



Safety Overview

IATA Annual Safety Report
Executive Summary and Safety
Overview – 60th Edition

60

Celebrating 60 years of the
IATA Annual Safety Report



DISCLAIMER

The content, data and information (the "Content") contained in this publication ("Publication"), is provided for information purposes only and is made available to you on an "AS IS" and "AS AVAILABLE" basis.

IATA has used reasonable efforts to ensure the Content of this Publication is accurate and reliable. We, however, do not warrant, validate, or express any opinions whatsoever as to the accuracy, genuineness, origin, tracing, suitability, availability or reliability of the sources, completeness, or timeliness of such Content. IATA makes no representations, warranties, or other assurances, express or implied, about the accuracy, sufficiency, relevance, and validity of the Content. IATA's observations are made on a best efforts and non-binding basis, and shall not be deemed to replace, interpret, or amend, in whole or in part, your own assessment and evaluation or independent expert advice. Nothing contained in this Publication constitutes a recommendation, endorsement, opinion, or preference by IATA.

IATA has no obligation or responsibility for updating information previously furnished or for assuring that the most up-to-date Content is furnished. IATA reserves the right to remove, add or change any Content at any time. Links to third-party websites, reports or information directories are offered as a courtesy. IATA expresses no opinion on the content of the websites of third parties and does not accept any responsibility for third-party information. Opinions expressed in advertisements appearing in this Publication are the advertiser's opinions and do not necessarily reflect those of IATA. The mention of specific companies or products in advertisements does not imply that they are endorsed or recommended by IATA in preference to others of a similar nature which are not mentioned or advertised.

This Publication is not intended to serve as the sole and exclusive basis for assessment and decision making and is only one of many means of information gathering at your disposal. You are informed to make your own determination and make your own inquiries as you may deem necessary and suitable. You shall independently and without solely relying on the information reported in this Publication, perform your own analysis and evaluation regarding the nature and level of information you may require, based upon such information, analyses, and expert advice as you may deem appropriate and sufficient, and make your own determination and decisions pertaining to the subject matter under consideration.

This Publication is the property of IATA and is protected under copyright. This Publication and its Content are made available to you by permission by IATA, and may not be copied, published, shared, disassembled, reassembled, used in whole or in part, or quoted without the prior written consent of IATA. You shall not without the prior written permission of IATA: re-sell or otherwise commercialize, make mass, automated or systematic extractions from, or otherwise transfer to any other person or organization, any part of this Publication and its Content in whole or in part; store any part of this Publication, or any Content, in such a manner that enables such stored Content to be retrieved, manually, mechanically, electronically or systematically by any subscriber, user or third-party; or include it within, or merge it with, or permit such inclusion in or merge with, another archival or searchable system.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, IATA DISCLAIMS ANY REPRESENTATION OR WARRANTY (I) AS TO THE CONDITION, QUALITY, PERFORMANCE, SECURITY, NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THIS PUBLICATION AND CONTENT; OR (II) THAT THE ACCESS TO OR USE OF THIS PUBLICATION (INCLUDING ANY AUTOMATED FEEDS OR OTHER DELIVERY MODES) OR ANY CONTENT SUPPLIED OR CONTRIBUTED TO THIS PUBLICATION BY THIRD PARTIES, WILL BE UNINTERRUPTED, ACCURATE, THE MOST UP TO DATE, COMPLETE OR ERROR-FREE. IATA EXCLUDES ALL LIABILITY (TO THE EXTENT PERMITTED BY APPLICABLE LAW) FOR ANY COSTS, LOSSES, CLAIMS, DAMAGES, EXPENSES OR PROCEEDINGS OF WHATEVER NATURE INCURRED OR SUFFERED BY YOU OR ANY OTHER PARTY ARISING DIRECTLY OR INDIRECTLY IN CONNECTION WITH THE USE OF THIS PUBLICATION OR ANY CONTENT CONTAINED OR ACCESSED THEREFROM, OR DUE TO ANY UNAVAILABILITY OF THIS PUBLICATION IN WHOLE OR IN PART.

The name and corporate identification of IATA are registered trademarks of IATA.

© International Air Transport Association, 2024. 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
Operations, Safety & Security
International Air Transport Association
800 Place Victoria, P.O. Box 113
Montreal, Quebec
CANADA H4Z 1M1



Unlock Tomorrow's Safety Solutions

Developed by aviation experts and IT professionals, iQSMS combines expertise, innovation and smart design in one intuitive, web-based quality, safety and risk management solution.

Join ASQS and take a step into the future of aviation safety and risk management: be proactive, become predictive – with the power of iQSMS and Artificial Intelligence.

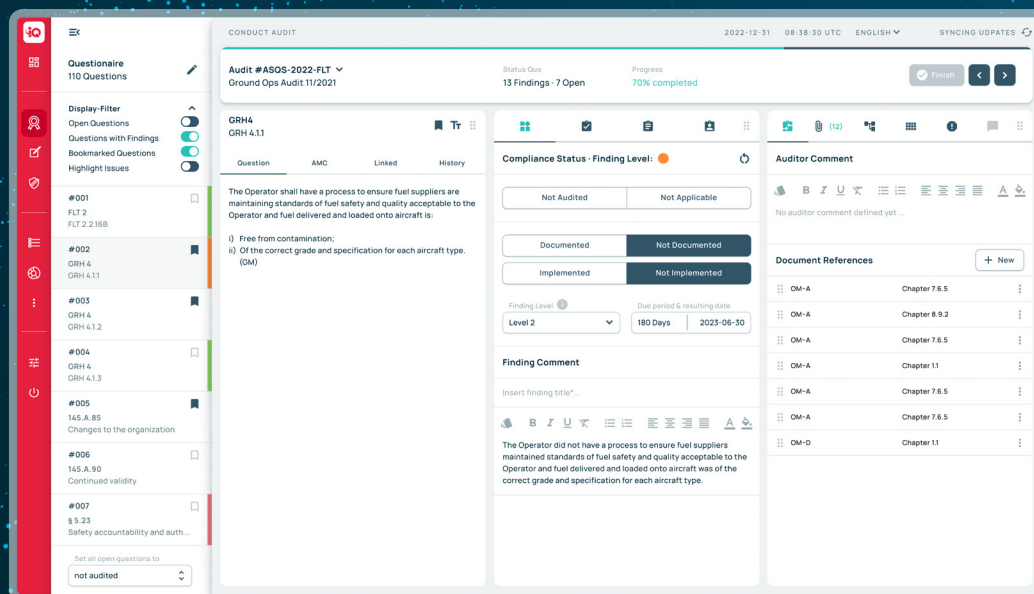
Trusted by 350 aviation companies and 80 IOSA-certified operators worldwide in their daily operations.

[/asqs.net/iqsms/](https://asqs.net/iqsms/)



Dedicated global customer support through offices in:

Vienna · Austria
Bangkok · Thailand
Calgary · Canada





Contents

1. Executive Summary	6
2. IATA Safety Strategy	10
2.1. Safety Culture and Safety Leadership	10
2.1.1 Safety Leadership Charter	10
2.1.2 Examples of Guiding Principles in Practice	10
2.1.3 Safety Talks	10
2.1.4 Safety Culture	11
2.1.5 I-ASC	11
2.2. Safety Risk	11
2.2.1 IATA Safety Issue Review Meeting (SIRM)	11
2.3. Safety Connect	12
3. Accident Investigation Reports	12
4. Reduce Operational Risk	13
4.1. Loss of Control In-flight (LOC-I)	13
4.2. Controlled Flight into Terrain (CFIT)	14
4.3. Runway Safety	14
4.4. Traffic Collision Avoidance System Resolution Advisory Measurement Enhancement:	15
5. Human Factors	16
5.1. Fatigue Management	16
5.1.1 Implementing Fatigue Management Strategies	16
5.1.2 Implementation guide for operators	17
5.1.3 Human Factors and Fatigue Management Trainings	17
6. Cabin Safety	17
6.1. Cabin End State	17
6.2. Cabin Safety Incidents	18
6.3. Cabin Safety Activities	18
7. Global Aviation Data Management (GADM)	19
8. IATA Operational Safety Audit (IOSA) – Risk-Based Approach	20
9. Ground Operations Safety	20
9.1. IATA Safety Audit for Ground Operations (ISAGO)	20
9.1.1 Top ISAGO findings for 2023	21
9.1.2 Root causes and mitigation of ISAGO findings	23
9.2. Ground Damage Reduction Initiatives	24
9.3. Injury Prevention Program	24
9.4. Loading Errors	25
9.5. Safety Issue Hub – Ground Operations Risks	25
9.6. Safety Incident Taxonomy and IGOM Mapping	25
9.7. Safety Increase through Standardization	25
10. Dangerous Goods	26
11. Flight Crew Training and Licensing	26
12. Advocacy for Approved Aviation Infrastructure	26



12.1. Rocket Launches and Commercial Space Operations	27
12.2. Global Navigation Satellite Systems (GNSS) Radio Frequency Interference (RFI).....	27
12.3. Protection of Aircraft Radar Altimeters from Interference	27
13. Emergency Response Planning (ERP)	28
14. IATA Turbulence Aware (ITA).....	28
15. Regional Insight.....	29
15.1. Asia-Pacific Region (ASPAC).....	29
15.2. The Americas Region (Latin America & the Caribbean [LATAM/CAR] and North America [NAM])	29
15.3. Europe Region (EUR) and Commonwealth of Independent States (CIS).....	30
15.4. Africa & The Middle East (Middle East and North Africa [MENA] and Africa [AFI])	31
15.5. North Asia Region (NASIA)	32
15.5.1 Improving the Organizational Culture – Safety Leadership	32
15.5.2 Safety Issue Hub	32
15.5.3 Safety Connect	33
15.5.4 Risk-based IOSA (RBI)	33
15.5.5 CBTA Training	33
15.5.6 Accident Investigation Reports	33
15.5.7 Enhancing the service of IATA China ATFM Liaison Desk	33
15.5.8 Improving Pilot – ATCO Communications	33
15.5.9 Cargo Safety and Safe Transport of Lithium Batteries	34



1. Executive Summary

The commercial aviation sector recorded an exceptionally safe year in 2023, surpassing a series of outstanding years from 2014 onwards. A total of 30 total accidents¹, were registered marking a decrease from previous years, but underscoring the ongoing need for continued diligence. Of those accidents, passenger flights were involved in 77% of cases.

The "All Accident" rate per million sectors dropped from 1.30 in 2022, to 0.80 in 2023. Operators conducted over 37.7 million flights in 2023, a 17% increase over 2022, though still 24% below the 2019 figures.

