

## 11<sup>th</sup> Incident Review Meeting (IRM) Bulletin

### Introduction from the Safety Group Chairman

The IATA IRM in Dallas was well attended by airlines from across the globe. Safety has always been a priority in IATA and our drive to expand the IRM to a wider group of members and supply the IATA Safety Group (IATA SG) with recommendations on which to build a safety strategy has proved successful.

I am grateful for those who shared incidents at the IRM. Discussing these incidents in a wide group of experts from our industry provides value for all of us. The enhanced learning gained during the subsequent discussions provides useful information for individual airlines to take home, thereby allowing us all to continually improve our own processes and procedures, where required.

After the IRM, the IATA SG discussed a number of the points raised. My chairmanship has now come to the end of its term and Mattias Pak from Cargolux has taken over as the Chairman of the IATA SG. Mattias Pak can be contacted by e-mail on Mattias.Pak@cargolux.com if you wish to highlight a safety concern to be considered by the SG.

Thank you for your excellent support at the IRM and I wish you a safe future ahead and look forward to seeing you at the next meeting.

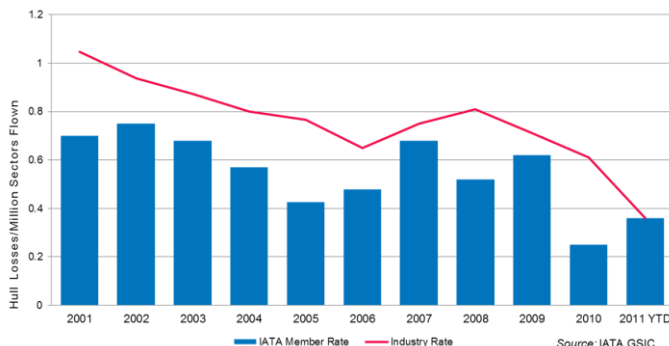
Best regards,

Rick Howell  
richard\_howell@cathayair.com, Cathay Pacific Airways  
IATA Safety Group Chairman

