



Safety

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To represent, lead and serve the airline industry



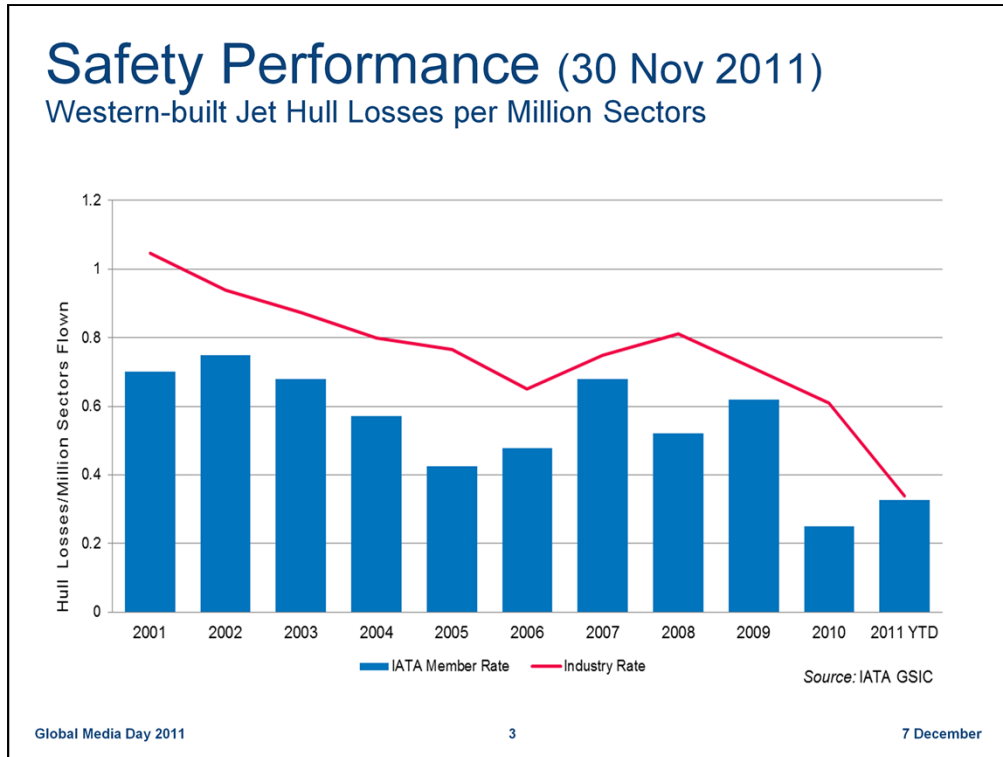
Safety - Content

1. Safety Performance 2011
2. Runway Safety
3. Fatigue Risk Management Systems
4. Global Safety Information Exchange (GSIE)
5. Global Safety Information Center (GSIC)
6. IATA Operational Safety Audit (IOSA)
7. IATA Safety Audit for Ground Operations (ISAGO)
8. IATA Ground Operations Manual (IGOM)



I will speak about eight topics today:

1. Update on the airlines' safety performance 2011
2. A few words on runway safety and IATA's actions
3. Fatigue Risk Management Systems and the new industry guide
4. Global Safety Information Exchange (GSIE) – agreements and accomplishments
5. Global Safety Information Center – collection of information
6. IOSA enhancements in 2011
7. ISAGO
8. The IATA Ground Operations Manual



As of the end of November, global safety performance is at the best level recorded, and is 49% better than the same time last year (0.34 vs. 0.67 in 2010 at end of November).

