

The Aviation Safety Picture

Mark Searle, Director Safety

IATA Operations, Safety and Security



- I'll begin with a quick review of the 2022 first half safety performance
- After that we'll look at the new IATA Safety Strategy that we began rolling out last year
- We'll finish with an introduction to some big changes we are making to what is probably our best-known safety initiative, The IATA Operational Safety Audit (IOSA), which is the global standard for operational safety audits.

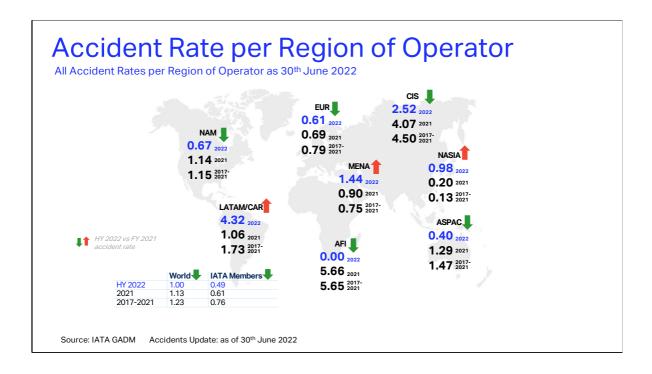
2022 Half Year (HY) Accidents Overview

	Full Year 2021	1 st Half 2022
All Accidents	29	15
IATA Member Accidents	11	5
IOSA Carriers Accidents	13	8
Fatal Accidents	7	1
Fatalities Onboard	121	132
Jet Hull Losses	3	4
Turboprop Hull Losses	5	1
Source: IATA GADM Accidents Update: as of 30 th June 2022		

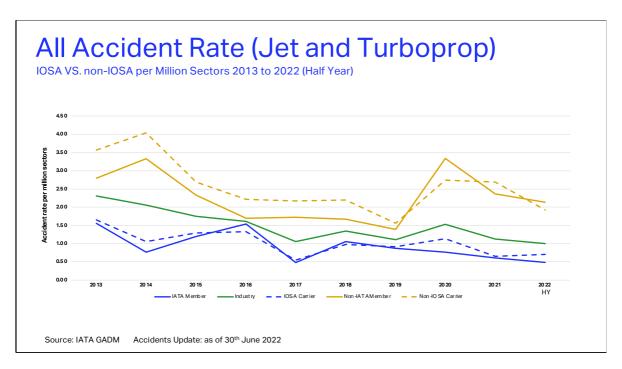
• According to our Half Year 2022 accident statistics, as the industry has seen an increase in sectors flown, we have also seen a similar performance in raw accident-related numbers when compared to full year 2021.

IATA defines an accident as an event where ALL of the following criteria are satisfied:

- Person(s) have boarded the aircraft with the intention of flight (either flight crew or passengers).
- The intention of the flight is limited to normal commercial aviation activities, specifically scheduled/charter passenger or cargo service. Executive jet operations, training, maintenance/test flights are all excluded.
- The aircraft is turbine powered and has a certificated Maximum Take-Off Weight (MTOW) of at least 5,700KG (12,540 lbs.).
- The aircraft has sustained major structural damage exceeding US \$1 million or 10% of the aircraft's hull reserve value, whichever is lower, or has been declared a hull loss.



- As aviation is already so safe, small fluctuations in the number of accidents can have a big impact on the year-on-year rate.
- Therefore, the metric IATA are using to monitor safety performance, is the aviation all-accident rate using a 5-year rolling average.
- IATA is constantly monitoring this information, which in turn helps us focus our resources and reach out to our partners to take the appropriate actions.
- More information on the first half safety performance is available in the Safety Factsheet.



When we then use these raw numbers, and turn them into rates, we can see that the longer-term trends look favorable for the industry in the first half of 2022.

Aviation's safety performance has continuously improved for many decades, making accidents less frequent and increasing the survivability of some types of accidents.

It shows that the work we have been doing together with our industry safety partners is having a positive effect, and that we need to continue working in this direction by leveraging even greater collaboration.

You will notice the bump in 2020. Although the industry did take a step back on performance, the severe reduction in flight numbers magnified the impact of each accident when we calculate rates.

And as you see the industry bounced back in 2021 and 2022, even as flight activity increased.

As I'm sure most of you know, IOSA is a requirement for membership in IATA.

And data show that since it was introduced in 2003, airlines on the IOSA registry, in aggregate, outperform non-IOSA airlines in terms of safety.

