance sheet and cash flow statement.
- To define and execute strategic initiatives; deliver on key elements of business, operation and financial strategy.
- To maintain an effective and transparent dialogue with Board and investors.
- To lead organizational transformation and consolidate leadership team
- To simplify organization and governance structure
- To review and revise compensation and performance management systems
- To prioritize attracting/retaining/investing in top talent and developing people
- To create a high-performance culture at Pegasus
- To manage senior level government and regulative body relations
- To be responsible for presenting the information in the financial information set in timely, wholly and accurate manner.
- To determine the lines of safety and security accountability throughout the organization
- To have direct accountability for safety and/or security throughout the organization
- To have the authority to ensure all necessary financial and human resources are available to meet and maintain the required regulatory and safety standards.
- To encourage the personnel in increasing voluntary and mandatory safety reporting and in writing Hazard reports, promoting safety policy and implementing principles of Just Culture and the nonpunitive policies
- To determine the tolerability of the safety risks in all areas of operations in accordance to the PG-EM-EK-001 Chapter 4.10 Organizational Implementation of the Process and accepted standards.
- To manage appropriate company risk profile and ensure compatibility with safety and compliance requirements.
- To be responsible for ensuring appropriate actions are taken to address safety issues and safety risks.
- To be responsible for ensuring the Safety Management System is properly implemented and performed to requirements in all areas of Pegasus Airlines.
- To manage the safety risks and security threats to aircraft operations,

- To have authority for conducting over operations under the certificate, authorization or approval of the organization, including the authority to stop the operation or activity.
- To have accountability for establishing and promoting the safety policy and the non-punitive policy, setting of the acceptable safety risk limits and resourcing of necessary controls, promoting a positive safety culture, seeing the continuous improvement of the SMS.
- To be responsible for the active implementation of the peer support program and the establishment of an organizational structure in line with the standards. CSSO will take active part in the implementation and compliance monitoring on behalf of the CEO for this responsibility.

Related regulations:

- Commission Regulation (EU) 965/12 as amended by Regulation (EU) 2018/1042 covering:
  - AMC1 – AMC2 – AMC 3 – AMC4 CAT.GEN.MPA.215
  - CAT.GEN.MPA.215
  - GM1 CAT.GEN.MPA.215 through GM8 CAT.GEN.MPA.215
  - SHT-PSP (Article 11 Requirements Specific to the Accountable Executive)
- To act as the chairman at Safety Review Board Meetings and providing the necessary resources for safety issues.
- To establishing and defining desired Safety and Security Objectives which are consistent with Pegasus safety and security policies and to set Performance Indicators in all areas of operations by supporting Safety, Compliance Monitoring and Security Departments in managing an effective SMS, FRMS, SEMs and meeting the safety, security objectives of the organization as per accepted procedure and standards.
- To ensure that for monitoring and auditing compliance with all applicable regulatory requirements in order to ensure the adequacy and processes of Pegasus Airlines' compliance monitoring activities and safe and efficient operations and training activities as well as the requirements and provisions of all standards adopted by Pegasus Airlines.
- To ensure Company remains compliant with applicable regulatory, company and safety requirements.
- To ensure that all necessary resources which are needed for effective implementation of corrective actions are available and the related actions are taken as necessary.
- To periodically review the compliance monitoring function is effectively established, implemented, and maintained.
- To ensure that all necessary resources which are needed in all areas of operations are available to meet and maintain the required regulatory and standards.
- To ensure personnel who perform functions relevant to the safety or security of aircraft operations are maintained competence based on continued education and training and for the specified positions, continued to satisfy any mandatory technical competency requirements.
- To Act in accordance with role and responsibility for management systems instruction PG-EY-TL-002.

### 3.4.2 COMPANY MANAGERS

All managers are responsible for the safety of their respective areas and for supporting Chief Safety and Security Officer (Safety Manager) in managing an effective SMS and meeting the safety objectives of the organization. Company Managers are also responsible for:

- Ensuring compliance with regulatory safety requirements.
- Striving to improve safety culture in his/her department.

- Promoting and implementing just culture and the non-punitive policy.
- Encouraging the personnel in increasing voluntary and mandatory reporting.
- Rewarding the personnel for writing hazard reports.
- Supporting Chief Safety and Security Officer (Safety Manager) in managing an effective SMS and meeting the safety objectives of the organization.
- Ensuring that all accidents, incidents and/or occurrences related to their area of responsibility are adequately investigated to identify and correct root cause.
- Ensuring that the Safety Surveys are responded at highest level.
- Ensuring that the Safety Bulletins are acknowledged at highest level.

### 3.4.3 CHIEF SAFETY AND SECURITY OFFICER (SAFETY MANAGER)

He/she is nominated to implement the Safety Management System (SMS). He/she has the responsibility to monitor compliance with SHT OPS, SHT-UYUMLULUK İZLEME, EC 965/2012 Part ARO/ORO. GEN. 200, Part ARA/ORA, SUBPART ATO, SHY-CA, Part 145/SHT 145, Part CAMO/SHY CA/SHT CAM, Part 147/ SHT 147, IOSA, SHY-SMS, ICAO Doc.9859, ICAO Annex-13, ICAO Annex 19, SHT-FDM, SHY 6A, IMS, NCASP, ECAC Doc. 30, ICAO Annex-17 and Pegasus Airlines Company requirements.

#### Deputy

The deputy of the Chief Safety and Security Officer (Safety Manager) is the SMS Senior Manager, FDM Senior Manager and Safety Management Leader CAMO&145 within the scope of the Management of the Chief Safety and Security Office.

#### Duties and Responsibilities

The Chief Safety and Security Officer (Safety Manager) reports to:

- (1) The Safety Review Board for SMS responsibilities;
- (2) The Accountable Executive for all safety and security related matters;

He/she promotes and supervises operational safety as representative for all safety related matters of the Company. He/she is the focal point for the development and maintenance of an effective Safety Management System. He/she is appointed to manage and oversee the day-to-day operation of the SMS operation throughout the Company on behalf of the Accountable Executive and senior management. He/she is also likely to be the main point of contact with the regulatory authority for safety issues. He/she has the authority and independence and responsible for the performance of the Safety Management System and and Security Management System and for ensuring communication and coordination with appropriate operational managers.

Pegasus Airlines has an independent corporate safety structure, which may provide the flight accident prevention function with direct lines of reporting to senior corporate officials. This type of structure allows an effective and fully integrated system of prevention across all relevant operational disciplines.

The CSSO also has the responsibility to ensure the implementation of an effective Security Management Systems (SeMS) within the scope of National Civil Aviation Security Program (NCASP) and its Annexes, namely SHT-17.2 - Civil Aviation Security Training and Certification Directive, and SHT-17.3 - Security Management Systems Directive, as well as relevant National and International Aviation Security publications throughout Pegasus Airlines operations.

He/she carries university degree and has Captain License with at least 5 years of operational experience and minimum five years of management experience in commercial aviation industry. He/she has a good command of English and computer literacy, good knowledge of T-DGCA procedures and ICAO, AIR-OPS Regulations. He/she fulfils all requisitions covered in SHY 6A, and requirements of Pegasus AOC.

He/she has the below core competencies;

- the promotion of a positive safety culture.
- interpersonal, influencing and leadership skills.
- oral and written communication skills.
- data management, analytical and problem-solving skills.
- professional integrity.
- relevant and documented work experience, preferably in a comparable position, in:
  - management systems including compliance monitoring systems and safety management;
  - risk management.

ISO 9001 Quality Management System and Internal Auditor Training, Safety Management Systems, Security Management Systems (SeMS), Risk Management, Accident Incident Investigation, Human Factors and other formal required training courses are completed.

He/she is responsible for:

- Establishment, development, management, documentation and day to day administration of SMS, FRMS and ERP throughout the organization on behalf of the Accountable Executive and senior management,
- Oversight of SMS, FRMS and ERP ensuring compliance with TR-DGCA and all other applicable regulations, company and customer standards, and airworthy aircraft,
- Promotion and periodic review of safety policy, security policy, fatigue risk management policy and non-punitive policy to ensure their continued relevance as well as the deployment of the relevant policies throughout the organization,
- Management of continuous improvement by ensuring that corrective actions are taken by the relevant post holders and department heads within Pegasus Airlines,
- Administration of Safety Review Board, Safety Action Group, Fatigue Safety Action Group and Flight Operations Safety Review and FDM Meetings,
- The performance of the flight safety analysis program,
- The dissemination of information to management and non-management operational personnel as appropriate to ensure an organizational awareness of relevant flight safety issues,
- Maintaining open communication and coordination with all the relevant nominated persons, responsible managers / supervisors, department heads, and personnel in the identification, assessment and mitigation of operational risks,
- Maintaining a continued feedback system to the Accountable Executive about progress and adequacy of Safety Management, Fatigue Risk Management and ERP ensuring that deficiencies and non-compliances are identified, root causes are analyzed, risks are assessed and the appropriate corrective/preventive actions are applied,
- Communicating and coordinating with regulatory authorities and other external entities with regards to safety issues on a regular basis ensuring coordination with departments,
- Liaison (on behalf of the Accountable Executive) with Regulatory Authorities, Original Equipment Manufacturers (OEM) and other operational internal/external entities.
- Ensuring safety related trainings are taken by all necessary personnel,
- Ensuring SMS, FRMS and ERP requirements are implemented in the Company and by third parties,
- Taking active part in the implementation and compliance monitoring on behalf of the Accountable Executive which involves establishing an organizational structure which allows for peer support program

are following all standards specified in the legislation. CSSO is also an active member of the Oversight Committee.

- Assuring that all personnel are trained to handle organization emergencies based on their role in the organization and to control and observe the emergency management activities,
- Ensuring safety audits of any aspects of the operation are conducted according to Compliance Monitoring Program,
- Administration of Flight Data Monitoring program as team leader, ensuring system security and guaranteeing confidentiality,
- Ensuring safety-related information, including organizational goals and objectives, is made available to all personnel through established communication processes,
- Ensuring the SMS and SeMS effectiveness of the operational activities,
- Providing periodic reports on safety performance,
- To determine the lines of safety and security accountability throughout the organization within his/her respective defined area,
- To have accountability for safety and/or security throughout the organization within his/her respective defined area,
- To encourage the personnel in increasing voluntary and mandatory safety reporting, promoting safety policy and implementing principles of Just Culture and non-punitive policies.
- To determine the tolerability of the safety risks in related area of operations in accordance the PG-EM-EK-001 Chapter 4.10 Organizational Implementation of the Process.
- Facilitating hazard/risk identification and risk analysis and management
- Monitor the implementation of actions taken to mitigate risks, as listed in the safety action plan,
- Ensure initiation and follow up of internal occurrence/accident investigations,
- To have the responsibility for ensuring, in his/her respective defined area:
  - To manage the safety risks and security threats,
  - To conduct the operations in accordance with conditions and restrictions of the Air Operator Certificate (AOC), and in compliance with applicable regulations and Pegasus standards.
  - To take into account requirements originating from applicable external sources, including regulatory authorities and original equipment manufacturers.
- To establish and define desired Safety and Security Objectives and to set Performance Indicators in his/her respective area of operations by supporting Safety and Security Departments in managing an effective SMS, SeMS and meeting the safety, security objectives of the organization as per accepted procedure and standards.
- To ensure that all necessary resources which are needed in his/her respective area of operations are approved by Accountable Executive to meet and maintain the required regulations and standards.
- To distribute information to management and non-management operational personnel by using company communication methods (e-mail, bulletin, reports, training, meeting etc.) to ensure an organizational awareness of relevant quality assurance issues and results.
- To ensure that Aviation Security is a core element of the Corporate Commitment and is integrated throughout all company activities,
- To guarantee the timely implementation of required security measures to maintain Aviation Security continuity.

- To ensure the adequacy of security procedures and compliance with these procedures.
- To ensure that a system of investigation, reporting, development, recording, risk analysis and threat assessment for Aviation Security incidents and deficiencies is established, and that necessary preventive/corrective actions are taken.
- Act in accordance with role and responsibility for management systems instruction PG-EY-TL-002.

#### **3.4.3.1 SENIOR MANAGER - SMS**

Responsibilities and duties are described in PG-EM-GT-001.

#### **3.4.3.2 SENIOR MANAGER - FDM**

Responsibilities and duties are described in PG-EM-GT-002.

#### **3.4.3.3 SAFETY AND RISK MANAGEMENT SPECIALIST**

Responsibilities and duties are described in PG-EM-GT-005.

#### **3.4.3.4 FDM SPECIALISTS**

Responsibilities and duties are described in PG-EM-GT-003.

#### **3.4.3.5 SAFETY AND ERP SENIOR SPECIALIST**

Responsibilities and duties are described in PG-EM-GT-004.

#### **3.4.3.6 SAFETY AND FRMS SENIOR SPECIALIST**

Responsibilities and duties are described in PG-EM-GT-006.

#### **3.4.3.7 FDM LEADERS - BOEING/AIRBUS**

Responsibilities and duties are described in PG-EM-GT-007.

#### **3.4.3.8 SAFETY MANAGEMENT SYSTEM LEADER**

Responsibilities and duties are described in PG-EM-GT-010.

#### **3.4.3.9 SAFETY ACCIDENT AND INCIDENT INVESTIGATOR**

Responsibilities and duties are described in PG-EM-GT-011.

#### **3.4.3.10 SAFETY AND HUMAN FACTORS SENIOR SPECIALIST**

Responsibilities and duties are described in PG-EM-GT-012.

#### **3.4.3.11 SAFETY DOCUMENTATION AND COORDINATION SUPPORT SPECIALIST**

Responsibilities and duties are described in PG-EM-GT-013.

#### **3.4.3.12 PEER PILOT GROUP REPRESENTATIVE**

Responsibilities and duties are described in PG-EM-GT-014.

#### **3.4.3.13 PEER PILOT**

Responsibilities and duties are described in PG-EM-GT-015.



#### 3.4.3.14 SAFETY MANAGEMENT SYSTEM LEADER CAMO&145

Responsibilities and duties are described in PG-EM-GT-016.

#### 3.4.3.15 SAFETY ADVISORS

Safety Advisors have been assigned as SMS and SRM Advisors separately or as a single person within the organization. All of them will be referred to as Safety Advisors in the SMM.

Safety Advisors are chosen among the personnel Flight Operations, Cabin Operations, Flight Academy, IOCC, Cargo, Ground Operations, Technic Department and they have overall responsibility for the safety functions in their area of responsibility. Safety Advisors regularly report to the Nominated Person/Responsible Manager and Chief Safety and Security Officer (Safety Manager) to guarantee and assure the safety of all processes, procedures and implementations including safety risk management activities in accordance with company safety policy and objectives. He/she acts as liaison personnel Chief Safety and Security Office for all safety issues.

Safety Advisors complete Safety Management Systems and Safety Risk Management Trainings. Refer to this manual Chapter 6.3.5 Safety Training For Safety Advisors for further details. They are familiar with ICAO and EASA-OPS documents relating to safety, and T-DGCA procedures. Strong discussion skills, analysis/synthesis capabilities, and good safety and risk-based perspective and approach to all operational issues are also required.

Safety Advisors are responsible for the following activities:

- Assists and ensures the Nominated Person/Responsible Manager about compliance that all operational measures and procedures are conducted in accordance with safety policy and regulations.
- Defines Safety Performance Indicators/Targets according to company significant risks and safety policy.
- Conducts Safety Issue Risk Assessment (SIRA) process related to the department by using all-hazard/risk identification methods and sources and gathering risk-related data from internal or external resources.
- Manages department reports with the supervision of the Chief Safety and Security Office by following up safety-related reports and analysing them to identify root causes and to take action for avoiding hazards.
- Monitors new implementations and changes to identify or predict hazards and emerging threats.
- Participates in SAG/FSAG/Flight Operations Safety Review and FDM Meeting and any required safety related meetings as representative of department.
- Establishes proper communication (safety promotion) methods with unit operational personnel (bulletin, flyer, video, poster, meeting, survey etc.) with supervision of Chief Safety and Security Office and coordinate safety communication with third parties/contractors. In this context, in case of changes in third parties/contractors, he/she informs the Chief Safety and Security Office in order to ensure that it is up-to-date in various applications and systems.
- Monitors and assures that proper hazard control actions have been taken for department related issues.
- Assists and takes part in related safety investigations with Chief Safety and Security Office and he/she has the responsibility to conduct safety investigations of own department.
- Conducts department related Management of Change studies with department managers and attends MOC studies of other departments when required.
- Evaluates and advises Nominated Person/Responsible Manager for actions of safety recommendations of investigations and occurrences.
- Follows any discipline related document and procedure updates with amendments.



#### **3.4.4 ALL PERSONNEL**

All personnel are responsible for working safely and maintaining a safe work environment. Personnel are required to conduct themselves in a manner that is consistent with the Company safety rules and policies. All personnel are also responsible for safety performance of SMS.

#### **3.4.5 COORDINATION OF EMERGENCY RESPONSE PLANNING**

For further information, refer to Pegasus Airlines Emergency Response Manual (PG-EM-EK-002).

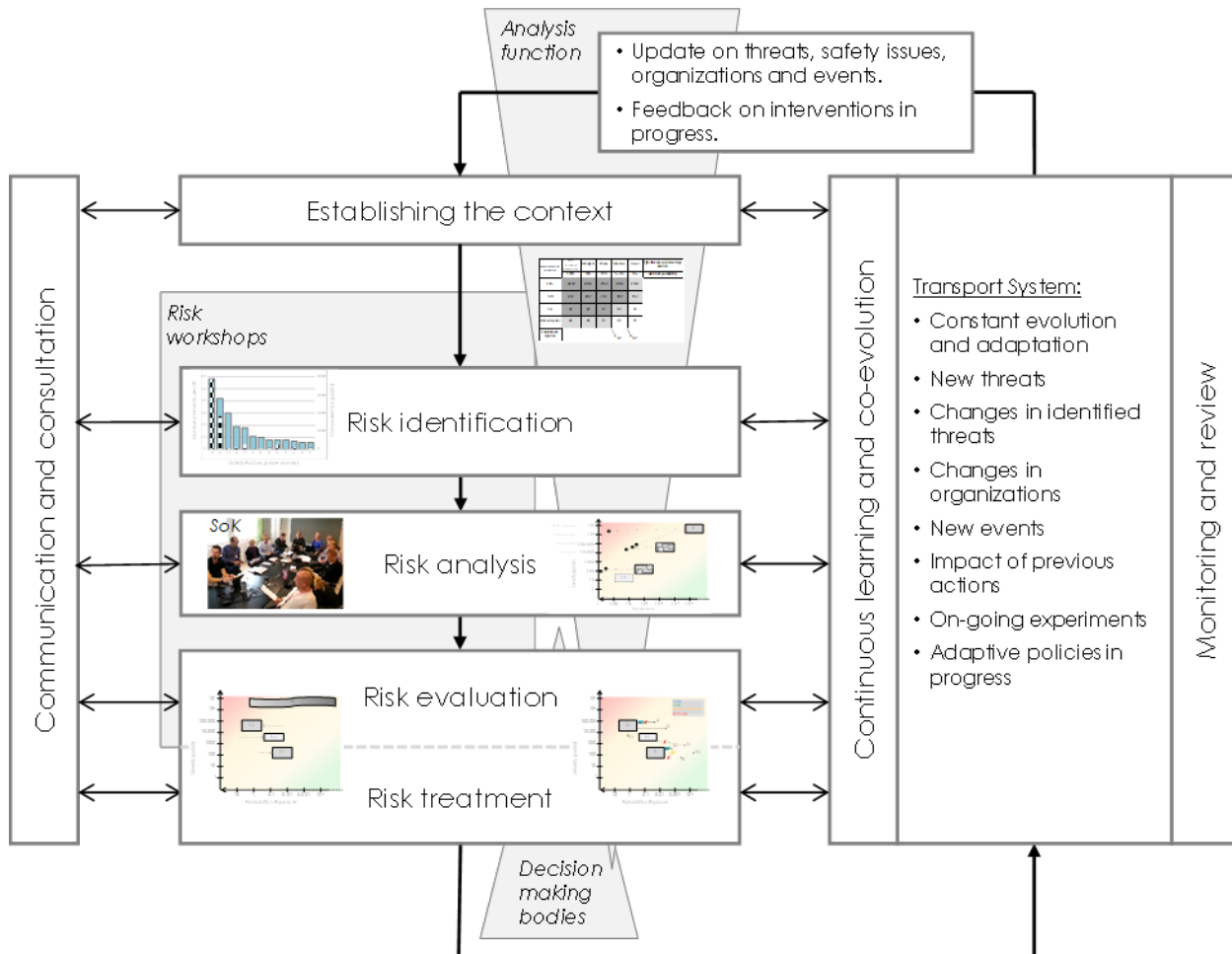
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## 4 SAFETY RISK MANAGEMENT

### Safety Risk Management Process

The process and methods adopted comply with the guidance material created by key aviation organizations and regulators (e.g., EASA, ICAO) and utilize some aviation industry best practices, such as the European ERCS (European Risk Classification Scheme) standard for Event Risk Classification.

The approach we adopt is scientifically more robust than current industry methods typically are, because of the introduction of the Strength of Knowledge concept, which becomes an important parameter in risk assessment.<sup>1</sup> The process is in line with the international ISO 31000 standard on risk management, which is fully compatible with the ICAO Annex 19 and ICAO SMM (Safety Management Manual – Doc 9859) and relevant SHY-SMS. The risk management process is followed through as indicated in below figure.



Detailed ISO 31000 Risk Management process<sup>2</sup>

### 4.1 DEFINITIONS

**Risk Management** is defined as the identification, analysis, elimination, and/or control to an acceptable level, those risks that can threaten the people, assets or earning capacity of an enterprise. The Safety Risk Management process seeks to identify, analyse, assess and control the risks incurred in airline operations so that the highest standard of safety can be achieved. It must be accepted that absolute safety is unachievable, but reasonable safety can be achieved across the spectrum of the operation.

Safety risk management is a core activity of SMS and supports the management of safety and contributes to other, indirectly related organizational processes.

**Risk** is the uncertainty about and the severity of the consequences of an activity with respect to something that humans value.

<sup>1</sup> Aven 2013, Aven & Krohn 2014

**Undesired Operational State (UOS)** is a stage in the escalation of an accident scenario where the accident will occur, unless an active recovery measure is available and is successfully used. It is the point where we lose the control over a hazard.

**Threat** is a condition, object or activity that may cause the Company to lose control over a hazard.

**Loss** can be seen as a risk which has materialized. An accident would be a typical loss. Losses are also the outcomes that one tries to avoid through risk management.

**Safety Event** is any operational event which could be considered to have safety implications, irrespective of whether it reaches the defined thresholds for becoming an incident or an accident in the official sense.