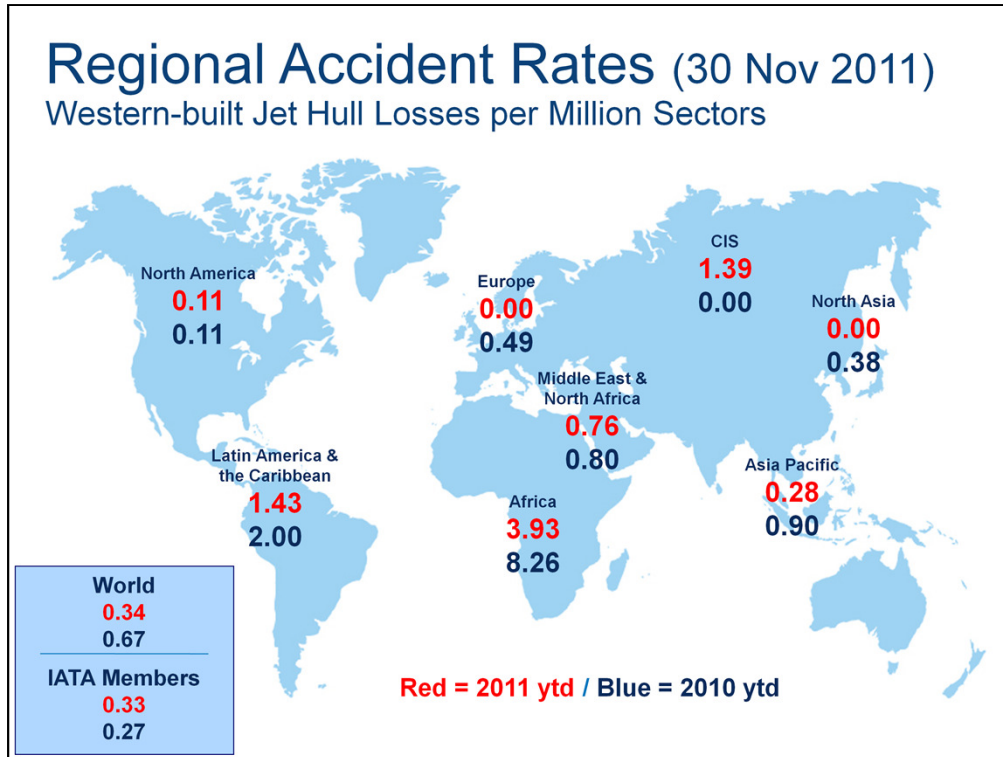
Total Western-built jet hull losses year-to-date, are 9 vs. 17 at the same time last year.

There were no Western-built jet hull losses in Europe and North Asia.

Background information:

Number of accidents is lower for YTD, in comparison to 2010:

- 33% of all accidents so far involved members versus 30% at the same time last year
- 12% of all accidents involved Western-built Jet hull losses versus 18% at the same time last year
- 29% of all accidents were fatal so far versus 24% at the same time last year
- The number of fatalities is lower than last year's at this time (486 vs. 784)



Looking into **regional safety** performance as of 30 November - note that performance this year is shown in red.

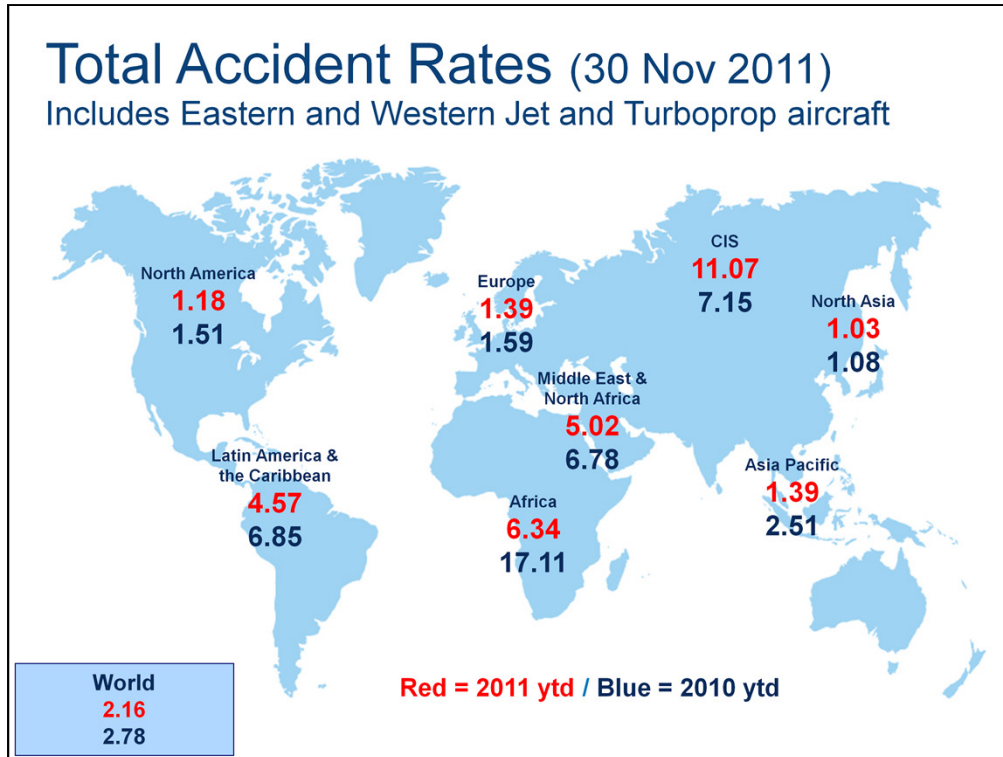
Europe and North Asia have zero western-built jet hull losses.