In a significant achievement, 2023 saw no fatal accidents or hull losses for jet aircraft, leading to a record-low fatality risk rate of 0.03 rate per million sectors. On average a person would have to travel by air every day for 103,239 years to experience a fatal accident. One accident in 2023 resulted in 72 fatalities, a decrease from five accidents causing 158 fatalities in 2022. Consequently, the fatal accident rate improved from 0.16 per million sectors in 2022 to 0.03 in 2023, surpassing the 5-year average of 0.16.

The investigation report into the fatal accident, which happened in Nepal on January 15, 2023, revealed that pilots' actions resulted in the feathering of both propellers and subsequent loss of thrust, leading to an aerodynamic stall and collision with terrain. This emphasizes that the aviation industry must remain vigilant, learn from past accidents and implement measures to prevent future incidents. This highlights the importance of prompt and thorough accident investigations to determine causal factors and implement preventative measures. The lack of comprehensive accident investigation reports remains a critical concern within the industry.

Despite an increase in accidents involving IOSA members in 2023 compared to 2022, their accident rate decreased from 0.74 in 2022 to 0.69 in 2023. IOSA members also continued to perform better than non-IOSA members (0.69 vs. 1.08). The 19 accidents involving IOSA members led to no hull losses or fatalities.

Challenges persist in the critical phases of flight, especially during landing and take-off, with over half of all accidents occurring during 2014-2023 occurring during these phases. Factors contributing to these accidents include a range of issues from managing aircraft configuration to aircraft navigation, communicating effectively with Air Traffic Control (ATC), critical functions related to crew resource management (CRM) principles and core competencies. A number of accidents in 2023, were also attributed to factors including non-compliance with standard operating procedures (SOPs), abnormal runway contact, improper manual handling skills, adverse weather conditions, aircraft malfunction, and lack of monitoring and cross-checking.

The aviation industry needs to collaborate to deliver safety enhancements through improved training, technological advancements, effective inflight decision-making and the implementation of CRM. In addition, fostering a positive safety culture is critical.

The accident categories in 2023, listed in order of the number of fatalities, (with the number of accidents in brackets) were:

- Loss of Control Inflight (1) with 72 fatalities

The accident categories in 2023, listed by the frequency of non-fatal accidents, were:

- Landing Gear (9)

¹ Commercial aviation operations, specifically scheduled/charter passenger or cargo service. Executive jet operations, training, maintenance/ test flights are all excluded. The aircraft has a certificated Maximum Take-off Weight (MTOW) of at least 5,700KG



- Ground Damage (5)
- Tail Strike (5)
- Hard Landing (4)
- Runway Excursion (2)
- Off Airport Landing / Ditching (2)
- In-flight Damage (1)
- Other End State² (1)

Jet and turboprop hull loss accidents in 2023

- There were zero hull loss accidents and fatal accidents for jet aircraft in 2023. Down from 0.24 accidents per million sectors in 2022.
- For turboprop, the hull loss accident rate declined from 1.76 per million sectors in 2022 to 0.57 accidents per million sectors.

When considering accidents per **region of operator**:

- The 2023 accident rate for all regions improved compared to 2022, with the exception of two regions:
 - The North America (NAM) accident rate rose from 0.53 in 2022 to 1.14 per million sectors in 2023, remaining below its 5-year accident average rate of 1.21. NAM has maintained a fatality risk of zero since 2020.
 - The Asia Pacific (ASPAC) accident rate increased from 0.56 in 2022 to 0.78 per million sectors in 2023. The 0.78 accident rate remained below the 5-year accident average rate of 1.06. The fatality risk rate per million sectors rose for ASPAC operators from 0.00 reported in 2022 to 0.16, owing to the accident in Nepal in January 2023. The 2023 fatality risk of 0.16 was above the 5-year rolling average of 0.13.
- Africa (AFI) had the highest accident rate with 6.38 accidents per million sectors in 2023. This was down from 10.88 per million sectors in 2022 and was below its 5-year average of 7.11. The fatality risk declined from 2.66 per million sectors in 2022 to 0.00 in 2023.
- The Middle East and North Africa (MENA) region had the second highest accident rate with 1.16 accidents per million sectors. The MENA accident rate of 1.16 declined from 1.30 accidents per million sectors in 2022 and was below its 5-year average of 0.96 accidents per million sectors. The fatality risk rate for the MENA region has remained zero since 2019.
- The accident rate for the Commonwealth of Independent States (CIS) region saw an improvement for the last four years, dropping from 4.86 accidents per million sectors in 2020 to 1.09 in 2023. This rate of 1.09 surpasses its 5-year average of 3.19 accidents per million sectors. Similar to the full year 2022, the CIS fatality risk rate in 2023 remained zero. CIS may undergo more revisions than usual upon the availability of actual flown sectors.
- The Europe (EUR) region saw an improvement in both the accident rate and fatality risk. The accident rate dropped from 0.98 per million sectors in 2022 down to 0.48 accidents per million sectors in 2023. The fatality risk rate has remained at 0.00 since 2018.
- The North Asia (NASIA) region saw an improvement in both the accident rate and fatality risk. The accident rate decreased from 0.45 accidents per million sectors in 2022 down to 0.00 in 2023. The fatality risk rate dropped from 0.23 in 2022 to 0.00 in 2023.

² The Other End State is used where:

- Information available at the ACTF meeting was not enough to determine the accident end state. For example:
- Aircraft is missing,
- The investigation is still ongoing or report not available and the ACTF is unable to assign an end state classification
- The End State does not fit into other categories



- The accident rate and fatality risk for the Latin America and Caribbean (LATAM/CAR) region saw an improvement; the accident rate per million sectors decreased from 4.47 in 2022 to 0.37 in 2023 and remained ahead of the 5-year accident average rate of 1.91. The fatality risk rate dropped from 0.02 to 0.00 accidents per million sectors.

When considering Threat and Error Management (TEM), the most common contributing factors to accidents, cited in 2023, were:

- **Adverse weather** was a contributing factor in 20% of the accidents. The conditions most often cited were wind/ wind shear/ gusty wind and thunderstorms.
- **Aircraft malfunction** was cited in 23% of the accidents.
- **Manual handling and flight control errors** was a contributing factor in 27% of accidents in 2023. Hand, flying vertical, lateral, or speed deviations, and/or approach deviation, were a contributing factor in 17% of the accidents.
- **Non-compliance to Standard Operating Procedures (SOP)** was cited in 13% of accidents.
- **Abnormal runway contact** was a contributing factor in 27% of accidents, followed by abrupt aircraft control accounting for 20%.
- **Situation Awareness (SA) and Management of Information (Moi)** were contributing factors in 33% of accidents, followed by aircraft flight path management, and manual control.

[For more details and interactive content, please visit the IATA Annual Safety Report dashboard](#)



Safety Overview



60

Celebrating 60 years of the
IATA Annual Safety Report



2. IATA Safety Strategy

IATA remains committed to improving global aviation safety performance through the reduction of accidents. The three core pillars of its Safety Strategy are Safety Leadership, Safety Risk and Safety Connect.

2.1. Safety Culture and Safety Leadership

2.1.1 Safety Leadership Charter

Since its introduction in the IATA 2020 Annual Safety Report, Safety Leadership has gained prominence as a vital topic of discussion and action in aviation. Many stakeholders have joined IATA in its efforts to help the industry embrace safety leadership at every level of the organization and promote its key role in organizational safety resilience.

In September 2023, at the [inaugural IATA World Safety and Operations Conference \(WSOC\)](#) in Hanoi, IATA announced the launch of the [IATA Safety Leadership Charter](#) and its first signatories.

The IATA Safety Leadership Charter represents a commitment by industry leaders to the continuous evolution of safety culture within their organizations and by IATA to support this evolution worldwide. It is founded on the principle that a positive safety culture supports open reporting and a learning culture; it facilitates the effective management of safety risks and creates employee engagement based on trust. It acts as an essential enabler for a successful business and a thriving aviation industry.

Safety Leadership Guiding Principles include:

- Leading the obligation to safety through both words and actions.
- Fostering safety awareness among employees, the leadership team, and the board.
- Creating an atmosphere of trust, where all employees feel responsible for safety and are encouraged and expected to report safety-related information.
- Guiding the integration of safety into business strategies, processes, and performance measures and creating the internal capacity to manage and achieve organizational safety goals.
- Regularly assessing and improving organizational Safety Culture.

Since the launch of the Safety Leadership Charter, the number of its signatories has significantly evolved, reaching 45 airlines globally.

2.1.2 Examples of Guiding Principles in Practice

Demonstrating their leadership and commitment to the Charter Declaration, signatory airlines are sharing with IATA practical actions and initiatives that uphold Charter principles in their organizations. All airlines are encouraged to read [these examples](#) and to consider adopting industry best practices, when and to the extent applicable and possible.

2.1.3 Safety Talks

During 2023, IATA continued its [Safety Talks](#) initiative, featuring industry leaders across geographies and cultures sharing their unique perspectives and highlighting the key role of Safety Leadership and Safety Culture in delivering a safer, more efficient, and resilient business.

Despite the diversity of cultures and styles, the message from the top is consistent. The need to have the right resources, policies, processes, and equipment in place is recognized as crucial for safety, but not sufficient by itself. Compliance alone will not create a safe and sustainable safety-conscious business. No manual will



ensure that all staff consistently think “safety”, even when no-one is watching, but a positive organizational safety culture will.

2.1.4 Safety Culture

Reports and information on safety-related issues are the main source for discovering an organization’s safety vulnerabilities and deficiencies. A comprehensive analysis of these reports and related information enables decision-makers to determine potential risk areas and supports leadership taking the right actions to mitigate such risks. Sharing safety information enables continuous learning and improvement by fostering proactive, risk-based safety thinking. “Zero incidents” is an honourable goal, but not realistically achievable; incidents will always happen. Learning from them, and adapting our safety procedures following these incidents, is what counts.

The flow of information within the organization is critical in this process, especially the flow of information upwards. The extent to which employees have confidence to share their feedback openly, to report errors, near-misses, safety hazards and safety concerns, within the framework of “just culture” framework, has a direct impact on an organization’s safety performance.

It is therefore of outmost importance to nurture one of the main drivers of organizational safety culture, an atmosphere of trust, where employees are encouraged and are confident to report safety-related information.

2.1.5 I-ASC

IATA’s [IATA Aviation Safety Culture \(I-ASC\) survey](#) supports aviation organization in understanding where their organizational Safety Culture stands, identify gaps, implement changes, and measure progress. The survey uses a standardized methodology and performance indicators. It provides measurable, actionable and comparable results (internal and industry benchmarks), based on a combination of quantitative and qualitative survey data.

Safety Culture assessments provide one of the best means to support the evolution of organizational safety thinking. IATA encourages airlines to continuously enhance their safety resilience by using various industry tools to measure and improve their organizational safety culture in a systematic and comprehensive way.