**Safety Occurrence:** Any event which is or could be significant in the context of aviation safety, and which must be reported under a national mandatory occurrence reporting system, or under a voluntary occurrence reporting system, or, in the case of less severe occurrences, because the reporter believes that they could have safety significance.

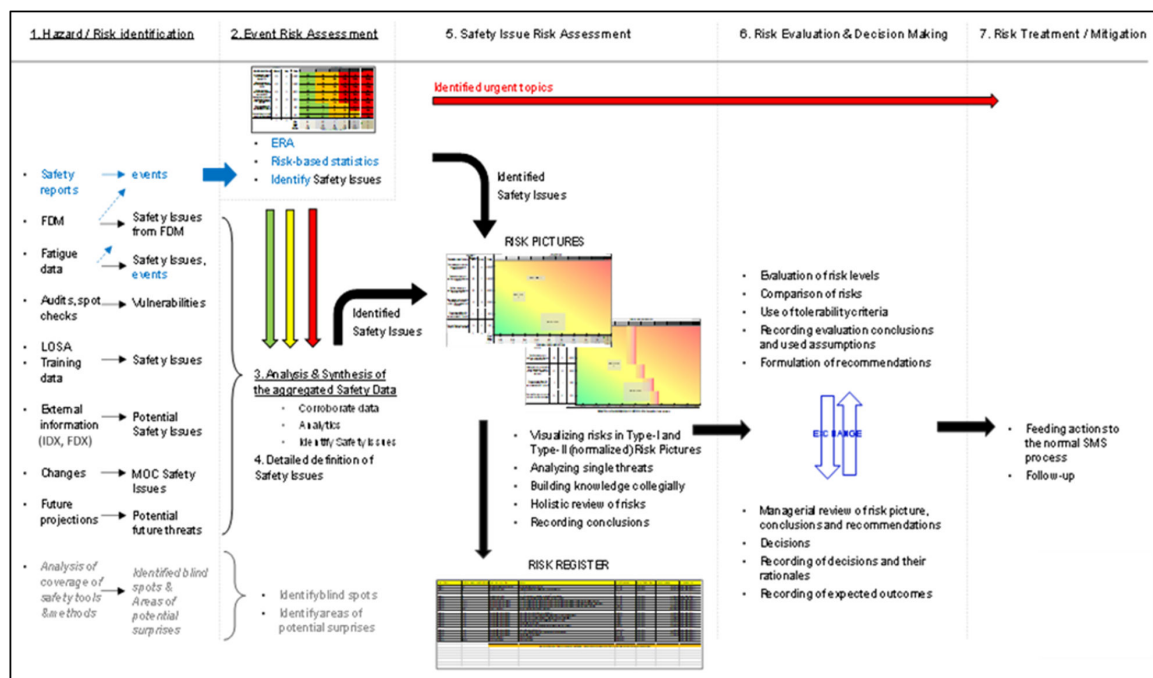
<sup>2</sup> (Nisula 2018)

The complete Pegasus Airlines risk management process is described in Figure 2 below.

The key steps of the process are:

- Hazard/Risk Identification
- Event Risk Assessment (ERA)
- Analysis & Synthesis of the aggregated Safety Data
- Detailed definition of Safety Issues
- Safety Issue Risk Assessment
- Risk Picture and Risk Register
- Risk Evaluation and Decision Making
- Risk Treatment/Mitigation

A detailed description of the methods is provided in subsequent subtitles, followed by the organizational aspects related to the process.



Overview of the Pegasus risk management process

The following subtitles focus on the methods used by Pegasus Airlines in managing their operational risks.

In the context of safety events, losses and risk, it is important to highlight the difference between actual and potential outcomes. The **actual outcomes** of an event are the tangible outcomes of the event in the real world as the event unfolded. The **potential outcomes** refer to the outcomes that could have resulted in if the event had escalated and become an accident (or an incident). For example, in a near-collision between two large passenger aircraft the actual outcome is "nothing", but the potential outcome is a midair collision with several hundred fatalities. The term potential outcome is often used in the context of a specific scenario.

The definition of **hazard** can be based on the following Society for Risk Analysis (SRA) glossary definitions:

- Harm is physical or psychological injury or damage
- Damage is loss of something desirable.
- Risk source is an element (action, sub-activity, component, system, event, etc.) which alone or in combination with other elements has the potential to give rise to some specified (typically undesirable) consequences.
- Hazard is a risk source where the potential consequences relate to harm.

For example, a strong gusty wind is a **hazard**. Inflammable fuel is another hazard. A **safety issue** is defined as a specific concern about a certain type of accident risk in a specific context. It can be seen as a hazard or a combination of hazards in a specific defined context. An operator may consider its operation to a specific airport a safety issue due to specific hazards associated with that operation (frequent strong gusty crosswind, frequent bird activity, short runway, etc.). Typically, a safety issue may be identified due to one or more safety events.

For example, fatigue reports emerging repeatedly from a specific route may lead to the identification of the related safety issue. A **scenario** is a more detailed description of how a specific accident type can develop within a given safety issue. A single safety issue may contain several scenarios. Incorrect loading of an aircraft may be identified as a safety issue.

That safety issue could contain several scenarios:

- (a) loss of control due to unfastened cargo moving during the flight;
- (b) loss of control due to overweight;
- (c) loss of control due to center of gravity out of limits.

Usually a scenario is the level at which risk can be assessed, i.e. one cannot perform risk assessment on a hazard.

Safety issues and scenarios can also be called threats. In other words, the meaning given to threat is slightly more specific than that of hazard. The term threat can be useful as for different people the term "risk" could mean both the "situation or event where something of human value is at stake and where the outcome is uncertain" and the magnitude of the risk.

**Severity** refers to the *magnitude of loss (damage, harm, etc.)*. In the context of risk assessment, severity usually refers to a scenario (of loss) which is possible but which has not yet materialized. Therefore, in this context the focus is on a **potential severity** associated with the scenario.

A **risk picture** is a visual presentation where several risks are presented simultaneously so that their characteristics and importance can be compared. Ideally, a risk picture helps to gain an overall understanding of safety and risks within a certain system or operation and thereby supports prioritization and decision making. Based on the above definition of the term threat, the risk picture could also be called "picture of threats".

The International Organization for Standardization (ISO) has also published a standard in risk management "ISO 31000 Risk management – Principles and guidelines" (ISO 2009). In comparison to the above SRA glossary definitions, the ISO standard contains the following definitions:

- **Risk identification** is the process of finding, recognizing and describing risks based on historical data, theoretical analysis, expert opinions, etc.

- **Risk analysis** is the process of identifying risks, threats and hazards which are not be able to be collected via safety data.
- **Risk assessment** is the process to comprehend the nature of risk and to determine the level of risk. It includes risk estimation, and provides the basis for risk evaluation, which is the process of comparing the results of risk analysis with risk criteria to determine whether the risk and/or its magnitude is acceptable or tolerable.
- The term **risk management** can be used to describe the overall process of risk identification, risk analysis, risk assessment and risk evaluation.
- The process to modify risk is called **Risk Mitigation/Treatment**.
- Individual measures modifying risk are called (risk) **Controls**. Earlier literature uses terms such as (risk/safety) barrier, defence or safeguard.<sup>3</sup> Control is an action put in place to limit the potential for harm should a hazard be released. These may also be physical or procedural.
- **Consequence** is the **outcome** of *an event* affecting objectives.
- **Likelihood** is *the chance* of an unsafe event or condition might occur.

**Reactive:** This methodology involves analysis of past outcomes or events. Hazards are identified through investigation of safety occurrences. Incidents and accidents are clear indicators of system deficiencies and therefore can be used to determine the hazards that either contributed to the event or are latent.

Reactive – Investigation of past events, reporting past events/occurrences. This process can be referred to as a Lagging Indicators.

**Proactive:** This methodology involves collecting safety data of lower consequence events or process performance and analysing the safety information or frequency of occurrence to determine if a hazard could lead to an accident or incident. Safety information for proactive hazard/risk identification primarily comes from Flight Data Monitoring (FDM) programmes, safety reporting, brainstorming during safety training, associated analysis and assessment processes and involves analysis of existing or real-time situations which is the primary job of safety assurance function with its audits and evaluations.

Proactive – Reporting near misses, identifying existing hazards and safety risks before they occur by analyzing activities, FDM, safety surveys, training data, audits and observations (Line Operations Safety Audit). These processes can all be regarded as Leading Indicators.

**Predictive:** This methodology involves data gathering to identify possible negative future outcomes or events, analysing system processes and the environment to identify potential future hazards and initiating mitigating actions. The core of predictive analysis relies on capturing relationships between variables from past occurrences and exploiting them to predict the unknown outcome. Some systems allow users to model different scenarios of risks or opportunities with different outcomes. This enables decision makers to assess the decisions they can make in the face of different unknown circumstances and to evaluate how they can effectively allocate limited resources to areas where the highest risks or best opportunities exist.

Predictive – Advanced data analysis to predict hazards and emerging safety risks, FDM, voluntary hazard observation reporting and change process management.

## 4.2 HAZARD/RISK IDENTIFICATION PROCESS

The purpose of hazard/risk identification is to identify the threats in the operation, so that they can be subsequently risk assessed. The Pegasus Airlines SMS features several distinct hazard identification sources, which are listed below.

<sup>3</sup> Reason 1990, Maurino et al. 1995, Hollnagel 2004.

Some of these sources describe individual safety events (e.g,Flight Safety Reports, Cabin Safety Reports, etc.), while other sources produce relevant safety information at a more generic level (i.e. safety audits, statistical results from FDM, etc.)

Some sources produce safety information typically in the form of statistics but also contain individual safety events, which can be extracted as necessary:

- FDM data
- Fatigue Risk Management System

There are also sources of hazard identification which are not primarily using in-house safety data. Typically, information from outside the airline can be used to predict emerging problems or issues that other organizations have identified.

The objective is to transform the raw safety data into risk information that can be practically used. For individual events, the first step is to perform an Event Risk Assessment (ERA).

Most of the other hazard identification sources produce information which can enter the analysis and synthesis stage directly (for details please refer to SMM 4.4). Analysis can then be performed at a higher level of data sophistication, using:

- Statistics and other findings from individual safety data sources
- Risk-based statistics resulting from an ERA
- Corroboration of results from different sources

Such analysis enables the identification of risks. These risks are defined as “Safety Issues” which can subsequently be presented and assessed in the Pegasus Airlines Risk Picture.

**The Pegasus Airlines SMS utilizes the following Hazard/Risk Identification Sources to collect safety data:**

**1. Safety reports (flight crew, cabin crew, ground, maintenance, etc.)**

- All Safety Reports undergo the ERA via IQSMS. Further treatment of the specific report is determined by the outcome of the ERA.

**2. FDM**

- FDM statistical results
- All crews involved in significant FDM events will need to submit an Safety reports, these events will be subject to ERA
- FDM is also used to validate events reported through Safety Reports

**3. Fatigue data**

- Statistical results
- Significant Fatigue events will be subject to ERA

**4. Audits, Spot Checks**

- Findings highlight vulnerabilities, such as non-compliance with safety regulations or implementation issues.
- These can provide inputs to Risk Assessments

**5. LOSA (Line Operations Safety Audit)**

- Both statistical and audit-style results

**6. Training data**

- Feedback from training can highlight vulnerabilities

- Feedback from recurrent training performance supports risk assessments (e.g. through the tracking of pilot core competencies)

## 7. IDX, FDX and other external sources

- Provide benchmarks
- Highlight risks identified outside the airline. These can be considered as potential future risks also at Pegasus Airlines

Acknowledging that the future is not necessarily identical to the past, it is necessary to identify future risks which emerge from the changing operational environment. These changes may be either conscious decisions taken at Pegasus Airlines (e.g. opening a new route) or related to the external environment.

**The following two processes are in place to identify future risks which would not be detectable in the collected Safety Data:**

- A Management of Change (MOC) method covering changes initiated by Pegasus Airlines (Please refer to SMM 5.3 Management of Change (MOC).
- A Future Risks Identification Process which covers risks related to the changes in the operational environment, not initiated by Pegasus Airlines itself.

Changes in the operational environment may introduce risks which cannot be predicted from the collected safety data, which is only reflecting the past. The future risks identification method addresses this gap. It is carried out continually in the following way:

- The SAG Meeting and Flight Operations Safety Review and FDM Meetings have an agenda item to brainstorm and discuss potential changes which could introduce new risks or changes in to the current risks. The results are recorded in the minutes.
- Highlighted items are worked on further during weekly meetings. The focus is on how the change could impact the operation, which existing risks could change, and which new risks could emerge.
- If the matter is large enough not to be finalized during the weekly meetings, a specific team is tasked to build up the Risk Assessment.
- The identified impacts are visualized in the Risk Picture and the rationale and assumptions are recorded.
- The results are presented and approved in the SAG Meetings and Flight Operations Safety Review and FDM Meetings.

## Cyber Threats

The civil aviation operation environment is changing rapidly and significantly, with the deployment of new advanced technologies and communication systems, shifting from manual processes to more efficient automated processes, communications, and storage, in order to enhance security and facilitation. In this context, Pegasus Airlines is certified with the standard of ISO/IEC 27000 Information security management systems.

Appropriate measures have been developed to protect critical technology systems and data from unlawful interference and are implemented within the company in accordance with risk management principles. For more information refer to PG-GU-EK-001 Air Carrier Security Program (ACSP) Manual Chapter 19.

### 4.2.1 OCCURRENCE AND HAZARD REPORTING

Please refer to PG-EM-PR-009 Occurrence and Hazard Reporting Procedure for more information about the report management process, mandatory and voluntary occurrence reporting, list of events to be reported and report forms in the IQSMS reporting module.

### 4.2.2 SAFETY SURVEYS

There are many areas of aviation activity which only rarely come under detailed review as the result of an accident or incident investigation, while others are never subject to such review. It should not be assumed, however, that these areas are of no significance for accident prevention purposes. For example, the



handling peculiarities of an aircraft type in certain circumstances may not be well documented in aircraft manuals and as a result could present the crew with a situation they had not been trained to expect.

Surveys of operations and facilities can provide management with an indication of the levels of safety and efficiency within its organization. Understanding the systemic hazards and inherent risks associated with everyday activities allows an organization to minimize unsafe acts and respond proactively by improving the processes, conditions and other systemic issues that lead to unsafe acts. In attempting to determine the underlying hazards in a system, such surveys are usually independent of routine inspections by authorities or company management.

Safety surveys examine procedures or processes related to a specific operation. Safety surveys may involve the use of checklists, questionnaires and informal confidential interviews. Safety surveys generally provide qualitative information. This may require validation via data collection to determine if corrective action is required. Nonetheless, surveys may provide an inexpensive and valuable source of safety information.

The Chief Safety and Security Office conducts safety surveys at least once in three years to evaluate the safety culture of the Company. The survey, using the questionnaire in this section, reveals three major aspects of the Company and how it behaves:

- The difference (if any) in the way managers and workers see the culture
- Targets for resources (any 1 or 2 answers)
- A benchmark to measure any changes to procedures against a later survey

Several separate results are obtained from a safety culture survey:

- (1) A benchmark safety culture score to compare with similar companies world-wide.
- (2) A means of comparing the views of management with those of staff regarding the Company's safety culture.
- (3) A means of evaluating the results of any changes made to the Company's safety management system when a follow-up survey is carried out.
- (4) Identification of areas concern indicated by "1" and "2" responses which can assist in the allocation of safety resources.
- (5) A means of comparing safety culture of different departments and operational bases.

In a positive safety culture, there is a sense of shared responsibilities towards achieving the organization's safety objectives. Accountability for safety is promoted and everyone is continuously striving to preserve and enhance safety. People are willing and able to adapt when facing safety issues and are also willing to communicate safety issues.

A positive safety culture relies on a high degree of trust and respect between the workforce and management. This is why the safety culture survey needs to be applied and responded by whole Pegasus Airlines employees.

An effective SMS empowers a positive safety culture and a positive safety culture empowers an effective SMS.

The safety survey is responded on the Company intranet page or on the internet. If necessary, Ground Operation personnel of Ramp Operation fills the PG-EM-FR-022 Safety Survey Form which has a simplified question set to increase the participation rate and accessibility. Specific safety surveys related to the components of the safety management system can be conducted if needed. The questions are reviewed before each safety survey and can be revised according to ICAO, EASA, IATA and company focus areas and developments.

Safety Survey can be outsourced and conducted by an authorized company. Application and evaluation methods may vary depending on the company process.

The higher the values on questions, the better the safety culture rating. Evaluation of the safety survey is done in accordance with ICAO standards. There are five Safety Culture maturity levels according to Hudson (P. Hudson, Implementing a safety culture in a major multi-national, Safety Science, 2007)

- Level 1 (Pathological): Who cares as long as we're not caught?
- Level 2 (Reactive): Safety is important; we do a lot every time we have an accident.
- Level 3 (Calculative): We have systems in place to manage all hazards.
- Level 4 (Proactive): We work on the problems that we still find.
- Level 5 (Generative): Safety is how we do business around here.

It is expected that organizations active in the aviation industry have safety cultures that range between the reactive and proactive levels. The following definitions have been developed by Montijn and de Hong for the three intermediate levels (Montijn, H. de Jong, Safety Culture in Air Transport: Definition, Characteristics, Indicators and Classification Scheme, NLR Memorandum ATSF-2006-150, 2006).

### **Reactive**

In a reactive safety culture, safety is generally regarded as a burden that is imposed by the Authorities. Action is taken only to satisfy the regulations, or after a safety event and often consists of identifying and punishing the responsible person(s). Only in the case of significant events does it become a topic of communication and actions are taken to prevent recurrence.

Managers perceive that the majority of accidents are solely caused by the unsafe behaviour of front-line staff. Unsafe behaviour is often accepted by such staff as a means the job done.

### **Calculative**

In a calculative safety culture, safety is considered as a factor that has to be accounted for. Safety is taken into account in the management's decision making, but in itself safety is not a core value. Managers recognize that a wide range of factors cause accidents and the root causes often originate from management decisions.

A safety reporting system is installed to meet legal requirements and is only used for gathering information. There is a general awareness of the safety risks induced by the operation, and the organization is willing to take action if these become too large. There are situations in which unsafe behaviour is accepted to get the job done, but in general there is a mutual expectation of safe behaviour.

### **Proactive**

In a proactive safety culture, safety is considered as a core value. Safety plays an important role in decision making at management level as well as in day-to-day operations. The safety reporting system is not only used for detecting significant safety issues, but also for detecting issues with less or no obvious impact on safety.

The operations are regularly assessed, and safety actions are evaluated after implementation. After a safety event, the main objective of management is to prevent recurrence. There is a general awareness of the safety risks associated with the operation, and action is taken to reduce them as much as possible.

Safety survey is responded to within a maximum of two months and draft safety survey evaluation report is prepared within one month. Draft safety survey evaluation report and recommendations are communicated and reviewed with each department post holders and managers with via meetings. The Final report is published within three months following the completion of the survey Identified findings and actions are included in the final report. Actions are assigned to relevant departments via the QDMS.

## **4.2.3 SAFETY AUDITS AND SPOT CHECKS**

As a structured review of the company systems and procedures, the Compliance Monitoring Department conducts audits to identify the hazards for all processes pertaining to its activities and to evaluate whether the risk control measures that were taken to minimize risk are effective.

SMS related questions are incorporated into Compliance Monitoring Audit Checklists and safety audits are conducted as a part of compliance monitoring audits. Compliance Monitoring Department perform audits on behalf of Chief Safety and Security Office. If there is a finding related to safety, Compliance Monitoring Department sends the audit report to Chief Safety and Security Office via IQSMS system as an automatical e-mail.

The administration of audits is in principle filed by means of IQSMS. IQSMS is the approved software to handle the administrative work regarding the audit planning, administration of audit questions, conducting audits, scheduling findings, and corrective actions and information management regarding audits. The audit checklists are created electronically and are updated in the IQSMS system. During the audit, IQSMS system is used to fill checklists. A standard template is available on IQSMS and it shall be used to submit the findings to the auditee. This form will ensure the life cycle of an audit. The main purpose of this report is to convey to the postholder's, department functional heads and the management of outsourced functions (auditee) for whom the audit is conducted, the findings, conclusions and judgment of the auditor/audit team. Chief Safety and Security Office conducts safety spot checks for operational departments when necessary.

#### **4.2.3.1 LINE OPERATIONS SAFETY AUDIT (LOSA)**

The Line Operations Safety Audit (LOSA) is a formal process that requires expert and highly trained observers to ride jumpseat during regularly scheduled flights. LOSA observers collect safety-related data on environmental conditions, operational complexity, flight crew threat and error management and crew resource management (CRM).

Pegasus Airlines' LOSA programme has the following characteristics:

- 1.** Jump seat observations during normal flight operations: Observations are conducted on regular and routine line flights, and the flight crew is advised and clearly understands that normal line monitoring is not an evaluating, training or checking activity. Observers are trained by Chief Safety and Security Office. The flight crew would be expected to operate as if the observer was not there.
- 2.** Joint management/pilot sponsorship: For the LOSA to succeed as an effective safety project, takes support from both management and the line pilots.
- 3.** Voluntary crew participation: Participation in the LOSA is completely voluntary and crew have the right to decline participation at any time.
- 4.** Collection of only de-identified, confidential safety data: Data collected from observations are confidential, de-identified and used for safety enhancement purposes only. Data from an observation are never permitted to be used for disciplinary action unless there is evidence of wilful misconduct or illegal activity.

Procedures are in place to ensure that data from observations are retained in a way that is consistent with effective security.

- 5.** Targeted observations: All data are collected on a specifically designed LOSA Observation Form. The current data collection tool is the LOSA Observation Form, which, among other things, records flight and crew demographics, narratives of what the crew did well and did poorly, how they managed threats or errors for each phase of flight, and crew suggestions to improve safety, training and flight operations.
- 6.** Trusted, trained and calibrated observers: Observers are specifically selected and trained (calibrated) to ensure a high level of consistency and standardisation in the data being collected. Observers are objective, impartial and have a high level of integrity.

LOSA trainings are planned for 2 days. The content of the training given on the first day is as follows:

- LOSA definition and purpose,
- History of LOSA,
- Observer Etiquette,
- Definitions (Threat, Error, Threat and Error Types, Threat and Error Management),
- The Pegasus Airlines Characteristics Of LOSA

- LOSA Objectives
- LOSA Results and Actions belong to previous years
- Using of Data Collection Checklist and Threat and Error Code Book
- Coding LOSA Data after flights

The day after the training, LOSA training flights are planned for the LOSA observers. On the second day of the training, wash-up studies of LOSA training flights are made.

**7. Trusted data collection site:** In order to maintain confidentiality, Pegasus Airlines has a trusted data repository. No observations can be misplaced or improperly disseminated within the airline, without compromising LOSA integrity.

