

Reference:	TR.ISM.2020-2
Issue date:	07-Nov2020
Effective date:	21-Nov-2020

#### NOTICE

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.

© International Air Transport Association. All Rights Reserved. No part of this publication may be reproduced, recast, reformatted or transmitted in any form by any means, electronic or mechanical, including photocopying, recording or any information storage and retrieval system, without the prior written permission from:

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



Reference:	TR.ISM.2020-2
Issue date:	07-Nov2020
Effective date:	21-Nov-2020

### **Approval Section**

Step	Name	Date
Reviewed by:	Serkan Simitcioglu Head, IOSA	October 2020
Recommended by:	Catalin Cotrut Director, Audit Programs	October 2020
Approved by:  Gilberto Lopez Meyer Senior Vice President Safety and Flight Operations  October 2		October 2020

#### **General Overview**

This Temporary Revision TR.ISM.2020-2 (TR) to the IOSA Standards Manual (ISM) Edition 13 is issued due to the delayed publication of ISM Edition 14 and to address circumstances related to the COVID-19 pandemic.

## **Explanatory Information**

Many provisions have been abbreviated in this TR for brevity. All provisions will remain effective as published in the full version of ISM Ed 13, unless specifically changed through this TR. Auditor Actions and Guidance Material will remain in effect as published in ISM Ed 13, unless specifically updated in this TR.

#### **Effective Date**

This TR will become effective as of 21-NOV-2020.

### **Glossary of Symbols**

- ☐ Addition of a new item.
- $\triangle$  Change to an item.
- ⊗ Deletion of an item.



 Reference:
 TR.ISM.2020-2

 Issue date:
 07-Nov--2020

 Effective date:
 21-Nov-2020

TR 2020-2 - Description of Changes		
Area Changed Description(s)		
ORG 3.4.6	<ul> <li>New note (1st note) added to provide operators with internal oversight flexibility in the methods used to obtain evidence when assessing conformity with the ISARPs.</li> </ul>	
ORG 3.4.6 Guidance	<ul> <li>New wording (6<sup>th</sup> paragraph) with bullet points that addresses the possibility of remote internal auditing and provides examples of methods/activities that could be used for remote monitoring and/or evidence collection.</li> </ul>	
ORG 3.5.4A	<ul> <li>Revised wording (2<sup>nd</sup> note) that simplifies the use of IOSA as part of an operator's process for monitoring other operators.</li> </ul>	
ORG 3.5.4A Guidance	<ul> <li>New wording (last paragraph) that addresses the consideration of registration annotations when using IOSA registration as a means of monitoring other operators.</li> </ul>	
ORG 3.5.4B	<ul> <li>Date (1<sup>st</sup> note) that defines the applicability window of the standard by an operator is advanced one year to 1 September 2020 for consistency with other one-year relief extensions.</li> </ul>	
FLT 1.3.10 Guidance	New wording (2 <sup>nd</sup> paragraph) that addresses the use of appropriately qualified smoke watch/firefighting personnel as supernumeraries that are required for the safety of operations when such personnel are deployed in the cabin of aircraft being used to transport cargo without passengers in the passenger cabin.	
FLT 3.8.9 <ac></ac>	<ul> <li>New note (2<sup>nd</sup> note) that adds applicability of the standard to the preflight interior inspection of the cabin of an aircraft that is being used to transport cargo without passengers in the passenger cabin.</li> </ul>	
FLT 3.8.9 <ac> Auditor Actions</ac>	<ul> <li>Editorial change: wording revised (1st and 3<sup>rd</sup> AA steps) for consistency with wording in the provision.</li> </ul>	
FLT 3.13.9 <ac></ac>	New note that adds applicability of the standard to procedures for ensuring the 9G restraint system and, if applicable, the smoke barrier are secure on an aircraft that is being used to transport cargo without passengers in the passenger cabin.	
FLT 3.13.9 <ac> Auditor Actions</ac>	<ul> <li>Editorial change: wording revised/added (1st and 3<sup>rd</sup> AA steps) for consistency with wording in the provision.</li> </ul>	
FLT 3.13.4	New sub-spec (xi) that adds communication by the flight crew with appropriately qualified supernumeraries to address the exchange of information relevant to cargo being transported in the passenger cabin.	
FLT 1.12.2 Guidance	<ul> <li>Wording added (3<sup>rd</sup> paragraph, 15<sup>th</sup> bullet point) that adds flights transporting cargo without passengers in the passenger cabin to the list of potential hazards relevant to the conduct of aircraft operations.</li> </ul>	
DSP 1.12.2 Guidance	<ul> <li>New wording (3<sup>rd</sup> paragraph, 15<sup>th</sup> bullet point) that adds flights transporting cargo without passengers in the passenger cabin to the list of hazards potentially relevant to the conduct of aircraft operations.</li> </ul>	
MNT Table 4.11 (xxiii)	<ul> <li>New wording (4<sup>th</sup> column) to include appropriately qualified supernumeraries that provide portable/manual fire suppression in the cabin of aircraft being used to transport cargo without passengers in the passenger cabin.</li> </ul>	
MNT Table 4.12 (xxiii)	<ul> <li>New wording (4<sup>th</sup> paragraph) that adds information relevant to the use of appropriately qualified supernumeraries that provide fire detection and</li> </ul>	