Latin American & the Caribbean, Middle East and North Africa and Asia Pacific and Africa rates improved from 2010.

North America is the same as last year and CIS had more Western-built jet hull losses than in 2010.

Here is a little more information on Africa:

- Overall African performance is 42 % better. Also, as I will note a little later, in the IOSA member slide, all Africa IOSA-members had 0 accidents so far (until 30 Nov) in 2011. This is a great achievement for Africa.
- The IATA Implementation Program for Safe Operations in Africa (IPSOA) program, launched in 2009, was a great success in Africa.
- This program was an IATA funded program to ensure that all IATA carriers had operational Flight Data Analysis (FDA) programs.
- All carriers in the program met the program targets, and three carriers exceeding the desired performance level.
- It will be followed by the very impressive Flight Data eXchange (FDX) program via the IATA Global Safety Information Center, launching in late 2011 for all IATA carriers in AFI, with an expansion of the FDX program to LATAM in 2012.



This shows the total accident rates and includes both Eastern and Western jet and turboprop aircraft.

The rate is better than last year.

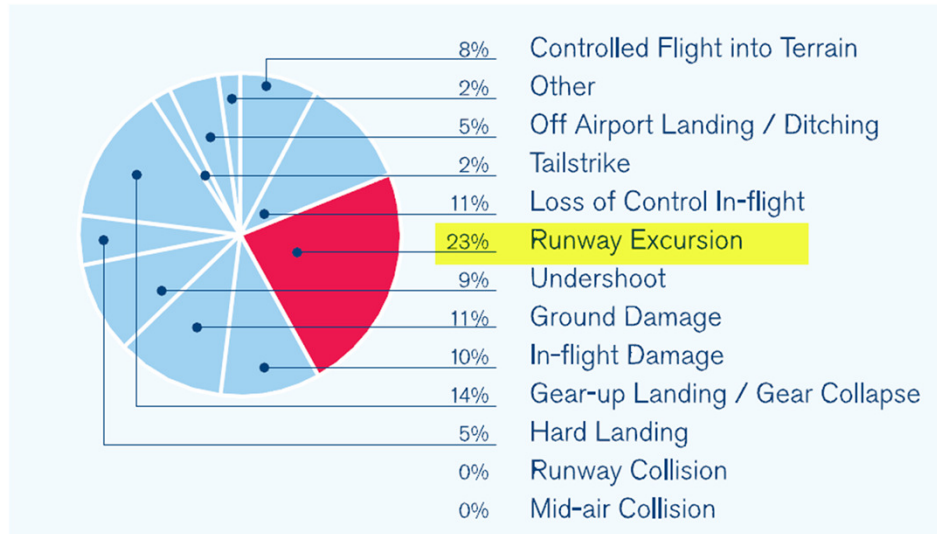
All regions are better than last year except for the CIS.

Background information:

Some highlights include:

- Africa is 73% better than last year
- Middle East and North Africa is 26% better than last year
- Latin America and the Caribbean is 33% better than last year
- CIS is 55% worse than last year

Runway excursions Still most frequent type of accidents



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6

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There is still a mix of most frequent types of accidents but runway excursions are definitely still the most frequent type. This is a snapshot from the 2010 Safety Report.

IATA understands that there is still a lot of work that needs to be done in this area.