**8. Data verification:** There is a process in place to ensure that data collected from observations are subjected to analysis from appropriately diverse subject matter experts to provide consistency and accuracy.

**9. Data-derived targets for enhancement:**

- Data derived from observations are analysed and presented in a manner that identifies potential weakness and permits Pegasus Airlines to develop appropriate action(s) that will enhance specific aspects of the operation. Objectives of observations should be clearly defined, and collected data are always used to address specific issues that affect flight safety.
- Results from the monitoring programme, including the recommended corrective action plan, are communicated to flight crew members. Pegasus Airlines LOSA process is carried out as stated below. Decide on the focus of the LOSA

Decide on the number of sectors to observe

Select LOSA Observers

- Create or update an observation form/checklist
- Gather Information and LOSA resources from other airlines and industry, check for the updates of the documentation
- Publicize LOSA within the company and send a notice to pilots
- Inform LOSA observers about training program
- Train Observers
- Schedule first LOSA observations
- First Data Wash-Up
- Perform LOSA Observations
- Collect Data at Chief Safety and Security Office
- Verify Data
- Analyse Data
- Prepare Report

Pegasus Airlines conducts LOSA or Line Operations Observation Flights every three years to see if the implementations to the targets show performance improvements.

LOSA observation form numbered PG-EM-FR-003 is utilized for data recording.

#### **4.2.4 SAFETY INFORMATION EXCHANGE**

Safety information exchange or gathering from external sources is used for hazard/risk identification. Representatives from Chief Safety and Security Office attend various internal and external meetings to exchange safety information and to examine ways to improve safety and to avoid incidents and accidents.

They take part in T-DGCA, UOIT (National IRM), TOSHID Meetings externally and Reliability, Weekly Flight Operations Meetings, Weekly Operation Meetings and Weekly Executive Meetings internally.

Representatives from Chief Safety and Security Office regularly participate in industry forums/meetings/conferences to provide the exchange of safety information. Some of these are below;

- Runway Safety Meetings,
- T-DGCA - UK Workshops
- EASA - European Operators FDM (EOFDM) Working Group Meetings
- Airbus Flight Safety Conference,
- Safety Forum,
- SKYbrary Eurocontrol Conference,
- Air Convention,
- EASA FDM Conference,
- EASA Safety in Aviation Forum,
- EASA Annual Safety Conference,
- EASA SAFE 360 Conference,
- IATA Issue Review Meeting (IRM),
- Flight Safety Foundation International Air Safety Summit (IASS),
- IATA Safety and Flight Operations Conference
- PEER Support Conference,
- FRMS Conference,
- CGE Risk Management Network Event

Chief Safety and Security Office monitor various external safety publications. EASA Safety Information Bulletins are automatically sent to the Chief Safety and Security Office mail address when they are published.

Chief Safety and Security Office also gets into touch with Airport to collect safety data and to share experience.

EVAIR reporting process is used to receive feedback including a detailed analysis regarding the safety concerns, occurrences and incidents by the Chief Safety and Security Office. EVAIR was developed to enable a proactive approach to ATM and Air Navigation Service (ANS) safety. The incident reporting, data collection and feedback processes rely on ongoing effective collaboration between airlines and their associations (IATA, ERAA, IACA, ELFA), Air Navigation Service Providers (ANSPs) and EUROCONTROL. In this process, EUROCONTROL facilitates dialogue and the exchange of data between airlines and ANSPs; it shares information and makes it available for stakeholders to support a preventive and proactive approach to safety in the form of active feedback, quick fixes for problems and the sharing of lessons learned.

External resources can be used through membership to provide safety information exchange and to improve safety. For this purpose, Pegasus is a member of the Flight Safety Foundation and IATA Global Aviation Data Management (GADM) program (IDX and FDX).

Safety data from external customer or subcontractor organizations are collected by relevant departments for hazard/risk identification. SMS coordination or integration with them is under responsibility of each relevant department. The procedures for managing these safety data are documented in their manuals (i.e. GOM) where applicable.

#### **4.2.5 FLIGHT DATA MONITORING SYSTEM**

AMC and GM to Part-ORO – Subpart AOC – GM1 ORO.AOC.130 AIM OF THE FDM PROGRAM

AMC1 ORO.AOC.130(k)(1), AMC1 ORO.GEN.200(a)(1), SHT-FDM

Flight Data Monitoring (FDM) is systematic and non-punitive use of digital flight data from routine operations with the primary purpose to improve flight safety.

The FDM program allows to:

- Identify areas of operational risk and quantify current safety margins.
- Identify and quantify operational risks by highlighting when non-standard, unusual or unsafe circumstances occur.
- Use the FDM information on the frequency of occurrence, combined with an estimation of the level of severity, to assess the safety risks and to determine which may become unacceptable if the discovered trend continues.
- Put in place appropriate procedures for remedial action once an unacceptable risk, either flight safety risk actually present or predicted by trending, has been identified.
- Confirm the effectiveness of any remedial action by continued monitoring.
- Flight Data and other relevant information are analyzed thoroughly to identify all relevant factors associated with event without specific individuals actions or inactions.
- Investigation of Flight Data Events do not focus on individual actions but systematic issues that influences behaviours.
- During investigation of an event, all individuals related are to be treated fairly taking into consideration of their behavioral choices.
- Event details, are provided to relevant operational managers (when deemed necessary) to be review all factors in an objective manner.

In addition, the program may be used to analyse technical aircraft data to:

- Support defect troubleshooting after specific occurrences.
- Monitor the automatic approach and autoland capabilities.

The systematic download and analysis of recorded flight data are a proven risk management strategy that has been used by Pegasus Airlines to identify hazards, evaluate the operational environment, validate operating criteria and establish training effectiveness. In Pegasus Airlines, flight data analysis program includes not only systematic download and analysis of electronically recorded aircraft flight data, but also acquisition, correlation and analysis of flight information derived from other sources such as; confidential operational safety reports, compliance monitoring findings, flight and cabin crew evaluation reports, aircraft engineering and maintenance reports.

The FDM program in Pegasus Airlines for the analysis of recorded aircraft flight data includes the following elements:

- A manager and staff of flight operations experts, commensurate with the size of the operation, to provide verification and analysis of the data collected from the aircraft fleet under the operator's program;
- Aircraft designated within the operator's fleet that provide downloadable flight data from on-board recording systems, such as the flight data recorder (FDR) or quick access recorder (QAR);
- A system for downloading and transferring recorded data from the aircraft to a data analysis system;
- A data analysis system that transforms raw digital data into a usable form of information that can then be verified, processed, categorised and analysed by experts for flight safety purposes;
- A process for applying the output from flight data analysis to the management of risk and assessment of flight operations performance;
- A process for management of the data, to include security and retention.



#### 4.2.5.1 DATA ACCESS AND SECURITY POLICY

AMC1 ORO.AOC.130(k)(2)

Pegasus Airlines commits itself to the maximum protection of the collected data.

Chief Safety and Security Officer (Safety Manager) is responsible for the administration of the program, for ensuring system security and for guaranteeing de-identification. The workstation for analysis is in a remote server, is protected from unauthorized access and is only used for the data analysis routines. Access to the flight data analysis software program is strictly limited to Chief Safety and Security Office personnel. Also flights are reviewed on FDM Meeting Room where access authorization is given by Chief Safety and Security Officer (Safety Manager).

Raw data (as taken from the aircraft) is protected by the programming of the Digital Flight Data Acquisition Unit (DFDAU) and of the PCMCIA card. Any meaningful decoding is only possible via the appropriate software that is matching the programming of the DFDAU.

In the case where immediate remedial actions are required, Chief Safety and Security Office will organize an official but confidential meeting between the concerned flight crew member. During this meeting, the occurrence(s) will be reviewed and the required remedial actions are proposed.

Any remedial actions are carried out in a constructive and non-punitive manner. The identity of the concerned flight crew member is safeguarded during the entire process.

Processed data and analysis data have confidential and de-identified status and must be treated accordingly. The data is stowed in such way that no unauthorized persons can gain access.

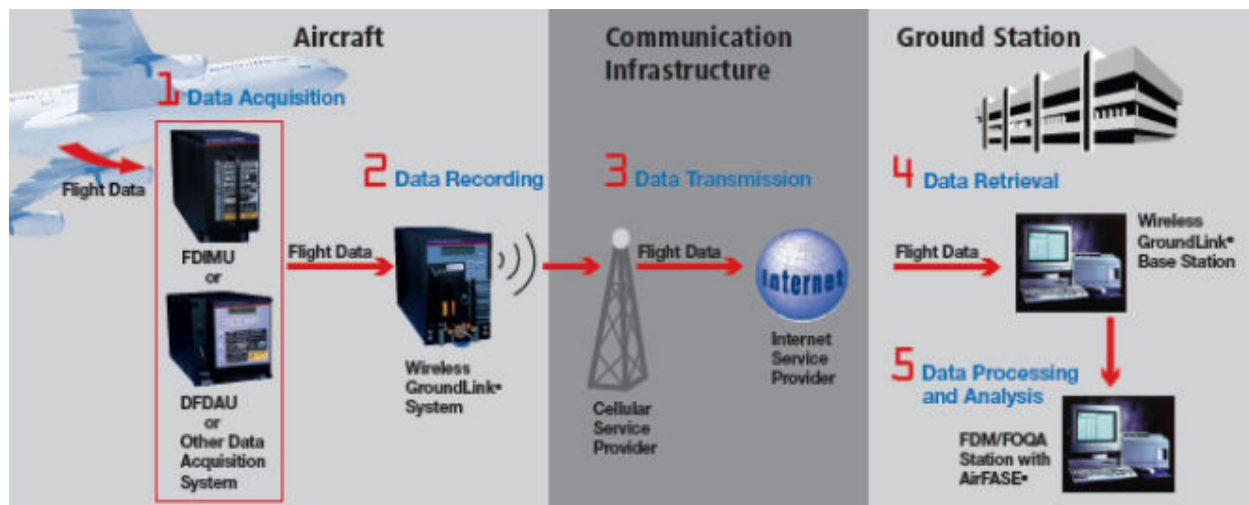
#### 4.2.5.2 FDM PROCESS

There are two methods of FDM process in Pegasus Airlines; wireless method and manual method.

##### FDM Process – Manual Method

- Aircraft operations data acquisition
- Line maintenance data upload to FTP server
- Data download by FDM Specialist
- Analysis with AirFASE
- Initial event verification and assessment
- Feedback to relevant departments and remedial action

##### FDM Process – Wireless Method



#### Data Collection

The digital flight data is retrieved from the aircraft's Digital Flight Data Acquisition Unit (DFDAU) in which a PCMCIA card is installed for the proper recording of raw data. The PCMCIA cards are removed periodically



via a manual method. The download periods do not take longer than one month. A complete follow-up and administration of all raw data is incorporated in the FDM software.

Recorded flight data are compressed and encrypted in DFDAU, and sent to the base station server using a wireless method.

FDM specialists monitor the data collection process via monitoring WGL Aircraft Download Report and interfering if there is a problem. The first flights of an aircraft are also monitored manually.

Monthly capture rates are monitored by comparing the flights captured by the FDM program with the actual flights every month. It is aimed not to fall below 98% and shared with managers at the Flight Operations Safety Review and FDM Meeting presentations.

### **Data Transfer**

In Pegasus Airlines, raw data are transferred with using two methods; namely manually and wirelessly.

In manual download process, after PCMCIA card removal from an aircraft, the raw data are uploaded on the ftp server by technical personnel. Raw data are copied from ftp server immediately by FDM specialists to the computer in which FDM software runs.

In wireless process, The Teledyne Controls Wireless GroundLink - Quick Access Recorder (WQAR) provides convenient airborne data recording on standard PCMCIA media (removable PC Card) and automated wireless transfer of the recorded data when the aircraft is on the ground. It interfaces with the Digital Flight Data Acquisition Unit (DFDAU). User interface with the WQAR is accomplished via a front panel keypad and 32-character alphanumeric display. Depending on the selected compression mode recorded data is either compressed during flight or while the aircraft is on the ground. Data are then encrypted and transmitted securely over the wireless cellular data link to Wireless Base Station (WBS).

### **Data Analysis**

All flight data are analysed by AirFASE software. AirFASE is an FDM software outsourced from Teledyne Controls. AirFASE is capable of analysing raw data automatically. It checks if any raw data are transmitted to Wireless Base Station. If there are data to analyse then, AirFASE automatically receives the data and processes. Manual analysis is also made in the system.

The parameters recorded, meet the requirements defined in SHT-OPS 1 appendices 27/28/29. The parameters include and are not less than the list in the related tables.

Based on the event list and values as defined by the Chief Safety and Security Office, AirFASE searches for "events" where pre-set threshold values of specific parameters have been exceeded. A list of level 1 (yellow), 2 (amber) and 3 (red) events is finally produced by the system. Any discovered events are checked for validity and analysed by the Chief Safety and Security Office. These events are further processed and quantified to monitor or discover any adverse safety trends.

As general rule, the collected data will be used for trend monitoring. Crew identity will not be revealed at any stage. Exceptions to this general rule are described in paragraphs Crew Feedback and Withdrawal of Confidentiality. All unstable approaches are validated by FDM Leaders. In FDM system; serious unstable approaches are marked as Validated, normal unstable approaches are marked as Reviewed and erroneous unstable approaches are marked as False.

AirFASE has an automatic e-mail tool that alerts involved personnel to take immediate actions for selected events. PG-MH-TL-002 MCC Airfase Alert Management Procedure is used for continuing airworthiness assessment in accordance with the Continuing Airworthiness Management Exposition (CAME).

### **Reporting Standards**

FDM systems have proven to be very effective in reminding crews to submit reports during the early stages and in confirming reporting standards in an established program.

#### **4.2.5.3 CREW FEEDBACK**

AMC1 ORO.AOC.130(k)(3)

Pilots involved in an level 3 (red) event may be notified by FDM in order to gather contextual information through a crew feedback. Pilots are provided with the opportunity to file a report via IQSMS relating to the incident if deemed necessary.

### **SDM and SOM**

Flight crews are informed about the significant issues arising from the FDM program via Flight Safety Bulletins. Monthly FDM reports are published as Flight Safety Bulletins. Flight crews are informed about specific exceedances and deviations on daily basis by phone or e-mail.

For specific cases, where Chief Safety and Security Office need more information to understand a significant event, related personnel are invited for a confidential interview. These interviews can be planned face-to-face or online (MS Teams). and is documented in the pilot's duty plan as Safety Department Meeting (SDM). The tone of this interviews is informative, never accusative. During such interviews, data is collected for evaluation of the investigation. Chief Safety and Security Officer (Safety Manager) or FDM/SMS Senior Manager explains what is considered unacceptable to concerning pilots. Depending on the result of the investigation, Chief Safety and Security Officer (Safety Manager) or FDM/SMS Senior Manager may advise for Safety Occurrence Meeting.

Safety Occurrence Meetings (SOM) are carried out by the Flight Operations Department. Depending on the result of the investigation, Chief Safety and Security Officer (Safety Manager) or FDM Senior Manager made decision for advising Safety Occurrence Meeting. Flight Operations Department is advised for inviting the relevant pilot to a confidential interview. This interview is documented in the duty plan of the pilot as Safety Occurrence Meeting (SOM). The intended feature of these interviews shall be described as informative, it is not the purpose of these to apportion blame or liability. Entitled Type Manager, Flight Safety Manager, FDM Senior Manager/SMS Senior Manager (assigned FDM/SMS Leaders) attend the interview and evaluate the occurrence. During such interviews, errors and behaviors are assessed according to company policy and procedures. Recommendations are done depending on the evaluation of the occurrence. Pegasus Airlines draws the line between acceptable and unacceptable actions in accordance with the Just Culture Process. Just Culture Process Form (PG-EM-FR-006) is used for evaluating the occurrence in the course of the safety occurrence meeting.

FDM Senior Manager and/or FDM Leader(s) act as a Flight crew liaison that are assigned the permission/responsibility for confidential discussions with flight crew members involved in events highlighted by FDM. Flight crew liaison person who have a good command of the company operation methods and the aircraft characteristics to perform the final evaluations on the analyzed incidents, who is the contact person between the management and flight crews and trusted by both sides.

### **SPARC Reports**

SPARC reports are sent to pilots routinely for them to evaluate their own safety performances. The report includes personal and company trends for selected FDM events. Pilot feedbacks are assessed by Chief Safety and Security personnel.

PG-EM-PR-004 SPARC Procedure describes the approach for measuring the safety performance of pilots on a personal basis, how such performance is to be evaluated, assessed and managed.

Chief Safety and Security Office is informed by Flight Academy and/or Human Resources and/or Flight Operations Departments about new joined pilots and upgraded pilots. Chief Safety and Security Office initiate a focused safety performance monitoring of these pilots for a period of covering the first 12 months. At least 2-4 flights data will be reviewed monthly.

A safety performance scores out of 10 is calculated for every pilot by using the results of previous 12 months. Previous records of occurrences including whole history of pilots are also kept by Chief Safety and Security Office but, the score is calculated considering the last 12 months events. The alert levels are explained using the details below:

- Score between 8,99 and 8,50 = Yellow Alert: The pilot will receive first warning e-mail.
- Score between 8,49 and 8,00 = Orange Alert: The pilot will receive second warning e-mail. The pilot will be called for a Chief Safety and Security Office meeting (SDM).

- Score between 7,99 and 7,00 = Magenta Alert: The pilot will be called for a safety occurrence meeting (SOM).
- Score < 7,00 = Red Alert: The pilot is grounded by Chief Safety and Security Office. He/she is summoned to the Flight Council. In following year, safety performance of the pilot is monitored closely by Chief Safety and Security Office and summoned to the Flight Council when it is deemed necessary.

Pilots with low safety performance scores and above average event numbers are evaluated routinely by Chief Safety and Security Officer (Safety Manager), SMS Senior Manager, FDM Senior Manager and FDM Leaders (Airbus & Boeing).

#### 4.2.5.4 DATA RETENTION POLICY

##### SHT-FDM M.9

After six months period, AirFASE automatically archives the flight data. To reach flight details after six months, it is necessary to move the related flight file from the archive folder into the folder in use. However, all flight data analysis results are retained in the program database for statistical purposes. The program database is backed up automatically on 24 hours. Downloaded raw data are stored for a minimum period of 5 years. Raw data backups are protected according to the IT Department procedures.

FDM program disaster recovery plan is set and specified in PG-AO-PR-004.

#### 4.2.5.5 REMEDIAL ACTIONS

##### AMC1 ORO.AOC.130(k)(5)

FDM programme is the proactive and non-punitive use of digital flight data from routine operations to improve flight safety.

The significant results of FDM analysis and FDM trends are added to the seasonal objectives by Flight Academy Department.

For those rare occasions where the confidential interview of a flight crew member by Chief Safety and Security Office indicates that there are personal shortcomings in technical or theoretical skills, Chief Safety and Security Office proposes to organize advisory briefings or remedial training for the flight crew member to Flight Academy Department.

When a serious incident occurs, the flights of the concerning flight crews are stopped until a decision is made by the Flight Council. Flight Council is composed of Chief Safety and Security Officer (Safety Manager), Chief Flight Operations Officer and Chief Flight Academy Officer. SMS Senior Manager, FDM Senior Manager, related Type Manager and Chief Human Resources Officer may attend the meeting without voting power.

#### 4.2.5.6 WITHDRAWAL OF CONFIDENTIALITY

##### AMC1 ORO.AOC.130(k)(6)

- Anonymity and confidentiality of data is a key principle in the FDM process. At all stages, controls are in place to ensure that the identities of pilots involved are protected. In exceptional circumstances, where the Safety Manager or FDM Senior Manager deem an event to represent gross negligence, a high-risk event, or to raise significant continuing safety concerns or situations shown below then confidentiality may be withdrawn, in accordance with Just Culture principles. If the event is reported to Pegasus Airlines via a report.
- In the case of repeated events by the same pilot, Chief Safety and Security Office invites the pilot to undertake a related extra training as deemed necessary. Flight Academy Department organises the training.
- In the case or an event of such severity that the aircraft was seriously hazarded, or another flight would be, if the pilot repeated the event.

- For those exceptional cases, where it is concluded by Chief Safety and Security Office or FDM Workgroup that a flight crew member deliberately violated procedure or breached the accepted professional standards. This decision is taken after the case is investigated by one of the FDM Leaders.
- Accidents (persons-and/or heavy material damage) according to lawful definition.
- Damages on aircraft which happen in flight and able to impair the airworthiness.
- Loss of control of the aircraft.
- Severe turbulence.
- Air collision.
- Contact with obstacle in flight.
- Emergency descent.
- Events added to SPARC.
- Events described under 2.2.1.1 Mandatory Reporting System.
- Investigation requests from Turkish DGCA or other authorities.

#### 4.2.5.7 PUBLICATIONS

AMC1 ORO.AOC.130(k)(8)

A representative from Chief Safety and Security Office gives information about FDM outputs during weekly Office Meetings of Flight Operations which contain an overview of the focus points and any required recommendations when necessary. The significant issues arising from FDM program are subject to management review in Safety Review Board Meetings.

Flight crews are informed about the significant issues arising from FDM program via Flight Safety Bulletins. Monthly FDM reports are published as Flight Safety Bulletins.

Any pilot delegation or any individual pilot requiring additional information on the processes or on the system can contact Chief Safety and Security Officer (Safety Manager) or FDM Senior Manager.

#### 4.2.6 INVESTIGATIONS

Effective safety management systems depend on the investigation and analysis of safety issues. The safety value of an accident, a hazard or an incident is largely proportional to the quality of the investigative effort.

The process for the investigation of accidents and serious incidents is an important element of flight risk analysis and includes:

- Qualified personnel to conduct investigations (commensurate with operation size),
- Procedures for the conduct of investigations,
- A process for reporting investigative results,
- A system for implementing any corrective or remedial action,
- An interface with relevant external investigative authorities (when applicable),
- A process for the dissemination of information derived from investigations.

The sole object of the investigation of an accident or incident carried out by Pegasus Airlines is the prevention of accidents and incidents by finding the root cause(s) of the error, accident, incident. Investigations will NOT be carried out to single out, punish or blame personnel.