Reference:	TR.ISM.2020-2
Issue date:	07-Nov2020
Effective date:	21-Nov-2020

	portable/manual fire suppression in the cabin of aircraft being used to transport cargo without passengers in the passenger cabin.
GRH 1.11.2 Guidance	New wording (3 <sup>rd</sup> paragraph, 11 <sup>th</sup> bullet point) adds loading/securing of cargo on aircraft that transport cargo without passengers in the passenger cabin to the list of hazards potentially relevant to the conduct of aircraft operations.

**ORG 3.4.6** 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. For internal audits of the ISARPs, the Operator shall have processes that ensure:

- i. The effective edition of the IOSA Standards Manual (ISM) is used;
- ii. Auditor Actions are accomplished by auditors;
- iii. Recording and retention of information associated with the internal audit of individual ISARPs as specified in Table 1.2. (GM)

Note: 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.

Note: If a new edition of the ISM becomes effective during the first 19 months of the Operator's 24-month IOSA registration period, the Operator shall take into account all changes that might require additional auditing (e.g. new or significantly revised ISARPs).

#### **Auditor Actions**

(No changes; omitted for brevity)

#### ∧ Guidance

Refer to the IRM for the definitions of Auditor Actions, IOSA Operator, IOSA Registration Period and Registration Renewal Audit.

The currently effective edition of the ISM is used for auditing of the ISARPs during the first 19 months of the IOSA registration period. Use of an ISM edition that becomes effective in the final five (5) months of the operator's registration period is optional.

The accomplishment of Auditor Actions as specified in item (ii) is necessary to ensure internal auditors gather the necessary evidence to determine whether (or not) a standard or recommended practice is documented and implemented by the operator.

Table 1.2, as specified in item (iii), includes a note that refers to procedural documents. An example of a procedural document is an audit checklist in which all specified audit information associated with the audit of the individual ISARPs is recorded, including accomplishment of the Auditor Action steps.

IATA continues to provide a template in the form of a spreadsheet to record all required information as per ORG 3.4.6 and Table 1.2.

Internal oversight of the ISARPs may be accomplished by using traditional onsite or remote auditing techniques. Remote auditing or monitoring may include one or more of the following activities:

Examples of remote monitoring:



Reference:	TR.ISM.2020-2
Issue date:	07-Nov2020
Effective date:	21-Nov-2020

- Periodic interviews of key management and operational personnel (using teleconferencing);
- Review of conformance self-assessments by operational departments.
- Assessment of selected audit/inspection/evaluation reports from stations and operational departments.
- Review of selected hazard identification and risk assessments from operational departments.
- Review of selected records from operational departments.
- Examples of remote evidence collection:
  - Records of interviews of personnel.
  - Review of documentation and records (e.g. cloud server, file sharing platform, documentation software).
  - Observations of operational activities (e.g. video of live operations)
  - Other remote means that yield usable and objective evidence for the assessment of conformity with IOSA standards.

Operational restrictions or other significant events or situations may prevent an operator temporarily from being able to perform a full audit for each ISARP. In such a situation, in order to have sufficient confidence that all ISARPs are in conformity, an operator may assess the risk of not conforming to the ISARP instead. This assessment would indicate for each ISARP the risk (in terms of likelihood) of not being in conformity. For more guidance, the methodology described in the "IOSA Guidance for Safety Monitoring under COVID-19" should be consulted. To record the results of such an assessment, the "Risk Assessment Tool for ISARP Compliance" may be used. Both documents can be found on the IOSA Documentation site.

To the extent possible, auditing of the ISARPs should be spread out over the full registration period rather than waiting to conduct all auditing just prior to the registration renewal audit.