You see that here where the IOSA carriers (dotted blue line) clearly outperformed the non-IOSA carriers (dotted yellow line)



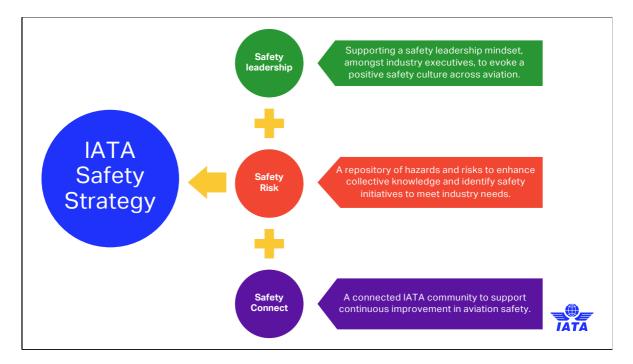
Aviation is the safest form of long-distance transport the world has ever known.

As air traffic returns to pre-pandemic levels of growth, while confronting a shortage in the skilled workforce, it's more important than ever that we focus on safety improvement.

The effective management of change is critical to maintaining safe operations while adapting to an evolving situation.

This has led to IATA reviewing its strategic approach to safety to enable it to be more responsive to rapid change in aviation and ensure we adapt quickly to best serve airline needs.

The IATA Safety Strategy aims to make this theoretical aim a practical reality and in the next few slides, I will deliver a quick overview, including the aforementioned changes to IOSA.



Now let's turn to the new IATA Safety Strategy.

It is focused on delivering a holistic approach to mitigating identified aviation hazards and safety risks.

This Total System Approach to aviation safety aligns priorities to ensure IATA delivers safety initiatives that serve the needs of IATA members and the wider industry.

As previously noted, aviation is considered an 'ultra safe' form of mass transport.

Therefore, many safety initiatives are not transformational – instead it's more about identifying where marginal gains may achieve an improvement in safety performance.

The Strategy also aims to 'future-proof' our support to industry by continually reviewing, and prioritizing issues that are of most concern to IATA members and delivering outcomes that meet industry needs.

The three 'pillars' of the IATA Safety Strategy are around Safety Leadership, Safety Risk and Safety Connect .



I would like to just touch on the ongoing work

The Background

Accident investigations have identified that Safety Culture enhances safety performance and reduces the likelihood of accidents.

Research has identified Leadership as the strongest factor affecting safety behavior, especially in high-risk sectors. Safety Leadership in an organization is thus a prerequisite for a positive Safety Culture, enabling open reporting; a just, learning culture; and a successful, and effective, approach to managing safety.

IATA has developed the Safety Leadership program to bring together these critical elements.

Supporting industry executives in evolving organizational Safety Culture and promoting Safety Leadership behaviors, values and practices, embedded in the IATA Safety Leadership Charter are at the heart of the program. The Safety Leadership Charter is meant to encourage industry executives to adopt - and implement in practice - approaches that enhance the effectiveness of safety risk management.

The program aspires to advance industry collaboration to grow, strengthen and promote aviation's safety DNA through safety information-sharing and sharing of best practices and Safety Talks,.

These Safety Talks are posted on the Safety Leadership page of iata.org.

Our time is short but I'd like to give you a small sample of these talks

[Start video]

[after video ends] I encourage those who are interested in seeing the full length talks to visit https://www.iata.org/en/programs/safety/safety-leadership/



Now let's look at how the other two pillars, Safety Risk and Safety Connect, in combination with the Safety Leadership Pillar, contribute to the overall Safety Strategy.

The IATA Safety Risk Management Framework repository of aviation hazards and risks, captured from across industry, allows for better analysis of systemic safety issues through detailed Safety Risk Assessments using IATA and industry expertise.

It will interface with IATA Global Aviation Data Management programs to ensure any intelligence, identified from data trends, is fed into the Safety Risk Management Framework to highlight new and emerging issues.

This analysis, and collation, of hazards and risks in one place provides industry with an improved risk picture - the sharing of information supports collective understanding of issues and their effective management.

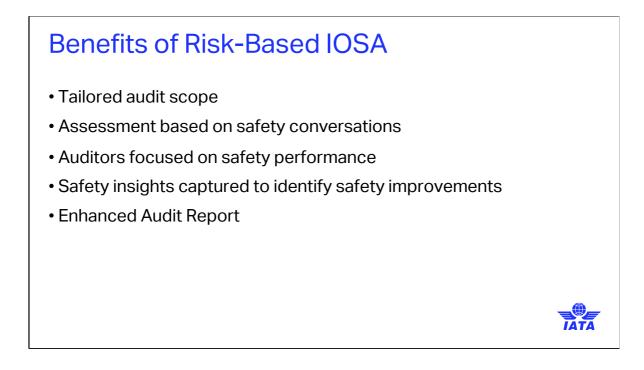
This approach is currently being taken with our examination of unstable approaches, as highlighted within the IATA Operational Safety Notice, and I'm pleased at the collaboration across industry to address this issue.