2.2. Safety Risk

IATA’s [Safety Issue Hub](#) has continued to evolve throughout 2023 with over 70 safety issues identified and published, accompanied by guidance material and best practice documentation. Safety Risk Assessments (SRAs) have been developed for a number of key and pressing safety issues to support the assessment of the issue within an airline’s own safety management system.

The Safety Issue Hub contributes to the [Risk-based IOSA](#)’s (RBI) approach by providing the airline and auditors with risk pictures. The risk pictures include systemic, worldwide and regional safety issues that the operator may be exposed to within their sphere of operation and enable the opportunity for relevant and targeted audit scopes.

Our members and the wider industry are encouraged to continue to collaborate with IATA on identifying safety issues and associated mitigations by contributing to the Safety Issue Hub using the ‘[Share an Issue](#)’ function.

2.2.1 IATA Safety Issue Review Meeting (SIRM)

The Safety Issue Review Meeting (SIRM) is an annual meeting, created in 2006 and managed by IATA Safety and member airlines. The meeting is open to safety professionals from airlines, manufacturers, ground service



providers and airports, as well as invited subject matter experts from academia, pilot associations and other relevant industry stakeholders.

Although advertised as an annual meeting, IATA hosted 2 SIRMs in 2023, the first in March in Montreal followed by a regional session in Nairobi in October. The introduction of regional sessions has provided an opportunity for greater participation and allows for the coverage of specific regional issues, which may not always be covered at global sessions.

The safety topics covered in Montreal included case studies on insect infestations, controlled flight into terrain, runway safety and ground operations, highlighting causes, impacts and potential mitigations. The inaugural regional event in the Nairobi allowed for discussion on topics specific to the region, key topics discussed were, cabin safety, loss of control (related to wildlife management), large height deviations and ground safety.

To learn more about the discussion topics, please visit [IATA - Safety Issue Review Meeting \(SIRM\)](#) where we share the discussions and presentations.

2.3. Safety Connect

IATA encourages airlines to share safety knowledge and experience so that they can more effectively identify and mitigate safety risks. In order to support these activities, IATA has developed the [Safety Connect](#) program which facilitates discussion and provides easy access to IATA's experts, guidance materials, training courses, and regular updates on our regional and global safety activities.

During 2023, the membership almost doubled to 1,350 safety professionals around the world, representing 80% of IATA member airlines and almost 100 non-IATA member airlines.

All airlines are encouraged to ensure that their safety team members register and join the community to keep connected and informed.

3. Accident Investigation Reports

Accident investigations are a fundamental component of the overall risk management process in aviation, guiding the implementation of safety strategy across the industry. Regardless of the statistics presented by aviation accident data, one central fact remains clear that the investigation into aviation accidents is crucial. It serves to gather and analyse information, draw conclusion, identify the causes and contributing factors of accidents, formulate safety recommendations arising out of the investigation, and, most importantly, focuses on prevention rather than assigning blame and liability.

Aligning with international standards, the provisions outlined in the International Civil Aviation Organization (ICAO) Annex 13 underscore the importance of timely and thorough investigations to enhance safety and prevent future occurrences. It also outlines the process leading to the issuance of an accident investigation.

- **Preliminary Report** - within 30 days of the of the date of the accident
- **Final Report** - as soon as possible (ASAP) or within 12 months of the date of the accident - following completion of the investigation.
- If the report cannot be made publicly available within 12 months, the State conducting the investigation shall make an **Interim Statement** publicly available on each anniversary of the occurrence, detailing the progress of the investigation and any safety issues raised.



In 2023, IATA undertook a project that involved gathering investigation reports spanning from 2018 to 2022. The findings of this project revealed that about 54% of the accidents had an investigation report published. The absence of investigation reports means the industry lacks valuable insights that could inform safety improvements and mitigate risks. Therefore, IATA actively advocates for the timely and complete issuance of accident investigation reports in accordance to ICAO Annex 13.

The objective of ICAO Annex 13 is to investigate accidents for the sole purpose of preventing similar occurrences. However, this can be compromised by the lack of issuance of investigation reports in a timely manner. Not issuing or delaying in the release of final reports hinder the industry's ability to promptly implement safety improvements based on the findings. IATA's advocacy for timely and complete reports aligns with the industry's commitment to continuous improvement and the proactive prevention of aviation accidents.

4. Reduce Operational Risk

Throughout 2023, IATA demonstrated a dedicated commitment to fostering aviation safety through a comprehensive and collaborative approach. With a strategic focus on addressing key safety priorities, IATA has undertaken safety measures to mitigate operational risks and enhance overall safety within the aviation industry.

The main goal was clear: to continuously reduce the 5-year rolling average accident rate, a critical metric in assessing the industry's safety performance. By adopting a proactive approach and implementing targeted safety initiatives, IATA demonstrated its commitment to ensuring the highest levels of safety across the industry.

Moreover, the collaborative engagement with industry stakeholders, including the IATA Operations Advisory Council (OAC), Safety Group (SG), Accident Classification Task Force (ACTF), Fatigue Management Task Force (FMTF), Cabin Operations Safety Task Force (COSTF), Flight Operations Group (FOG), member airlines, regulators, and technology providers, highlights the collective efforts that aimed at enhancing safety measures throughout the industry.

The following points will highlight some of the key safety initiatives addressed by IATA during 2023 and shed light on the activities undertaken to reduce operational risks and enhance the overall safety within the aviation sector.

4.1. Loss of Control In-flight (LOC-I)

In collaboration with ICAO, a dedicated webinar focused on Upset Prevention and Recovery Training (UPRT) was delivered with the aim to:

- Reinforce regulators and industry awareness of UPRT principles, provisions, recommendations and best practices,
- Enhance the Civil Aviation Authority (CAA) personnel qualification for UPRT programs approval and oversight,
- Provide the means to CAA and industry staff to measure the effectiveness of UPRT training,
- Share experience and feedback on the effective UPRT implementation.

UPRT represents an essential mitigation measure to address and reduce LOC-I accidents. Although these accidents are known to be low in numbers, they are indeed the leading cause of fatalities in commercial aviation. Recognizing the severity of LOC-I, IATA strongly recommends the regulators and the industry to implement consistently ICAO UPRT provisions and IATA best practices accessible [here](#).



Looking ahead to 2024, IATA remains dedicated to fostering initiatives and taking innovative approaches to address the unique challenges associated with LOC-I accidents and further reducing the fatality risk in this critical accident category.

4.2. Controlled Flight into Terrain (CFIT)

In a proactive move to raise awareness of the risks associated with CFIT accidents and to increase the awareness of the industry best practices for CFIT, IATA and ICAO jointly organized a Webinar on CFIT. This collaborative effort was undertaken in direct relation to

- the implementation of the IATA [CFIT Detailed Implementation Plan \(DIP\)](#)
- increase awareness of the CFIT risks
- provide an overview of the [Enhanced Ground Proximity Warning System \(EGPWS\) /Terrain Awareness and Warning System \(TAWS\)](#), [Global Navigation Surveillance System \(GNSS\)](#) SRAs
- highlight the [IATA/Honeywell Performance Assessment of Pilot Response to EGPWS Guidance Material](#)
- emphasize the importance of EGPWS Software and Terrain Database Update

Recognizing the paramount importance of maintaining up-to-date EGPWS software and terrain data base (TDB) for aviation safety, IATA has undertaken strategic measures to address potential risks associated with outdated information. In response to this concern, a comprehensive [SRA](#) was conducted in 2022 to evaluate the validity of the EGPWS database.

As a result of this SRA, notable recommendations emerged, including the

- incorporation of the IATA Operational Safety Audit (IOSA) recommended practice FLT 4.2.7 into the standard framework ([IOSA Standard Manual 16](#)). This emphasizes the periodic review of the EGPWS database validity.
- engagement in a collaborative effort with EGPWS manufacturers and avionics suppliers to facilitate easy access to the latest software releases and terrain databases. IATA has published an [informative document to enhance access to EGPWS/TAWS database](#), aiming at providing valuable insights to the aviation community that includes:
 - How and where to find the latest EGPWS/TAWS TDB
 - TDB release schedules
 - How to view what has changed in the TDB
 - The link to download the TDB

4.3. Runway Safety

In adherence to our steadfast commitment to aviation safety, the implementation of proactive measures to prevent runway safety remains a top priority. This commitment is demonstrated through various initiatives aimed at addressing and mitigating the risks associated with runway safety. The collective efforts of the aviation industry, as highlighted in:

- the creation of the [DIP for Runway Excursion](#),
- the focused actions on Global Action Plan for the [Prevention of Runway Excursions \(GAPPRE\)](#),
- the focused actions on Global Action Plan for the [Prevention of Runway Incursions \(GAPPRI\)](#),
- the focused actions on understanding and mitigating the root causes of tail strikes during take-off and landing and go-around. This effort resulted in conducting an [SRA](#) that serves as a resource to assist IATA members in determining if their safety controls effectively control tail strike risk or if additional mitigation actions are required. The outcome of this SRA has led to noteworthy recommendations, with one such recommendation involving an update to the tail strike section in the "[Recommendations for Accident](#)



[Prevention in Aviation](#)" guide. This guide is an important resource developed by the members of the ACTF.

- the insightful Runway Safety sessions at the IATA WSOC that took place in Hanoi, Vietnam in September 2023. The two sessions delved into critical factors essential for a departure as well as a safe approach and landing played an important role in fostering a deeper understanding of the challenges and solutions related to runway safety.

Efforts are underway to identify and categorize high-risk Unstable Approaches. Such categorization allows for targeted interventions and tailored measures to address specific challenges associated with these scenarios.

[For more details and interactive content, please visit IATA Annual Safety Report HRC dashboard](#)

4.4. Traffic Collision Avoidance System Resolution Advisory Measurement Enhancement:

In our continuous commitment to enhancing aviation safety, a particular focus has also been placed on the improvement of Traffic Collision Avoidance System Resolution Advisory (TCAS RA). This commitment involves a diverse approach that includes:

- identifying hot spot areas with frequent TCAS RA activities, using our Flight Data Exchange (FDX) platform and intelligence from industry airline groups.
- collaborating with the IATA SG to formulate region-specific action plans. These region-specific action plans aim to address and mitigate TCAS RA activities, taking into account unique operational factors and challenges in different parts of the world.
- In collaboration with EuroControl and the IATA SG, IATA is actively working on integrating new measurements and events into our FDX program, with the objective to assess pilot responses to TCAS RAs. This will contribute to industry-wide efforts to better enhance overall safety by reducing the risk of mid-air collision.

In the year 2024, we anticipate a set of robust safety measures along with parameters will be firmly established, underscoring the approach taken in assuring aviation safety. These initiatives are poised to not only inform the aviation community about TCAS RA activities but also to pave way for the development of global safety enhancement measures.