Refer to the IAH for information relevant to auditing of the ISARPs under the quality assurance program.

**ORG 3.5.4A** The Operator shall have a process to monitor the performance of other operators that transport its passengers under a commercial aviation agreement. Such monitoring process shall ensure the operational safety and security needs of the Operator are being fulfilled and be applicable to other operators under the following commercial aviation agreements:

- (i) Wet lease, ACMI lease and damp lease agreements;
- (ii) Code share agreements;
- (iii) Capacity purchase agreements. (GM)

Note: The specifications of this standard shall be applicable to the Operator if it has transported its passengers on another operator under any of the specified commercial aviation agreements during the most recent IOSA registration period.

Note: IOSA registration is acceptable as part of the Operator's monitoring process.



Reference:	TR.ISM.2020-2
Issue date:	07-Nov2020
Effective date:	21-Nov-2020

 $\wedge$ 

Note: Effective 1 September 2021, ORG 3.5.4A will be eliminated and replaced by ORG 3.5.4B.

#### **Auditor Actions**

(No changes; omitted for brevity)

#### △ Guidance

Refer to the IRM for the definitions of ACMI Lease Agreement, Capacity Purchase Agreement (CPA), Code Share Agreement, Damp Lease Agreement, IOSA Registration Period and Wet Lease Agreement.

The intent of this standard is that monitoring is required by an operator when it has entered into an agreement to transport its passengers on flights conducted by an external operator.

Aircraft lease agreements typically cover ACMI lease, wet lease and damp lease.

For aircraft lease, code share, capacity purchase or another type of agreement in excess of three months, it is recommended for operators that conduct passenger flights to have such agreement(s) with IOSA-registered operators.

Performance monitoring of an operator typically includes an assessment of the following factors:

- Accident/incident rate;
- Financial condition, company ownership, relevant economic environment;
- Management, company stability, turnover of key personnel, labor action, other potentially disruptive aspects;
- Age of fleet, aircraft on order, aircraft being returned/retired;
- Operational capabilities (i.e. international operations compared to domestic operations only, indicators of established infrastructure, approved maintenance organizations, flight simulators, other key operational capabilities);
- Company history, level of sophistication;
- Interface and/or cooperation with the other operator (i.e. familiarity with its personnel, sharing of data, regular meetings/conferences, other forms of communication or cooperation.

Methods of monitoring the performance of another operator might include any of the following:

- Requesting relevant certifications;
- Conducting inspections and/or audits;
- Accepting third-party audits;
- Flight monitoring;
- Assessing other relevant safety indicators.

IOSA registration indicates that an operator has undergone a third-party operational audit and is in conformity with internationally recognized standards. Registration annotations should be reviewed and considered by the Operator when using IOSA registration as a means to monitor other operators.



Reference:	TR.ISM.2020-2
Issue date:	07-Nov2020
Effective date:	21-Nov-2020

Δ

**ORG 3.5.4B** Effective 1 September 2021, the Operator shall have a process that provides for the auditing of other operators that transport passengers of the Operator under any of the following commercial aviation agreements:

- Wet lease, ACMI lease and damp lease agreement;
- Code share agreement;
- Capacity purchase agreement.

Such process shall ensure the following with respect to the audit of another operator:

- (i) The audit is conducted against and requires conformity with applicable ICAO standards;
- (ii) An initial audit is conducted prior to the commencement of the above-specified passenger transport operations;
- (iii) A subsequent audit is conducted during every 24-month period following commencement of the above-specified passenger transport operations.

Δ

Note: The specifications of this standard shall be applicable to the Operator if it has transported its passengers on another operator under any of the specified commercial aviation agreements during the most recent IOSA registration period but not before 1 September 2020.

Note: IOSA registration indicates an operator is in conformity with all applicable ICAO standards and thus is acceptable as the audit of another operator as specified in this standard.

#### **Auditor Actions & Guidance**

(No changes; omitted for brevity)

**FLT 1.3.10** If the Operator utilizes supernumeraries in the passenger cabin or supernumerary compartment of an aircraft that are required for the safety of operations in accordance with FLT 2.2.44, the Operator *should* have policies and procedures that:

- (i) Define and describe duties or responsibilities assigned to such personnel that are related to safety;
- (ii) Ensure such supernumeraries do not impede flight crew members in the performance of their duties:
- (iii) If a cabin crew is used, ensure supernumeraries do not impede cabin crew members in the performance of their duties. **(GM)**

#### Λ

#### Guidance

Refer to the IRM for the definitions of Cabin Crew, Cabin Crew Member, Passenger, Supernumerary and Supernumerary Compartment. The definition of Supernumerary further defines and includes examples of supernumeraries, including those that are required for the safety of operations.