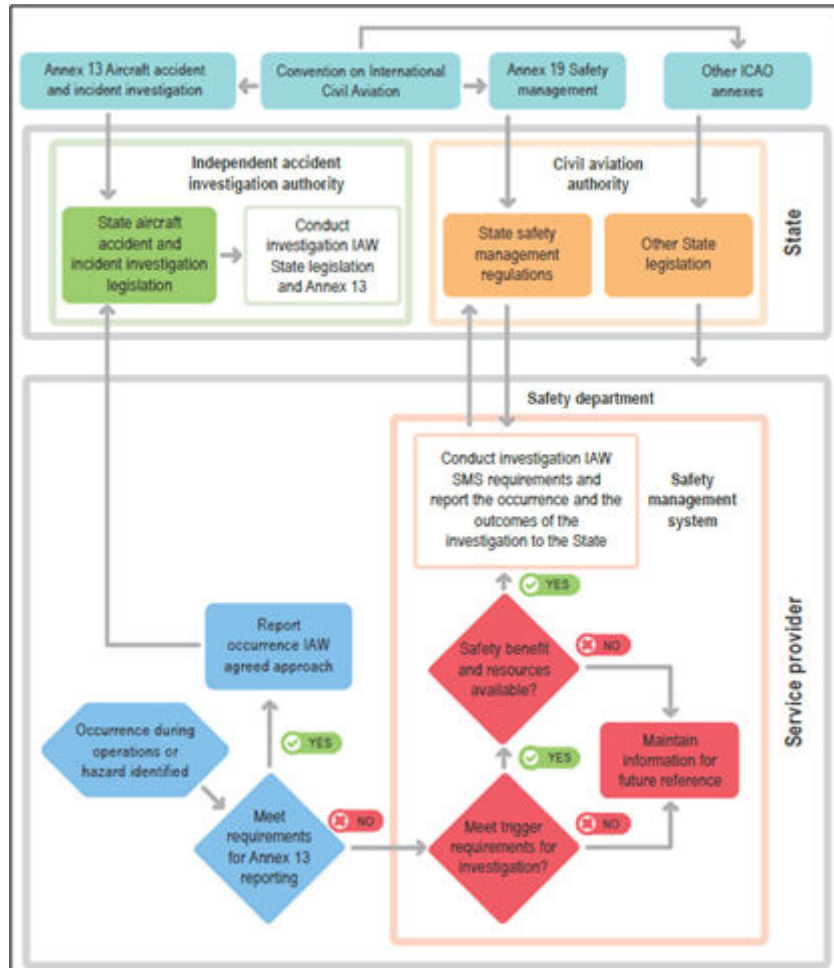
Occurrences that are classified as accidents or serious incidents may require independent investigations by the Transport Safety Investigation Center. In the event of accidents or serious incidents, the Company has the capability to respond to an investigation in accordance with provision contained in ICAO Annex-13. The

State Investigator determines what reports, documents or interviews he/she may require from company personnel. Chief Safety and Security Officer (Safety Manager) facilitates the State Investigator.

#### 4.2.6.1 INITIATION PROCESS OF SAFETY INVESTIGATION

A safety investigation is in principle triggered by a notification (report) submitted through the safety reporting system.

The chart below outlining “the safety investigation decision process and the distinction between when a service provider safety investigation should take place and when an investigation under Annex 13 provisions” is adopted and implemented in Pegasus Airlines as stated in the ICAO DOC 9859.



#### 4.2.6.2 GENERAL PRINCIPLES OF SAFETY INVESTIGATION

Investigations typically result in a report that describes the factors that contributed to the event, which is then made available to responsible senior operational management to permit them to evaluate and implement appropriate corrective or remedial action designed to eliminate hazards or mitigate unacceptable risk. To ensure awareness among operational personnel, information derived from investigations is disseminated to relevant areas throughout the organisation. An investigation should be closed within 6 months. During the investigation processes mainly carried out by State Investigator under the provisions of Annex-13, this time period can be extended since the internal investigation process has a strong legal connection with State and the Chief Safety and Security Office is the facilitator of State Investigator.

Immediately following an accident and/or a serious incident, it is the responsibility of the Chief Safety and Security Officer (Safety Manager) to obtain from all relevant areas of Pegasus Airlines, and such other companies as necessary, all documentation relating to the aircraft, flight, passengers, crew and cargo. The



documentation is sealed and held in the Chief Safety and Security Office until required by the Investigation Authority.

The accident investigation authority has independence in the conduct of the investigation and has unrestricted authority over its conduct, consistent with the provisions of ICAO Annex-13.

The need for removal of the recorders from the aircraft in the case of an investigation from the aircraft is determined by the investigating authority with due regard to the seriousness of an occurrence and the circumstances, including the impact on the operation.

In the case of an accident and/or a serious incident, the flight crew coordinates deactivation of the flight recorders with convenient technical staff immediately after completion of the flight and inform the IOCC that the recording of the flight recorders should be preserved.

In case of any accident or serious incident, Chief Safety and Security Office reports within 48 hours both to the Turkish DGCA and Transport Safety Investigation Center.

In the absence of the Ministry of Transport or an investigation team, Pegasus Airlines prepares the full final report as soon as possible in accordance with the SHY-13.

Participation in the investigation confers entitlement to participate in all aspects of the investigator-in-charge, in particular to; visit the scene of the accident, examine the wreckage, obtain witness information and suggest areas of questioning, have full access to all relevant evidence as soon as possible, receive copies of all pertinent documents, participate in read-outs of recorded media, participate in off-scene investigative activities such as component examinations, technical briefings, tests and simulations, participate in investigation progress meetings These include deliberations related to analysis, findings, causes and safety recommendations and making submissions in respect of the various elements of the investigation.

Incidents other than serious incidents or accidents are investigated by the appropriate department(s). Investigation reports are sent to Chief Safety and Security Officer (Safety Manager) who is responsible for ensuring that each incident has been adequately investigated.

During investigation, the people involved in the event will be interviewed as soon as possible after the event. The investigation includes, establishing timelines of key events, including the actions of the people involved, review of any policies and procedures related to the activities, review of any decisions made related to the event, identifying any risk controls that were in place that should have prevented the event occurring and reviewing safety data for any previous or similar events.

Investigation Reports indicate a probable cause(s) and what action has been taken to prevent a future occurrence of a similar incident, in particular where a specific hazard has been identified.

It is particularly important that human factors involved in the occurrence of incidents are identified. Investigations are closed by the investigation owners.

In the event of accidents or serious incidents, Pegasus Airlines publishes a preliminary report and a final report (documented through the form numbered PG-EM-FR-031). Content of the final report includes the following sections:

Title: The Final Report begins with a title comprising: Name of the operator; manufacturer, model, nationality and registration marks of the aircraft; place and date of the accident or incident.

Synopsis: Following the title is a synopsis describing briefly all relevant information:

This involves notification of accident to national and foreign authorities; identification of the accident investigation authority and accredited representation; organization of the investigation; authority releasing the report and date of publication; and concluding with a brief résumé of the circumstances leading to the accident.

Body: The body of the Final Report comprises the following main headings:

1. Factual information
2. Analysis
3. Conclusions

#### 4. Safety recommendations

Each heading consisting of a number of sub-headings as outlined in the following.

Appendices: Include as appropriate.

##### 1. Factual Information

1.1 History of the flight: A brief narrative giving the following information:

— Flight number, type of operation, last point of departure, time of departure (local time or UTC), point of intended landing.

— Flight preparation, description of the flight and events leading to the accident, including reconstruction of the significant portion of the flight path, if appropriate.

— Location (latitude, longitude, elevation), time of the accident (local time or UTC), whether day or night.

1.2 Injuries to persons: Completion of the following (in numbers):

Injuries	Crew	Passengers	Others
Fatal			
Serious			
Minor			
None			

1.3 Damage to aircraft: Brief statement of the damage sustained by aircraft in the accident (destroyed, substantially damaged, slightly damaged, no damage).

1.4 Other damage: Brief description of damage sustained by objects other than the aircraft.

1.5 Personnel information:

a) Pertinent information concerning each of the flight crew members including: age, validity of licences, ratings, mandatory checks, flying experience (total and on type) and relevant information on duty time.

b) Brief statement of qualifications and experience of other crew members.

c) Pertinent information regarding other personnel, such as air traffic services, maintenance, etc., where relevant.

1.6 Aircraft information:

a) Brief statement on the airworthiness and maintenance of the aircraft (indication of deficiencies known prior to and during the flight to be included, if having any bearing on the accident).

b) Brief statement on performance, if relevant, and whether the mass and centre of gravity were within the prescribed limits during the phase of operation related to the accident. (If not and if of any bearing on the accident give details.)

c) Type of fuel used.

1.7 Meteorological information:

a) Brief statement on the meteorological conditions appropriate to the circumstances including both forecast and actual conditions, and the availability of meteorological information to the crew.

b) Natural light conditions at the time of the accident (sunlight, moonlight, twilight, etc.).

1.8 Aids to navigation: Pertinent information on navigation aids available, including landing aids such as ILS, MLS, NDB, PAR, VOR, visual ground aids, etc., and their effectiveness at the time.

1.9 Communications: Pertinent information on aeronautical mobile and fixed service communications and their effectiveness.

1.10 Aerodrome information: Pertinent information associated with the aerodrome, its facilities and condition, or with the take-off or landing area if other than an aerodrome.



1.11 Flight recorders: Location of the flight recorder installations in the aircraft, their condition on recovery and pertinent data available therefrom.

1.12 Wreckage and impact information: General information on the site of the accident and the distribution pattern of the wreckage; detected material failures or component malfunctions. Details concerning the location and state of the different pieces of the wreckage are not normally required unless it is necessary to indicate a break-up of the aircraft prior to impact. Diagrams, charts and photographs may be included in this section or attached in the Appendices.

1.13 Medical and pathological information: Brief description of the results of the investigation undertaken and pertinent data available therefrom.

Note.— Medical information related to flight crew licences should be included in 1.5 — Personnel information.

1.14 Fire: If fire occurred, information on the nature of the occurrence, and of the fire fighting equipment used and its effectiveness.

1.15 Survival aspects: Brief description of search, evacuation and rescue, location of crew and passengers in relation to injuries sustained, failure of structures such as seats and seatbelt attachments.

1.16 Tests and research: Brief statements regarding the results of tests and research.

1.17 Organizational and management information:

Pertinent information concerning the organizations and their management involved in influencing the operation of the aircraft. The organizations include, for example, the operator; the air traffic services, airway, aerodrome and weather service agencies; and the regulatory authority. The information could

include, but not be limited to, organizational structure and functions, resources, economic status, management policies and practices, and regulatory framework.

1.18 Additional information: Relevant information not already included in 1.1 to 1.17.

1.19 Useful or effective investigation techniques. When useful or effective investigation techniques have been used during the investigation, briefly indicate the reason for using these techniques and refer here to the main features as well as describing the results under the appropriate sub-headings 1.1 to 1.18.

## 2. Analysis

Analyse, as appropriate, only the information documented in 1. — Factual information and which is relevant to the determination of conclusions and causes.

Root cause analysis is a part of the Analysis section and it is necessary for the process of identifying the main and contributing factors as part of the investigation. Root cause analysis form numbered PG-KU-FR-014) is utilized in this phase of the investigation.

## 3. Conclusions

List the findings and causes (determined as main and contributing factors) established in the investigation. The list of causes should include both the immediate and the deeper systemic causes.

An example of contributing factors include:

- Human factor issues.
- Bad or incorrect procedures or data.
- Management interferences.
- Family or health issues.
- Lack of appropriate training.
- Language problems.
- Bad or unclear shift handovers.
- Bad, faulty or lack of equipment or tooling.
- Outside weather conditions or environment conditions • Company or non-company related stress.

- Bad, faulty or lack of aircraft equipment.
- Difficult aircraft system or trouble shooting.
- Lack of support from supervisor or colleagues.

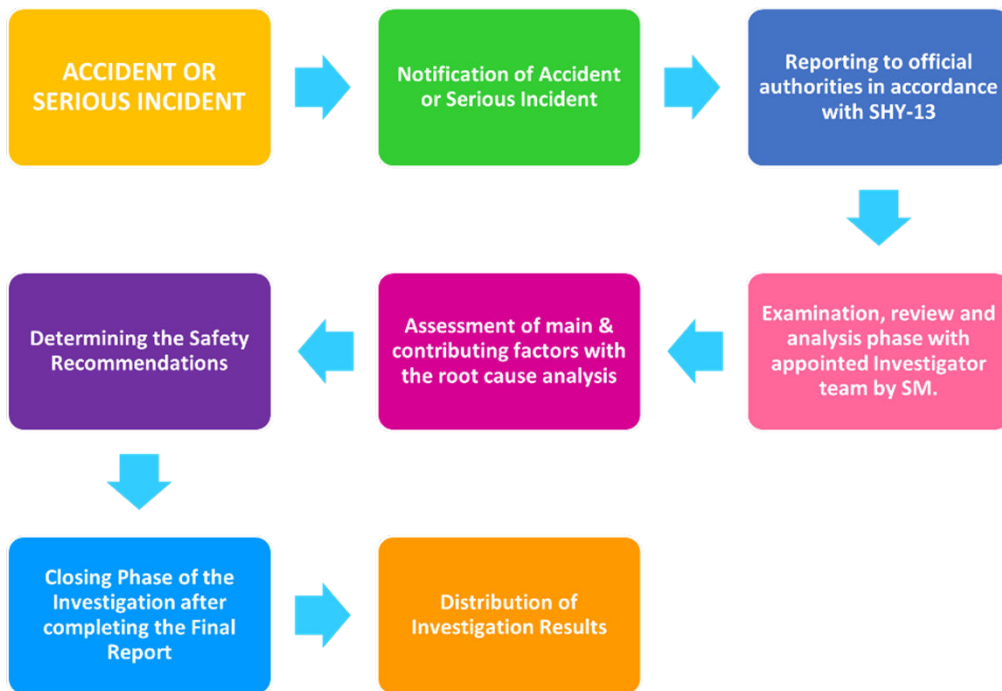
#### 4. Safety Recommendations

As appropriate, briefly state any recommendations made for the purpose of accident prevention and any resultant corrective action.

Appendices: Include, as appropriate, any other pertinent information considered necessary for the understanding of the report.

Other than the section of safety recommendations part of Final report, safety recommendations can be made any time during the investigation. Safety recommendations describe the safety problems and provide justification for the recommended safety actions. A safety recommendation identifies what actions to take, but leave scope for the authorities responsible for the matters in question to determine how to accomplish the objective of the recommendation. The safety recommendations made during the investigation, as well as the preventive actions taken in response to these recommendations, are presented in the safety recommendations part of the Final Report.

#### Overall Investigation Process



#### 4.2.6.3 INVESTIGATION OF IRREGULARITIES OR OTHER NON-ROUTINE OPERATIONAL OCCURRENCES

Investigation of operational irregularities is considered a reactive hazard identification activity. Minor events, irregularities and occurrences occur often during normal operations, many times without noticeable consequences. Identifying and investigating certain irregular and non-routine operational occurrences can reveal system weaknesses or deficiencies that, if left unchecked, could eventually lead to an accident or serious incident. The internal monitoring process permits the identification and capture of information associated with internal activities and events that could be considered precursors of an accident. Such events are then investigated to identify undesirable trends and determine contributory factors.

The monitoring process is typically not limited to occurrences, but also includes a regular review of operational threats and errors that manifest themselves during normal operations. Monitoring of normal operations can produce data that further serve to identify operational weaknesses and, in turn, aid the organisation in developing system solutions. As with the investigation of accidents and serious incidents, the investigation of minor internal occurrences results in a report that is communicated to

relevant operational managers for analysis and the possible development of corrective or preventive action.

#### 4.2.6.4 TRIGGER CRITERIA FOR INITIATION OF AN INVESTIGATION

An authorized person can formally raise a request for an investigation based on the following guidelines:

- A significant lapse in safety standards and/or control which has or may have jeopardized airworthiness, safety, personnel or equipment.
- An injury to personnel during working hours.
- Failure to follow proper approved instructions, procedures or standards.
- An accident or incident to aircraft, personnel or equipment.
- A confidential report provided by Pegasus Airlines staff, other operators staff and/or contracted agencies (external service provider).

Not all occurrences or hazards can or should be investigated; the decision to conduct an investigation and its depth should depend on the actual or potential consequences of the occurrence or hazard. Occurrences and hazards considered to have a high-risk potential are more likely to be investigated and should be investigated in greater depth than those with lower risk potential. What to investigate and the scope of the investigation is a managerial decision-making process. In this process below mentioned criteria is considered:

- (a) the severity or potential severity of the outcome
- (b) regulatory or organizational requirements to carry out an investigation;
- (c) safety value to be gained;
- (d) opportunity for safety action to be taken;
- (e) risks associated with not investigating;
- (f) contribution to targeted safety programmes;
- (g) identified trends;
- (h) training benefit; and
- (i) resources availability.

#### 4.2.6.5 NOMINATION OF INVESTIGATION TEAM

Once an investigation has been instigated, personnel involved in carrying out the investigation is informed. Chief Safety and Security Officer (Safety Manager) may also decide to select the investigation team directly. Safety investigation team must ensure the following:

- Details of the investigation remain within the investigation team.
- No personal involvement with staff concerned in the investigation.
- No conclusions or assumptions are formed prior to completing the investigation.
- All possible information is verified, confirmed and documented.

The size of the investigation team and the expertise profile of its members depend on the nature and severity of the occurrence being investigated. The investigating team may require the assistance of other specialists. The selected team members have the general knowledge, skills and character traits, which should include: integrity, objectivity, logical thinking, pragmatism, and lateral thinking.

#### 4.2.6.6 CONDUCTING INVESTIGATION INTERVIEWS

During an investigation, auditors/investigators may be required to carry out interviews with involved staff. These interviews provide crucial information regarding the investigation and therefore interviews must be carried out using, but not limited to, the following guidelines:

- Auditors/investigators must provide a private and comfortable atmosphere to the interviewee during the interview.
- At least two auditors/investigators carry out the interview at all times.
- Auditors/investigators must explain the reason for the interview to the interviewee and provide him/her with supporting documents if required.
- Auditors/investigators must explain the reasons and objectives of a Safety investigation to the interviewee.
- Auditors/investigators must ensure that they remain calm, polite and allow the interviewee to talk freely.
- Auditors/investigators must never touch, shout, swear or become abusive during the interview.
- Auditors/investigators must ensure that the words used by the interviewee are documented. The signature of the interviewee will be required on the statement sheet once the investigation is completed.
- Auditors/investigators must ensure that all significant and supporting facts have been reviewed/questioned during the investigation.
- Auditors/investigators must ensure that details of the investigation remain within the investigation team.
- Auditors/investigators must ensure that he/she is not personally involved with the interviewee and must request Chief Safety and Security Officer (Safety Manager) to relieve him/her from any further involvement with the investigation should any personal link be established.
- Auditors/investigators must ensure that no conclusions or assumptions are formed prior to completing the investigation.
- Chief Safety and Security Officer (Safety Manager) is kept informed of all developments of during the investigation.
- All possible information is verified, confirmed and documented.
- Investigation confidentiality is maintained.
- Auditors/investigators must ensure that any other contributing factors that may have played a roll have been considered during the investigation.

#### 4.3 EVENT RISK ASSESSMENT (ERA)

All Pegasus Flight Safety Reports are subject to an Event Risk Assessment (ERA). The ERA delivers two outputs:

- A notion of urgency for further analysis / action based on the report
- A risk index

The former of the two outputs above translates into a triage between:

- Red: the event had very high risk. Therefore, action must be taken immediately to make sure a similar risk does not still exist and threaten the safety of the on-going operation.
- Amber: due to the moderate risk level of the event, it is considered important that further analysis is performed, building more knowledge and checking whether other safety data shows similarities with some aspects of the experienced event. There is no immediate urgency for this further analysis.

- Green: the event will contribute to statistical analysis but does not give reason for further analysis at the level of the individual report.

Risk indices facilitate the statistical safety analysis performed in SMM under 4.4 section below.

ERA is carried out using Pegasus Airlines customized risk matrix, based on the ERCS matrix and a dedicated database where values are entered and registered. The customized version of the matrix ensures a better fit with the Pegasus Airlines operation, while remaining compatible with the standard ERCS.

The Pegasus Airlines ERA follows the logic of the European standard ECRS method, which is largely based on the ARMS method (ARMS 2010). Acknowledging the high number of safety reports to process, the ERA method is customized to Pegasus Airlines to ensure both consistent results and a high-performance level in terms of ensuring that all received Air Safety Reports are risk assessed in a timely fashion.

The customized ERA matrix is presented in Figure 3 below. Compared to the ERCS matrix, precision has been added in the severity scale, and to provide higher consistency of probability estimates, some categories have been combined in the probability ranges where more precise assessment is in practice not realistic. Calculation of resulting risk indices is identical to the original ERCS matrix.

SEVERITY				CLASSIFICATION						
Potential Accident Outcome	Reference Value	Score	Points							risk materialized
Extreme catastrophic accident with significant potential fatalities (200+)	500	X	5000000	X/6	X/4	X/3	X/2	X/1		X/0
				5	500	5,000	50,000	500,000	5,000,000	
Catastrophic accident with significant potential for fatalities (100-200)	150	C	1500000	C/6	C/4	C/3	C/2	C/1		C/0
				2	150	1,500	15,000	150,000	1,500,000	
Significant accident with significant potential for fatalities and injuries (19-100)	100	S	500000	S/6	S/4	S/3	S/2	S/1		S/0
				0.5	50	500	5,000	50,000	500,000	
Major accident with potential for some fatalities/life changing injuries (2-19) or major aircraft destroyed	10	M	100000	M/6	M/4	M/3	M/2	M/1		M/0
				0.1	10	100	1,000	10,000	100,000	
Single Individual fatality/life changing severe injury or extreme damage (A/C write off)	1	I	10000	I/6	I/4	I/3	I/2	I/1		I/0
				0.01	1	10	100	1,000	10,000	
Minor and Serious Injury (not life changing); significant damages	0.1	E	1000	E/6	E/4	E/3	E/2	E/1		E/0
				1E-03	0.1	1	10	100	1,000	
	0	A	0	A/0						
				Score	6+	4-5	3	2	1	0
				Barrier Score	11+	7-10	5-6	3-4	0-2	0
				Ref Value	1.E-06	1.E-04	1.E-03	1.E-02	1.E-01	1
LIKELIHOOD OF ACCIDENT OUTCOME										

### Pegasus Airlines customized ERA matrix

The necessary higher level of urgency for acting on high-risk safety events has been implemented by enlarging the red and amber zones towards the left in selected areas. This reflects Pegasus Airlines' increased risk aversion as compared to the original ERCS.

In order to ensure speed and accuracy in the ERA process, ERA results can be entered in two alternative ways: either using the matrix or entering the severity and probability values directly in a dedicated database. The database records, for each event:

- A unique event identification code
- Title
- One-sentence description of the event
- Reference scenario(s)
- Severity value (in points, in line with the matrix)
- Probability value (as a number, in line with the matrix)

Based on these entries, the database calculates the resulting risk index and color.

For a more precise numerical result, the analyst can choose on a case-by-case basis to enter values directly in the database. For example, if the exact number of potential fatalities is known (e.g. 22), entering the value of  $22 \times 10,000p = 220,000p$  is more precise than the matrix value which uses the average values within each severity range (e.g. for 22 fatalities the value 50 would be used, giving  $500,000p$ ).

