IOSA Guidance for Safety Monitoring under COVID-19

Edition 5 – 05 May 2021

DISCLAIMER.

The information contained in this publication is subject to constant review in the light of changing government requirements and regulations.

No subscriber or other reader should act on the basis of any such information without referring to applicable laws and regulations and/or without taking appropriate professional advice.

Although every effort has been made to ensure accuracy, the International Air Transport Association shall not be held responsible for any loss or damage caused by errors, omissions, misprints or misinterpretation of the contents hereof. Furthermore, the International Air Transport Association expressly disclaims any and all liability to any person or entity, whether a purchaser of this publication or not, in respect of anything done or omitted, and the consequences of anything done or omitted, by any such person or entity in reliance on the contents of this publication.

Senior Vice President
Safety and Flight Operations
International Air Transport Association
800 Place Victoria
P.O. Box 113
Montreal, Quebec
CANADA H4Z 1M1

Table of Contents

Revision Record 4
Revision Table 4
1. Introduction 5
2. Monitoring of Internal Operations and Maintenance Functions 5
2.1 General 5
2.2 Operations under COVID-19 5
2.2.1. Monitoring Compliance with COVID-19 Relevant Requirements 5
2.2.2 Conventional Onsite Audits 6
2.2.3 Remote Audit 6
2.2.4 Risk Assessment of Active Operations to Ensure Conformity with IOSA Requirements 7
2.2.5 CCRD/ICAO Targeted Exemptions (TE) 7
2.3 Limited Operations 8
2.4 No Operations 8
2.5 Return to Normal Operations 9
3. Monitoring External Service Providers & Other Airlines 9
3.1 Monitoring Service Providers 9
3.1.1 General 9
3.1.2 ISAGO Program 9
3.1.3 IATA Audit Pools 10
3.1.4 Other Methods for Monitoring External Service Providers 11
4. Codeshare & Wet-Lease Partner Safety Monitoring 12
4.1 Introduction 12
4.2 Operational & Safety Information Exchange between Airlines 12
4.3 Performance/Risk Based Monitoring of Partner Airlines 13
4.3.1 Introduction 13
4.3.2 Review of operational and safety information 14
4.3.3 Establishing a partner airline risk profile 15
5. Safety Assurance during COVID-19 16
5.1 General 16
5.2 Emerging Risks to Monitor During COVID-19 16

Revision Record

Symbol	Meaning
□	Addition
△	Amendment
⊗	Deletion

Revision Table

Edition	Issue Date	Chapter	Description
Ed. 1	12 May 2020	N/A	Initial
Ed. 2	05 Jun 2020	2.2.4	Risk assessment methodology has been detailed and Risk Assessment Tool for ISARP Compliance has been introduced.
		4.1	Heading is changed from Identifying Hazards to Operations to Safety Assurance during COVID-19.
		4.2	Significant operational issues/areas to be monitored during COVID-19 is added.
Ed.3	03 Aug 2020	All	Minor changes
		2.5	Return to Normal Operations subchapter is added.
		54.2	New emerging risks are added to the list and grouped as per operational areas.
Ed.4	14 Oct 2020	All	Minor changes
		2.2.3	New items to be considered for remote audits are added.
		2.4	Claim for Extenuating Circumstances option is addressed.
		4.2	New organizational & human factor related risks are added. Reference to other IATA Guidance is added.
Ed. 5	05 May 2021	2.2.5	New subchapter for ICAO TE (Targeted Exemptions)
		4	Codeshare & Wet-Lease Partner Safety Monitoring Program is added.
		5.2	Targeted Exemptions are added to emerging risks list.

1. Introduction

During this unprecedented COVID-19 crisis, airlines around the world have been cancelling flights, temporarily suspending operations and/or continuing with limited resources. Considering the abnormal conditions under which operations currently take place, the effective and flexible monitoring of quality, compliance, and safety management systems carry significant importance.

This document provides guidance to airlines on how to effectively manage quality, compliance and safety monitoring during the COVID-19 crisis.

The recommendations provided herein are to be considered as a baseline for best practices. All airlines should also follow regulations and guidance issued by their applicable authorities.

IATA will continuously improve and update this guidance in alignment with IOSA program policies.