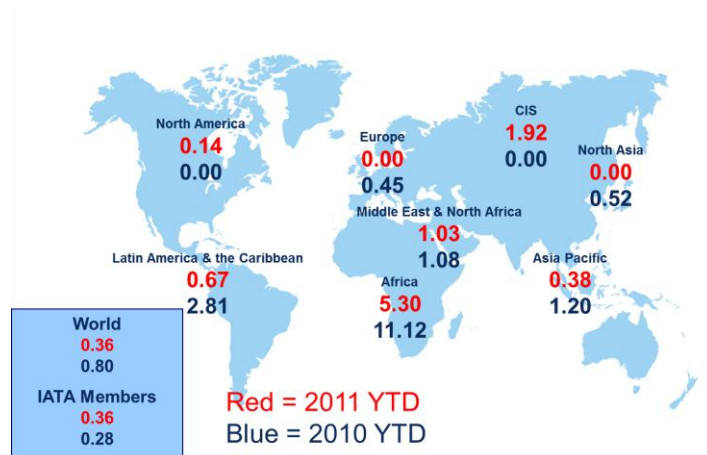
### Outcomes of IRM/11 Session

**Accident Rate Update:**  
**Year-to-date 2011 (as at 31 Aug: 2011 vs. 2010)**

### Western-built Jet Hull Loss (2001-YTD 2011)



### Western-built Jet Aircraft Hull Loss Rate per Operator Region (YTD 2011 as at 31 Aug)



### Total Accident Rate per Operator Region (YTD 2011 as at 31 Aug)



### All Accidents Year-to-date 2011 (as at 31 Aug: 2011 vs. 2010)

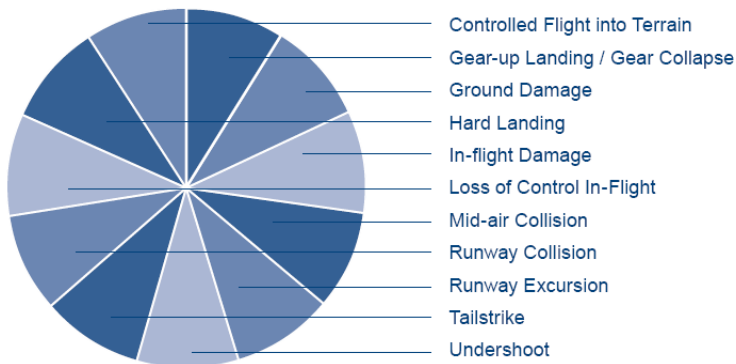
	As at 31 Aug 2011	As at 31 Aug 2010
Total Accidents	59	66
Accidents with IATA Members	17	22
Western-built Jet Hull Losses	7	15
Total Fatal Accidents	17	14
Fatalities	399	652

### Overview of all Accidents: Year-to-date 2011 (as at 31 Aug: 2011 vs. 2010)

- Number of accidents is lower YTD
- 29% of all accidents so far involved members
  - versus 33% at the same time last year
- 12% of all accidents involved Western-built Jet Hull Losses
  - versus 23% at the same time last year
- 29% of all accidents were fatal so far
  - versus 21% at the same time last year
- The number of fatalities is lower than last year

### Main Issues from Incident Review Meeting

During each IRM meeting, member airlines discuss incidents, accidents or any occurrence with the potential risk of causing an accident. IATA and the member airlines classify accidents as per the following categories, presented below.

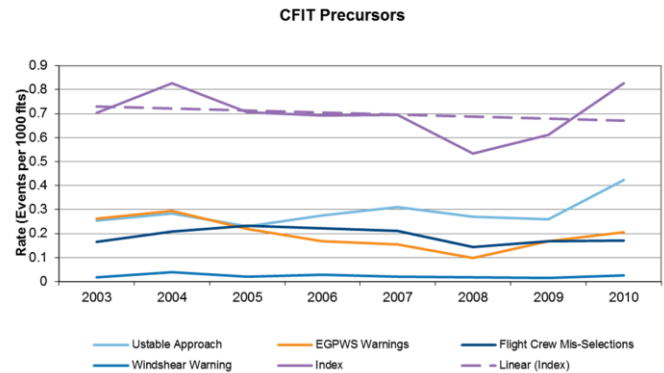


The following section presents the issues discussed at this IRM, in some of these accident categories, and the recommendations noted during the meeting. The occurrences presented either resulted in these types of accidents (e.g. CFIT) or had the potential risk of resulting in them. Presentations included events associated with all types of aircraft (turboprop, regional jets, narrow body and wide-body jets) and in all regions of the world. Each section of the Accident Categories was presented with high level analysis of accident category precursors found in STEADES program.

The standard IATA anti-competitive rules were reviewed at the start of the meeting, along with the “Chatham House rules” regarding de-identification of the information from the meeting.

### Controlled Flight into Terrain

#### STEADES Precursors



#### Threats identified at IRM:

- Lack of flight crew awareness
- Non-precision approaches
- Complacency and compliance with SOPs
- Loss of visual conditions below MDA

#### IRM Recommendations:

- Improve provision of Precision or RNP approaches
- Improve training in regards to Go-around maneuvers
- Promote ANSP awareness of risk of late or multiple runway changes to flight operations
- Promote effective approach briefings

### Gear Up Landing / Hard Landing

#### Threats identified at IRM:

- Wrong application of processes in refurbishment
- Low experience levels of flight crew
- Complacency, distraction and lack of regular cues
- Airbus gear up protection system dependent on Radio Altimeter (may be affected by terrain)

#### IRM Recommendations:

- Two events were reviewed that recognised the value of tower fly-by and airborne intercept to confirm landing gear malfunctions
- Some airports with unusual terrain may require database specific modifications to ensure functional warning systems
- Emergency response plans should consider use of time before potential incident/accident

## Ground Damage



### Threats identified at IRM:

- Deficient accuracy of taxi lines and clearance margins
- Deficient Flight Crew judgment
- Larger new generation aircraft