5. Human Factors

From the ICAO definitions (DOC 10151) Human Performance (HP) refers to how people perform their tasks. HP represents the human contribution to system performance. Human Factors (HF) are concerned with the application of what we know about human beings, their abilities, characteristics and limitations, to the design of equipment they use, environments in which they function and jobs they perform.

Human Factors is an interdisciplinary area that focuses on a range of different topics, including ergonomics, workplace safety, human error, product design, human capability, and human-technology interaction. The integration of the knowledge from all these different scientific disciplines is meant to enhance safer and better performances in the workplaces. Its goal is to reduce errors by addressing how humans sense information, think, make decisions, act and behave. Since human error is the largest causal factor in accidents, it is altogether fitting for the aviation industry to devote special attention to solving human factors problems.

Traditionally, the focus of human performance has been on, for example, accidents and incidents investigation, air safety reports and mandatory safety reports, CRM trainings or cockpits design. Each of these has been addressed by different departments within an organisation. While this approach continues to deliver good human performance, it is also important that all areas that contribute to human performance are managed at a programme level, in an integrated manner. This is because each area is connected, and this connection needs to be managed in a positive and resilient manner.

IATA's Human Factors strategy during 2024 will focus on establishing guidelines and best practices to implement and enhance airlines' Human Factors Programs as an integrated part of their Safety Management Systems and with a systemic approach.

5.1. Fatigue Management

Fatigue is now acknowledged as a hazard that predictably degrades various types of human performance and can contribute to aviation accidents and incidents. Fatigue is inevitable in 24/7 operations because the human brain and body function optimally with unrestricted sleep at night. Therefore, as fatigue cannot be eliminated, it must be managed.

Fatigue management refers to the methods by which Operators and operational personnel address the safety implications of fatigue.

5.1.1 Implementing Fatigue Management Strategies

The IATA Fatigue Management Task Force (FMTF) is a multidisciplinary team of Human Factors and Fatigue specialists from airlines who work to develop tools and guidance on industry best practices as knowledge and experience progress and collaborate on application of science and interpretation of regulation dealing with fatigue risk management and flight/duty time limitations.

To support operators to implement fatigue management strategies the IATA FMTF has developed the following documents which can be found [here](#):

- Common Protocol for Minimum Data Collection Variables in Aviation Ops (pdf)
- Fatigue SPIs: A Key Component of Proactive Fatigue Hazard Identification (pdf)
- IATA FRMS White Paper (pdf)
- IATA FRMS Condensed Version of CASA Document on Biomathematical Models (pdf)
- IATA FMTF White Paper on Uses and Limitations of Biomathematical Fatigue Models (pdf)



5.1.2 Implementation guide for operators

The [Fatigue Management Guide for Airline Operations](#) marks the collaboration between IATA, ICAO and the International Federation of Airline Pilots' Associations (IFALPA) to jointly lead and serve industry in the ongoing development of fatigue management, using the most current science. It presents the common approach of pilots, regulators and operators to the complex issue of fatigue.

For more information, please contact FRMS@iata.org

5.1.3 Human Factors and Fatigue Management Trainings

Among the wide range of IATA trainings, the following can be mentioned that address the topics of Human Factors and Fatigue Management. Trainings, listed below were recently updated to include the latest knowledge and practical approach for airlines.

5.1.3.1 Human Factors in Aviation

This course will provide with the principles of Human Factors and the necessary knowledge to foster and promote a positive safety culture within the organization. Topics include the four core disciplines of human factors; models that are used to explain the Human Factor; the influence of culture; and the human error.

5.1.3.2 Fatigue Risk Management System (FRMS)

Actions to reduce fatigue-related accidents remains a critical item requiring attention. So, the Fatigue Risk Management System approach represents an opportunity for operators to use scientific knowledge to manage the fatigue risk with the possibility to increase operational flexibility. The FRMS training emphasizes the safety benefits of implementing an FRMS, such as increased crew member alertness, better work life balance amongst crews and a reduction in absenteeism attributed to fatigue. In addition to this, an FRMS may facilitate increased productivity and rostering flexibility.

6. Cabin Safety

6.1. Cabin End State

The Cabin Safety section of the interactive Annual Safety Report contains the end state classifications for aircraft accidents. When reviewing the dashboards, it should be noted that not all accidents within the database will have a cabin classification for an end state, for example, cargo flights without cabin crew, or flights without passengers. Additionally, some accidents within the database might be rejected as they do not meet the IATA criteria of an accident, yet they may have had an impact in the cabin for cabin crew.

The Cabin end state classifications focus on three main categories:

- How much time the cabin crew had to prepare for the emergency;
- The corresponding level of preparation they were able to perform within the cabin;
- The type of evacuation carried out – land, water, abnormal disembarkation or normal operations.

In common with all previous years, in almost all accidents which resulted in evacuation, these occurred with minimal warning and cabin crew had no additional time available to carry out any more preparation than they would during a normal landing.

This highlights that it is of utmost importance that SOPs for cabin secure checks prior to take-off and landing are thoroughly and consistently applied, as this is usually the only opportunity to prepare passengers for a potential evacuation. It also highlights that passengers need to pay attention to the safety briefing on every



flight, even if they have seen and heard it before, and that they need to know that taking baggage and personal belongings with them is most likely going to slow their own and others' evacuation of the aircraft.

When it comes to educating passengers on the importance of paying attention, and the differences in equipment and procedures on the aircraft they are traveling on, success relies on their willingness to be informed, their perceived needs, and a balance of providing the information in a way which encourages them to comply but does not frighten them.

During 2023, IATA produced a simple and generic [passenger safety information card](#) which can be shared by airlines to customers, by regulators, or through social media channels, highlighting some basic and universal safety information which will help passengers make their own journey safer. While the audience for this information might be limited only to those who are interested, it is still a useful step in sharing the safety message. IATA has also updated the passenger [safety information section on our public website](#) to support airline safety messaging.

6.2. Cabin Safety Incidents

A number of serious incidents occurred throughout 2023 which didn't meet the IATA criteria to be classified as an accident. Some of these had a significant impact on cabin operations and were managed by cabin crew, so remain relevant to the annual review. IATA Cabin Safety reviews these incidents regularly and discusses these with airlines to produce relevant guidance and to steer our safety related activities.

Many airlines report cabin safety related Incidents directly to IATA using the [Incident Data Exchange \(IDX\) Program](#), and from here dashboards and Safety Performance Indicators highlight areas of potential concern. Other publicly available sources are used to highlight other incidents which have occurred. By analyzing information from both of these sources, fire and smoke incidents caused by batteries within portable electronic devices have been identified as frequent occurrences. However, it is worth noting that these occurrences are effectively managed by cabin crew.

The issue of portable electronic devices, lithium batteries and fire fighting remains a focus for IATA Cabin Safety. IATA Cabin Safety is persistently engaged in discussions with airlines, regulators, and manufacturers to ensure that information, policies, and emergency procedures are consistently updated in line with the current risk status.

6.3. Cabin Safety Activities

IATA's activities to support airlines include risk assessment, training, publication of guidance materials and setting global standards for cabin safety.

The [Cabin Operations Safety Best Practices Guide](#) is a comprehensive guidance document covering all aspects of Cabin Safety Management. Edition 9, published in January 2024, includes new guidance material for high cabin temperatures during ground operations, monitoring the charging and use of personal electronic devices onboard and an overall review of existing material. As well as providing information and guidance to address existing risks, it is also published to help airlines determine best practices to assist them in complying with the IOSA standards which are a prerequisite for their continued IATA membership.

The [IOSA Standards Manual](#) section 5 includes the global cabin safety standards required for IATA membership and is updated annually by IATA's Cabin Operations Safety Task Force, a team of cabin safety specialists from airlines who work closely with IATA to guide our activities each year.

As part of the IATA Safety Connect program, the Cabin Operations channel has established itself as the most direct communication channel between airlines and IATA to discuss issues and challenges and to support the



effective implementation of safety management systems within the cabin. IATA encourages all airlines to ensure that their Cabin Safety Management team are [registered to join](#) this valuable resource and participate in the global discussions on Cabin Safety issues.

IATA facilitates regular conferences, webinars, and events to ensure airlines come together to discuss important safety risks, issues, and concerns. The [inaugural IATA WSOC](#) took place in Hanoi, Vietnam during September 2023 and brought together experts from around the world to discuss issues within the following four content tracks:

- Cabin Safety
- Flight Operations
- Safety and Risk Management
- Emergency Response and Aircraft Recovery

Bringing together delegates from four related, yet different disciplines was a great opportunity to raise awareness of the similarities, the differences, and the cross divisional issues faced by all. Cabin Safety is an integral part of Flight Operations, Safety and Risk Management and Emergency Response, and while it is necessary to maintain a separate platform to discuss cabin safety issues, the impact on others must also be considered and discussed openly. IATA look forward to seeing the continued success of this event during 2024.

7. Global Aviation Data Management (GADM)

IATA's premier aggregated data sharing programs IDX and [FDX](#), continued to grow in leaps and bounds as we remain committed to our mandate of providing critical safety, security and operational data insights to our members to support their operations.

The IDX and FDX programs had a total membership of 268 and 208 airline members respectively at the close of 2023.

In 2023, GADM also rolled out as part of its suite of data sharing programs, the aircraft [Maintenance Cost Data Exchange \(MCX\)](#) program that enables airlines to benchmark their maintenance costs with other airlines globally.

The critical insights and intelligence derived from these programs can further be enhanced by fusing and augmenting them with other datasets. To this end the GADM integrated additional data sets including aeronautical data, Notice to Airmen (NOTAMs) and weather data, that have further improved our analysis capability including outputs to our members.

GADM remains committed to supporting the aviation industry with accurate and timely insights that enable data driven decision making and enhance further the safety and operational efficiencies of our industry.



8. IATA Operational Safety Audit (IOSA) – Risk-Based Approach

In 2023, the IOSA program marked its 20th anniversary, marking two decades of industry safety improvements and continued growth of the program. IATA continued the [Risk-based IOSA \(RBI\)](#) rollout and successfully completed 25 audits in 2023, meeting IATA's Board of Governors target. To engage with airlines and regulators and further introduce the new concept, IATA delivered an extensive change management campaign including but not limited worldwide workshops with over 265 airlines and 25 regulators in attendance.

The hypothesis of RBI is to obtain greater safety insights through a data-driven and robust approach to identifying the most critical IOSA Standards and Recommended Practices, or ISARPs to an air operator's individual profile, and by performing a deeper assessment of these. This includes the deployment of new audit methods such as a maturity assessment of the operator's Safety Management System (SMS) and safety-critical programs. The newly gained insights will identify new opportunities for improvements and increase the marginal safety assurance in the operator.