2. Monitoring of Internal Operations and Maintenance Functions

2.1 General

Airlines are facing challenges in monitoring their operations. The following procedures are applicable to the monitoring of internal operations and maintenance functions addressing risk assessment, evaluation, auditing, and other acceptable methods to ensure compliance with all applicable regulatory requirements and IOSA Standards and Recommended Practices.

The following summarizes the recommendations for the monitoring of the operations conducted under COVID-19 measures, if the operations become limited or inactive or if the operations are suspended.

Operations under COVID-19	Limited Operations	No Operations
Monitoring compliance with COVID-19 relevant requirements	Postpone relevant audits using risk-based approach	Postpone all audits
Conventional Audit (if possible)	Consider Remote Audit before back to operations	Risk Assessment before back to operations
Consider Remote Audit	Self-assessment by operational departments before back to operations	Consider Remote Audit before back to operations
Risk Assessment of Active Operations	Risk Assessment before back to operations	Any other acceptable monitoring methodology before back to operations
Any other acceptable monitoring methodology	Any other acceptable monitoring methodology before back to operations	

2.2 Operations under COVID-19

2.2.1. Monitoring Compliance with COVID-19 Relevant Requirements

Aviation authorities, as well as industry organizations such as IATA, are issuing new regulations, guidance and/or alleviations to existing regulations concerning the management of the operations affected by the COVID-19 crisis. Airlines should review the issued health and operational safety requirements and adjust their procedures accordingly.

In this context, within the IOSA Standards Manual (ISM) Edition 13, ORG 3.2.2 states: "The Operator shall have a process to identify changes within or external to the organization that have the potential

to affect the level of safety risks associated with aircraft operations, and to manage risks that may arise from or are affected by such changes in accordance with ORG 3.1.1 and ORG 3.1.2."

Considering the above provision, airlines should ensure risk management is applied to any changes introduced through new health and occupational safety requirements that have the potential to affect the established operational processes, procedures, products, equipment and/or services. Also, risk management should be applied to any organizational and operational changes imposed due to the COVID-19 crisis.

IATA is closely monitoring developments related to this crisis, in coordination with the World Health Organization (WHO) Secretariat, International Civil Aviation Organization (ICAO), and the US Centers for Disease Control and Prevention (CDC).

Resources and guidance for airlines and other travel professionals can be found at https://www.iata.org/en/programs/safety/health/diseases/.

2.2.2 Conventional Onsite Audits

If the current conditions allow onsite audits for the assessment of internal operations and maintenance functions to be performed, airlines should perform such audits in accordance with processes and procedures defined in their applicable manuals.

Airlines should also ensure relevant requirements and guidance related to operations during COVID-19 such as social distancing rules, use of protective equipment, etc., are followed by the auditors and auditee while the audit is being performed. Refer to the WHO site for relevant information.

2.2.3 Remote Audit

If the current condition does not allow internal onsite audits to be performed, airlines may decide to perform remote audits as an alternative method. Main processes and procedures relevant to such method should be documented.

The following should be considered for the different phases of the audit process:

Audit Planning

- Detailed audit plan that includes scheduled calls and persons to be interviewed
- Internet connection and reliable communication equipment availability
- Documentation access (cloud server, file sharing platform, documentation software etc.)
- IT solutions for video conferencing and document sharing etc.
- Requesting a cross-reference list to enable an efficient remote assessment
- Determining the methodology and techniques to be used for assessing the records remotely
- Identifying the personnel to be interviewed
- Scheduling test sessions to review the quality of the video and audio and connectivity issues as required.

Documentation Audit

- Reviewing the cross-reference list, when applicable.
- Assessing the documentation prior to the start of the remote audit

- Validating documentation assessment results during the remote calls and interviews
- Analyzing the previous audit results and other information as applicable

Implementation Audit

- Assessing records and evidences provided through cloud storage or shared server, live sharing of screens or any other acceptable methods
- Observing records and evidences through shared files or screens
- Uploading records and evidences into an auditing software
- Interviewing management and operational personnel through video conference tools
- Observing the operation through live video broadcasting
- Increasing sampling size whenever possible, to compensate for the lack of direct observation of operations

2.2.4 Risk Assessment of Active Operations to Ensure Conformity with IOSA Requirements

If an airline is unable to perform onsite or remote audits due to a lack of resources or unavailability of operational and/or management personnel, an assessment should be made to identify the risk levels regarding the compliance with IOSA Standards and Recommended Practices (ISARPs).