I will talk a little later about IATA's response and actions to decrease runway excursions using the Global Safety Information Center.

But first I will talk a little about IATA's response to runway excursions with the Runway Excursion Risk Reduction Toolkit.



Runway Safety

Runway Excursion Risk Reduction
Toolkit Contributors:



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IATA has published and distributed the second edition of the Runway Excursion Risk Reduction Toolkit (RERR) in May 2011.

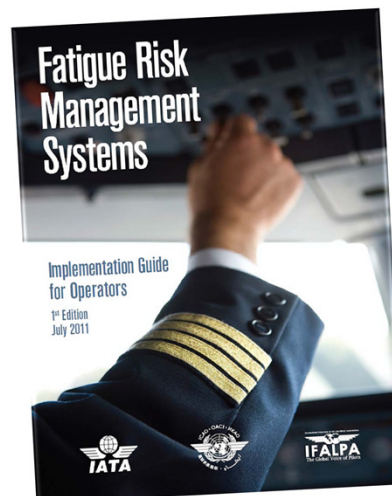
The RERR was released at the ICAO Global Runway Safety Symposium and includes contributions from many international safety organizations.

It can be downloaded for free at <http://gsic.iata.org>



Fatigue Risk Management Systems

- Combined IATA, ICAO, IFALPA workshops
- Several languages
- <http://gsic.iata.org>



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Another great safety accomplishment this year was the creation of the Fatigue Risk Management Systems (FRMS) Implementation Guide for Operators.

This FRMS implementation guide provides the first ever guidance material for operators for implementing a FRMS program, and was jointly produced by IATA, International Civil Aviation Organization (ICAO), and International Federation of Air Line Pilots' Associations (IFALPA).

FRMS is a methodology based on scientific principles that will allow operators to manage the fatigue-related risks particular to their types of operations and context.

The guide is in line with specific guidance for regulators and includes valuable insight into the methodology and framework for implementing an effective fatigue risk management program and an explanation of the science supporting it.

It is free to download at <http://gsic.iata.org>

In support of this cooperation and to further facilitate understanding and implementation, IATA, ICAO and IFALPA are delivering FRMS information workshops around the globe in 2011-12 to outline the context for the FRMS requirements from the perspective of each of the stakeholders – regulator, operator and pilot.



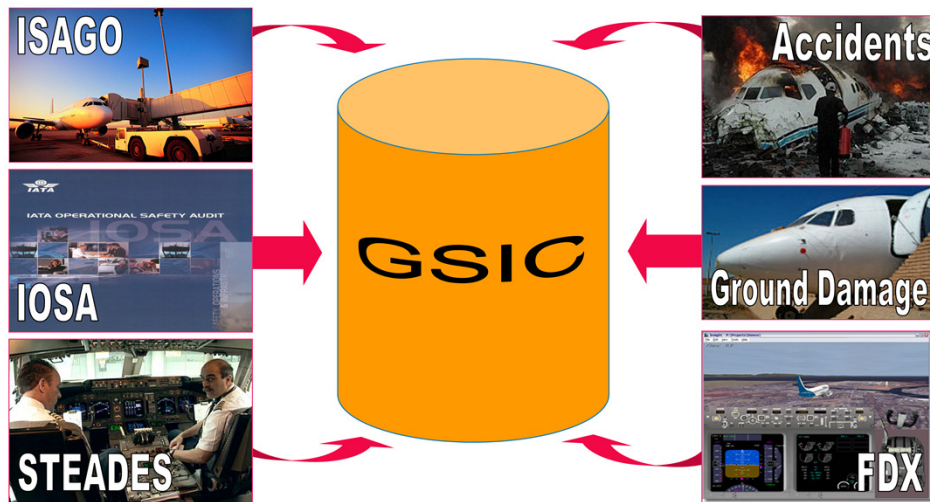
The Global Safety Information Exchange (GSIE) was launched in late 2010.

IATA together with the International Civil Aviation Organization (ICAO), the US Department of Transportation (DOT), and the Commission of the European Union (EC), signed a Memorandum of Understanding (MOU) to create the framework and path forward to launch the Global Safety Information Exchange.