Any event whose potential safety impact is below the score E in the matrix (1000p) is considered to belong to the lowest score A (zero points, green color).

ERA barrier score is also used for determination of ERA probability value.

Barrier Number	Barrier	Barrier Weight
1	'Aircraft, equipments and infrastructure design,' includes maintenance and correction, operation support, the prevention of problems related to technical factors that could lead to an accident	5
2	'Tactical planning', includes organisational and individual planning prior to the flight or other operational activity that supports the reduction of the causes and contributors to accidents.	2
3	'Regulations, procedures, processes', includes effective, understandable and available regulations, procedures and processes that are complied with (with the exclusion of the use of procedures for recovery barriers).	3
4	'Situational awareness and action', includes human vigilance for operational threats which ensures identification of operational hazards and effective action to prevent an accident.	2
5	'Warning systems operation and action' that could prevent an accident and which are fit for purpose, functioning, operational and are complied with.	3
6	'Late recovery from a potential accident situation'	1
7	'Protections', when an event has occurred, the level of the outcome is mitigated or prevents the escalation of the occurrence by intangible barriers or providence	1
8	'Low energy occurrence' scores the same as 'Protections', but for low energy key risk areas only (ground damage, excursions, injuries).  'Not applicable' for all other key risk areas.	1

Pegasus Airlines ERA barrier score<sup>4</sup>

#### NOTE

*Pegasus Airlines customized ERA matrix in Figure 3 is not used in the analysis of fatigue risks within the scope of Fatigue Risk Management. The risk assessment process is carried out using different risk matrix specified in section 5.2.2 Fatigue Risk Assessment of PG-EM-EK-003 FRMS Manual.*

<sup>4</sup> Commission Delegated Regulation (EU) 2020/2034 of 6 October 2020 supplementing Regulation (EU) No 376/2014 of the European Parliament and of the Council as regards the common European risk classification scheme (Text with EEA relevance)

#### 4.4 ANALYSIS AND SYNTHESIS OF THE AGGREGATED SAFETY DATA

The safety data sources described above are used individually and collectively in order to facilitate valuable observations of the risks faced in the operation. Both raw data and intermediate analysis results (e.g. statistics) are corroborated by comparing the different sources. This step of the risk management process enables:

- Combining several weak signals into a significant finding.
- Confirming an issue detected in one source by the different perspectives provided by other sources.
- Adding depth to an identified problem
- Detecting overlaps of distinct problems, creating a multiplied problem (e.g. combination of a complex approach procedure and an inexperienced crew).

Analysis may also be supported by a number of Safety Performance Indicators, which can act as alerts on specific safety topics.

Identified risks, threats and hazards which are not be able to be collected via safety data shall be analyzed with Risk Analysis IQSMS Risk Management Module. During risk analysis, SMEs are responsible to define if there is a safety issue arised. Defined safety issues shall be assessed with SIRA tool. All the Risk Analysis studies should be logged to Pegasus Airlines Risk Register.

**The final outcome of this step is the identification of Safety Issues.** These are descriptions of how hazards may combine in the operation of Pegasus Airlines to create specific safety threats. Unlike events (which are historical), Safety Issues are risks in the current and future operation of Pegasus Airlines, that need to be managed.

#### 4.5 DEFINITIONS OF SAFETY ISSUES

Each safety issue is defined in detail before it is used to provide the basis for a risk assessment.

The usual definition includes:

- Description of the Safety Issue
- Short title
- Applicable aircraft types, routes, locations, flight phases etc. descriptions
- The time period for which the risk assessment is made
- Underlying hazards
- Links to other Safety Issues

One or more detailed **scenarios** under the Safety Issue are then described. The risk assessment is performed at the level of a scenario.

Some safety issues do not link with a specific scenario but rather describe a degraded state where safety margins are reduced.

The definition of the Safety Issue establishes the basis for risk assessing it and placing it in the Risk Picture and Risk Register.

#### 4.6 SAFETY ISSUE RISK ASSESSMENT (SIRA)

A safety Issue which has been identified and defined is require a further risk assessment which is called Safety Issue Risk Assessment (SIRA).

The assessment consists of allocating three values:

- Probability value (or range)
- Severity value (or range)



- Notion of Strength of Knowledge (SoK)

To support the next steps in the process (risk evaluation and decision making), it is important that these three dimensions can be visualized together with the risk.

The task of the expert group managing the risk picture is to build knowledge as regards each new risk and analyze that knowledge. In addition to the information available to these experts, several methods are used, depending on the type of risk:

- The ARMS (Airline Risk Management Solutions) SIRA tool, helps to quantify the probability (ARMS 2010).
- The barrier model created for the ERCS (European Risk Classification Score) method, can also be used in this context to estimate the probability (despite its original context of events)

SIRA tool template is customized by Chief Safety and Security Office and published as PG-EM-FR-039 numbered form by Comply365 to all company.

As a result of the knowledge-building and the analysis, a new risk is placed into the risk picture and all the knowledge and assumptions around it are recorded appropriately in the risk register.

The main advantage of the risk picture becomes evident during risk evaluation when all risks are visualized at the same time.

Pegasus airlines safety risk assessment process is defined as a systematic approach to managing risks, including the necessary organizational structures, accountabilities, policies and procedures.

According to the Pegasus Airlines safety risk assessment process, nominated persons are responsible for risk management and mitigating process. Safety Manager is responsible for monitoring and the assurance of the safety risk assessment process and applicability of safety risk controls.

#### 4.7 RISK PICTURE AND RISK REGISTER

Pegasus Airlines is using a Risk Picture in which the scales are continuous and not divided in categories, as in matrices. This allows the presenting of a risk as a rectangle where both the probability and the severity are estimated ranges instead of single values. The more uncertainty there is about the values, the bigger the rectangles will be. This is an important way to reflect the Strength of Knowledge associated with a given risk. Additionally, risks which have some fundamental uncertainty may be color-coded to highlight the low Strength of Knowledge (SoK). According to current risk management science a low SoK reflects more uncertainty and therefore risks with a low SoK should receive more attention than risks with a high SoK.<sup>5</sup> The use of a risk picture has many advantages compared to using a simple risk matrix which have well-known intrinsic problems.<sup>6</sup>

The Pegasus Airlines Risk Picture is presented in Figure 5 below. For consistency and logic, it is based on the same frame as the ERA, even if more granularity is now present on the probability scale to accommodate all kinds of Safety Issues.

In addition to the various risk elements (threats, scenarios), it is possible to indicate blind spots and zones of potential surprises in the risk picture.

The transition zones where risks become unacceptable are highlighted in the Risk Picture.

The importance of the Strength of Knowledge (SoK) can also be visualized in the picture below. The Safety Issue 3 is at the inner limit of the not-acceptable zone and this is driven by its high SoK and therefore large rectangle in the picture. If the SoK was higher, the rectangle would be smaller and the risk would be in the acceptable zone. As a result, it can be seen that the SoK has a true impact on the risk assessment result, risks with low SoK get upgraded to a higher risk level and get more attention, which is exactly what is logical and desirable.

<sup>5</sup> Aven 2013

<sup>6</sup> Duijm 2015, Nisula 2018, pp. 133-137

In the risk picture and normalized risk picture tables below, it is seen the placements of sample safety issues calculated by quantitative data. The evaluation of safety issue 1, 2 and 3 and the treatment/mitigation assessment are explained below.

RISK PICTURE TYPE I														
SEVERITY														
Potential Accident Outcome	Ref Value	Score	Points											
Extreme Catastrophic with fatalities over 200	500	X	5000000											
Catastrophic accident with fatalities between 100 and 200	150	C	1500000											
Significant Accident with potential fatalities and injuries (19-100)	100	S	500000											
Major Accident with potential for some fatalities (2-19)	10	M	100000											
Single/Individual fatality/life changing severe injury (A/C write off)	1	I	10000											
Minor and Serious Injury (Not Life Changing) Significant A/C Damage	0,1	E	1000											
No bad outcome	0	A	0											
				Score	9	8	7	6	5	4	3	2	1	0
				Barrier Score	17-18	15-16	13-14	11-12	9-10	7-8	5-6	3-4	1-2	0
				Ref Value	1,00E-09	1,00E-08	1,00E-07	1,00E-06	0,00001	1,00E-04	1,00E-03	1,00E-02	1,00E-01	1,00E+00
LIKELIHOOD OF ACCIDENT OUTCOME														

### Pegasus Airline risk picture with transition zones

For each risk, decision makers can see if the exposed flights are too risky. In addition, decision makers have the opportunity to better evaluate the tolerance related to that risk by being able to see the strength of knowledge. However, it should be noted that if the risks have a different exposure, comparison of the risks cannot be made with the risk picture. For the comparison of risks, **the normalized risk picture** described below is used.

### The Normalized Risk Picture

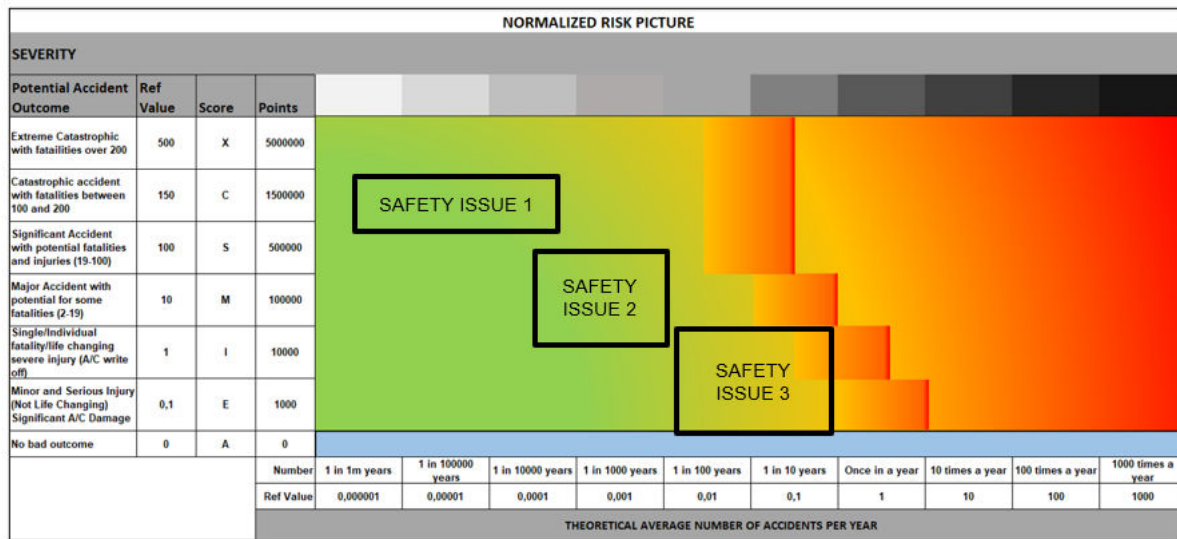
Some risks may be present only on some rare flights while some other risks may be present on each flight of the airline. This gives these two risks a different exposure.

In order to compare different Safety Issues with different exposure rates, it is necessary to make another version of the Risk Picture, where the probability scale is replaced with a scale indicating what the probability of a given scenario is within a given time. Top-level comparison and prioritization of risks can only be done using the normalized Risk Picture, which is also called a Type-II risk picture.<sup>7</sup>

In addition, with the analysis method in normalized risk picture, quantitative data is used for risk evaluation as well as for risk assessment.

The transition zones between acceptable and unacceptable risks are again highlighted in the picture, as shown in Figure 6 below. The normalized risk picture helps judge whether the risks are acceptable, taking into account the volume of the operation behind each risk. Looking only at the normalized risk picture could in some cases “dilute” a very high-risk part of the operation if the number of flights is very low. Therefore, each risk must also be acceptable before the exposure is taken into account (i.e. in the first risk picture).

<sup>7</sup> Nisula 2018



### Pegasus Airlines normalized risk picture

To summarize, risks are now comparable with each other, along with the normalized risk picture table. Decision makers can easily evaluate the position of each risk (acceptability limits and vs. other risks) and similar to the assessment method in the first risk picture, they have the opportunity to better evaluate the tolerance related to that risk by being able to see the strength of knowledge.

### Risk Register

The risk register is a structured written record of all the risks in the risk picture with the full detail of the associated knowledge and assumptions. It also allows keeping track of the ongoing actions. Pegasus Airlines has a formal risk registering and logging process. All the risk analysis and MOC studies that are identified and completed by the relevant departments are logged to the risk register database via IQSMS. The risk picture is maintained in Pegasus Airlines digital file folder. Access to this folder is limited only for designated personnel.

## 4.8 RISK EVALUATION, ACCEPTANCE AND DECISION MAKING

Risk evaluation is about the acceptability of the risks. Contrary to some older methods, the current understanding is that risk acceptability cannot be based solely on simple hard limits.<sup>8</sup> Looking at the risk picture in a holistic way, one can identify the different alternatives that exist for taking action within the constraints of the existing resources. Decision-making is then not only about identifying the unacceptable risk levels but also about how to best use those resources to reduce the risk level across the whole operation, i.e. to compare the different alternatives for action.<sup>9</sup>

The risk picture provides a holistic view to all the risks and allows comparing the risks with each other. For example, if a new risk position itself at a lower risk level than some existing risks which have been deemed acceptable, then the new risk is logically acceptable as well. There are two zones marked in the risk picture close to the high-risk-corner; the first one, positioned at the corner, is the zone where risks would normally be considered not acceptable (see Figure 5). The limits around this zone are not thin lines but rather transition zones and judgment needs to be used in deciding when risks touching this transition zone are acceptable and when not. The strength of knowledge plays a role here as well. The second zone which is below the first one at lower severity levels is a zone of concern and should be an avoided zone. In some cases, however, due to the lower severity levels, somewhat higher probability levels may be acceptable than for the first zone.

The high-severity-low probability corner is the so-called Black Swan corner where risks - if they materialize - will have a very high impact. . When using older methods, these risks are often neglected due to their very

<sup>8</sup> Paté-Cornell 2002

<sup>9</sup> Aven 2008

low probabilities. This is exactly the danger of Black Swans. There are so many low probability scenarios with high impact that over time one or more of them will quite likely materialize. Therefore, it is a good practice to make such risks visible in the risk picture, so that they are not neglected.

Management of change (MOC) risks and identified potential future risks are presented in the risk picture in the same way as all the other risks.

The reasoning around the risks in the risk picture is recorded in the risk register (and as applicable in the meeting minutes). The expert group dealing with the risk picture makes conclusions and recommendations both at the level of individual risks and at the level of the whole operational risk picture.

In order for the decision makers to make a better evaluation, alternative actions that may be taken and the direction of risk reduction may be presented. Recommendations for each alternative action may be formulated in order to be more understandable and shown in the risk picture.

Evaluation of risk is done holistically by checking where the risk is located in both risk pictures to assess risk acceptability.

Step-1: Examine any new risks in the Type-I risk picture.

- (a) Consider exposed flights, supported with quantitative data if available, to see whether the risk is too high. This is based on the location of the risk within the Risk Picture.
- (b) If the SoK (Strength of Knowledge) of risk is low, show less tolerance during evaluation. This is particularly relevant when the risk is located on a border zone between acceptable and unacceptable.

Step-2: Analyze the Type-II (normalized) risk picture

- (a) Use the exposure rates of each safety issue to normalize their yearly occurrence probability. Use company flight data to support this step. Risks are now comparable.
- (b) Evaluate the acceptability of each risk, considering risk location compared to acceptability limits and older risks (which can be used as benchmarks).
- (c) If the SoK (Strength of Knowledge) of risk is low, show less tolerance during evaluation. This is particularly relevant when the risk is located on a border zone between acceptable and unacceptable.

No unacceptable risks can be tolerated. Any risk in the unacceptable zones in either risk picture is unacceptable.

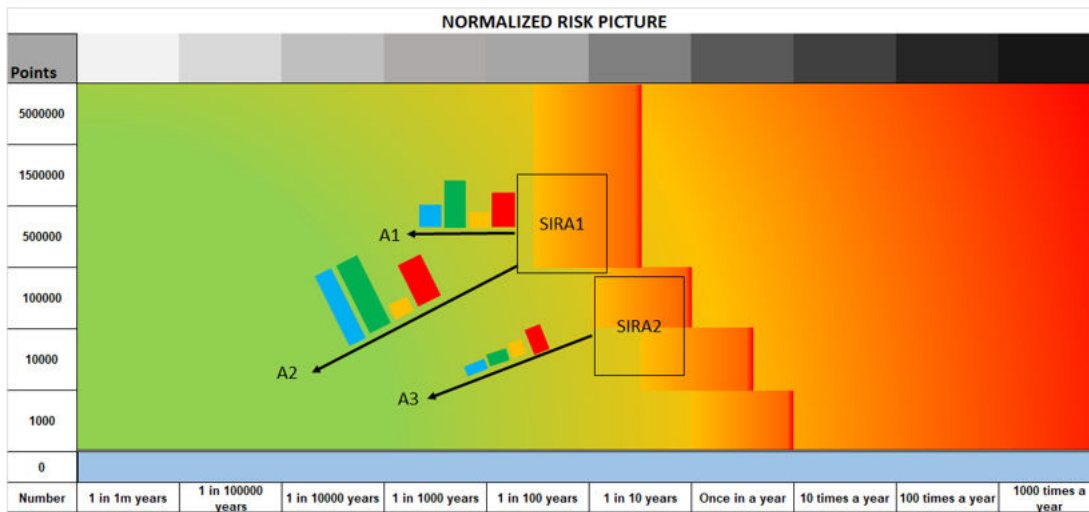
Step-3: Identify alternatives for risk treatment

- (a) Identify alternatives for risk treatment, covering at least all risks which are judged unacceptable.
- (b) Study the risk picture and the alternatives holistically. Formulate recommendations which address all unacceptable risks and optimize the overall risk reduction achievable with the available resource. Both the risk reduction potential and total cost (time, difficulty, resource, cost, etc.) of each alternative intervention is considered. Flight Operations Safety Review and FDM Meetings and SAG Meeting recommend a combination of intervention alternatives.
- (c) Some parts of the operation may need to be stopped, if they lead to unacceptable risk levels, and no suitable risk treatment can be identified.
- (d) The Risk Picture is monitored at Flight Operations Safety Review and FDM Meetings and SAG Meetings over time and recommendations are adapted as necessary.

Step-4: Take decisions on risk treatment

- (a) The recommendations are presented to the Safety Review Board, which takes the final decisions on risk treatment actions.

The process is continual. Risks evolve and are reassessed as necessary.



### Risk Evaluation and mitigation alternatives

The recommendations are given to the Safety Review Board (SRB) which will have to take the final decisions. A key point is to ensure that a proper level of knowledge around the risks passes on to the decision makers so that decisions are well grounded. Decisions could be made on typical safety actions (e.g. operational restrictions, training) but also on adaptive solutions where an initial solution is adapted over time based on the real-life feedback (e.g. different solutions are tested in different locations and the one which works best is then generalized). Presence of the Chief Safety and Security Officer (Safety Manager) ensures that a proper level of knowledge around the risks passes on to the decision makers so that decisions are well grounded.

## 4.9 RISK MITIGATION / TREATMENT

Safety risks are managed to an acceptable level by mitigating the safety risk through the application of appropriate safety risk controls. This should be balanced against the time and difficulty of taking action to reduce or eliminate the safety risk. The level of safety risk can be lowered by reducing the severity of the potential consequences, reducing the probability of occurrence or by reducing exposure to that safety risk. It is easier and more common to reduce the probability than it is to reduce the severity of that safety risk

In general terms, risk can be reduced by applying one of several basic philosophies:

**Avoidance:** The operation or activity is cancelled or avoided because the safety risk exceeds the benefits of continuing the activity, thereby eliminating the safety risk entirely.

**Reduction:** The frequency of the operation or activity is reduced, or action is taken to reduce the magnitude of the consequences of the safety risk.

**Segregation:** Action is taken to isolate the effects of the consequences of the safety risk or build in redundancy to protect against them.

A safety risk mitigation strategy may involve one of the approaches described above or may include multiple approaches. It is important to consider the full range of possible control measures to find an optimal solution. The effectiveness of each alternative strategy must be evaluated before a decision is made. Each proposed safety risk mitigation alternative should be examined from the following perspectives:

- Effectiveness. The extent to which the alternatives reduce or eliminate the safety risks. Effectiveness can be determined in terms of the technical, training and regulatory defences that can reduce or eliminate safety risks.
- Practicality. The extent to which mitigation can be implemented and how appropriate it is in terms of available technology, financial and administrative resources, legislation, political will, operational realities, etc.



- (c) Acceptability. The extent to which the alternative is acceptable to those people that will be expected to apply it.
- (d) Enforceability. The extent to which compliance with new rules, regulations or operating procedures can be monitored.
- (e) Durability. The extent to which the mitigation will be sustainable and effective.
- (f) Residual safety risks. The degree of safety risk that remains subsequent to the implementation of the initial mitigation and which may necessitate additional safety risk control measures.
- (g) Unintended consequences. The introduction of new hazards and related safety risks associated with the implementation of any mitigation alternative.
- (h) Time. Time required for the implementation of the safety risk mitigation alternative.

#### 4.10 ORGANIZATIONAL IMPLEMENTATION OF THE PROCESS

This chapter describes the roles and responsibilities for the organizational implementation of the risk management process at Pegasus Airlines operational departments including ATO, that has been illustrated above.

##### Risk Identification

The Safety Manager (assisted by the Chief Safety and Security Office) takes care of the practical risk identification work. The safety team seeks expertise as necessary from different departments, e.g. flight operations and maintenance.

The first step is the collection, analysis and categorization/classification of all safety data from various sources. Safety reports go through the ERA before moving to the detailed definition of the safety issues.

On one hand, the Chief Safety and Security Office maintains a continuous activity to process the incoming data, to carry out the ERAs and the update and analyze the statistics. On the other hand, the safety data and statistics are discussed in the daily, weekly and monthly safety meetings (Flight Operation Safety Review and FDM Meeting and Safety Action Group Meeting ), with the participation of experts.

##### Event Risk Assessment (ERA)

ERA is carried out by the Chief Safety and Security Office when necessary using the expertise in other departments.

The bulk of the ERA work is undertaken by individual safety team members. Particularly difficult cases can be reviewed in the daily safety review meetings. Events which are scored on the red ERA zone are immediately discussed in the daily safety review meetings where further action is defined.

Events which are scored on the amber ERA zone are reviewed in the weekly safety meetings.

##### Analysis and Synthesis of the aggregated safety data

Safety analysis and analytics are created and managed by the Chief Safety and Security Office. The daily, weekly and monthly meetings will provide the occasion to formalize potential Safety Issues which can then be proposed to the SAG and SRB Meetings.