As operations are performed under abnormal conditions, concerns regarding complying with each ISARP should be determined and risks of not complying should be identified as follows:

- Provisions with immediate concerns requiring mitigation may be determined as **high** risk;
- Provisions with significant concerns requiring monitoring may be determined as **medium** risk;
- Provisions with minimal or no concerns may be determined as **low** risk

Risk of not complying should be identified for short term (0-30 days), medium term (30-90 days) and long term (90-120 days).

Mitigating actions and monitoring methods should be established to include but are not limited to:

- Actions to ensure conformity for the high-risk provisions;
- Self-assessment by operational departments;
- Assessment of the reports and feedback from station manager/personnel, flight crew and any other operational personnel; and any other acceptable methods.

Mitigating actions should be recorded and tracked.

IATA prepared a template for airlines to assist in the risk assessment of active operations. Here is the link to the Risk Assessment Tool for ISARP Compliance.

☐ *2.2.5 CCRD/ICAO Targeted Exemptions (TE)*

In 2020, ICAO introduced COVID Contingency Related Differences (CCRD) subsystem in the existing ICAO Electronic Filing of Differences (EFOD) system. The purpose was to capture any differences from ICAO Standards on certification and licensing that may arise from mitigation measures due to the COVID-19 pandemic.

☐ As of 1 April 2021, Targeted Exemptions (TE) system has been launched, replacing the CCRD system with a three-months transition period. States that have issued alleviations through the CCRD system are encouraged to return to normal operations as soon as possible, and if circumstances do not allow them to do so, to enter their targeted exemptions into the TE system.

In comparison to CCRD, Targeted Exemptions (TE) are tightly scoped and time limited State-issued exemptions to a specified subset of Standards, granted as a result of the COVID-19 pandemic.

If an activity related to an ISARP is subject to ICAO targeted exemptions, this should also be considered when risk assessment is performed. IATA highly recommends that the following ISARPs relevant to ICAO SARPs subject to Targeted Exemptions (TE) system are determined as **high** risk:

- FLT 3.3.4 - Medical Certificate currency (ICAO Annex 1 1.2.5.2)
- FLT 3.3.7 - Recency-of-experience (ICAO Annex 6 Part I 9.4.1.1 & 9.4.2.1)
- FLT 3.3.10 - Route qualification (ICAO Annex 6 Part I 9.4.3.5)
- FLT 2.3.2 - Pilot Proficiency Check (ICAO Annex 6 Part I 9.4.4.1)

The further detailed information is accessible through the following links:

- For CCRD please see:

  https://www.icao.int/safety/COVID-19OPS/Pages/ccrd.aspx
- For TE (Targeted Exemption) please see:

  https://www.icao.int/safety/OPS/OPS-Normal/Pages/Targeted-Exemptions.aspx

2.3 Limited Operations

If any part of the operations became inactive due to the crisis, for example if the airline temporarily suspended its passenger transport operations, it should adjust its quality assurance or compliance monitoring program and audit plan and postpone relevant audits.

Before the inactive operations restart, airlines should consider one, or a combination of the following monitoring methods:

- Conducting risk assessment of the operations' compliance with requirements as defined in **3.2.4**;
- Conducting remote assessment(s) before the inactive operation restarts as defined in **3.2.3**;
- Collecting and analyzing the self-assessments performed by the relevant departments before the inactive operation restarts;
- Any other acceptable method.

2.4 No Operations

If an IOSA registered airline temporarily ceased their operations and is unable to undergo or complete a Registration Renewal Audit prior to the current expiration date, it may submit a claim of Extenuating Circumstances for Audit Conduct in accordance with the procedures laid down in IPM Temporary Appendix 6.10.1. Please refer to the IPM Temporary Appendix here.

If the airline's entire operation is temporarily inactive due to the crisis or governmental measures, then monitoring is important to anticipate and prepare for the operation restart. Before the operational

restart, the airline should ensure necessary measures are in place and consider one or more of the following monitoring methods:

- Conducting risk assessment(s) of operations' compliance with the requirements as defined in **3.2.4**;
- Conducting remote assessment(s) before the inactive operation restarts as defined in **3.2.3**;
- Collecting and analyzing the self-assessment(s) performed by the relevant operational department(s) before the inactive operation restarts;
- Any other acceptable method.