The above hypothesis has been validated through a comprehensive trial phase including six volunteering operators followed by 25 official Risk-based IOSA. RBI audits result in deeper and meaningful insights and lead to important and relevant safety discussions in the operators. Furthermore, the maturity assessment of the operator's SMS and other safety critical programs adds significant value to the assurance activity.

To support the growing audits that IATA will conduct under the RBI in 2024 and beyond, a comprehensive auditor recruitment and training program is being deployed. The plan is to recruit some 150 RBI auditors worldwide, to meet the program demand for 2024.

Further, to address the industry's needs for collaboration and state-of-the-art information exchange in a secure environment, IATA is launching a collaboration platform. The platform will host all airlines' operational profiles, IOSA Audit Reports and other relevant information such as all IOSA documentation. A soft launch is planned in April 2024 with a full launch in summer 2024. The information will be accessible only to approved users and access to it will be controlled by the airlines.

IOSA continues to focus on pertinent safety risks, while maintaining a baseline of safety and increasing the effectiveness of the audit and contributing to the overall industry goal of reducing the accident rate.

Further information can be obtained under www.iata.org/iosa and iosa@iata.org.

9. Ground Operations Safety

9.1. IATA Safety Audit for Ground Operations (ISAGO)

IATA Safety Audit for Ground Operations (ISAGO) is the industry program for the global oversight of ground handling service providers (GHSPs). There are 196 GHSPs in the ISAGO Registry providing services at 336 accredited stations at 209 airports worldwide. As of 31st Dec 2023, 304 audits were completed, and 250 audits are expected in the year 2024. An average of 13 findings is raised per report, key issues being training, SMS, Ground Service Equipment (GSE) maintenance and management outsourced services, see below table:

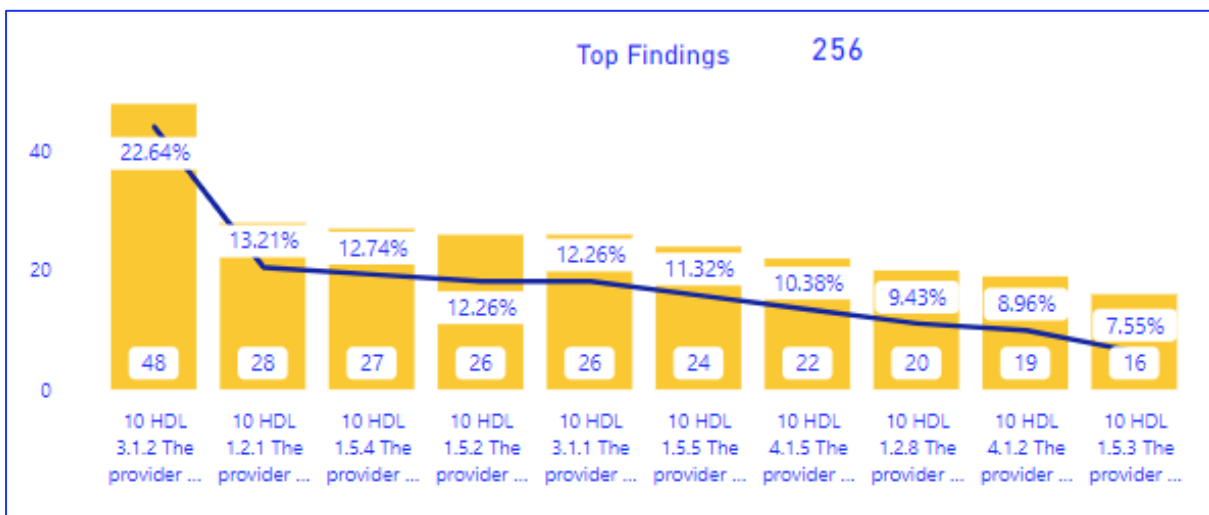
9.1.1 Top ISAGO findings for 2023

No	ISAGO Organisation and Management - Top 10 Findings
1	SMS – integrated and implemented throughout the organization to manage ground ops safety risks
2	SMS – Safety risk assessment and mitigation program throughout the organization
3	Management and control of external and internal documentation
4	Training program – Initial training prior to operational duties
5	GSE Maintenance program
6	QMS and Oversight program to evaluate management system and operations at all stations
7	SMS – Safety assurance program
8	Setting performance objectives and measures
9	Operational documentation communicated, distributed and accessible at all stations and in all operational areas
10	Training program – ensure that trained and competent staff performs basic, advanced, and specific SMS duties

ISAGO Operational Areas – Top findings

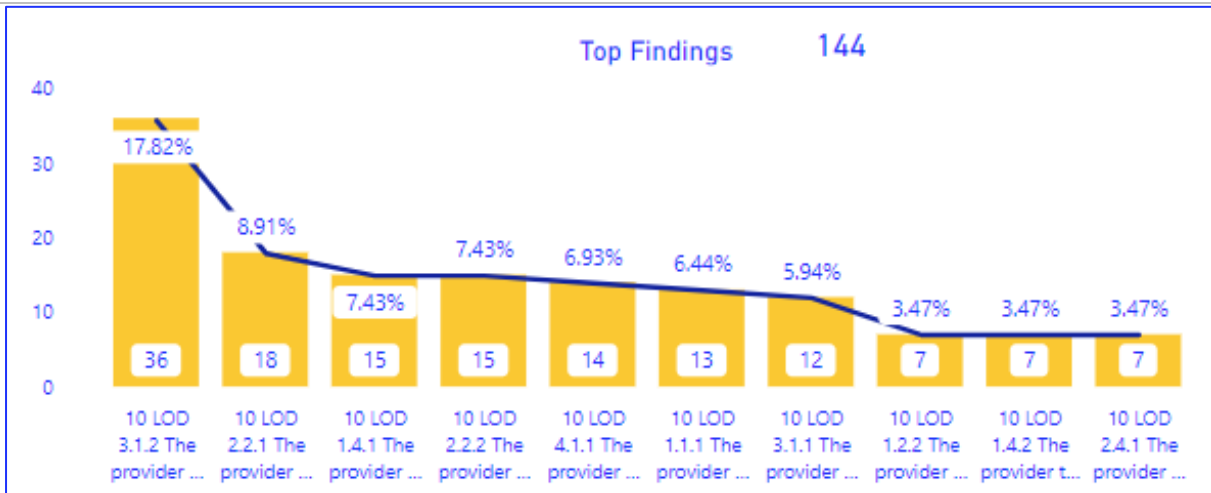
Total 1,426 findings in ISAGO operational disciplines- Data range 01 Jan- 31 Dec 2023

Aircraft Handling and Loading (HDL)



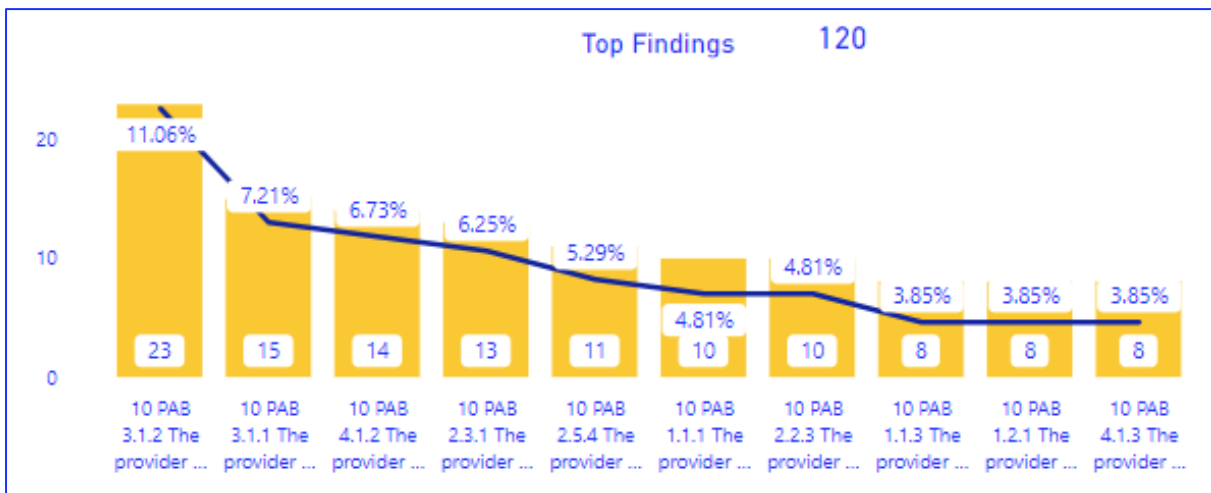
Findings - Operational documents accessibility, GSE maintenance program, water quality standards, lavatory services procedures/handling, operational procedures, job specific training, driving speed, airside driving training and license, potable water servicing operations

Load Control (LOD)



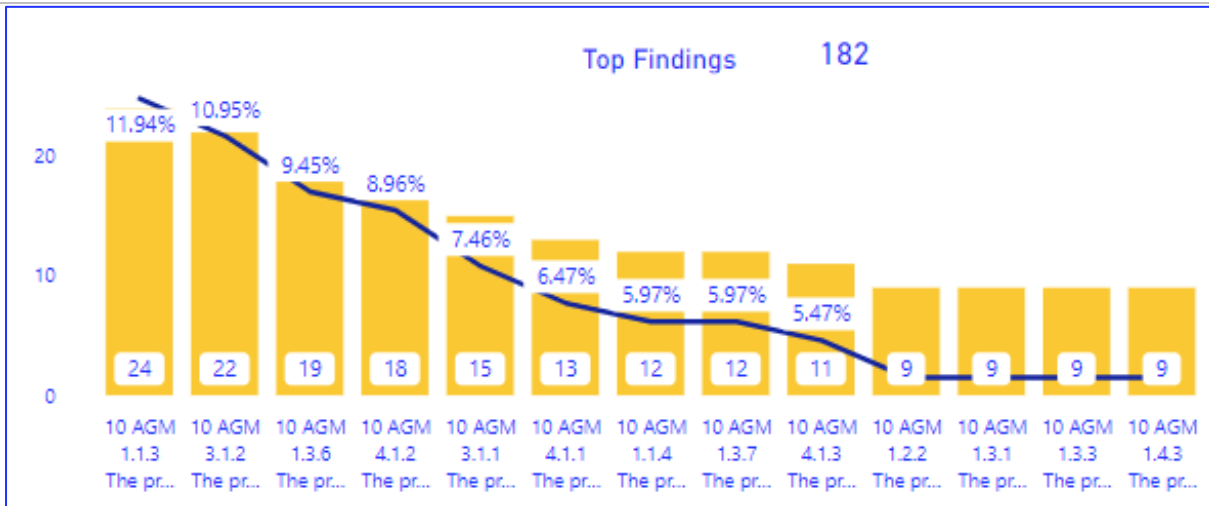
Findings-Operational documents accessibility, manual weight & balance, load control communication, valid manual load documentation used, job specific training, , load sheet accuracy, load planning person to have access to load control data, load sheet uses confirmed final loading information, reporting of weight and balance figures discrepancies