##### Definition of Safety Issues

The formal definition of a Safety Issues is carried out in the regular meetings – especially in the weekly safety meetings. The safety issues and their definitions are then approved at Flight Operations Safety Review and FDM Meetings and SAG Meetings.

##### Safety Issue Risk Assessment, Risk Picture and Risk Register

The monthly safety meetings will be conducted as a Flight Operations Safety Review and FDM Meetings and SAG Meetings, where the attendees manage the new and already-existing risks, using the Risk Picture, the Risk Register and any other necessary methods.

The composition of the group varies in time to ensure the necessary expertise vs. the issues on the agenda.

A Safety Issue Risk Assessment (SIRA) includes Subject Matter Experts (SMEs) from each relevant department. It is the responsibility of the Safety Advisors to invite SMEs from each relevant department and coordinate the SIRA.

### **Risk Evaluation, Acceptance and Decision Making**

The participants of the Flight Operations Safety Review and FDM Meetings and SAG Meetings carry out the risk evaluation and make recommendations for actions to the Safety Review Board. This includes creating different alternative actions and building a solid rationale on what should be done and why.

Nominated Persons, in accordance with Air Operations ORO.AOC.135, are those senior managers charged with statutory responsibilities for the conduct of safe operations and maintenance activities. Reporting directly to the Accountable Executive, each Nominated Person is responsible for all of the activities in their department and to act and make decisions on behalf of the Accountable Executive to ensure safe, compliant and cost-effective operations and maintenance functions.

Safety responsibilities including the authority to make decisions regarding risk tolerability and ensuring operations are conducted in accordance with applicable regulations and standards are specified as follows;

NP Flight Operations – Chief Flight Operations Officer - Has the authority to make decisions regarding risk tolerability with respect to the safety of flight operations. Also, NP Flight Operations has the authority to make decisions regarding risk tolerability with respect to the safety of cabin operations and cargo operations (applies only to cargo risks affecting the flight operation).

NP Crew Training – Chief Flight Academy Officer - Has the authority to make decisions regarding risk tolerability with respect to the safety of crew training.

NP Continuing Airworthiness – Executive Vice Presidency - Technic - Has the authority to make decisions regarding risk tolerability with respect to the safety of maintenance and engineering.

NP Ground Operations – Executive Vice Presidency - Ground Operations - Has the authority to make decisions regarding risk tolerability with respect to the safety of ground operations. Besides, NP Ground Operations has the authority to make decisions regarding risk tolerability with respect to cargo operation risks in loading/unloading of aircraft related to Ground Handling.

Final decisions are taken at the Safety Review Board (SRB).

The Safety Manager is a member of both the Flight Operations Safety Review and FDM Meetings and SRB in order to make sure that the background knowledge and rationales behind the recommendations get properly transmitted to the SRB.

### **Risk Mitigation/Treatment**

The risk mitigation part is an integral part of the Pegasus Airlines SMS and is defined in Pegasus Airlines SMM 4.9. The Safety Action Groups, under the oversight of the Safety Review Board and Nominated Persons (as well as the Accountable Executive) are in key role in managing all safety-related actions.

## **4.11 LIMITATIONS AND CONTINUOUS IMPROVEMENT**

Every safety data source has its strengths and weaknesses. Any combination of safety tools will always be imperfect in the sense that there may be blind spots. As a part of a robust risk management process it is important to be aware of these blind spots and to try to address these within the limits of what is feasible. In some cases, the blind spots themselves could be introduced as risks in the risk picture.

Finally, a classic risk management program neglects very-low-probability scenarios (due to the focus on probability). In real life some of the very-low-probability scenarios do materialize causing a surprise. Pegasus Airlines addresses this problem by maintaining categories of potential surprises within the risk register and develops countermeasures to these. As an example, the Evidence Based Training program helps flight crews cope with unanticipated surprising situations even if the specific surprise scenario has never been covered as such during training.

Managing both the blind spots and the surprises is highlighted as an integral part of the process in Figure 2.



Pegasus Airlines compliance monitoring department ensure the periodic check of the Safety Risk Management Process (as a part of the SMS), assessing its implementation vs. the documentation and its continuing fitness for purpose. External audits by competent authorities and third parties will also contribute to the regular checking of the integrity of the implemented process.

Areas of particular attention include: consistency and calibration of event risk assessments, adequacy of knowledge building for safety issues and related records, management interference in experts' assessments and recommendations, changing or downplaying results of risk assessments, proper follow-up of actions and resulting risk reduction, continuous learning about all process stages.

At least every two years, it is necessary to ask how the process should evolve. Again, an external view can be helpful in this task. Some of the potential areas, where improvement can be searched include adding more safety data sources, running most FDM events automatically through ERA, acquiring software to support various steps in the process.

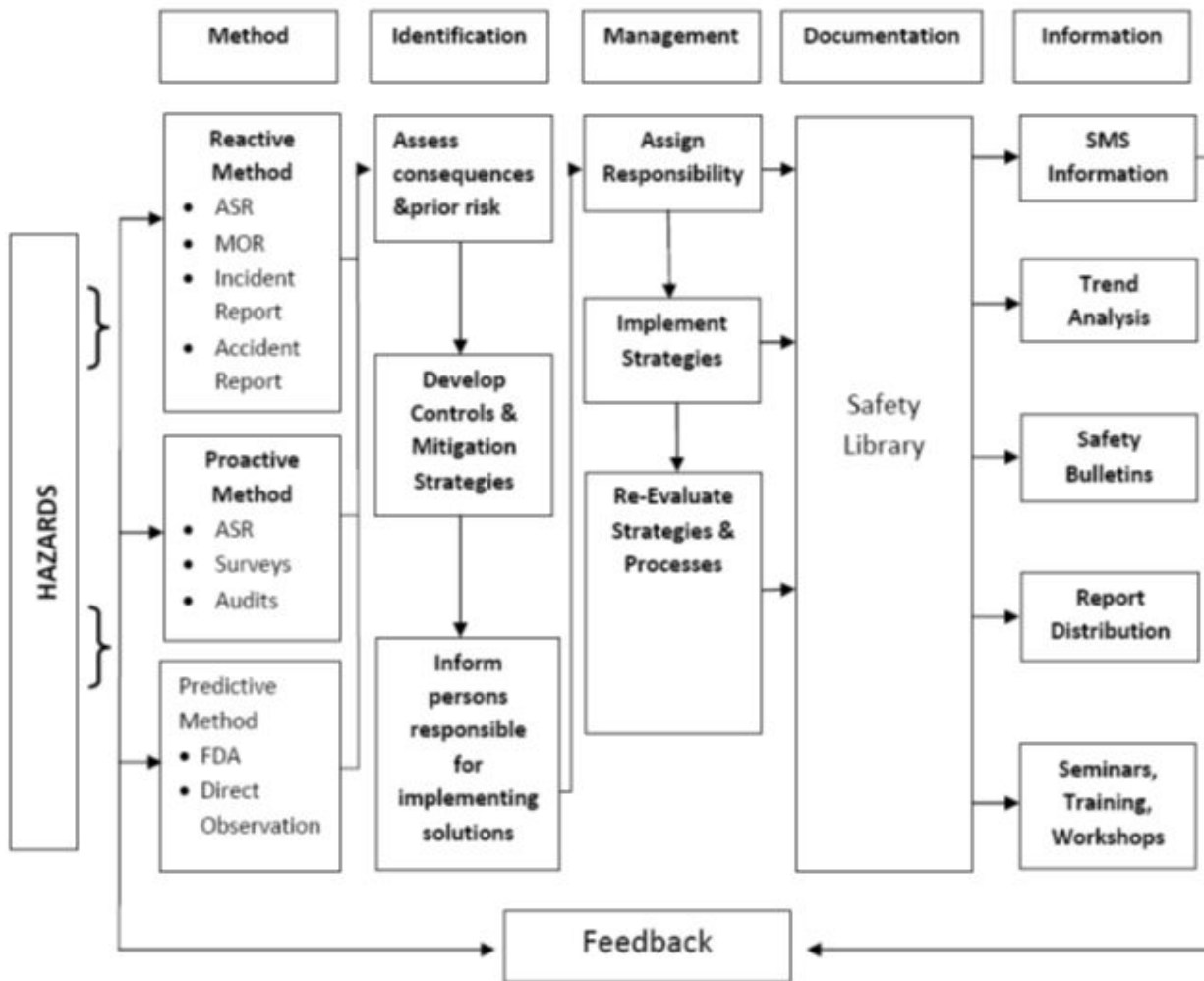
#### **4.12 IQSMS RISK MODULE**

Registered risks in IQSMS Risk Module are reviewed to validate the effectiveness of safety risk controls regularly according to review date by the owner of the risks. When the reminder warning about risk review date is taken by risk owner via IQSMS.

Please review the "PG-EM-PR-010 Risk Management Procedure" on how to conduct risk analysis studies.

#### **4.13 SMS DOCUMENTATION – SAFETY LIBRARY**

Hazards are constantly identified through reactive, proactive and predictive sources and underlying methods of safety information collection. Following collection and identification, hazard information is assessed in terms of consequences, and priorities and responsibilities regarding mitigation responses and strategies. Corrective and preventive actions are generated in response to hazard/risk identification. All this information, including hazards, consequences, priorities, responsibilities and strategies are collected into the "safety library" of the organization. The product of the "safety library" is not only the preservation of the corporate safety memory, but the safety library becomes a source of safety knowledge to be used as reference for organizational safety decision making. The safety knowledge incorporated in the "safety library" provides feedback and control reference against which to measure hazard analysis and consequence management, as well as the efficiency of the sources or methods of safety information collection. It also provides material for safety trend analyses, as well as for safety education purposes (safety bulletins, reports, training, seminars and the like).



IQSMS System and SIRA provides the control processes necessary to ensure appropriate, identification, legibility, storage, protection, archiving and retrieval of the ASRs, audit and risk assessment records.

Risk Management studies are documented through IQSMS Risk Module and SIRA.

The following list is used for the record method, archiving periods and disposal types for safety records and documentation.

Description of Records	Place of Record	Recording Method	Keeping Period (Active)	Keeping Period (Passive)	Destruction Method
Incident, serious incident, accident investigation reports	IQSMS Filemaster/ Flight Safety	Electronic	3	5	Delete
Flight Safety Bulletin	Comply365	Electronic	3	5	Delete
General Internal Announcement	Comply365 Filemaster/ Flight Safety	Electronic	3	5	Delete
Agreements (Confidential)	Filemaster/ Flight Safety	Electronic	3	5	Delete
Audit Summary Reports and Checklists	IQSMS	Electronic	3	5	Delete

LOSA Records	Filemaster/ Flight Safety	Electronic	3	5	Delete
LOSA Actions	QDMS Filemaster/ Flight Safety	Electronic	3	5	Delete
TDGCA Audit Records	Filemaster/ Flight Safety	Electronic	3	5	Delete
External / Internal Correspondences	Filemaster/ Flight Safety	Electronic Hard Copy	3	5	Delete Tear
Manuals	Comply365 Filemaster/ Flight Safety Document Library	Electronic	3	5	Delete
Safety Meeting Minutes and Presentation	Filemaster/ Flight Safety	Electronic	3	5	Delete
Man/Hour Planning	Filemaster/ Flight Safety	Electronic	3	5	Delete
Policy	PiN Hard Copy Filemaster/ Flight Safety Pegasus Web Page Document Library	Electronic Hard Copy	3	5	Delete Tear
Procedures	Comply365 Filemaster/ Flight Safety	Electronic	3	5	Delete
Safety Information Cards	Comply365 Filemaster/ Flight Safety	Electronic	3	5	Delete
Job Description	Comply365	Electronic	3	5	Delete
Safety Forms	Comply365	Electronic	3	5	Delete
Safety Appreciation Certificates	Comply365 Filemaster/ Flight Safety	Electronic	3	5	Delete
Safety Certificates	Comply365 Filemaster/ Flight Safety	Electronic	3	5	Delete
Training Records	Filemaster/ Flight Safety	Electronic	3	5	Delete
Safety Training Presentations	Filemaster/ Flight Safety	Electronic	3	5	Delete

ERP Exercise / Actual Event Reports	Filemaster/ Flight Safety	Electronic Hard Copy	3	5	Delete Tear
ERP Checklists	Filemaster/ Flight Safety Hard Copy	Electronic	3	5	Delete Tear
ERP Actions	QDMS Filemaster/ Flight Safety	Electronic	3	5	Delete
Go-Kit Debit Form	Filemaster/ Flight Safety Hard Copy	Electronic	3	5	Delete Tear
Safety Department Meeting Records	Hard Copy	Hard Copy	3	5	Tear
Safety Report Records	IQSMS Filemaster/ Flight Safety	Electronic	3	5	Delete
ALOS Records	Filemaster/ Flight Safety	Electronic	3	5	Delete
Fatigue Reports	IQSMS Filemaster/ Flight Safety	Electronic	3	5	Delete
Surveys Records and Reports	Filemaster/ Flight Safety	Electronic	3	5	Delete
Safety Department KPIs	QDMS	Electronic	3	5	Delete
Records required by Law, Legislation, Standards	QDMS	Electronic	3	5	Delete
Budgets	Airflow Filemaster/ Flight Safety	Electronic	3	5	Delete
Safety Promotion Records	PiN Hard Copy Filemaster/ Flight Safety	Electronic Hard Copy	3	5	Delete Tear
Safety Risk Management Records	IQSMS Filemaster/ Flight Safety	Electronic	3	5	Delete
Checklist	IQSMS Filemaster/ Flight Safety	Electronic	3	5	Delete

End of Section

## 5 SAFETY ASSURANCE

Safety risk management requires feedback on safety performance to complete the safety management cycle. Through monitoring and feedback, SMS performance is evaluated and any necessary changes are made. In addition, safety assurance provides stakeholders an indication of the level of safety performance of the system.

Assurance can simply be defined as “something that gives confidence”. The safety risk management process in the SMS starts with the organization obtaining a good understanding of its operational processes and the environments in which it operates; progresses through hazard/risk identification, safety risk assessment and safety risk mitigation, and culminates in development and implementation of appropriate safety risk controls. Once controls for the safety risks of the harms are designed, deemed to be capable of controlling safety risks, and put into operation, safety assurance takes over safety risk management.

Pegasus Airlines continually monitors its operations and the environment to assure that it recognizes changes in the operational environment that could signal the emergence of new and unmitigated hazards, and for degradation in operational processes, facilities, equipment conditions, or human performance that could reduce the effectiveness of existing safety risk controls. This would signal the need to return to the safety risk management process to review and, if necessary, revise existing safety risk controls or develop new ones.

There are many processes developed to evaluate the effectiveness, that is, the degree to which a planned effect is achieved. This chapter explains the methods used in safety effectiveness in Pegasus Airlines.

Previously registered risks in IQSMS Risk Module are reviewed to validate the effectiveness of safety risk controls regularly according to review date by the owner of the risks. Nonexisting risks can be retired by admin of risk study with the coordination for approval of Nominated/Responsible Persons in IQSMS.

### 5.1 SAFETY PERFORMANCE MONITORING AND MEASUREMENT

The primary task of safety assurance is control. This is achieved through safety performance monitoring and measurement, the process by which the safety performance of the organization is verified in comparison with the safety policy and approved safety objectives. Safety assurance control is conducted by monitoring and measuring the outcomes of activities that operational personnel must engage in for the delivery of services by the organization. Performance measures are set in operational departments in accordance with safety objectives and monitored in Safety Action Group Meetings. When targets are not achieved and/or alert levels are breached, the corrective or follow-up action is taken by related department and monitored by Chief Safety and Security Office by trend monitoring, auditing and reporting.

Information for safety performance and monitoring comes from various sources, including auditing and evaluation, investigations, monitoring of day-to-day activities, and input from employees. These sources contribute to validating the effectiveness of safety risk controls. Information sources for safety performance monitoring and measurement including but not limited to:

- Safety audits
- Safety surveys
- Safety reporting systems
- Safety studies
- Safety reviews
- Safety trends
- Internal safety investigations

**Audits** focus on the integrity of the organization’s SMS and periodically assess the status of safety risk controls. As with other requirements, the auditing requirements are left at a functional level, allowing for a broad range of complexity. While audits are “external” to the units involved in activities directly related to the provision of services, they are still “internal” to the organization. Audits are not intended to be in-depth audits of the technical processes but rather they are intended to provide assurance of the safety

management functions, activities and resources of line units. Audits are used to ensure that the structure of the SMS is sound in terms of staffing, compliance with approved procedures and instructions, levels of competency and training to operate equipment and facilities and maintain required levels of performance, etc.

**Safety surveys** examine particular elements or procedures of a specific operation, such as problem areas or bottlenecks in daily operations, perceptions and opinions of operational personnel and areas of dissent or confusion. Since surveys are subjective, verification may be needed before corrective action can be taken. Surveys may provide an inexpensive source of significant safety information.

**Safety reporting systems** are essential elements in hazard/risk identification. In Pegasus Airlines' safety reporting system, the reports are easy to make, there are no disciplinary actions as a result of the reports, the reports are confidential; and feedback is rapid, accessible and informative.

**Safety studies** are rather large analyses encompassing broad safety concerns. Some pervasive safety issues can best be understood through an examination in the broadest possible context. Safety studies are a source of information on generic safety concerns and/or systemic safety deficiencies.

**Safety reviews** are conducted during introduction and deployment of new technologies, change or implementation of procedures, or in situations of a structural change in operations. Safety reviews are a fundamental component of the management of change. They have a clearly defined objective that is linked to the change under consideration. For example, an airport is considering implementing airport surface detection equipment (ASDE). Therefore, the objective of the safety review would be to assess the safety risks associated with implementing an ASDE at XYZ airport by evaluating the appropriateness and effectiveness of the safety management activities related to the project. Safety reviews are conducted by Chief Safety and Security Office or SAG members and look for effective performance of the following safety management activities under the proposed changes:

- hazard/risk identification and safety risk assessment/mitigation;
- safety measurement;
- management accountabilities;
- operational personnel skills;
- technical systems; and
- abnormal operations.

**Safety trends** are the results of various safety information (e.g. lightning strike rate, FDM event rate etc.). Acceptable Level of Safety Performance (ALOSP) is calculated for each of them using average (AVG) and standard deviation (SD) of the previous year data. The three alert lines are  $AVG + SD$  (yellow),  $AVG + 2*SD$  (amber) and  $AVG + 3*SD$  (red). Also, alert level for negative trending such as go-around due to unstable approach is monitored by using with the same calculation/method. If an event rate has high variation in various seasons (e.g. high rate of lightning strikes in winter months and low rate of lightning strikes in summer months), instead of using the previous year data, data of the same months of previous 4 years is used.

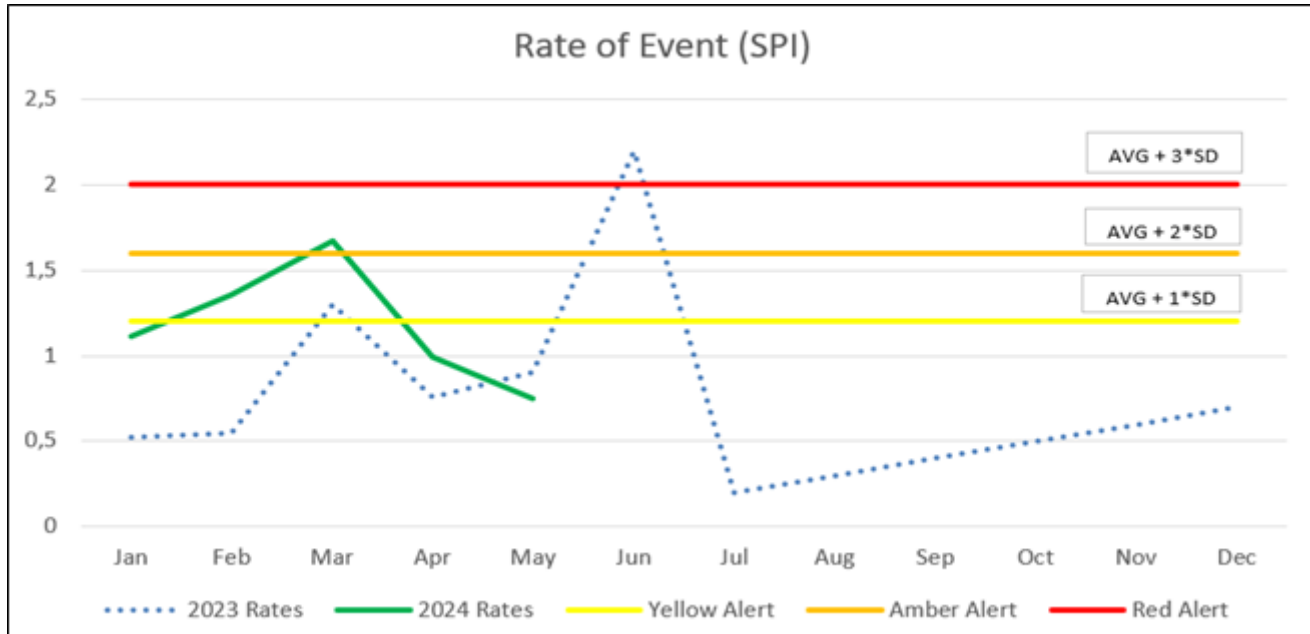
**NOTE**

*Note: Colours are represented in ALOSP and SPI Control Chart.*

**• Alert Level Trigger**

An alert (abnormal/unacceptable trend) is indicated if any of the conditions below are met for the current monitoring period (current year):

- (1) Passing  $AVG \pm SD$  level for three consecutive months
- (2) Passing  $AVG \pm 2*SD$  level for two consecutive months
- (3) Passing  $AVG \pm 3*SD$  level for any single point



When an alert is triggered, trigger values serve to start an evaluation, decision, adjustment or remedial action related to the particular indicator. These actions may include detailed analysis and root cause analysis of the relevant exceedance. Following evaluation of the alert status, safety risk assessment may be done and mitigating actions should be determined to decrease/increase the number/rate of the indicator to acceptable level of safety performance.

**Internal safety investigations** include occurrences or events that are not required to be investigated or reported to the authority. Examples of occurrences or events that fall within the scope of internal safety investigations include: in-flight turbulence (flight operations); frequency congestion (ATC); material failure (maintenance), and ramp vehicle operations (aerodrome).

## 5.2 SAFETY ASSESSMENT AND OVERSIGHT

The most common and effective way of determining the presence of unsafe conditions in the company is to conduct periodic and structured audits and assessments. The results for these audits and assessments are used to evaluate company safety level.