2.5 Return to Normal Operations

Before and when the Operator restarts its operations, internal monitoring activities laid down in this document should consider all exemptions granted by the authorities and all new types of operations such as transport of cargo in passenger aircraft.

Also, monitoring of key organizational changes (e.g. changes in operational personnel, management personnel, post holders, safety and quality personnel) and their effect are essential before returning to normal operations.

Additionally, Operators should revise the quality assurance / compliance monitoring program to ensure areas with higher risks are prioritized. This should include the operational areas to monitor during COVID-19 listed in Ch 5.2. This could be performed through the procedures described in 3.2.4 Risk Assessment of Active Operations to Ensure Conformity with IOSA Requirements.

3. Monitoring External Service Providers & Other Airlines

3.1 Monitoring Service Providers

3.1.1 General

Similar to internal monitoring activities, airlines are likely to face difficulties and challenges in the monitoring of their service providers during this COVID-19 crisis. Thus, the following illustration summarizes the recommendations intended to provide assistance with the monitoring of external service providers.

Monitoring Service Providers		Monitoring Other Airlines
ISAGO Audit Report	Systematic review & risk assessment of reported hazards and/or occurrences	IOSA Audit Report
ISAGO GSP Self Declaration Report	Performance Reports	SAF.23 Operator Questionnaire
Self-assessment Checklists, Questionnaires and Postal Audits	Any other acceptable monitoring methodology	Self-assessment Checklists, Questionnaires and Postal Audits
IATA Audit Pools: DAQCP, IFQP & IDQP		Any other acceptable monitoring methodology

3.1.2 ISAGO Program

IATA's Safety Audit for Ground Operations (ISAGO) program offers airlines several benefits when used as part of the monitoring of ground operations safety. The program is recognized as an acceptable

means of conformance with the IOSA requirements related to risk management and oversight of such outsourced arrangements.

ISAGO is particularly beneficial for an airline that as a result of the COVID-19 crisis found itself with depleted auditing resources, requiring new ground service providers or seeking a ground service provider at a new destination. ISAGO also promotes the use of the IATA Ground Operations Manual (IGOM) and other IATA reference documentation in the development of operational procedures by ground service providers to achieve conformity with the ISAGO standards. ISAGO is the only program that requires a ground service provider to have a safety management system equal to that required of an airline, and demonstrably assists the development of a better safety culture.

Airlines that enter an ISAGO Airline Membership Agreement receive unlimited access to the ISAGO Registry that hosts over 500 ISAGO Audit Reports and other valuable information on ground service providers at over 250 airports worldwide. ISAGO Audit Reports cover corporate safety audits of all ISAGO Registered ground service providers and the audit of at least one of their station operations. During the COVID-19 crisis, ground service providers that are not able to conduct ISAGO Registration renewal audits or unable to close an audit are required to submit to IATA an extenuating circumstances questionnaire that provides information on maintaining safety. The submitted questionnaires are also only available from the ISAGO Registry.

Here is the link to the ISAGO website for more details. If you are interested in gaining access to the ISAGO Registry, ISAGO Audit Reports and questionnaires, please contact the ISAGO team at isago@iata.org.

3.1.3 IATA Audit Pools

De-Icing/Anti-Icing Quality Control Pool

Airlines may continue to use the De-Icing/Anti-Icing Quality Control Pool known as DAQCP. It currently consists of about 100 member airlines and through its active members, performs inspections on approximately 600 companies that provide de-icing/anti-icing services and post de-icing/anti-icing checks at more than 300 airports worldwide. The DAQCP also offers a passive membership to airlines that do not have an audit organization or the experience in winter operations.

The 2019-2020 Winter season was finalized before the COVID-19 crisis, except for a few stations. Reports are available and valid for one year. Here is the link to the DAQCP website for more details.

IATA Fuel Quality Pool

The IATA Fuel Quality Pool (IFQP) is a group of almost 200 airlines that share fuel inspection reports and workload at more than 1400 airports worldwide. The IFQP offers the opportunity to join as active or passive members should an airline require to simply buy station reports.

The pool counts with hundreds of full inspection reports for at least 1000 airports. Due to the COVID-19, many airports are now being monitored via Desktop Audit until a full inspection is possible again. Information is available for IFQP airline members as to the latest status at each airport. Here is the link to the IFQP website for more details.