This provision is applicable only to supernumeraries that are required for safety of operations, which includes appropriately qualified smoke watch/firefighting personnel in the cabin of aircraft being used to transport cargo without passengers in the passenger cabin. The intent is to ensure:

• Supernumeraries required for the safety of operations on board an aircraft during commercial or non-commercial operations are aware of (through training, briefing or other means) safety roles, responsibilities and duties;



Reference:	TR.ISM.2020-2
Issue date:	07-Nov2020
Effective date:	21-Nov-2020

- Specific duties and responsibilities assigned to supernumeraries that are related to safety are appropriately defined;
- Supernumeraries are prepared to assist, but will not interfere with, qualified crew members in the performance their duties.

Supernumeraries that are not required for the safety of operations would typically be made aware of safety-related roles or responsibilities via a briefing, announcement or other applicable means as specified in subsections 3.8, 3.13 and 3.14.

**FLT 3.8.9 <AC>** If the flight crew is required to conduct a preflight interior inspection of the cargo compartment, passenger cabin and/or supernumerary compartment on cargo aircraft, the Operator shall have guidance, published in the OM or other document available to the flight crew during the flight preparation, for the conduct of such inspection to ensure the availability, accessibility and serviceability of restraint systems and emergency equipment.

**Note:** The specifications of this provision are applicable to commercial and/or non-commercial operations.

		The specifications of this provision are applicable to the preflight interior inspection of the fan aircraft that is being used to transport cargo without passengers in the passenger cabin
Δ	Auditor  Ider syst	Actions  httfied/Assessed OM guidance/procedures for flight crew preflight inspection of restraint ems/emergency equipment in the cargo/supernumerary compartment or, if applicable, senger cabin (focus: instructions for conduct of inspection; definition of systems/emergency ipment to be inspected).
	•	rviewed responsible manager(s) in flight operations.
		<b>served</b> line flight operations (focus: preflight inspection of cargo/supernumerary compartment applicable, passenger cabin).
	□ Oth	er Actions (Specify)
	Guidan (None)	ce

**FLT 3.13.9 <AC>** If the Operator carries cargo on the same deck as the flight deck and/or supernumerary compartment, the Operator shall have procedures to ensure the 9G restraint system (cargo net or rigid barrier/bulkhead) and, if applicable, smoke barrier are closed/secured for:

- (i) Taxi operations;
- (ii) Takeoff;
- (iii) Landing. (GM)
- Note: The specifications of this provision are applicable to procedures for ensuring the 9G restraint system and, if applicable, the smoke barrier are secure on an aircraft that is being used to transport cargo without passengers in the passenger cabin.

#### Auditor Actions

☐ Identified/Assessed OM procedures for ensuring the 9G restraint system and smoke barrier are



Reference:	TR.ISM.2020-2
Issue date:	07-Nov2020
Effective date:	21-Nov-2020

secured for the specified phases of flight.

	Interviewed responsible manager(s) in flight operations.
	<b>Observed</b> line flight operations (focus: procedures implemented to ensure 9G restraint system and, if applicable, smoke barrier are secure).
	Other Actions (Specify)
Gυ	idance
(N	o changes; omitted for brevity)

▲ FLT 3.13.4 If the Operator transports passengers and/or supernumeraries in the passenger cabin or supernumerary compartment, and does not use a cabin crew, the Operator shall have guidance and procedures for communication by the flight crew with, as applicable, passengers and/or supernumeraries to address:

- (i) The dissemination of passenger/supernumerary safety information;
- (ii) Restrictions pertaining to onboard smoking:
- (iii) Compliance with the Fasten Seat Belt sign and, if applicable, the No Smoking sign;
- (iv) Cabin or supernumerary compartment readiness prior to first aircraft movement, takeoff and landing;
- (v) If applicable, the arming or disarming of door slides;
- (vi) Preparation for and an encounter with turbulence;
- (vii) Medical situations;
- (viii) Emergency evacuation;
- (ix) Abnormal situations;
- (x) Verification that baggage is stowed;
- (xi) If applicable, information relevant to cargo being transported in the passenger cabin;
- (xii) If applicable, verification that the 9G rigid barrier or 9G cargo net is secured. (GM)

**Note:** The specifications of this provision are applicable to commercial and/or non-commercial operations.

#### △ Guidance

Refer to the IRM for the definition of Cargo Restraint System, which addresses the 9G cargo net and 9G rigid barrier/bulkhead.