This year, agreements on the following have been made:

- Harmonized global accident rate (ICAO and IATA)
- Coordinated accident recommendation process
- Preliminary operational information sharing
- GSIE member access to ICAO and the European Aviation Safety Agency (EASA) Safety Assessment of Foreign Aircraft (SAFA) results
- ICAO “Safety Index” proposal for states
- Harmonized technical assistance model

Global Safety Information Centre (GSIC)



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10

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Now a few words on the Global Safety Information Center.

GSIC allows us to collect information from six different databases – with over 500 organizations currently contributing data.

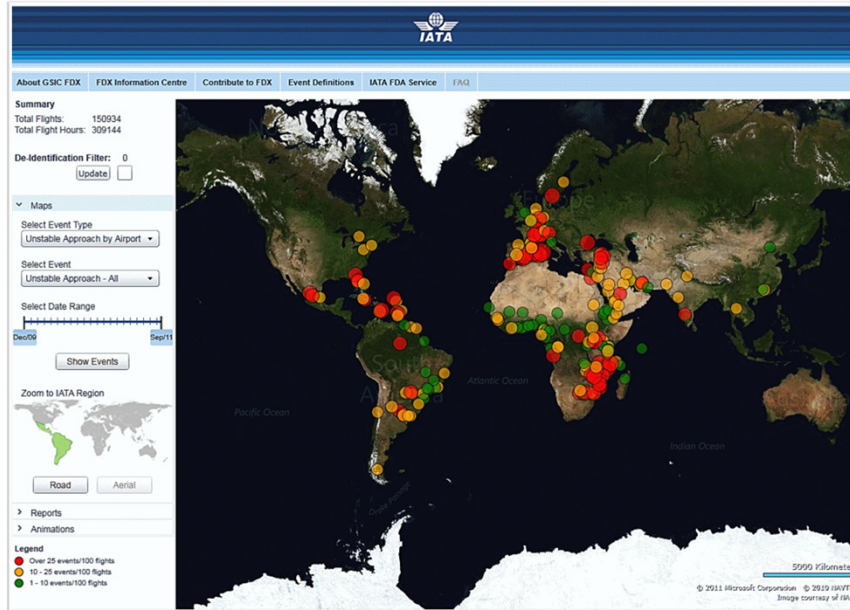
For example, as I mentioned before when I spoke about using GSIC to improve runway excursions - GSIC allows us to collect information about runway excursions to help us learn more about the problem and collectively find solutions and ways to mitigate the risks for runway excursions.

GSIC collects information from the following six databases.

- IATA Safety Audit for Ground Operations (ISAGO) - audit findings and corrective actions
- IATA Operational Safety Audit (IOSA) - audit findings and corrective actions
- Safety Trend Evaluation Analysis Data Exchange System (STEADES) - audit findings and corrective actions
- Accidents - Global Accident Database
- Ground Damage - Aircraft damage reports during ramp servicing
- Flight Data eXchange (FDX) - this database combines Flight Data Analysis (FDA) from multiple carriers into a global analysis

GSIC – FDX

Unstable Approaches by Airport



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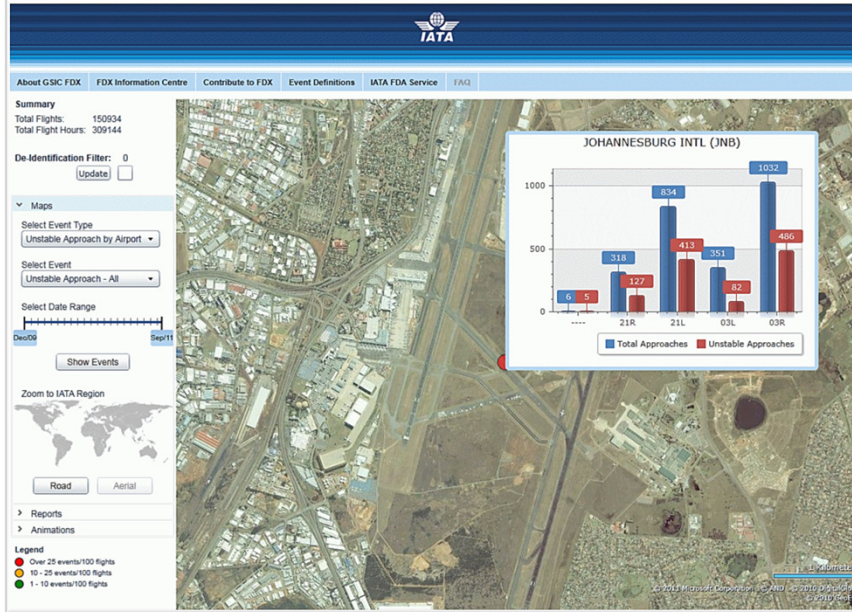
FDX is one of the six databases GSIC collects information from (as mentioned in the previous slide).