IATA Drinking-Water Quality Pool

The IATA Drinking-Water Quality Pool (IDQP) was created by airlines to share audits on drinking-water quality around the world. IDQP also developed its own procedures for conducting airfield inspections, using the highest quality standards. Many airports have valid full inspection reports, others are only

covered via desktop audits. If required, airlines may consider to be part of the pools to reduce the workload and costs. Here is the link to the IDQP website for more details.

3.1.4 Other Methods for Monitoring External Service Providers

Among others, the airline may also use the following methods for monitoring external service providers:

- Use of self-assessment checklists, questionnaires, and postal audits;
- Systematic review & risk assessment of reported hazards and/or occurrences;
- Assessment of performance reports;
- Ongoing assessment of the reporting and feedback from the station manager/personnel, flight crew and any other operational personnel;
- If conditions allow, perform onsite or remote audits and inspections; and
- Any other acceptable monitoring method.

4. Codeshare & Wet-Lease Partner Safety Monitoring

4.1 Introduction

In many jurisdictions, airlines are required to monitor and continuously assess their codeshare/wet-lease partner's ('partner airline' or 'partner') ongoing compliance with ICAO standards. To comply with this requirement, airlines have been utilizing the IATA Operational Safety Audit (IOSA).

In addition to the above assurance of partner airlines through IOSA, airlines also continuously monitor their partners during the two-year IOSA registration cycle. This may include audits and inspections, reviewing the partner airline's internal monitoring activities, exchanging checklists/questionnaires as well as monitoring operational and safety information as outlined in the following chapter.

In this guidance, IATA outlines best practices and recommendations on monitoring codeshare and wet lease partners.

4.2 Operational & Safety Information Exchange between Airlines

Monitoring activities are dependent on the steady flow of up-to-date operational and safety information. It includes, for instance, operational information on codeshare/wet-lease flights, organizational changes or fleet changes of the partner airline.

The following table outlines examples of the operational and safety information that could be exchanged between partners or that could be acquired through other sources.

Information type	Remark
Organizational	AOC information (area and type of operations, special authorizations and etc.)
	Fleet information and changes
	Management and key personnel turnover
	Information regarding outsourcing activities and affiliated organizations
	Active Wet leases
Information type	Remark
Operational & Safety related	Relevant operational safety reports concerning codeshare/wet-lease flights
	Accidents or significant incidents
	Mitigating actions with regards to accidents/incidents, if applicable
	De-identified FDA reports
	Safety performance indicators and trends
	ICAO TE (Targeted Exemptions) for any operational area such as exemptions for recency and recurrent training

***Table 1.1** – Operational and safety information exchange*

Information type	Remark
Operational & Safety related (Cont'd)	IOSA Audit Report (IAR)
	IOSA Registration Status and Annotations
	IOSA Operator Questionnaire
	EU Ramp Inspection Program ratio, if applicable
Quality/Compliance related	Internal audit reports and non-conformities
	Number of qualified auditors per each discipline to perform IOSA internal oversight as per ORG 3.4.6 and ORG 3.4.13
	Auditor qualification and training records
	Conformance Report and/or progress report of compliance with ISARPs
Other	Information on high-level financial status and stability of the partner airline

***Table 1.1** – Operational and safety information exchange (Cont'd)*

Operational and safety information can be obtained through the IOSA Program, partner airlines audits/inspections, checklists & questionnaires and last but not least documentation sharing and communication channels established between partner airlines.

4.3 Performance/Risk Based Monitoring of Partner Airlines

4.3.1 Introduction

"The risk-based oversight is a way of performing oversight, where planning is driven by the combination of risk profile and safety performance; and execution focuses on the management of risks, besides ensuring compliance."[1] We recommend airlines to apply performance/risk-based approach for monitoring their partner airlines.

The following goals could be achieved with performance/risk-based monitoring of codeshare/wet-lease partners:

- Identifying risk profile of a partner airline to determine and understand the scale, depth and complexity of the monitoring activity.
- Identifying and managing focus areas of a partner airline.
- Efficient and effective utilization of the limited audit resources on higher risk areas.
- Increasing the effectiveness of the monitoring activities with a deeper assessment of higher risk areas.

[1] "Practices for risk-based oversight"; Edition 1, published by EASA 22 November 2016

☐ *4.3.2 Review of operational and safety information*

General

Airlines should review collected operational and safety related information to identify hazards and perform risk assessment and mitigation processes in accordance with their SMS. This may also include setting performance measures related with partner airline operations. The analysis of information listed in Table 1.1 is useful to identify such hazards and associated risks.