Passenger and Baggage (PAB)



Findings-Operational documents accessibility, training program, calibration, security event reporting, boarding pass issuance, carriage of weapons carried by law enforcement officer and passenger, cabin baggage size/wt./quantity, transfer of information and data to load control, DG training

Aircraft Ground Movement (AGM)



Findings- Clear engine danger area, operational documents accessibility, GSE compatible for aircraft type/weather, job specific trainings, pushback tractor not left unattended, airside driving license/airside training, aircraft Inspection for each arrival, marshalling/wing-walker procedures, walkaround inspection, alignment of tractor with aircraft, prior to aircraft arrival ramp is clear and free of fod

9.1.2 Root causes and mitigation of ISAGO findings

Root causes of all the ISAGO findings are grouped into three categories:

- Documentation – Procedures not defined, procedures not clear, unclear standards, Inadequate internal oversight.
- Training – Training program missing job specific and other mandatory training missing, training content elements missing.
- Oversight – Inadequate supervision, Inadequate communication

Considering the ISAGO findings and causes, following mitigation actions are recommended for industry stakeholders:

- Documentation – airlines and GHSPs to adopt IATA Ground Operations Manual (IGOM), industry best practices and procedures for ground operations, and using Operational portal as a tool to complete a gap analysis with IGOM and review and reduce their variations, where feasible, which will bring standardization to reduce safety risks and complexities in ground operations.
- Training – airlines and GHSPs to adopt Airport Handling Manual (AHM) 1110 which will bring standardisation in staff training, cost efficiency and reduction of errors.
- Oversight – airlines and GHSPs to adopt revitalized standards on management of systems as defined in AHM 600 for robust oversight of their network operations and SMS implementation.
- ISAGO provides the airlines with complementary information and a solution to strengthen their oversight programs including an opportunity for cost reduction.

The program can be used as follows:

- Complementary data to airlines' risk-based oversight system on GHSPs/Stations
- Reduction of scope/frequency/cost of oversight activities of GHSPs within the airlines' network



- Reduction of scope/frequency/cost for GHSPs' training activities as training requirements are being validated by ISAGO
- Procurement requirements during contracts' negotiation or when seeking for GHSP at alternate airports.

Implementation of ISAGO provides an additional layer of control for an airline's SMS in the area of outsourced ground operations services. The program contributes to a risk reduction of loss of control in flight by addressing the ground operations root causes and contributing factors, to name a few: SOP adherence / SOP cross-verification, inadequate training, Foreign Object Damage (FOD), incorrect GSE servicing and operations etc.

9.2. Ground Damage Reduction Initiatives

Since the release of the [IATA Ground Damage Report](#), which highlighted the need for increased adoption of enhanced GSE that are designed to incorporate collision avoidance systems, the industry has developed a reward program to recognize GHSPs that have adopted enhanced GSE in their station GSE fleet. Participation in the program is on a voluntary basis and is open to all GHSPs. The program aims to recognize the GHSPs that invest in enhanced GSE hence contribute to ground damage reduction and risk reduction in ground operations.

Because even the best / newest GSE is only as good as the standard of its maintenance, the Ground Operations Working Group (WG) has also been refining the GSE Maintenance requirements. The revised comprehensive checklists which are found in the AHM Toolbox, default to the OEMs' maintenance regime but also make provision for original equipment manufacturer (OEM) approved variations. In addition, there are two possible IATA recommended maintenance schedules, based on more or less intense usage of the GSE. These can be used either if the OEM maintenance information is no longer available or if the, typically older, GSE has been modified / rebuilt to the extent that the OEM information is no longer pertinent.

The autonomous GSE field, which is essentially a much more advanced development of the collision avoidance systems, is seen as a means of – reducing ground damage and relieving scarce staff of tedious driving tasks. Autonomous GSE fitted with multiple sensors in tandem with specific operational instructions has a very high potential to reduce ground damage and collisions. To facilitate this, IATA has published guidelines for autonomous GSE based on a thorough risk assessment. Working closely with GSE manufacturers and vehicle systems providers, IATA's industry leading guidance material on the topic in AHM 908 now covers not only point-to-point driving on the airside, but also movement within the confines of the aircraft stand's equipment restraint area (ERA). This material is constantly being updated based on trials taking place to ensure industry benefits from experience of our partners.

The combination of the GSE excellence reward program, the more rigorous focus on proper GSE maintenance and the proactive guidance on the development of autonomous GSE puts IATA's work in the GSE field at the forefront of the drive towards reduced ground damage together with safer, more efficient GSE operations.

9.3. Injury Prevention Program

Building on the injury data available in IDX, Ground Operations Standards WG and IATA were continuously monitoring the industry trends, recent injuries, and fatalities - identifying potential hazards and enhancing the AHM and IGOM procedures. The most frequently reported injuries remain slips, trips and falls, struck against object, lift/carry, push/pull as well as fall from heights which, while not frequent, are the most severe. To promote the safety culture and prevent most frequent injuries, an [awareness campaign](#) has been launched to highlight the ground operations risk areas and their mitigation actions through proper implementation of IGOM procedures and training requirements as defined in AHM chapter 11.



9.4. Loading Errors

The major areas of loading errors remain:

- Nets improperly/not deployed (25%)
- Improperly secured cargo/baggage (24%)
- Load sheet and LIR mismatch (21%)
- Loading checklist not performed (19%)

IATA is working with the industry stakeholders to mitigate loading errors by digitalizing the communication exchange between load control and loading team. Members implementing such solutions have experienced/reduced loading errors up to 80%. Business requirements for digital load control reconciliation were completed and can be now found in AHM. Digital schema will be developed in 2024 as the industry standard to be used by system providers.

9.5. Safety Issue Hub – Ground Operations Risks

A number of safety issues have been added to the [IATA Safety Issue Hub](#) related to ground operations. For each safety issue there is associated guidance documentation to support the understanding and mitigation of these safety issues. Following ground operations risks were updated in safety hub in 2023:

- Working at height (fall from height)
- Running engines (engine ingestion/blast)
- Working around running GSE and vehicles in operations
- Position/Removal of GSE to/from aircraft
- Mis or Un-declared Lithium Batteries / Carriage of high energy storage devices

IATA continues to review the safety issues through IDX events and updates the hub.

9.6. Safety Incident Taxonomy and IGOM Mapping

As a result of IDX data analysis in various ground operations categories, IATA has mapped the current IATA Safety Incident Taxonomy (ISIT) with the relevant IGOM provisions. Mapping of IDX events with the specific IGOM operational procedures will enable the industry and IDX users to better identify the safety operational issues and will enable to drive more accurate enhancements to industry requirements driven by data and safety events. IDX and IGOM mapping is available to the IDX participants in the industry overview dashboard which can be accessed via the [IATA Customer Portal](#) and choosing the GADM application.

9.7. Safety Increase through Standardization

As each year, the experts participating in the Ground Operations WG continued to develop and enhance industry best practices for ground operations to make them safer, simpler, and more efficient while also driving ongoing harmonization and standardization. All changes are reflected in [AHM Ed44](#) (Airport Handling Manual) and [IGOM Ed13](#) (IATA Ground Operations Manual). An essential part of AHM is our [GOXML toolkit](#), delivering on digital messages and bringing us closer to digitalization of ground ops processes. Revitalized high-level ISAGO checklists (mirroring AHM and IGOM requirements) can be now found in the AHM toolbox and will be used for ISAGO audits towards the end of 2024.

In 2022-23, 150 airlines and 70 GHSPs joined the [OPS portal](#) and are at different stages of publishing a gap analysis with IGOM requirements, almost 100 of the gaps were already published.



Ground Operations WG and IATA are reviewing the variations and implementing enhancements to IGOM provisions with the aim of reducing globally the variations and driving harmonization of ground operations procedures. [OPS portal](#) is also being expanded to include AHM chapter 11 (training), chapter 6 (safety management system + organization & management) and some items from chapter 9 (GSE management) and expected to be launched in 2024.

10. Dangerous Goods

Dangerous Goods in 2023, participated in the completion and publication of "Guidance on the Transport of Mobility Aids". This document, which is available for download from the [IATA website](#) provides information and guidance to operators on facilitating the transport of passengers who require mobility devices; many of which are powered by batteries. The IATA guidance has also been referenced in the Dangerous Goods Regulations, which will raise further awareness on safely and securely transporting passengers and their mobility devices.

Work continued on the development of a new fire test standard for fire-resistant containers (FRC) and fire containment covers (FCC) for aircraft pallets. In the context of safety risk assessment and management, this will enable operators to take an objective approach to the carriage of dangerous goods, including lithium and sodium batteries.

11. Flight Crew Training and Licensing

IATA advocates for the implementation of Competency-Based Training and Assessment (CBTA) programs as a better way to develop a competent workforce than the traditional task- or hours-based training and checking. IATA delivers CBTA awareness sessions and workshops for States and industry, to illustrate the value of CBTA in regard to safety enhancement and training efficiency.

IATA also supports the global CBTA implementation by actively participating in the ICAO Personnel Training and Licensing Panel to update, standardize and create new ICAO CBTA provisions (e.g., CBTA for Advanced Air Mobility); and by publishing a consistent [IATA CBTA library](#). Since October 2023, this library contains the first CBTA implementation guide for pilot and instructor training available in the industry. IATA also published in 2023 an update of the [Evidence-Based Training \(EBT\) Implementation Guide](#), a practical guide to support EBT implementation, based on experience gained by the industry and regulators during the last decade.

Furthermore, IATA is currently evaluating an accreditation program for training organizations delivering CBTA programs. The objective of the accreditation program is to assess the quality and the compliance to international standards, as well as industry best practices, of the pilot and instructor training programs delivered by training organizations engaged in CBTA. The program will help enhance safety through global harmonization and standardization.

12. Advocacy for Approved Aviation Infrastructure

Air Navigation Service Providers (ANSPs) are a critical component in the aviation supply chain. They are responsible for providing safe, efficient, and cost-effective Air Traffic Management (ATM) and air navigation infrastructure for airline operators. IATA continues working with member airlines, key partners such as ICAO, the Civil Air Navigation Services Organization (CANSO), State regulators, and ANSPs to ensure ATM operations maintain the required level of safety and efficiency while maintaining a positive cost-benefit business case and supporting the reduction of CO₂ emissions.



12.1. Rocket Launches and Commercial Space Operations

In recent years, the aerospace industry has witnessed a remarkable surge in the number of

- commercial space operators,
- operations that extend into controlled airspace and reach the extreme upper limits or above,
- aircraft operating without a pilot on board for days and months at and above FL600.