The last pillar, Safety Connect, serves as a driver for more active industry engagement, including twoway exchange of intelligence, and sharing individual experiences, to identify and prioritize IATA safety initiatives that meet industry needs and lead to improved safety performance.

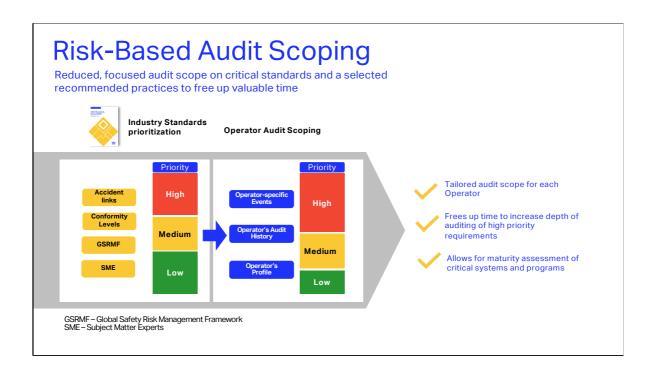
In sum we believe the new IATA Safety Strategy will deliver better safety outcomes to achieve a continued reduction in the all-accident rate in aviation.



- Now let's turn to what I referred to earlier, which is the introduction of a risk-based approach to IOSA.
- So what do we mean by a Risk-Based IOSA and why are we introducing it?
- In today's dynamic environment, airlines need an IOSA that focuses on specific areas where potential safety risks have been identified within their operation rather than applying a "one-size-fits-all" approach.
- With a risk-based audit, the audit scope will be tailored for each airline. Furthermore, the new approach introduces a maturity assessment of the airline's safety-critical systems and programs.
- Focusing on pertinent safety risks, while maintaining a baseline of safety, will increase the effectiveness of the audit and contribute to the overall industry goal of reducing the accident rate.

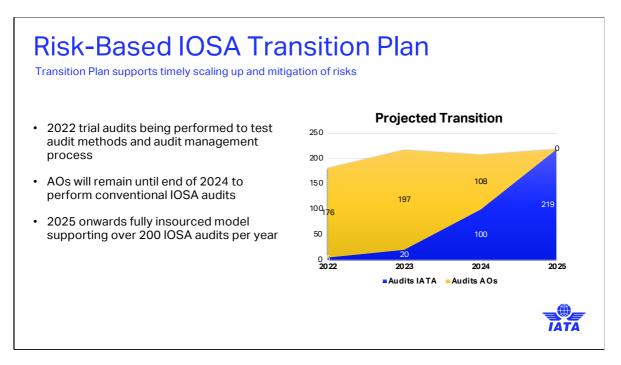


- Here's a summary of the key benefits of moving to a risk-based audit:
- An audit bespoke for each and every airline on the IOSA registry that focuses on individual operator profile needs including risk, organizational performance and audit history.
- Safety insights captured to deliver safety improvements which support the continuous reduction in the global accident rates.
- Improved confidence in audits conducted on code-share partners by focusing on safety performance instead of 'box ticking' of 960 plus IOSA standards and recommended practices (ISARPS).
- Improved auditor performance, through enhanced competency training, to support safety conversations during audits to support the seamless transition to risk-based auditing.
- Enhanced standardization of auditors, though direct management of the whole IOSA auditor pool by IATA, to improve confidence in auditor competency and consistency of approach during audits.
- Improved, and enhanced, quality assurance program focused on auditor performance and delivery of audits that support the continued evolution of IOSA as the gold-standard in safety audit programs.



Risk-Based IOSA:

- Moves away from the 'one-size-fits-all' approach, and therefore better targets an operator's safety-relevant areas by prioritizing industry standards;
- It relies on assessing multiple aspects of an operation including assessing systemic issues, and operator specific issues, to design a tailored audit scope for each-and-every operator;
- This ensures we focus on specific areas of an airline's operation, to examine where safety risk may be more critical, and understand how these risk are being effectively managed;



The slide here shows the transition to the new risk-based audit program and, by 2025, all IOSA audits with be conducted under this new methodology.