The intent of this provision is to ensure communication and coordination with passengers, and/or supernumeraries to address relevant safety subjects (e.g., sterile flight deck, security, aircraft technical issues, flight crew incapacitation, cabin depressurization, onboard fire, emergency evacuation, forced landing, ditching, etc.)

Item (xi) refers to communication with appropriately qualified supernumeraries on an aircraft that is transporting cargo without passengers in the passenger cabin.



Reference:	TR.ISM.2020-2
Issue date:	07-Nov2020
Effective date:	21-Nov-2020

(No changes to remainder of guidance; omitted for brevity)

**FLT 1.12.2** The Operator shall have a safety risk assessment and mitigation program in the flight operations organization that specifies processes to ensure:

- (i) Hazards are analyzed to determine the corresponding safety risks to aircraft operations;
- (ii) Safety risks are assessed to determine the requirement for risk mitigation action(s);
- (iii) When required, risk mitigation actions are developed and implemented in flight operations. [SMS](GM) ◀

#### ∧ Guidance

Refer to the IRM for the definition of Rescue and Fire Fighting Services (RFFS).

Risk assessment and mitigation is an element of the Safety Risk Management component of the SMS framework.

Hazards relevant to the conduct of aircraft operations are potentially associated with:

- Weather (e.g. adverse, extreme and space);
- Geophysical events (e.g. volcanic ash, earthquakes, tsunamis);
- Operations in airspace affected by armed conflict;
- ATM congestion;
- Mechanical failure;
- Geography (e.g. adverse terrain, large bodies of water, polar);
- Airport constraints (e.g. isolated, runway closure, RFFS capability);
- Alternate airport selection, specification and availability at the estimated time of use;
- Preflight fuel planning and in-flight fuel management;
- Critical fuel scenarios;
- EDTO:
- Performance-based compliance to prescriptive regulations;
- The capabilities of an individual aircraft (e.g. cargo smoke detection and fire suppression systems, open MEL items);
- Criminal, dangerous, and/or unauthorized activities directed at manned aircraft or in the vicinity of manned aircraft operations (e.g. laser pointing, unauthorized UAS/RPAS operations);
- Flights using aircraft to transport cargo without passengers in the passenger cabin;
- Any other condition(s) that would pose a safety risk to aircraft operations (e.g. radiation).

Refer to Guidance associated with ORG 3.1.2 located in ISM Section 1.



Reference:	TR.ISM.2020-2
Issue date:	07-Nov2020
Effective date:	21-Nov-2020

**DSP 1.12.2** The Operator shall have a safety risk assessment and mitigation program in the organization responsible for the operational control of flights that specifies processes to ensure:

- (I) Hazards are analyzed to determine the corresponding safety risks to aircraft operations;
- (II) Safety risks are assessed to determine the requirement for risk mitigation action(s);
- (III) When required, risk mitigation actions are developed and implemented in operational control. [SMS] (GM) ◀

#### △ Guidance

Refer to the IRM for the definitions of EDTO (Extended Diversion Time Operations) and Rescue and Fire Fighting Services (RFFS).

Risk assessment and mitigation is an element of the Safety Risk Management component of the SMS framework.

Hazards relevant to the conduct of aircraft operations are potentially associated with:

- Weather (e.g. adverse, extreme and space);
- Geophysical events (e.g. volcanic ash, earthquakes, tsunamis);
- Operations in airspace affected by armed conflict;
- ATM congestion;
- Mechanical failure;
- Geography (e.g. adverse terrain, large bodies of water, polar);
- Airport constraints (e.g. isolated, runway closure, rescue and RFFS capability);
- Alternate airport selection, specification and availability at the estimated time of use;
- Preflight fuel planning and in-flight fuel management;
- Critical fuel scenarios:
- EDTO:
- Performance-based compliance to prescriptive regulations;
- The capabilities of an individual aircraft (e.g. cargo smoke detection, fire suppression systems, open MEL items);
- Criminal and/or unauthorized activities directed at manned aircraft or in the vicinity of manned aircraft operations (e.g. laser pointing, unauthorized UAS/RPAS operations);
- Flights using aircraft to transport cargo without passengers in the passenger cabin;
- Any other condition(s) that would pose a safety risk to aircraft operations (e.g. radiation).