As the launch and recovery of spacecrafts increase, the amount of airspace that needs to be protected also increases. Spacecraft launches already require the reservation of an enormous amount of airspace. To manage and regulate airspace reservations effectively, ANSPs play a crucial role. The creation of Temporary Flight Restrictions (TFRs) and the issuance of NOTAMs are instrumental in communicating these reservations, ensuring that all relevant stakeholders, including airlines, are informed and can plan their operations accordingly. There is a need for global guidance to facilitate the management of commercial space/near-space operations through controlled airspace. This involves defining global standards around the safety performance requirements for space vehicles and onboard equipment. IATA is leading the work under an ICAO panel to address all these issues.

12.2. Global Navigation Satellite Systems (GNSS) Radio Frequency Interference (RFI)

IATA continues to receive member airline reports of harmful interference to GNSS.

GNSS is a cornerstone of flight and ATM operations, providing fundamental position and timing information to aircraft safety systems (e.g., Ground Proximity Warning System—GPWS), air traffic services satellite communications, aircraft navigation (Performance-based Navigation—PBN) and Automatic Dependent Surveillance-Broadcast (ADS-B) applications. Effective protection of GNSS signals and robust and timely mitigation of harmful interference is therefore necessary for safety of flight.

IATA, in cooperation with other industry associations including the International Federation of Air Traffic Controllers' Association (IFATCA) and IFALPA, has raised awareness and recommendations on this safety-critical issue to the 41st ICAO Assembly.

Additionally, the issue of harmful interference to GNSS has been brought to the attention of the International Telecommunication Union (ITU), the United Nations' specialized agency for information and communication technologies, and the global authority on radio spectrum protections.

IATA has developed a [document](#) addressing Harmful Interference to GNSS and highlighting its impacts on flight and air traffic management operations. Stakeholder engagement and collaboration are essential to ensure the effective implementation of safety measures. IATA is inviting the industry to consult the content, and, where appropriate, adopt the recommendations outlined in the paper.

12.3. Protection of Aircraft Radar Altimeters from Interference

Radar altimeters (Radalts), operating at 4.2-4.4 GHz, are the only sensors on board a civil aircraft that provide a direct measurement of the clearance height of the aircraft over the terrain or other obstacles (i.e., Above Ground Level – AGL - information). The Radalt systems' input is required and used by many aircraft systems when AGL is below 2,500 ft. Recent roll-out of 5G in some countries has been identified as safety critical due to the potential interference with Radalts. Additional information about potential interference and IATA actions, as well as resources, can be found on the [IATA page: Aviation and 5G](#).



13. Emergency Response Planning (ERP)

In 2023, the direction and advancement of Emergency Response Planning (ERP) and Family Assistance matters, overseen by IATA's Emergency Response Planning Task Force (ERPTF), which reports to the IATA SG, has continue to evolve. Throughout the year, progress was made on the stated work plan, leading to the release of an ERP related technical bulletin designed to facilitate seamless booking and ticketing collaboration between airlines during times of crisis. Furthermore, an ERP track was delivered as part of the 2023 edition of the IATA WSOC in Hanoi, Vietnam, with a clear focus on Family Assistance and best practice. Concurrently, ongoing efforts in policy formation related to airline and passenger rights associated with Family Assistance continues.

"...attendees were deeply moved by a truly unique and profoundly insightful experience. In a special extended session, an empathetic Facilitator from the US National Transportation Safety Board (NTSB) Transportation Disaster Assistance team led a poignant live demonstration of the US NTSB model for Accident Family Briefings. Onstage, IATA ERP Task Force members, embodying the roles of key response agencies, stood beside the NTSB, while our audience bravely took on the roles of distressed family members. This was a rare, emotionally charged opportunity to witness the deeply impactful Accident Family Briefing model presented in a "peace time" setting, offering invaluable lessons in compassion and preparedness." A testimonial by the IATA Director of Safety, in closing remarks at IATA WSOC.

The challenges arising from global events, such as persistent hostilities and digital interference affecting the operators of civil aviation industry's continuity, have prompted airlines to adapt and innovate. Flexibility and resilience are now integral components of ERP strategies and protocols. Airlines have notably heightened their commitment to offering comprehensive support during crises, including strengthening Family Assistance Centers, providing psychological support, and ensuring timely and transparent communication. Recognizing the significance of preparedness across all levels, IATA and its member airlines have invested in training programs for staff, encompassing cabin crew, ground personnel, and emergency response teams. These initiatives aim to guarantee a swift and coordinated response in emergency situations.

Looking ahead to 2024, with the ICAO Year of Facilitation, IATA foresees a continued dedication within the aviation industry to ongoing enhancements in ERP and Family Assistance arrangements. The experiences and insights gained in 2023 will undoubtedly shape the ERPTF work plan for 2024, contributing to the continual evolution of emergency response practices. The industry's steadfast commitment to ensuring the safety and well-being of passengers and their families is evident. The progress made in protocols, technology, collaboration, and support mechanisms lays a robust foundation for a more resilient and responsive aviation sector in the years to come.

14. IATA Turbulence Aware (ITA)

IATA has seen a 20% increase in data within its Turbulence Aware program in 2023 having received more than 38 million reports from over 2,000 participating aircraft. Given the increasing interest in this risk management safety initiative, further growth is forecast for 2024. Since 2020, Turbulence Aware has enhanced the safe travel experience of over 700 million passengers. Turbulence Aware is a repository which enables access to worldwide objective turbulence data collected from multiple airlines around the globe providing airline pilots, dispatchers and operations center personnel with real-time, very detailed turbulence awareness. Turbulence Aware data is improving airline safety performance by decreasing turbulence-related injuries, optimizing fuel burn and gaining additional operational efficiencies through more accurate flight planning based on improved forecast, real-time turbulence, wind and temperature data.



15. Regional Insight

15.1. Asia-Pacific Region (ASPAC)



In Asia Pacific, 2023 started with the fatal accident of an ATR 72, interrupting the region's previously positive trend in accident and fatality risk reduction over recent years. However, with the exception of the January accident in Nepal, the region did not experience any other fatal accident during 2023.

The Safety Leadership pillar was promoted in the Region with a good response that was presented at the IATA WSOC that took place in Hanoi (Vietnam) in September 2023.

The IATA ASPAC regional safety team promoted Safety Connect through sharing numerous safety-related publications and documents on the Safety Connect Platform. At the end of 2023, 96% of the IATA ASPAC member airlines were registered on Safety Connect, with an increase of 18% of the number of participants registered on the Safety Connect channel.

The team has also been particularly active in promoting the IATA Safety Audit Programs by supporting three RBI workshops in the Region in 2023. Two virtual workshops were also organized for the IOSA registered carriers to provide an overview of the changes introduced in the IOSA Standards Manual Edition 16.

Throughout 2023, the team contributed to many national safety initiatives in cooperation with regulators and Civil Aviation Authorities (CAAs) in Indonesia, Lao, Malaysia, Philippines, Republic of Korea, and Sri Lanka. The team continued working with the Asia-Pacific Regional Aviation Safety Team (APRAST) on the development of Safety Enhancement Initiatives (SEIs). Other key groups for the delivery of IATA's safety priorities were the ICAO Cooperative Development of Operational Safety and Continuing Airworthiness Programme South-East Asia (COSCAP-SEA), the ICAO South-East Asia Regional Aviation Safety Team (SEARAST) the ICAO Regional Accident Investigation Groups (AIG) and the ICAO Regional Airspace Safety Monitoring Advisory Group (RASMAG).

The GADM network in the Asia-Pacific is growing. The use of IATA GADM analyses appears to be instrumental in the day-to-day safety management of participating airlines in this region. Additionally, it serves as a foundation for discussions at regional events and within industry working groups.

The IATA regional office has supported ICAO safety initiatives such as the first UPRT Training Course for Regulators in the region.

15.2. The Americas Region (Latin America & the Caribbean [LATAM/CAR] and North America [NAM])



Operators in the Americas region continued to contribute to the IATA GADM Programs (IDX and FDX), with the LATAM/CAR region being the strongest contributor. Overall FDX shows that participants in the region perform at a level similar to the global average. The IATA regional safety team continued to work with the US Commercial Aviation Safety Team (CAST) to share trends between FDX and the Aviation Safety Analysis and Sharing System (ASIAS).

Throughout the year, the IATA Americas regional safety team continued to work with the Regional Aviation Safety Group-Pan America (RASG-PA) and its Pan American Regional Aviation Safety Team (PA-RAST). Both FDX and ASIAS share aggregate, de-identified regional information with PA-RAST with the objective of performing data driven safety analysis at regional level and focus hemispheric safety initiatives on risk. IATA occupies the Co-Chair position at RASG-PA during the current triennium.



The team has also been active in the promotion of IATA's safety audit programs (IOSA, the IATA Standard Safety Assessment (ISSA), and ISAGO) with several States adopting the programs and ICAO recommending them in the Regional Safety Plans for both the South America (SAM) and North American, Central American and Caribbean (NACC) regions.

Collaborative Safety Teams (CSTs) remain drivers to reduce risk in key States. In 2023, several new CSTs were formed in the region and the team actively supports them.

The team has also promoted and highlighted the IATA Safety Issue Hub at every regional engagement.

Bird strikes were identified as a regional emerging risk at a few airports, with one of them having the highest impact rates in the hemisphere. The team actively engaged several stakeholders to further evaluate possible mitigations and facilitate the implementation of enhanced programs to mitigate this risk.

15.3. Europe Region (EUR) and Commonwealth of Independent States (CIS)



IATA in Europe continues its long-standing cooperation with regional organizations with the aim to implement the IATA Safety Strategy and the European RCG Priorities. The aim is to ensure there is a coordination of activities on safety risks in the Region and decisions on safety are taken in an objective manner based on solid validated safety information and stakeholder consultation.

The IATA European regional safety team has actively represented IATA members at numerous European Authority for aviation safety (EASA) WGs and task forces (TFs). IATA continues to provide regular comments and feedback during EASA rulemaking activities, representing airline views. Additionally, an IATA representative is serving as a co-chair for the ICAO Europe / North Atlantic European Region Aviation System Planning Group (EUR/NAT EASPG) Regional Expert Safety Group (EASPG RESG). IATA contributes to various regional safety enhancement initiatives within other ICAO regional and global WGs. In 2023, IATA shared guidance and industry best practices during joint webinars organized by ICAO EUR/NAT, focusing on Controlled Flight into Terrain and Upset Prevention and Recovery Training.