Monitoring the compliance of all audits carried out within the scope of the audit plan by the Compliance Monitoring and Chief Safety and Security Office Department, detailed in SMM section 4.2.3, aims to provide confidence in Pegasus Airlines' corporate goals. The final outcome of this step is the identification of safety and security issues emerging from related audits. Safety and security issues are risks in the current and future operation of Pegasus Airlines, that need to be managed. In this context, each important issue and Level 1 finding is presented at the Safety Action Group Meeting by Compliance Monitoring and Chief Safety and Security Office. In this way, all relevant participants are informed at SAG meetings about important audit outputs to evaluate whether a risk assessment, further investigation, and review on Safety Review Board/ Management Review are necessary.

Level 1 Finding / Safety Related Concern / significant issue: National / international laws and / or civil aviation regulations and / or Pegasus Airlines is an important inadequacy or flaw that is contrary to the procedures, which reduces the safety and security standards, and can seriously affect the flight and ground safety and security directly. Continuation of operation / activity is not allowed if Level 1 nonconformity is detected. For more information, please refer to PG-KU-EK-001 Compliance Monitoring Manual.

The oversight of safety is done through various safety management meetings.



### 5.3 MANAGEMENT OF CHANGE (MOC)

AMC2 ORO.GEN.200(a)(5)

A major change in the operation, planned by Pegasus airlines is always risk analysed. From the methodology point of view, the change is treated as a potential Safety Issue and processes in the same way as all Safety Issues.

The steps include:

- (1) Establishing a full description of the planned change
- (2) Identification of the team to carry out the MOC
- (3) Collecting information and building knowledge on the related matters
- (4) Identifying the safety impact as new Safety Issues or as changes in existing Safety Issues, or both
- (5) Documenting the rationale and assumptions
- (6) Placing the identified Safety Issues in the Risk Picture.
- (7) Reviewing the MOC in the SAG Meetings
- (8) Updating the MOC at a given frequency

Management of Change is a structured approach for ensuring that changes are thoroughly and smoothly implemented and that the lasting benefits of change are achieved in the organization. The change in question could range from a simple process change to major changes in policy or strategy needed if the organization is to achieve its potential.

The management of change process is used for all safety related changes including Human Factors issues and considers the accumulation of multiple changes. It is initiated in a planned, timely and consistent manner and includes follow up action that the change was implemented safely.

In the organization, changes are made in response to specific problems or opportunities that the organization is facing internally or externally.

Management of change studies in Pegasus Airlines are carried out according to the "Management of Change Procedure" numbered PG-EM-PR-001. MOC studies are done via Risk+ Assessment Section of IQSMS Risk Management Module. Please refer to PG-EM-PR-001 Management of Change Procedure for all details on how to conduct MOC studies via IQSMS.

Once a change requiring MOC is perceived, please refer to PG-EM-PR-001 - Management of Change, which includes the application steps of the MOC study, responsibilities in this context, and how the two-step approval mechanism works after the MOC study is completed and, if necessary, the verification process.

For the purposes of SMS, a change that requires an MOC study is defined as below:

- Whenever there are pertinent changes to existing aviation safety-related facilities or equipment, or there are new aviation safety-related facilities or equipment.
- Whenever there are pertinent changes to existing aviation operations or processes, or there are new aviation safety-related operations or processes.
- Whenever there are pertinent changes external to the organization such as regulatory/industry standards, best practices or technology.

#### New Destination Risk Management Study

New Destination Risk Management Studies are part of the MOC and carried out with the following process in our company;

1. Starting New Destination Risk Management Study: Safety and Risk Management Specialist starts the process after being informed by Commercial Department about a new destination/route request. New Destination Checklist is requested by Safety and Risk Management Specialist. If the airports involved already have scheduled flights operated by the Company, review of current study will be conducted and published as revision.

2. Choosing Subject Matter Experts: Safety and Risk Management Specialist chooses Subject Matter Experts (SMEs) from departments below for them to identify and analyse the risks by requesting to fill **New Destination Checklist (PG-EM-FR-001)** before/without visiting the airport;

- (a) IOCC
- (b) Flight Operations
- (c) Ground Operations
- (d) Technic
- (e) Security
- (f) Cargo (If there will be cargo operation)
- (g) Cabin Operations
- (h) Crew Planning
- (i) Safety
- (j) Commercial
- (k) Legal

SMEs choose other relevant associate from their departments if they are unavailable. Observers from various departments may also be chosen for them to be informed.

3. Data Entry: SMEs enter the data on checklist and provide it to Safety and Risk Management Specialist for final safety review.

4. Safety Review: Safety and Risk Management Specialist, SMS Senior Manager and/or Flight Safety Manager review the finalized document and determine the risks.

5. Risk Assessment: Risk analysis study is applied to each determined risk.

6. Preliminary report including checklist and identified risk(s) (MOC study) is published by Safety and Risk Management Specialist to relevant units and Commercial Department by continuing the process.

7. Airport Visit: SMEs decide when filling New Destination Checklist whether airport visit is necessary. If necessary, airport on-site visit is planned to identify blind spots risks. Required representatives from departments attend airport on-site visit.

The followings are taken into account in the decision-making process for the airport visit;

- Whether an operation has been carried out before,
- Receiving feedback from other operators,
- Checking whether airport facilities meet high standards,
- Review of security standards,
- Ensure the external service providers availability

8. After visiting the airport: SMEs fill PG-EM-FR-001 New Destination Checklist if and when an airport visit is accomplished and send it to Safety and Risk Management Specialist. The related documents on airport and the used checklist are combined with preliminary report. After the risk management study is over, if there is an uncompleted operational necessity listed in the checklist and if it does not cause a risk, it will be monitored by the related SME to be informed to Safety and Risk Management Specialist once it is completed. If the need to revise the checklist arises, SMEs notify Safety and Risk Management Specialist.

Risks related to identified hazards and threats are specified in the explanation section of the checklist.

9. Risk Mitigation: Refer to SMM 4.9

10. Announcement to Operational Personnel: SMEs announce the related risks of the airport to the operational personnel of their departments.

11. First Flight: Crew qualification rostering for new destinations flights will be minimum C3 for captain and P2 for F/O for the first three consecutive flights and no LIFUS / check flight, unless a higher crew composition is required as determined according to PG-EM-FR-001 New Destination checklist.

For the detailed information about risk analysis process of charter and scheduled flights refer to PG-EM-PR-011 New Destination Procedure via Comply365.

## 5.4 CONTINUOUS IMPROVEMENT OF THE SMS

AMC1 ORO.GEN.200(a)(3)

Continuous improvement in safety is a core value. This is accomplished by measuring safety performance and implementing necessary changes.

Continuous improvement of SMS thus aims at determining the immediate causes of below standard performance and their implications in the operation of SMS, and rectifying situations involving below standard performance identified through safety assurance activities. Continuous improvement is achieved through evaluations SPIs and SPTs, internal and external audits and applies to:

- Proactive evaluation of facilities, equipment, documentation and procedures, for example, through internal evaluations.
- Proactive evaluation of an individual's performance, to verify the fulfilment of that individual's safety responsibilities, for example, through periodic competency checks (form of evaluation/audit); and
- Reactive evaluations to verify the effectiveness of the system for control and mitigation of safety risks, for example, through internal and external audits.

In addition, the Company ensures the following to continually improve the safety level:

- (1) Adjust the acceptable level of safety performance yearly to show improvements in dealing with trends.
- (2) Conduct safety risk assessments on all operational departments to minimize risks associated within the operations.
- (3) Conduct safety surveys to provide an indicator of the safety culture.
- (4) Increase the submission of hazard reports.
- (5) Increase the number of actions raised from safety meetings.
- (6) Reduce the number of non-compliances with standard procedures as measured by observation.
- (7) Increase compliance with the safety processes including reporting, classification, root cause investigation, and implementation of corrective actions.

Management reviews; examine whether the safety objectives are being achieved by the organization and are an opportunity to look at all the available safety performance information to identify overall trends.

It is important that senior management review the effectiveness of the SMS. This is carried out via SAG and SRB Meetings.

End of Section

## 6 SAFETY PROMOTION AND COMMUNICATION

AMC2 ORO.GEN.200(a)(5)

### 6.1 SAFETY PROMOTION

Safety promotion involves the communication of information and the dissemination of information and data to all personnel. Pegasus Airlines SMS includes a means for promulgation and dissemination of information and data for the continuing education and interest of operational and other associated personnel. The process ensures a method of dissemination commensurate with the size of the operation.

Company personnel who contribute to safety outside the scope of their routine duties may be given an appreciation certificate with the signature of Accountable Executive and Chief Safety and Security Officer (Safety Manager). The assessment of these contributions is undertaken and approved by Chief Safety and Security Officer (Safety Manager). The rewarded personnel are announced and listed on the Company intranet page.

Company personnel who contribute to safety outside the scope of their routine duties may be given safety appreciation certificate. The process for personnel who are entitled to receive the safety appreciation certificate is as follows:

- (1) The requests of the safety appreciation certificate are submitted to Chief Safety and Security Office.
- (2) If any submitted name is evaluated worthy to get certificate, those names are shared with Human Resources Department to be informed.
- (3) The safety appreciation certificate is given to the personnel with the signature of Accountable Executive and Chief Safety and Security Officer (Safety Manager).
- (4) A copy of the certificate is forwarded to Human Resources Department by Chief Safety and Security Office to be kept in the file of the relevant personnel.
- (5) The rewarded personnel names are listed on Company intranet page.

### 6.2 SAFETY COMMUNICATION

Pegasus Airlines communicates SMS objectives and procedures to all operational personnel, and SMS is visible in all aspects of the operations. The Chief Safety and Security Officer (Safety Manager) communicates the performance of the organization's SMS program through bulletins and briefings. The Chief Safety and Security Officer (Safety Manager) also ensures that lessons learnt from investigations and case histories or experiences, both internally and from other organizations, are distributed widely. Communication flows between the Chief Safety and Security Office and operational personnel throughout the organization. The safety performance will be more efficient if operational personnel are actively encouraged to identify and report hazards. Safety communication therefore aims to:

- ensure that all staff are fully aware of the SMS;
- convey safety-critical information, especially relating to assessed risks and analysed hazards;
- explains why particular actions are taken
- explain why safety procedures are introduced or changed; and
- convey necessary information.

Pegasus Airlines applies a communication system with personnel on safety issues using media such as SMM, safety bulletins, reporting system, safety survey, safety posters, meetings, direct personal contact, company intranet page and e-mail messages.

Safety communication is two-way; while the Pegasus Airlines reporting system actively encourages all employees to bring their safety concerns, potential hazards and improvement recommendations to the

attention of the management, on the other hand, feedback is provided by the relevant departments on what actions have been taken regarding the submitted reports.

E-mails or verbal communication are used for collecting safety data from the external customer or subcontractor organizations. These data are analyzed if there is a hazard and managed by the relevant department.

Any information regarding a new implementation or amended safety procedure is announced to the relevant employees through the Comply365. SMM and safety policy are available on the Comply365 for review by all personnel.

From time to time it may become necessary to inform flight and/or ground crews of critical safety information. Written communication is utilized to forward the safety-critical information. Depending upon the importance of the information, Safety Bulletins and e-mail can be used. Flight Operations, Ground Operations, Cabin Operations, and Technical Departments may publish bulletins for safety concerns, critical information, case studies, and lessons learned from past experiences and changes.

As well as the lessons learnt from the FDM program flight safety-related issues which are considered to be important are promulgated to the flight crew as a short message with the title "PGS SAFETY CAUTION"

The FDM report, which contains the statistical information obtained from the FDM program and the information about the top 10 events at a high level, is announced to the flight crews monthly via the safety bulletin and mail.

The Chief Safety and Security Office hangs safety posters to draw attention to important safety issues in areas accessible to flight, maintenance, ground, and headquarters personnel.

Pegasus Airlines' communication methods involve easy-to-use methods that focus on communication at all levels, making it easier for employees to report hazards and concerns. Specific communication methods include;

Communication Method	Content	Target Group	Responsible	Period
Reporting Module - IQSMS	Operational and Safety Information Flow	All Personnel	Operational Departments	Routinely
Safety Review Board Meetings (Quarter Review)	Monitor Safety Performance	Management	CSSO (Safety Manager)	Quarterly
Safety Action Group Meetings	Review the Effectiveness of Safety Recommendations	Management	CSSO (Safety Manager)	Every Month
Weekly Safety Review Meeting	Review of safety issues Monitoring of safety risk assessments	Safety Advisor	SMS Senior Manager	Every Week
Daily Safety Review Meeting	Review IQSMS reports to identify new hazards	Operational Departments	Safety Advisors	Daily
Fatigue Safety Action Group Meetings	Develop, Implement and Monitor Effective FRMS	Management	CSSO (Safety Manager)	Quarterly

Flight Operations Safety Review and FDM Meetings	Improve Flight Safety	Management Chief Flight Instructors	FDM Senior Manager	Every Month
Chief Safety and Security Office and Compliance Monitoring Department Cordination Meetings	Operational safety issues	Chief Safety and Security Office Compliance Monitoring Department	CSSO (Safety Manager) Compliance Monitoring Manager	Weekly
Accountable Executive Communication Regularly Meetings	Review operational and safety issues	Accountable Executive	CSSO (Safety Manager) Chief Operation Officer (COO) CFOO (Nominated Person of Flight Operations) CFAO (Nominated Person of Crew Training)	Weekly
Accountable Executive Communication Regularly Meetings	Review operational and safety issues	Accountable Executive	Senior Vice President - Ground Operations (Nominated Person of Ground Operations) Senior Vice President - Technic (Nominated Person of Continuous Air Worthiness) Senior Vice President- Cabin	Monthly
Phone, E-Mail	<ul style="list-style-type: none"> <li>• More Information about Occurrences</li> <li>• Information about Safety Improvements</li> </ul>	All Departments External Service Providers	Caller and Sender	As Required
Electronic Flight Bag (EFB)	Safety Publications	Flight Crew	Chief Safety and Security Office	As Required
Safety Bulletin	Safety Information	All Personnel External Service Providers	Operational Departments Chief Safety and Security Office	As Required

Monthly FDM Reports	Statistical Information about Flight Safety Occurrences	Flight Crew	Chief Safety and Security Office	Every Month
Safety Survey	Information about Safety Culture	All Personnel	Chief Safety and Security Office	Every 2 years
Company Intranet Page (PIN)	Safety Information about Activities Organization Information Raise Safety Awareness	All Departments	Chief Safety and Security Office	Routinely
Safety Posters	Safety Information	Operational Departments	Chief Safety and Security Office	As Required
Pilot Well-Being Leaflet	Information about Pilot Well-Being	Flight Crew	Chief Safety and Security Office	As Required
Instant Message (JETSMS)	Flight Safety Information	Flight Crew	Chief Safety and Security Office	As Required
Safety Appreciation Certificate	<ul style="list-style-type: none"> <li>• Appreciate the relevant Personnel</li> <li>• Encourage Reporting of Occurrence</li> </ul>	All Personnel External Service Providers	Chief Safety and Security Office	As Required
Safety Policy Roll-Up	Raise Awareness about Safety Policy	All Personnel	Chief Safety and Security Office	As Required
Manuals	Operational and Safety Information	All Personnel External Service Providers	All Departments	-
Comply365	Distribution of Document Revisions	All Personnel	All Departments	-
Safety Message of Accountable Executive	<ul style="list-style-type: none"> <li>• Information about Safety Improvements</li> <li>• Raise Awareness on Positive Safety Culture</li> <li>• Safety Expectations</li> <li>• Safety Policy and Commitment</li> </ul>	All Personnel	Accountable Executive	As Required



Welcoming Safety Letter of Accountable Executive	<ul style="list-style-type: none"> <li>• Information about Safety Improvements</li> <li>• Raise Awareness on Positive Safety Culture</li> <li>• Safety Expectations</li> <li>• Safety Policy and Commitment</li> </ul>	All Personnel	Accountable Executive	Routinely
Recurrent Trainings	<ul style="list-style-type: none"> <li>• Safety Risk Areas</li> <li>• FDM Statistics</li> <li>• Occurrences • Future Improvements and Safety Projects</li> </ul>	Flight Crew	Chief Safety and Security Office	As Required
T-DGCA Meetings/Visits	Review of SMS	Safety Management	CSSO (Safety Manager)	As Required
Other Airlines Visit	Safety Information Exchange	-	Chief Safety and Security Office	As Required
Conferences, Seminars, Meetings, Workshops	<ul style="list-style-type: none"> <li>•Safety Information Exchange</li> <li>•Networking</li> <li>•Implementations</li> <li>•Improvements</li> </ul>	-	Chief Safety and Security Office	As Required
National Industry Meetings	<ul style="list-style-type: none"> <li>•Safety Expectations</li> <li>•Networking</li> <li>•Safety Implementations</li> <li>•Improvements</li> </ul>	-	Chief Safety and Security Office	As Required
Monthly Safety Performance Report	Promote Safety Awareness Statistical Data	Relevant Departments External Service Providers	Nominated Person All Operational Departments	Every Month
Communication Channel with External Service Providers	Sharing the ERP Manual for handling agencies Sharing Safety Policy and SMM Ensure or provide SMS Training	External Service Providers	Safety Management Operational Departments	-

The general intent of safety communication is to foster a positive safety culture in which all employees receive ongoing information on safety issues, safety metrics, specific hazards existing in the workplace and initiatives to address known safety issues. Such communication typically conveys safety-critical information,

explains why particular actions are taken to improve safety and why safety procedures are introduced or changed. External Service Providers are communicated on safety related issues through the following methods.

- **E-mail and phone,**
- **Safety or operational reporting system;** reports can be confidentially assigned to External Service Providers through the IQSMS system and the actions taken are managed by the External Service Provider through the system,
- **Safety Bulletin** to share safety critical information,
- **Monthly Safety Performance Reports** to promote safety awareness and share statistical data,
- **Safety Appreciation Certificate** to encourage reporting of occurrence and appreciate the relevant personnel of external service provider,
- **Safety related documentation** (manuals, newsletters, policy)

Manuals or various documents deemed necessary to be shared with External Service providers are shared via in-house software called Document Library. In this context, Pegasus SMM and Safety Policy are shared with External Service Provider and/or Contracted Agencies via Document Library: <https://document.flypgs.com/>.

The Chief Safety and Security Office is responsible for keeping the Pegasus SMM, Safety policy and, if any, other safety documents up to date in the document library. In case a document is uploaded or updated, an automatic notification mail is sent to the e-mail addresses defined in the system of the External Service Providers authorized to read/review that document/s. If deemed necessary, the statistics of how many people read these distributed documents and information about who did not read them can be retrieved from the system, and a reminder e-mail is sent to those who do not read them.

### 6.3 TRAINING AND EDUCATION

SMS training is an element of the Safety Promotion component of SMS framework. All the rules and guidelines established in the SMS have a limited benefit without training. Without positive reinforcement, even the best written SMS would not be effective.

The Chief Safety and Security Officer (Safety Manager) is responsible for ensuring that there is a suitable safety training programme in place. All personnel receive safety training as appropriate for their safety responsibilities and SMS duties. The Chief Safety and Security Office provides current information and training related to safety issues relevant to the specific operations and operational units. The provision of appropriate training to all staff, regardless of their level in the organization, is an indication of management's commitment to an effective SMS.

Safety training programme include initial and recurrent safety trainings to maintain competencies as planned face-to-face or E-Learning.

Initial SMS training content includes but not limited to an overview of the organization's safety policy, goals and objectives, organizational safety roles and responsibilities, SMS principles related to safety risk management, safety assurance, safety promotion and modules that address the following:

- Safety reporting systems,
- Event investigation and analysis techniques,
- Hazard/risk identification, risk assessment and risk mitigation,
- Safety management support (including evaluation and audit programs)
- Audit principles and methodology
- Communication techniques,
- A validation process that measures the effectiveness of training,

- Initial and recurrent training requirements
- SMS implementation, analysis and continual improvement,
- Organizational SMS processes and procedures
- Emergency response preparedness.
- Human Factors

Recurrent safety training focus on changes to the SMS policies, processes and procedures, and specific safety issues relevant to the organization or lessons learned.

### 6.3.1 SMS E-LEARNING TRAINING FOR ALL PERSONNEL

Initial SMS E-Learning training is assigned to all Pegasus personnel to be completed within one month after employment by Pegasus Academy Department. A reminder mail is sent automatically via Enocta every 5 day until the deadline.

Recurrent SMS E-learning training is assigned to Pegasus personnel every 3 years except Accountable Executive, Management Personnel, Cockpit and Cabin Crew. Recurrent SMS E-learning training is assigned to Operational personnel (Technic, OCC, Ground Ops) every 2 years.

The effectiveness of safety trainings is measured with an electronic exam and training evaluation forms. The passing grade is 70 percent. If the trainee fails, the exam is repeated up to 3 times. If the results of all three exams are unsuccessful, the trainee requires to start the Training presentation is reviewed each year and if necessary revised by Chief Safety and Security Office. Each month, Pegasus Academy department share the rate of uncompleted safety trainings and training evaluation report with Chief Safety and Security Office. The list of personnel who have not completed SMS e-learning training is shared with the department managers every 6 months.

The training content is:

- Organizational safety policy, goals and objectives,
- Organizational safety roles and responsibilities related to safety,
- Basic safety risk management principles,
- Safety reporting systems,
- Organizational SMS processes and procedures
- Safety management support (including evaluation and audit programs)
- A validation process that measures the effectiveness of training,
- Lines of communication for dissemination of safety information,
- Initial and recurrent training requirements
- Emergency response preparedness.
- Human Factors

### 6.3.2 SAFETY TRAINING FOR OPERATIONAL PERSONNEL

In addition to the training subjects outlined above, personnel engaged directly in operations (Cockpit Crew, Cabin Crew, Ground Operations, Technic, IOCC) require more specific Safety Management System training for Operational Personnel with respect to:

- Specific procedures for reporting accidents, incidents and hazards,
- Unique hazards facing operational personnel,
- Seasonal safety hazards and procedures (winter operations, etc.), and
- Company safety record, including areas of systemic weaknesses,

- Specific safety initiatives, such as FDM programme or LOSA programme,
- Safety meetings,
- Specific emergency response procedures.
- Human Factors
- Organizational SMS processes and procedures

Initial and recurrent Face-to-face safety trainings for Cockpit and Cabin Crew operational personnel are scheduled by Flight Academy Department and given by authorized instructor. Recurrent trainings are given every year.

Initial and recurrent face-to-face safety trainings for Ground Ops, IOCC and Technic departments which manage their own schedules are given by authorized instructor. Recurrent trainings are given every 3 years.

Authorized instructor should have SMS training certificate, training of trainer certificate and face-to-face safety training related to training presentation of each operational department given by Chief Safety and Security Office in order to be authorized by Chief Safety and Security Office. Training presentations are reviewed each year and if necessary revised by them and approved by Chief Safety and Security Office.