Unstable approaches at airports is an example of the data that is being collected in the FDX.

- The red dots represent over 25 events/100 flights
- The orange dots represent 10-15 events/100 flights
- The green dots represent 1-10 events/100 flights
- Currently there are over 20 carriers contributing this information and over 150,000 flights.
- These color coded dots indicate conditions where an approach was not flown perfectly – even a momentary deviation is recorded – and do not necessarily indicate unsafe conditions.

GSIC – FDX

Unstable Approaches by Airport per Runway



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12

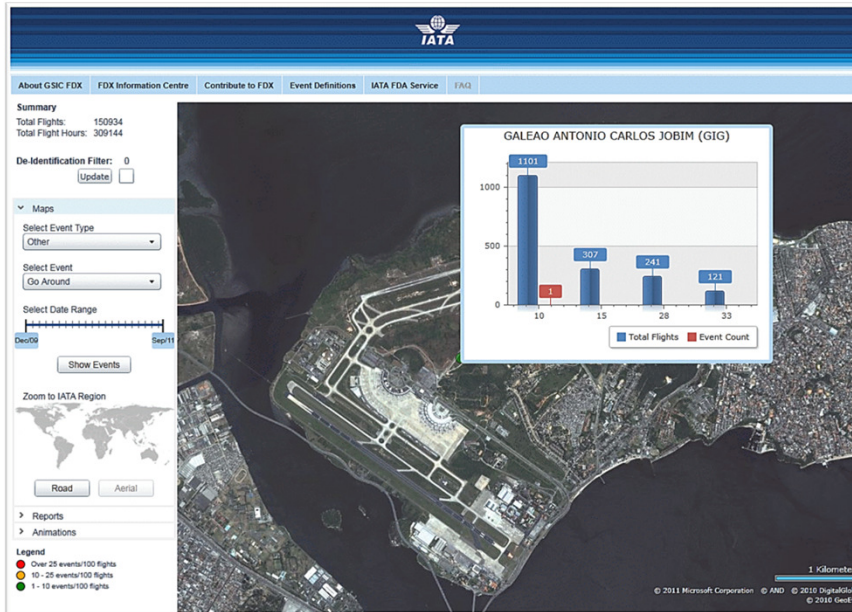
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This display monitors pilot and Air Navigation Service Provider (ANSP) performance by every runway (globally) based on manufacturer's approach performance recommendations (sink rate, airspeed, rate of descent, instrument approach glideslope compliance, etc.).

Reducing the number of unstable approaches has a direct effect on reducing the number of runway excursion accidents.

GSIC – FDX

Go Around



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13

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This display shows the “go around rate by runway”.

Go-arounds may be caused by numerous reasons. Some of the most frequent reasons for go-arounds include, weather (e.g., fog), traffic on the runway, a poorly flown approach, birds, etc.

Monitoring go-arounds enables safety improvements.

It also allows many stakeholders to monitor runway performance (thereby increasing capacity) and environmental issues such as noise and fuel use.

It may potentially result in procedural changes to reduce the number of go-arounds.