The GADM network in the European Region is growing at a high pace. The use of IATA GADM analyses appears to be instrumental in the day-to-day safety management of participating airlines in this region. Additionally, it serves as a foundation for discussions at regional events and within industry working groups. An analysis on language proficiency issues, based on the IATA IDX information presented at the ICAO Language Proficiency Requirements Implementation Task Force (LPRI TF), has shown that communication issues related to language continue to be a hazard. A significant number of miscommunications occurred in countries where English is spoken as a native language, indicating that native speakers often do not adhere to standard ICAO phraseology or adjust their speech to be understood by non-native speakers. Another language-related hazard highlighted by IDX statistics is the use of other languages than English in ATC communication at international airports. Both trends have been confirmed through analysis of data collected by EUROCONTROL.

Last year was also marked by a transition to the RBI model. Approximately, half of all RBI audits in 2023 took place in the European Region. In order to support airline operators and CAAs in understanding the new audit principles, IATA conducted 3 workshops on RBI within the European Region: held in Madrid, Baku and Istanbul. Additionally, a special workshop for the European Union (EU) regulators was organized at EASA premises in Cologne. Overall, these workshops were attended by over 200 participants.

Enhancing safety awareness in general is one of the priorities of the European regional safety team, particularly in the CIS part of the Region, where safety performance still varies compared to EASA-regulated States. In 2023, the IATA team conducted a Dangerous Goods webinar hosted by the Interstate Aviation Council in Baku,



Azerbaijan and contributed to the Air Astana annual safety seminar on Operational and Human Factors in Safety Management. IATA team was actively participating in numerous safety events in the Region. The engagement, especially through presentations focusing on the Safety Strategy, indicates a commitment to promoting and sharing safety best practices within the aviation industry. The team also was present at events, such as the EASA Safety Week 2023, the European Safety Forum, European Civil Aviation Conference (ECAC) Air Accident Investigation Group of Experts, the EASA Winter Readiness event, and others.

The team has represented IATA in the group that developed the Global Action Plan for the Prevention of Runway Incursions (GAPPRI) – a vital document containing recommendations for all involved stakeholders to mitigate the risks posed by runway incursions.

In 2023, the team continued the work with the European National Aviation Authorities for the use of industry programs to complement safety oversight with the signature of a Safety memorandum of understanding (MoU) with the Aviation Administration of Kazakhstan (AAK).

IATA continued the regional implementation of the IATA Safety Leadership initiative with 14 airlines in Europe? signing the IATA Safety Leadership Charter. A specific ceremony in the IATA Wings of Change 2023 event was dedicated to handing over of the signed Charters.

Before the year concluded, the team organized a webinar for the European airlines to highlight and showcase the benefits of the IATA Safety Issue Hub in monitoring risks in airline operations.

15.4. Africa & The Middle East (Middle East and North Africa [MENA] and Africa [AFI])



The year commenced with a significant achievement re classification of the Mogadishu FIR from Class G to Class A; with thanks to collaborative efforts and establishment of the Somalia Airspace Special Coordination Team (SASCT), comprising the Somali CAA, IATA, ICAO, ANSPs, and airline members of IATA's RCG for AFI. The outcome improved Air Traffic Service (ATS) provision across the expanse of the Mogadishu FIR, operational environment, and airspace operational efficiency <https://www.iata.org/en/pressroom/2023-releases/2023-01-25-01/>

The Region continues to be fraught with disruption to aviation caused by safety, operational, and security events due to geopolitical tensions. During the course of the year, IATA/ICAO established a series of Contingency Coordination Teams (CCTs) to ensure continuity of operations with robust contingency plans and routes established. Regional Contingency Coordination activities remain a priority for the region.

For the aviation community Large Height Deviations (LHD) events pose the worst credible outcome of Mid-Air Collision (MAC). During the course of 2023, IATA regional team strengthened relationships with the two Regional Monitoring Agencies (RMA's) for Africa and the Middle East Region. The collaborative efforts involving the RMAs, IATA, ICAO MID & ESAF achieved the removal of the safety protocol for LHDs that had been established between Mogadishu and Sana'a Flight Information Regions (FIRs), and brought awareness to the risks region wide.

GNSS, interference has remained significant in the MID Region, but a few reports have now also been registered within AFI and IATA continues to monitor closely.

The team continues to be a significant contributor to the ICAO Regional Aviation Safety Groups Africa and the Middle East (RASG–MID) (RASG–AFI), ensuring a solid presence to drive the interests of IATA's airline members operating within the region. Both Regional Aviation Safety Groups for the Africa Middle East Region identify the following as regional safety priorities and risks



- Controlled Flight into Terrain (CFIT);
- Loss of Control In-Flight (LOC-I);
- Mid-Air Collision (MAC);
- Runway Excursion (RE);
- Runway Incursion (RI);

IATA together with ICAO successfully led Runway Safety Go Missions to establish Runway Safety Teams (RSTs) at the following International Airports:

- Entebbe, Uganda
- Juba, South Sudan

Regional Safety programs, in June 2023, IATA launched FOCUS AFRICA, a program dedicated to the continent of Africa. One of six pillars of the program; safety saw the introduction of the [Collaborative Aviation Safety Improvement Program \(CASIP\)](#), with commitment to this continent wide collaborative safety team by 12 organizations. Under the CASIP framework, the region delivered its first dedicated [Safety Issue Review Meeting for Africa \(SIRM-Africa\)](#). The Safety Issue Review Meeting (SIRM) has historically been a forum which is held on a Global Scale, but with the recognition of regional variance in the types of issues, a decision was taken to supplement the global session with more targeted and focused meetings at regional level. Six topics were identified and discussed as priority issues for Africa, which will be addressed through the CASIP.

15.5. North Asia Region (NASIA)



The IATA NASIA regional safety team continues to implement the IATA Safety Strategy and its three core pillars, which are Safety Leadership, Safety Risk and Safety Connect in the region. The following are the main achievements highlighted in 2023:

15.5.1 Improving the Organizational Culture – Safety Leadership

By the end of 2023, 5 airlines from the region have signed the Safety Leadership Charter, which represented a commitment by the airline executives to the continuous evolution of safety culture within their organizations. 3 of which have engaged in sharing their perspectives and examples, to highlight their unique safety culture through the [IATA Safety Talks](#).

15.5.2 Safety Issue Hub

The team commitment to advancing safety in the region continues to highlight the growing attention and advocacy surrounding the IATA Safety Issue Hub. In recent discussions with member airlines, ANSPs, airports, and Civil Aviation Authorities (CAAs), it's becoming evidence that an increasing number of stakeholders are recognizing and prioritizing the importance of the IATA Safety Issue Hub. It is worth noting that a growing number of safety issues have been actively added to the hub, demonstrating a proactive commitment to identifying and addressing potential challenges.

In September 2023, an in-person meeting was held in Beijing to discuss the regional High-Risk Categories and Issues. 20 participants from North Asia member airlines participated in this meeting. The issues reported to the Safety Issue Hub were reviewed and the top five high risk categories were identified. Through collaborative efforts, the participants identified and prioritized the top five high-risk categories and issues for the North Asia region. These categories and issues are:

- Fatigue
- Lithium Battery
- Unstable Approach
- Turbulence



- Tail strike

15.5.3 Safety Connect

By the end of 2023, more than 90% of the North Asia member airlines have registered on the IATA Safety Connect Site. This encourages an efficient communication channel for safety-related information exchange between airlines and IATA. The IATA Safety Connect Site serves as a crucial platform for facilitating a direct exchange of safety-related information.

15.5.4 Risk-based IOSA (RBI)

In 2023, three RBI Workshops were delivered in the region, two of which were held in Beijing and in Hong Kong, China. In conjunction with these workshops, IATA facilitated separate communications and in-person engagements with regulators and airlines across the region. This proactive approach aimed to introduce the RBI framework, providing a comprehensive understanding of its benefits and applications.

Moreover, 2023 saw the successful organization of RBI conversion training and one RBI auditor training in Beijing. These initiatives are crucial steps in ensuring the effective implementation of RBI practices in the region.

15.5.5 CBTA Training

In 2023, a collaborative initiative between IATA headquarters and IATA NASIA regional safety team resulted in the successful delivery of CBTA training. The program saw active participation from the Evidence Based Training (EBT) Core Team of Civil Aviation Administration of China (CAAC), member airlines, and Approved Training Organizations (ATO). By bringing together key stakeholders, IATA aims to foster a culture of continuous improvement and excellence in aviation training.

15.5.6 Accident Investigation Reports

To highlight the importance of the Accident Investigation Report, IATA submitted Working Papers (WPs) to both the ICAO Asia and Pacific (APAC) Accident Investigation Group (AIG) 11th meeting in August and the 58th Conference of Directors General of Civil Aviation (DGCA) held in October 2023. These WPs highlight that the prompt publication and comprehensive reports are critical to improve safety and are required under ICAO Annex 13. Advocating for more timely publication of comprehensive accident reports will continue to be a priority in 2024. The goal of these submissions is to encourage a collaborative effort within the ICAO APAC region to elevate the quality and impact of Accident Investigation Reports.

15.5.7 Enhancing the service of IATA China ATFM Liaison Desk

The IATA China Air Traffic Flow Management (ATFM) Liaison Desk has been engaged in supporting operations within the China mainland, with a primary focus on enhancing communication efficiency between IATA member airlines and CAAC. The IATA China ATFM Liaison Desk has played a crucial role in supporting operations and communication information during the global geopolitical conflict crisis. This approach in disseminating timely information has facilitated the decision-making by member airlines.

15.5.8 Improving Pilot – ATCO Communications

The Pilot – ATCO communication (including English language issues with native/non-native speakers) issue was identified as 1 of the 5 most prominent risks in North Asia. To address this issue, IATA cooperated with CAAs and ANSPs in the region and launched a series of activities in 2023.

One of the key initiatives undertaken was a workshop focusing on phraseology in Air Traffic Management (ATM) emergency response procedures. This workshop, held in Beijing, was co-hosted by the Air Traffic Management Bureau (ATMB), CAAC and IATA. The event brought together Air Traffic Control Officers (ATCOs) from various



sub-regions of China ATC, alongside representatives from the Civil Aviation University of China (CAUC) and IATA member airlines. The primary objective of the workshop was to facilitate open dialogue and knowledge exchange among participants. As a result, ATMB issued a checklist of ATM emergency response procedures and related training materials for all the ATCOs in China, to improve the English communication especially during the distress/urgent events. Meanwhile, a paper was developed and presented jointly by ATMB and IATA to the ICAO ATM/SG meeting for the promotion and cooperation in the ICAO APAC.

15.5.9 Cargo Safety and Safe Transport of Lithium Batteries

A North Asia Cargo Safety Workshop was conducted in August 2023. The workshop, attended by more than 50 participants representing regulators, industry associations, airlines, airports, freight forwarders, shippers, and lithium battery manufacturers, provided a valuable platform for collaboration and knowledge exchange.

The workshop mainly introduced the regulatory updates, the newly published domestic industry regulations, the latest developments of e-cigarettes, Fire Resistant Containers & Fire Containment Covers, risk assessment of Li-Battery shipments.