The effectiveness of safety trainings is measured with an electronic exam and training evaluation forms. The passing grade is 70 percent except Cockpit crew. If the trainee fails, the exam is repeated up to 3 times. If the results of all three exams are unsuccessful, the trainee requires to start the course from the beginning.

Face-to-face cockpit crew safety training is given by Chief Safety and Security Office personnel and effectiveness of these safety trainings is measured by an electronic exam and training evaluation forms. The passing grade is 80 percent.

Training records and evaluation forms are kept by relevant department. Operational departments safety trainings are monitored by Compliance Monitoring Department via internal audits. If a safety related nonconformity is determined, the audit report is shared with the Safety Department through IQSMS.

### **ADDITIONAL SAFETY TRAININGS**

It is important that all personnel involved in the operation should know the operational risk areas of our company and act at a sufficient level of awareness into their duties. In order to increase this awareness, distant learning is prepared about PORAs and assigned to cockpit and cabin crew periodically.

Additionally, in order to make the CRM training of flight crews more effective, case study documents (PG-EM-KE-00002 & PG-EM-KE-00004) prepared with a human factor perspective, based on the events experienced in the company, are shared with the flight crews. These documents will be updated in every six months to cover emerging events.

### **6.3.3 SAFETY TRAINING FOR MANAGEMENT PERSONNEL**

It is essential that the Management personnel (Senior Management Level) understands the principles on which SMS is based. Training ensures that Management personnel are familiar with principles of SMS and their responsibilities for safety. The safety training programme includes a session designed specifically for management personnel for his/her initial and recurrent trainings.

Initial SMS e-learning training is assigned and followed by Pegasus Academy department via E-nocta software automatically. Initial and recurrent face to face safety trainings are planned as internal or external training Chief Safety and Security Office every 3 years.

Recurrent trainings are tracked with the monthly report by Pegasus Academy department E-nocta software automatically.

Internal training presentations are reviewed each year and if necessary revised by Chief Safety and Security Office.

The training content is;

- Organizational safety policy, goals and objectives,

- Organizational safety roles and responsibilities related to safety,
- Basic safety risk management principles,
- Safety reporting systems,
- Organizational SMS processes and procedures
- Safety management support (including evaluation and audit programs)
- A validation process that measures the effectiveness of training,
- Lines of communication for dissemination of safety information,
- Initial and recurrent training requirements
- National and organizational safety requirements
- Allocation of resources
- SMS promotion
- Safety Performance Targets and alert levels.
- Emergency response preparedness.
- Human Factors

#### 6.3.4 SAFETY TRAINING FOR ACCOUNTABLE EXECUTIVE

The safety training programme includes a session designed specifically for the Accountable Executive for his/her initial and recurrent training every 3 years. This training is at a high level providing the Accountable Executive with an understanding of SMS and its relationship to the organization's overall strategy.

Scheduling and training records management of safety trainings for the Accountable Executive is carried out by Chief Safety and Security Office.

Initial SMS e-learning training is assigned and followed by Pegasus Academy department via Enocta software automatically.

Initial and recurrent face to face SMS training for Accountable Executive are planned as internal or external training and followed by Chief Safety and Security Office every 3 years. Internal training presentation is reviewed each year and if necessary revised by Chief Safety and Security Office.

Recurrent training is tracked with the monthly report by Pegasus Academy department E-nocta software automatically.

The content is;

- Organizational safety policy, goals and objectives, (management commitment)
- Organizational safety roles and responsibilities related to safety,
- Basic safety risk management principles,
- Safety reporting systems,
- Organizational SMS processes and procedures
- Safety management support (including evaluation and audit programs)
- A validation process that measures the effectiveness of training,
- Lines of communication for dissemination of safety information,
- Initial and recurrent training requirements
- National and organizational safety requirements
- Allocation of resources
- SMS promotion; promotion of a positive safety culture

- Safety objective, SPTs and alert levels
- Disciplinary policy
- Emergency response preparedness
- Human Factors

### 6.3.5 SAFETY TRAINING FOR SAFETY ADVISORS

The safety training programme includes a session designed specifically for Safety Advisors. Safety Advisors receive below initial and recurrent training face to face as internal or external training. Recurrent trainings are planned every 3 years for Safety Management System Training.

Recurrent trainings are tracked with the monthly report by Pegasus Academy department E-nocta software automatically.

- Safety Management System Training
- Risk Management Training
- Root Cause Analyses Training
- Accident/Incident Investigation Training
- Human Factors Training

### 6.3.6 SAFETY TRAINING FOR CHIEF SAFETY AND SECURITY OFFICE PERSONNEL

The safety training programme includes a session designed specifically for Chief Safety and Security Office Personnel. Chief Safety and Security Office personnel shall receive below safety trainings as appropriate for their safety responsibilities and SMS duties as internal or external training.

Chief Safety and Security Office personnel with FDM responsibilities may receive non-mandatory simulation training and accompany pilots in cockpit in real flights to improve their flight operations knowledge.

Chief Safety and Security Office Personnel training requirements are defined in job descriptions and PG-EM-FR-020 form is used to follow-up trainings of Chief Safety and Security Office personnel. Safety Management System recurrent trainings are planned every 3 years.

Recurrent trainings are tracked with the monthly report by Pegasus Academy department E-nocta software automatically.

## 6.4 HUMAN FACTORS

Human Factors training is assigned to all Company Personnel and followed by Human Resources Department via Enocta software automatically. Initial E-Learning trainings are assigned to all personnel to be completed within one month after employment. A reminder mail is sent automatically via Enocta every 5 day until the deadline. Each month, Human Resources Department shares the rate of uncompleted safety trainings and training evaluation reports with Chief Safety and Security Office.

The effectiveness of safety trainings is measured with electronic exam. The passing grade is 80 percent. If the trainee fails, the exam is repeated up to 3 times. If the results of all three exams are unsuccessful, the trainee requires to start the course from the beginning.

In addition, annual "Aviation Safety Culture, Human Factors and Awareness" training is given by CRM instructors to the company management level and the participants of all departments (operational and non-operational) within the company. These trainings are reviewed on an annual basis, keeping up with the basic principles of CRM, and updating the emerging CRM threats in global aviation and the issues that need improvement within the company. In these trainings, which are planned to increase the company safety culture, CRM elements are covered by including the following subjects;

- Human factors in aviation,
- General instructions on CRM principles and objectives,

- Human performance and limitations,
- Threat and error management,
- Decision making,
- Effective communication and coordination inside and outside the flight crew compartment,
- Effective communication and coordination with other operational personnel and ground services,
- Operator's safety culture and company culture,
- Standard operating procedures (SOPs),
- Organizational factors.

## 6.5 TRAINING NEEDS ANALYSIS

Training needs analysis is necessary to ensure there is a clear understanding of the operation, the safety duties of the personnel and the available training. Training needs assessment is made to ensure that personnel are trained and competent to perform their SMS duties.

Training needs assessment is held before the budget period and the purpose of the training need assessment is to;

- Review training records,
- Review training contents,
- Identify training needs appropriate to each individual's involvement in the SMS.

According to the assessment, training needs are determined and added to the training budget.

## 6.6 EXTERNAL SERVICE PROVIDER TRAINING

The safety training programme includes a session designed specifically for external service providers personnel. They shall receive initial and recurrent safety trainings as appropriate for their safety responsibilities and SMS duties. Recurrent trainings are assigned every 3 years. External service provider safety trainings are monitored by Compliance Monitoring Department via external audits. If a safety related nonconformity is determined, the audit report is shared with the Safety Department through IQSMS.

The scope and content of such training would typically take into account the following:

- Training required for personnel that would perform the same operational function within the operator's organization;
- Individual personnel function(s) as related to the operator's SMS;
- Exposure and/or involvement of the provider's personnel to the operational environment;
- SMS elements the service provider already has in place.

Based on a risk assessment and considering the above factors, Pegasus may conclude that SMS training is not required for personnel of providers that perform certain operational functions.

Pegasus considers any of the following options as means for ensuring personnel of service providers complete training that satisfies the requirements of its own Safety Training:

- (1) If a service provider has an SMS, accept the service provider's Safety training;
- (2) If a service provider has an SMS, specify training in addition to that of the service provider (i.e. gap training) as applicable to ensure Pegasus's own Safety Training requirements are satisfied;



- (3) Have applicable personnel of service providers complete the Pegasus's own SMS training;
- (4) Deliver specific SMS training to personnel of service providers (e.g. hazard recognition, use of the operational safety reporting system, insider threat).

If it needs, Chief Safety and Security Office can also meet these requirements through external experts to deliver Safety Management Training presentations and assigned e-learning Safety Management System training to staff on a periodic basis.

## 6.7 MEETINGS

The following meetings are coordinated and conducted by the Chief Safety and Security Office.

### 6.7.1 DAILY SAFETY REVIEW MEETINGS

Safety Advisors are responsible to review risk register daily. They are also responsible to review IQSMS reports and discuss the previous 24 hour's reports to identify new hazards. If necessary, they give a briefing to nominated persons.

Safety Advisors can conduct daily meetings individually or in groups, depending on the content of the subjects. The purpose of these meetings is to develop a follow-up mechanism about IQSMS reports and risk. This follow-up mechanism feeds the weekly safety review meeting agenda. There is action taken, therefore no decision minutes are published.

### 6.7.2 WEEKLY SAFETY REVIEW MEETINGS

This meeting is chaired by the Chief Safety and Security Office. Safety issues that are identified from the Daily Safety Review Meeting are brought on to the agenda at Weekly Safety Review Meeting. The purpose of the meeting is to have information from the Safety Advisors present to review IQSMS reports, follow-up and classification of risk assessments. The follow-up of the decisions taken at the meeting is reviewed at the next meetings. This meeting agenda typically includes:

- Summary of Occurrences
- Safety Issue Risk Assessment (SIRA)
- Other Safety Issues

### 6.7.3 SAFETY ACTION GROUP MEETINGS

The Safety Action Group (SAG) reports to and takes strategic direction from SRB. Chief Safety and Security Office conducts SAG Meetings monthly with managers from operational areas and deputies may also attending the meetings if managers are not available. SAG meetings frequency may be reduced or increased depending on operational reasons during the year. The SAG is tactical and deals with implementation issues to execute the strategic directives of SRB. A monthly review for the risk assessment is conducted during SAG meetings.

Representatives from Safety, Technical, Flight Operations, Ground Operations, Cabin Operations, Cargo, Security, IOCC and Flight Academy departments take part in SAG. Representatives from Human Resources, Internal Audit, OHS, Performance, Compliance Monitoring departments also take part in SAG when necessary. These representatives are called SAG Members. Their names are presented in SAG presentations as SAG Members List and reviewed in each SAG meeting. In addition to the duties in SAG meetings, SAG Members are also responsible for the day to day activities of items listed below for their departments.

The meeting minutes are shared with all the participants. The decisions specified in the meeting minutes are assigned to responsible persons/departments via e-mail. In the next meeting, the previous meeting decisions are followed up on the Previous Meeting Decision page of the presentation.

Internal SAG meetings are organized by the following operational departments:

- Ground Ops SAG Meeting,
- Technical SAG Meeting,
- Cabin Ops SAG Meeting.

**SAG:**

- monitor operational safety performance within their functional areas of the organization and ensure that appropriate SRM activities are carried out,
- review available safety data and identify the implementation of appropriate safety risk control strategies and ensure employee feedback is provided,
- assess the safety impact related to the introduction of operational changes or new technologies,
- coordinate the implementation of any actions related to safety risk controls and ensure that actions are taken promptly and within agreed timescales,
- review the effectiveness of specific safety risk controls,
- review the effectiveness of previous safety recommendations and safety promotion.

**SAG meeting agenda typically includes:**

- Review of SAG Member List
- Previous Meeting Decisions
- SRB Decisions
  - only the items that need actions or strategic directions are brought to the agenda
- Safety Objectives / Safety Performance Targets (SPTs) and Safety Performance Indicators (SPIs)
  - Departmental SPI's.
- Action Items
- Hazard Library
  - New hazards that have been introduced or discovered in the work place
- 3rd Parties – External Service Provider Report
- Top 3 Events
- Audits and Incidents/Accidents Investigation
- External/Internal Investigations and Audits
- Incident Data Exchange (IDX)
- Safety Issue Risk Assessment Studies
- Risk Analysis and MOC Studies
- Summary of Safety Activities Attended by SAG Members
- New Regulation, Legislation and Publication (SHGM, ICAO, IATA, EASA)
  - Changes in regulatory policy or civil aviation legislation;
- Safety Promotion

#### 6.7.4 FATIGUE SAFETY ACTION GROUP MEETINGS

The Fatigue Safety Action Group (FSAG) is responsible for coordinating all fatigue risk management activities at Pegasus Airlines. This includes responsibility for gathering, analysing, and reporting on data that facilitates the assessment of fatigue-related risk among crew members. The FSAG is also responsible for ensuring that the FRMS meets the safety objectives defined in the Fatigue Risk Management Policy, and that it meets regulatory requirements. The FSAG exists to improve safety and does not get involved in industrial issues. The FSAG meetings are conducted quarterly.

The CFOO is responsible for the establishment and effective functioning of the Fatigue Safety Action Group on behalf of Accountable Executive. He/she holds the Chair of the Fatigue Safety Action Group.

Its members will include at least one representative of each of the following groups: Chief Safety and Security Office, Scheduling, Crew Planning, Flight Operations, Cabin Operations and with other specialists as required.

The meeting minutes are shared with all the participants. The decisions specified in the meeting minutes are assigned to responsible persons/departments via e-mail. In the next meeting, the previous meeting decisions are followed up on the Previous Meeting Decision page of the presentation.

For the detailed information refer to PG-EM-EK-003 Fatigue Risk Management System Manual via Comply365.

#### 6.7.5 SAFETY REVIEW BOARD MEETINGS

The Safety Review Board (SRB) in Pegasus Airlines is a committee that considers strategic safety functions. The board is chaired by the Accountable Executive and is composed of heads of Operational departments (Technic, Ground Operations, Flight Operations and Cabin Operations), Compliance Monitoring, Commercial, Finance, Security, Internal Audit, Flight Academy, Information Technologies and Human Resources departments. Relevant managers and consultants on the subject to be brought up in SRB can also participate. Chief Safety and Security Officer (Safety Manager) participates in SRB in an advisory capacity only. The meeting minutes are shared with all the participants. The decisions specified in the meeting minutes are assigned to responsible persons/departments via e-mail. In the next meeting, the previous meeting decisions are followed up on the Previous Meeting Decision page of the presentation.

SRB ensures that appropriate resources are allocated to achieve the established safety performance of the Company and provide strategic direction to Safety Action Group. These meetings are conducted four times a year with the attendance of SRB members and Accountable Executive. Safety Manager informs board about the risk assessment that is done by the company for the last three months. SRB monitors:

- safety performance against the organization's safety policy and objectives;
- the effectiveness of the SMS;
- timely response in implementing necessary safety risk control actions;
- overall effectiveness of safety risk mitigation strategies;
- the effectiveness of the safety supervision of contracted operations;
- effectiveness of the organization's safety management processes which support:

(1) the declared organizational priority of safety management; and

(2) promotion of safety across the organization.

SRB meeting agenda typically includes:

- Safety and Security Policy Review,
- Organizational structure,
- Reporting lines, authorities, responsibilities.

Departmental Reports;

- Action Items
  - SRB, SAG, ERP, Audit Corrective Actions and Corporate Safety Strategy Actions.
- Departmental Executive Summary
  - Current Safety and Security Issues, Safety and Security Events, Departmental Resources, Operational Feedback
- Audits and Incidents/Accidents Investigation
- External/Internal Investigations and Audits
- Review and Analysis of Risk Picture (only under Safety Report)
- Safety Performance Indicators
  - Departmental SPI's.
- Safety Significant Events
- Service Providers Activity Performance Statement
- Progress Updates
  - New Regulations, Legislation and Latest Safety and Security Promotions.
- Any other business (AOB)

#### **6.7.6 FLIGHT OPERATIONS SAFETY REVIEW AND FDM MEETINGS**

FDM Workgroup meets every month and consists of:

- Chief Safety and Security Officer (Safety Manager) (as the Chairman)
- SMS Senior Manager
- FDM Senior Manager
- FDM Specialist
- Chief Flight Operations Officer
- Type Group Managers
- Chief Flight Academy Officer
- Managers from the Flight Academy Department
- Safety Manager from Flight Operations

During the meeting, the Chief Safety and Security Officer (Safety Manager) presents adverse operational trends and explains significant events that have shown up during the data analysis. During the presentation of specific occurrences, Chief Safety and Security Officer (Safety Manager) makes sure that the data remains de-identified and that no suspicion as to the identity of flight crew members can exist. Based on his/her conclusions, he/she presents his/her recommendations to the members of the workgroup. Also, risk picture is reviewed and analysed in the meeting.

During the meeting, all possible options to improve safety are reviewed. It remains the responsibility of the Chief Flight Operations Officer and the Chief Flight Academy Officer to take the final decisions on the applicable changes in their respective area. Recommendations related to training from Flight Operations Safety Review and the FDM Meeting are incorporated into training programme.

The meeting minutes are shared with all the participants. The decisions specified in the meeting minutes are assigned to responsible persons/departments via e-mail. In the next meeting, the previous meeting decisions are followed up on the Previous Meeting Decision page of the presentation.

After each Flight Operations Safety Review and FDM Meetings, FDM events that are considered appropriate are informed to the Chief Flight Instructor.

The Chief Safety and Security Officer (Safety Manager) organizes additional meetings whenever specific events or trends necessitate immediate review and action.

The FDM Workgroup can mandate a full investigation by the Chief Safety and Security Officer (Safety Manager) into specific occurrences that involve gross negligence, violations of procedures, unacceptable risks or a significant continuing safety concern. Chief Safety and Security Officer (Safety Manager) presents the full investigation report without revealing the identity of the concerned Flight Crew Member during an exceptional meeting of the workgroup or via an e-mail.

All participants of the workgroup accents to maintain the confidential status of the presented data, events and issues. All administration for the Flight Operations Safety Review and for FDM Meetings is provided by Chief Safety and Security Office.

End of Section

## 7 APPENDICES

Insert paragraph here

### 7.1 FORMS

Form No	Form Name
PG-EM-FR-001	New Destination Checklist
PG-EM-FR-003	LOSA Observation Form
PG-EM-FR-004	Occurrence Meeting Form
PG-EM-FR-006	Just Culture Form
PG-EM-FR-018	Safety Management System Exam Form
PG-EM-FR-019	Safety Performance Indicators And Safety Objectives Form
PG-EM-FR-020	Safety Trainings Follow-up Form
PG-EM-FR-022	Safety Survey Form
PG-EM-FR-031	Accident/Serious Incident Investigation Report Template
PG-EM-FR-033	Safety Appreciation Certificate
PG-EM-FR-034	Serious Incident Investigation Checklist
PG-EM-FR-035	Incident/Occurrence Investigation Report Template 1
PG-EM-FR-039	Safety Issue Risk Assessment (SIRA) Template
PG-EM-FR-047	Safety Training Attendance Form
PG-EM-FR-048	Incident-Occurrence Investigation Report Template 2
PG-EM-FR-050	Fatigue Report Analysis Form
PG-EM-FR-051	Aerodrome Analysis Form

### 7.2 USE OF SAFETY FORMS

Insert paragraph here

#### 7.2.1 ADMINISTRATIVE REPORT

This report is used for delay, all of the irregularities during in-flight and on-ground and administrative topics.

#### 7.2.2 COMPLIANCE REPORT

This report is used for regulations, documentation and procedure unconformity.

#### 7.2.3 CONFIDENTIAL REPORT

This report is used for all event/ irregularity / non-conformity / CRM notifications that are related to or have a direct effect on the Safety Management System. Only CSSO, FDM Senior Manager, SMS Senior Manager and Safety Leader are able to read these reports on the basis of confidentiality.

#### **7.2.4 FATIGUE REPORT**

This report is used when crew members encounter fatigue during their flights, proactive fatigue reporting and Unfit to Fly declarations.

#### **7.2.5 SAFETY REPORT**

This report is used for safety occurrence and hazard reporting.

#### **7.2.6 SECURITY REPORT**

This report is used for the following issues: there is an actual or threatened unlawful interference with aviation. This included acts associated with an aircraft or airport that involve taking control, damaging, destroying or putting safety or safe operation, at risk.

#### **7.2.7 TRAINING REPORT**

This report is used when you feel that an irregularity or notable occurrence has taken place that could be corrected in the future about training. It can also cover any recommendations or advice that you feel could benefit the company about training.

#### **7.2.8 LOSA OBSERVATION FORM**

This form is used for data collection after LOSA observation flights.

#### **7.2.9 OCCURRENCE MEETING FORM**

This form is used when personnel is invited to Chief Safety and Security Office to discuss safety issues.

#### **7.2.10 JUST CULTURE FORM**

In the event of an occurrence leading to an investigation, this form is used to find out the root cause of the event.

#### **7.2.11 NEW DESTINATION CHECKLIST**

Detailed information regarding this checklist can be found in 5.3 Management of Change.

#### **7.2.12 SAFETY MANAGEMENT SYSTEM EXAM FORM**

This form is used to assess the effectiveness of safety trainings given to cockpit crew.

#### **7.2.13 SAFETY PERFORMANCE INDICATORS AND SAFETY OBJECTIVES FORM**

This form is used safety performance monitoring processes.

#### **7.2.14 SAFETY MANAGEMENT SYSTEM TRAININGS FOLLOW-UP FORM**

This form is used to follow-up SMS trainings of Chief Safety and Security Office personnel.

#### **7.2.15 SAFETY SURVEY FORM**

If necessary, Ground Operation personnel of Ramp Operation fills this form which has a simplified question set to increase accessibility.

#### **7.2.16 ACCIDENT/SERIOUS INCIDENT INVESTIGATION REPORT TEMPLATE**

This form is used for accident/serious incident investigation report.

#### **7.2.17 SAFETY APPRECIATION CERTIFICATE**

This form is used for safety appreciation certificate.

#### **7.2.18 SERIOUS INCIDENT INVESTIGATION CHECKLIST**

This form is used for serious incident investigation checklist.

#### **7.2.19 INCIDENT/OCCURRENCE INVESTIGATION REPORT TEMPLATE**

This form is used for incident/occurrence investigation report.



**7.2.20 SAFETY ISSUE RISK ASSESSMENT (SIRA) TEMPLATE**

This form is used for risk management studies accomplished via SIRA tool.

**7.2.21 SAFETY TRAINING ATTENDANCE FORM**

This form is used to record safety training attendance.

**7.2.22 FATIGUE REPORT ANALYSIS FORM**

It is a form used when making fatigue report analysis, and it contains predicted alertness values, actual and planned FDP and the other fields for entering the necessary information for fatigue analysis.

End of Section