### IRM Recommendations:

- Invite IFALPA, IFATCA, ACI, and CANSO to IRM
- Improve airport authority awareness and compliance and provision of safe taxi areas
- Improve training and awareness for flight crew
- Improve airport design for larger aircraft
- Consider technical solutions to assist flight crew
- Airlines should promote more regular reporting
- IATA Actions:
  - IATA to discuss with ACI an airport audit program
  - IATA to work with ICAO to show airport audit reports on iSTARS
  - IATA to work with ACI to identify airports where airport safety teams (RST) are needed

## In-flight Damage



### Threats identified at IRM:

- Lithium battery fires
- Lack of control or regulation – exemptions to DG regulations for Lithium batteries
- Lack of training for shippers
- Lack of notification to flight crew
- Passengers unaware of limits

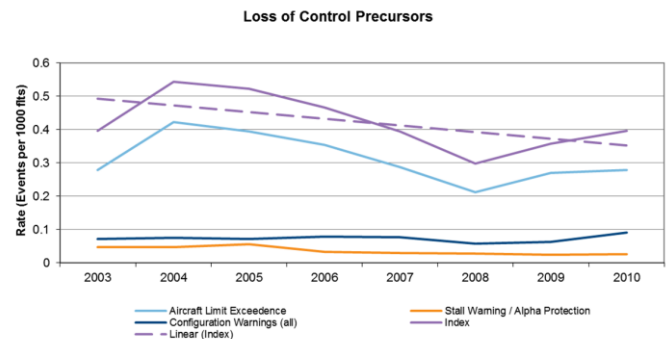
### IRM Recommendations:

- Support industry and promote further initiatives to ensure lithium batteries are controlled as Dangerous Goods
- Improve training and awareness for flight crew
- Risk must be considered for passenger and cargo flights

## Loss of Control In-flight



### STEADES Precursors



### Threats identified at IRM:

- Significant downdraft in cruise (> 10 minutes) due to mountain wave
- Lack of flight Crew awareness of speed reduction due to weather
- Loss of control is the largest accident category cause of fatalities
- Distraction (laser events)

### IRM Recommendations:

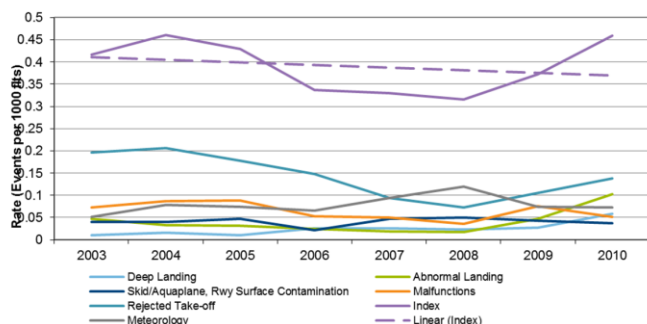
- Improve training standards /effectiveness of windshear awareness
- Improve meteorological forecasts / knowledge
- Promote dissemination of information by timely reporting
- Support and promote the revised standard stall recovery policy
- Promote effective learning from significant incidents that occur
- Continue to support control of lasers and awareness that distraction is the risk rather than medical issues
- Support the development of a LOC toolkit

## Runway Excursion



### STEADES Precursors

Runway Excursion Precursors



#### Threats identified at IRM:

- RTO stopping performance with failed brakes / blown tires needs additional investigation
- Decision making for the Go / No-go option
- Protruding centerline lights on the runway punctured the tire
- Ineffective or lack of briefings
- Lack of information

#### IRM Recommendations:

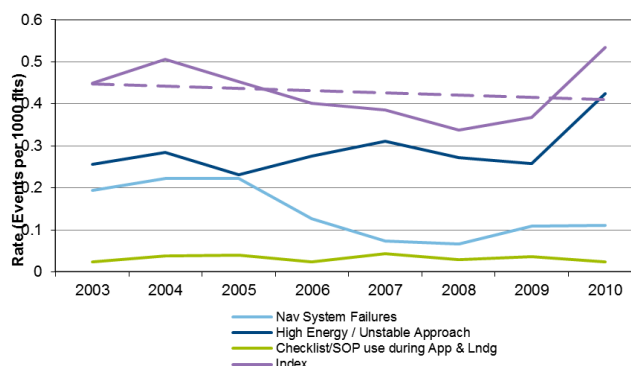
- Review options to improve training of decision making for continuing the take-off
- Ensure runway inspection requirements / standards are improved.
- All available cues to be used where runway confusion may exist and publicize such risk by NOTAM for awareness.
- Manufacturers are requested to provide guidance for braking with blown tire during RTO
- General enhancement of realism of RTOs in simulators and increase in fidelity