(Remainder of guidance unchanged; omitted for brevity.)



Reference:	TR.ISM.2020-2	
Issue date:	07-Nov2020	
Effective date:	21-Nov-2020	

Table 4.11 – Required Aircraft Systems and Equipment					
	Equipment	Applicability	Requirement	Notes	
(xxiii)	Fire suppression system	Passenger aircraft with a cargo compartment that is accessible to crew members in flight.	Such compartments are equipped with, as applicable, either:  (i) A built-in cargo compartment fire suppression system, or  (ii) A portable fire suppression system is available for use in such compartments by crew members and/or appropriately qualified supernumeraries.  (GM) Table 4.12 (xxiii)		
		Aircraft that have a cargo compartment not accessible to a crew member in flight, for which the application for certification was submitted on or after 2 March 2004.	Each cargo compartment is equipped with a built-in fire detection system and a built-in fire starvation or suppression system.  (GM) See Table 4.12 (xxiii)		



 Reference:
 TR.ISM.2020-2

 Issue date:
 07-Nov--2020

 Effective date:
 21-Nov-2020

Δ

### Table 4.12 – Guidance Material: Required Aircraft Systems and Equipment

(xxiii)

This specification is applicable to passenger aircraft only and is intended to ensure a means of fire suppression in cargo compartments accessible to crew members.

For the purposes of this specification, "in flight" is defined as the period that starts the moment the aircraft is ready to move for the purpose of taking off and ends the moment it finally comes to rest at the end of the flight and the engine(s) are shut down.

Ideally, the fire detection system and fire starvation or suppression system as specified in this standard would be designed to account for a sudden and extensive fire that could be caused by an explosive or incendiary device, or by dangerous goods.

Appropriately qualified supernumeraries could be used to provide fire detection and portable fire suppression in the cabin of aircraft being used to transport cargo without passengers in the passenger cabin.

Refer to the guidance associated with FLT 1.12.2 for the hazards relevant to the conduct of aircraft operations that are typically addressed as part of a safety risk assessment and mitigation program.

For the purposes of this specification, "in flight" is defined as the period that starts the moment the aircraft is ready to move for the purpose of taking off and ends the moment it finally comes to rest at the end of the flight and the engine(s) are shut down.

**GRH 1.11.2** The Operator shall have a safety risk assessment and mitigation program for ground handling operations that specifies processes to ensure:

- Hazards are analyzed to determine the existing and potential safety risks to aircraft operations;
- (ii) Safety risks are assessed to determine the requirement for risk control action(s);
- (iii) When required, risk mitigation actions are developed and implemented in ground handling operations. [SMS] (GM) ◀

#### △ Guidance

Refer to the IRM for the definitions of Ground Support Equipment (GSE) and Safety Risk Assessment (SRA).

Risk assessment and mitigation is an element of the Safety Risk Management component of the SMS framework.

Hazards relevant to the conduct of ground operations are potentially associated with:

- Aircraft loading/unloading operations (e.g. unsafe airside driving, unsupervised ground operations activities at the airside, lack of PPE, ineffective baggage reconciliation process).
- Aircraft special loads (e.g. for dangerous goods, live animals, perishables, valuables, time/temperature-sensitive products: lack of or incomplete NOTOC, lack of or inadequate security controls).
- Aircraft servicing (e.g. for water/toilet service, catering: lack of guide man, lack of proper periodic water testing, lack of proper inspection before/after service).
- Passenger embarkation/disembarkation (e.g. Passengers walking on the ramp).



Reference:	TR.ISM.2020-2
Issue date:	07-Nov2020
Effective date:	21-Nov-2020

- Fueling operations (e.g. fueling with passengers on board the aircraft).
- De-/anti-lcing operations (e.g. lack of effective pre-departure checks, glycol/water mixture not effectively checked or tested, incorrect de-/anti-icing procedures).
- Aircraft towing and pushback (e.g. lack of wing walkers, improper connection/disconnection of tow-bars, improper ground-to-cockpit communication).
- Adverse weather conditions (e.g. low visibility, high wind, extreme temperatures, volcanic ash).
- ULD Management. (e.g. unsafe ULD loading/buildup/storage).
- Management of Ground Support Equipment (GSE) (e.g. lack of daily equipment checks, lack of proper identification of out-of-service GSE).
- Loading/securing of cargo on aircraft that transport cargo without passengers in the passenger cabin.

Refer to Guidance associated with ORG 3.1.2 located in ISM Section 1.