Certain information such as type of operations, organizational changes or financial status of the partner airline may be collected as an input for establishing a risk profile. On the other hand, others may require further investigation and or information. For example, if an airline informs its partner on a significant incident, the partner airline may ask for mitigating actions or corrective actions performed related with the incident.

Review of codeshare/wet lease partner's internal monitoring activities

ORG 3.5.4 states that 'If the Operator is on the IOSA Registry, the Operator shall ensure the quality assurance program as specified in ORG 3.4.1 provides for the auditing of the IOSA Standards and Recommended Practices (ISARPs) a minimum of once during the IOSA registration period.' and the Operator may satisfy the specifications of this provision by using alternative internal oversight methods for obtaining sufficient evidence to effectively assess ongoing conformity with IOSA standards.

This practice effectively provides for a continuous monitoring of compliance with IOSA, and therefore ICAO Standards. Airlines may therefore request internal reports from their partners. Evaluating the internal nonconformities observed and corrective actions implemented by their partners may provide additional information.

Although it is not required to be submitted anymore prior to an IOSA Audit, the Conformance Report template can still be used to record internal auditing activities and sharing with partner airlines. Also, internal audit reports, progress reports and nonconformance records may be requested to support Conformance Report. The current copy of the Conformance Report template is available here.

It is recommended to review the number of qualified internal IOSA auditors and related qualification / training records as they provide a good indication of the maturity of the partner airline.

Review of IOSA Operator Questionnaire

Through the review of the questionnaire, airlines can have access to critical information on:

- Operations, such as fleet information, AOC changes, suspended operations
- Company stability, key personnel turnover, restructuring and/or business continuity plans
- Functionality and the latest status of the SMS and Quality Assurance processes
- ICAO TE (Targeted Exemptions) granted for operational areas
- Significant changes and issues related to training, operations control and engineering & maintenance.

Regulatory exceptions and/or exemptions specifically related to recency and flight training have been a commonly used relief measure but also with inherent risk for operational safety. Through IOSA Operator Questionnaire, airlines may review, in addition to the exemptions provided, also their duration and validity periods.

☐ Note: The questionnaire does not represent a third-party assessment and therefore, does not replace an IOSA Audit Report.

Review of Partner Airline's Conformity with Active Implementation

As outlined in IOSA Program Manual (IPM) Temporary Appendix; "Conformity – Active Implementation" is the assessment type used for provisions where an Operator has demonstrated conformity using an active implementation plan. This type of assessment is reserved for cases where an operator would be in non-conformity, however the operator has received a COVID-19 related exemption from the regulator for the same requirement.

If an airline is using the active implementation option for addressing non-conformities related to regulatory exemptions, this can be reviewed through IOSA registry where an annotation is placed. Furthermore, details of conformity – active implementation can be read in the IOSA Audit Report (IAR).

Review of Partner Airline's ICAO Targeted Exemptions

As outlined in ICAO website, ICAO TE (Targeted Exemptions) granted for the following operational areas and will be listed in https://www.icao.int/safety/OPS/OPS-Normal/Pages/TElist.aspx

- Pilot Proficiency Checks (PPC)
- Pilot Recent Experience (REC)
- Pilot Area, Route and Aerodrome Recency (ARA)
- Pilot Medical Certificates (MED)
- Pilot Licence Validity (PEL)

If an operator requires to review its partner airline's ICAO Targeted Exemption status and no information is available on the ICAO website, the status may be checked through the latest IOSA Audit Report and IOSA Operator Questionnaire, as applicable. The IAR and questionnaire should include information if a partner airline is granted with any national exemptions which are not listed in ICAO TE list.

4.3.3 Establishing a partner airline risk profile

A partner airline risk profile can be represented with a risk rating generated from various risk elements specific to codeshare/wet-lease operations. Risk elements of a partner airline are inherent to the nature, size and complexity of the operations and should be based on collected information as mentioned above.

Monitoring activities should be determined in accordance with the risk profile of the partner airline. For instance, a partner airline with a high aggregated risk rating should be monitored more meticulously to include risk-based audits/inspections or any other monitoring activities.

Airlines should focus on the high-risk areas of their partner airlines and request for mitigating actions as mentioned above.