GSIC – FDX

Global Animation
Archive



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14

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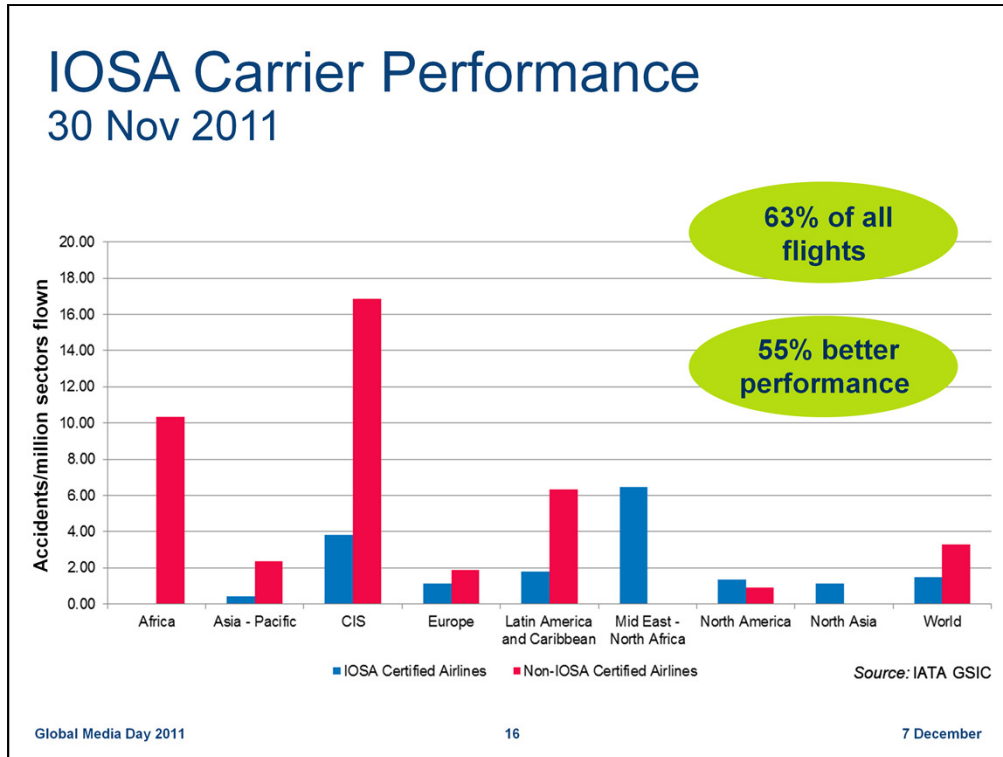
The FDX also includes a number of animations showing animations of flight data where aircraft were not operated properly.

These animations may be used by training departments during pilot training to reduce these types of events.

Safety video

IOSA Carrier Performance

30 Nov 2011



Now I'll switch gears and speak a little about auditing.

The IATA Operational Safety Audit (IOSA) program is an internationally recognized and accepted evaluation system designed to assess the operational management and control systems of an airline.

IOSA's quality audit principles are designed to conduct audits in a standardized manner.

IOSA carriers represent 22% of all commercial carriers globally, and 63% of all commercial flights.

This graph indicates that the IOSA registered carriers had an accident rate up until 30 November that was 55% better than non-IOSA registered carriers.

55% difference clearly indicates that IOSA is largely contributing to lower the accident rate around the world.

I would also like to emphasize again that IOSA carriers in Africa have 0 accidents so far (30 Nov 2011).



The “Next Level” of IOSA

- Continuous conformity
- Focus on implementation
- Reliability & integrity of airline quality systems
- Auditor standardization



European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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17

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The “next level” of the IOSA program is designed to address input coming from industry stakeholders and participants.

It is structured to ensure airlines, through the process of ongoing internal auditing, are in full-time conformity with the IOSA standards.

The registration renewal audit will still be conducted by an Audit Organization (AO) every 24 months using a modified and efficient assessment model.

Under the current IOSA program, many airlines only achieve such conformance every 24 months as they prepare for the registration renewal audit conducted by the AOs.

To address an industry perception that IOSA does not adequately assess implementation of the IOSA standards, the next level of IOSA includes new auditing tools and activities that are all designed to ensure the airline has the IOSA standards implemented. Implementation of the IOSA standards is the overarching focus of the next level of IOSA.

Also, since airlines will now be required to conduct ongoing internal auditing against the IOSA standards, the registration renewal audit conducted by AOs will include a focused assessment of the reliability of the airline’s quality assurance program, and in particular, the internal auditing function.

The next level of IOSA will not only bring an elevated focus to implementation, but will also achieve an improved level of auditor standardization throughout the entire system.