## Undershoot



### STEADES Precursors

Undershoot Precursors



#### Threats identified at IRM:

- Unreliable ILS indications
- Fleet/type navigation/approach behavior versus specific airport design/layout

#### IRM Recommendations:

- Improve wider industry awareness by dissemination of information of identified hazards by NOTAM and status of digital NOTAMS
- Promote a focus on risk controls and their effectiveness.

## General

### Threats identified at IRM:

- Inappropriate publication of information while safety accident investigation is still underway
- Thrust reverser failures not easily detectable by crew
- Debris on runway
- Known hazards that exist over a long period
- Human factors - managing operational pressure
- RNAV approach building by crews introducing error

### IRM Recommendations:

- ATC to ensure that details are passed to departing aircraft (e.g. if debris is found and general information such as windshear...) and improve information between aircraft and ATC and vice versa
- Early information from safety investigations through interim reports to enable operators to take mitigation action
- Previous occurrences not communicated effectively to operators (NOTAMS)
- IATA to explore methods for sharing airport specific hazards

### IATA IRM Chairman Comments

Rick Howell has provided a good summary of the Dallas meeting and I thought I would add one thing:

The IATA IRM is a valuable tool. Members' support is essential in promoting the wide communication of significant incidents that allow us as individual operators to learn from and apply mitigation. The support of those who take part is fundamental to its success. Further development of the presentation format will help pinpoint why the event was brought to the group and what the expected learning points are. In most cases they are similar to the airline's own investigation or its recommendations, but it is important to capture those. I will work with the IATA team to simplify and evolve the presentation format to align with these goals.

I would like to personally thank Rick Howell for his time and commitment as the IATA SG Chairman. He has been an example to us all and has worked hard on our behalf's to improve safety in the industry. It was also very encouraging to see some metrics from STEADES being shared with us and as they develop further, we should have an even better value IRM to attend in future.

Best Regards,  
Captain Rod Young, IRM Chairman  
Head of Aviation Safety British Airways  
[rodyoung@ba.com](mailto:rodyoung@ba.com)

### IATA Director of Safety Comments

The IATA IRM is the only forum where representatives from all regional and airline alliance flight safety committees gather to share significant events, and your participation is greatly appreciated.

For the first time, we have included precursor indices for 4 accident categories based on operational safety reports from the IATA Global Safety Information Center (GSIC) Safety Trending Evaluation Analysis Data Exchange System (STEADES). STEADES is the world's largest database of operational safety reports, with more than 130 member carriers, 640,000 reports in the database, 120,000+ reports/year, and is experiencing a growth rate of over 20% per year. We will be adding additional indices as our analysis capabilities develop. STEADES also provides members with more than a dozen analysis reports/year, and provides 26 SMS benchmarks via GSIC to member carriers on a quarterly basis.

These precursor indices are still in development, and currently do not include any weighting for specific factors. Your input on the development of these indices is appreciated, including the consideration or removal of specific contributing factors.

To submit input, or join STEADES, you may contact Jill Sladen-Pilon at [sladenJ@iata.org](mailto:sladenJ@iata.org).

Thank you for your participation in this important international aviation safety meeting. The threats raised at IRM are captured and used by IATA and the SG to determine the SG agenda, strategic direction, and priorities for IATA. The more specific actions raised at IRM are reported back to the SG.

Best Regards,

Chris Glaeser  
Director, Global Safety  
[glaeserc@iata.org](mailto:glaeserc@iata.org)  
International Air Transport Association  
IRM/SG Secretary

### Next Incident Review Meeting – IRM/12

*The next IRM is planned to be held in China 24-25 April 2012.*

*For long term planning tentative dates for the fall IRM is scheduled for the week of September 24<sup>th</sup> 2012 in Europe.*