5. Safety Assurance during COVID-19

5.1 General

Identifying hazards, managing and monitoring associated safety risks are critical for the successful management of the crisis and the restart of operations.

In accordance with IOSA Standard ORG 3.4.1, the airline's safety monitoring activities shall include the assessment of the management system to ensure the organization is identifying hazards to operations and assessing the effectiveness of safety risk controls.

This chapter provides guidance on how to manage safety risks and monitor the process within the scope of safety assurance activity during COVID-19 crisis.

5.2 Emerging Risks to Monitor During COVID-19

The following emerging risks, among others, could be considered as significant to be monitored during the COVID-19 crisis. The list is based on ICAO Doc 10144, "ICAO Handbook for CAAs on the Management of Aviation Safety Risks related to COVID-19" and EASA document "Review of Aviation Safety Issues Arising from the COVID-19 Pandemic" and guidance issued by IATA.

Organizational & Human Factor Related Risks

- Significant workforce changes and loss of key personnel,
- Shortage of operational and technical staff
- Degraded management systems and loss of experienced nominated persons due to furlough and redundancies;
- Unsafe feeling of personnel about being laid off and/or returning to work;
- Exceptional operational considerations related to flight time limitations, flight duty periods and fatigue, accommodation facilities and transportation for crew, human factor aspects, etc.
- Personnel no longer working collaboratively;
- Decreased wellbeing of aviation professionals during shutdown;
- Reduced level of attention, distractions and stress at personal level due to economic pressure
- Degraded skills and knowledge due to reduction on the training and lack of recent practice
- Increased levels of anxiety, stress and uncertainty due to the lengthy period of the pandemic

Operation Related Risks

- Introduction of new Standard Operating Procedures (SOPs) in response to Business Model Changes, including but not limited to new/revised crew procedures for routine activities, such as passenger handling and responses to onboard medical issues. Maintenance personnel tasked with new procedures, etc.;
- Cargo flights performed with aircraft certified for transportation of passengers;
- Low weight operations;

- Humanitarian flights for evacuation and repatriation;
- CCRD or Targeted Exemptions granted to operational personnel (e.g. validity of medical certificates), personnel medical certifications expiration, when applicable and required;
- Documentation and database updates may not have been applied;
- Outdated or inconsistent information in aeronautical information and flight plans.

Please see IATA Guidance for flight operations during and post pandemic.

Please see IATA Guidance for cabin operations during & post-pandemic.

Please see Guidance for the transport of cargo and mail on aircraft configured for the carriage of passengers.

Engineering & Maintenance Related Risks

- Exemptions may have deferred the execution of several maintenance tasks;
- Exemptions or the use of the MEL or the delayed rectification of defects or a combination of these may affect aircraft systems, leading to an increased flight crew workload or deactivated alarms detrimental to the flight crew situation awareness;
- Maintenance issues such as storage and de-storage of aircraft due maintenance, fuel system, pitot/static system management, lack of spare parts, expiring airworthiness certificates;
- Aircraft returning to service after it has been stored in non-optimal conditions or for a long period may present hidden defects and failures, possibly in emergency systems;
- Microbiological contamination of aircraft fuel system;
- Significant workforce changes and loss of key personnel;
- The introduction of new destinations or stop-overs may increase the risk of improper execution of line maintenance tasks, when performed under temporary contracts without the possibility to perform a thorough evaluation of the maintenance provider(s);
- Potential for an increase in MEL items because of reduced staffing levels due to illness or furloughs, lack of parts availability, fewer aircraft operating and needed in service;
- Disinfection (biocides) effect on aircraft systems and structural components;
- Manuals not updated due to lack of resources within the operations and/or regulators;
- Airline's incomplete tracking of "out of phase" maintenance tasks generated as a result of tasks' due threshold/periodicity extension use.

Please see IATA Guidance for managing aircraft airworthiness during and post pandemic.

Training Related Risks

- Increased periods between license/ validation checks;
- Long gap in flying following type-rating training;
- Ground handling training program disruption;
- Skills and knowledge degradation due to lack of recent practice.

Please see IATA Guidance for Managing Pilot Training & Licensing during COVID.

Most common hazards, risks and mitigation actions are also provided in IATA guidance documents published. Here is the link to the IATA Safety website for the relevant guidance documents.

https://www.iata.org/en/programs/safety/

For questions and suggestions, contact iosa@iata.org.