ISAGO Goals

- Enhance safety and reduce personnel injuries
- Reduce aircraft ground damage
- Avoid redundant audits

**9-45%
cost
savings**



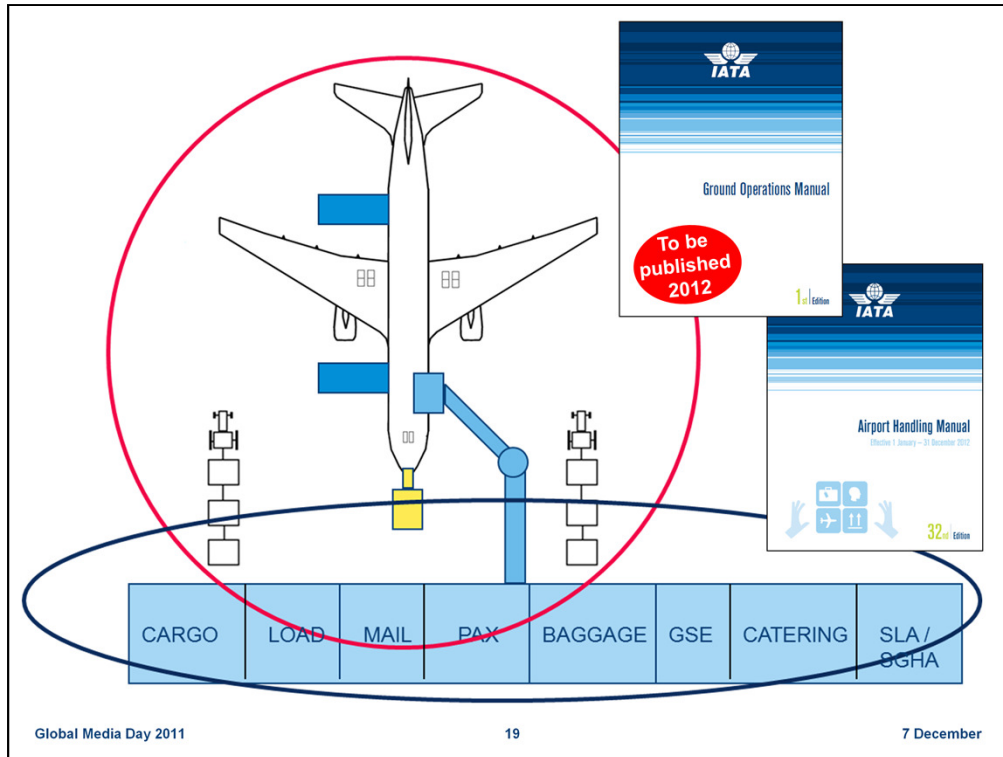
ISAGO aims to improve safety and reduce ground hazards that affect flight safety, personal injury, aircraft ground damage and to avoid redundant audits.

Since the inception of the program (May 2008) we have performed almost 400 audits – corporate, station, combined HQ and ST, initial and renewal.

There is a total of 132 station registrations worldwide at 107 airports.

The Airline Auditing Pool includes 44 member airlines – consisting of 170 ISAGO qualified auditors.

Cost savings of 9-45% have been identified for airlines that participate in ISAGO.



From the start, ISAGO and IATA Ground Operations Manual (IGOM) were designed to be an integrated approach to solving the problem of inconsistent ground handling.

The relevant parts of the Airport Handling Manual (AHM) are also incorporated into the basic structure of ISAGO and IGOM.

IGOM can form the core of a comprehensive airline / service provider GOM, but it can also stand on its own as a default GOM for use when specific GOMs are lacking or not available.

It will be easy to use and implement – bringing consistency and standardization to the ground operations industry.

Authorities can utilize these two initiatives to implement an orderly ground operation environment which has been developed and approved by the respected experts in the field, reducing the need for the authorities to implement their own initiatives.

IGOM is for the ramp and for operations that go on around the aircraft as well as aspects further back up the chain that have a direct impact on the aircraft.

ISAGO does the auditing of, amongst other things, the procedures and instructions that IGOM suggests.

There is considerable overlap with content of the airport handling manual, but it is from an instructive perspective.



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