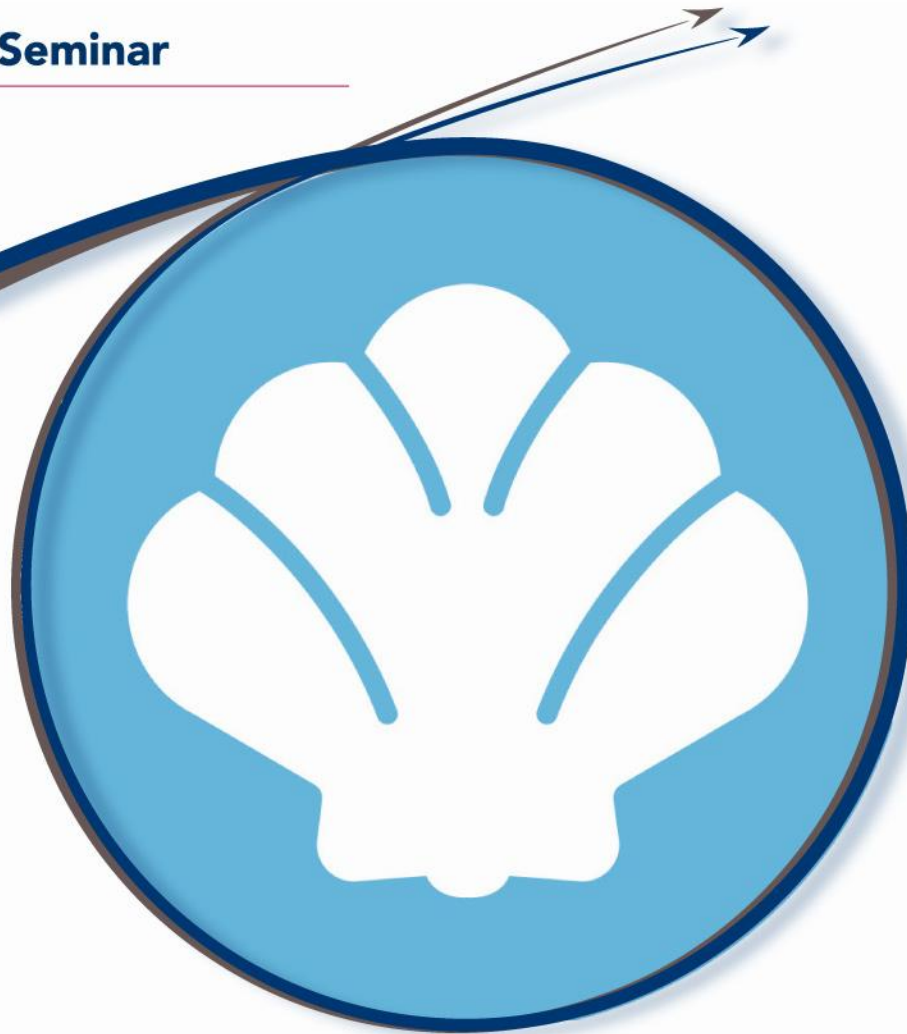


CANSO Africa Regional Safety Seminar

Transforming ATM Performance

28 October 2012

Cape Town, South Africa



Organised by



Hosted by



Available Technology

Speaker

Leago Stella Takalani
ATNS

Organised by



Hosted by

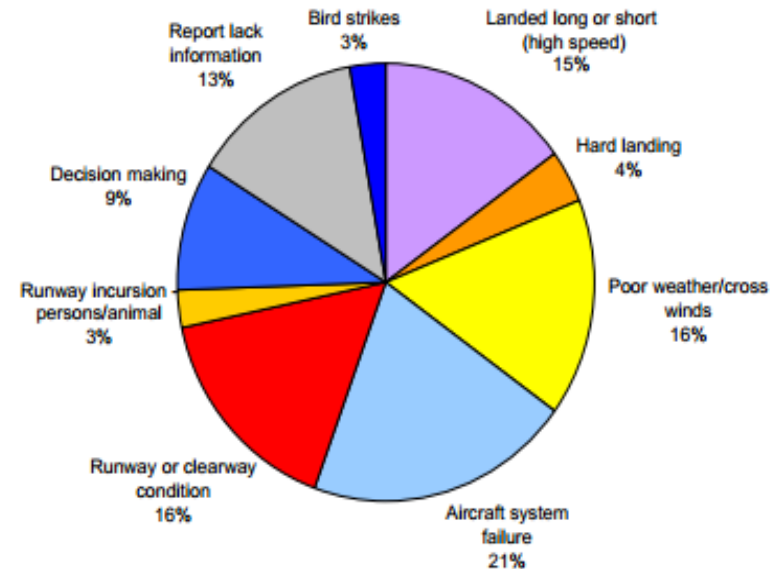


Introduction

- Runway excursions in the AFI region stats of 3.76, which is significantly higher than the global average of .5 per million departures*
- Top four risk factors contributing to runway excursion:
 - Aircraft systems failure
 - Runway or clearway condition
 - Crosswinds/ Gusts
 - Non compliance to SOP

* Source: 2004-2010 IATA data analysis

Underlying factors for Runway Excursions



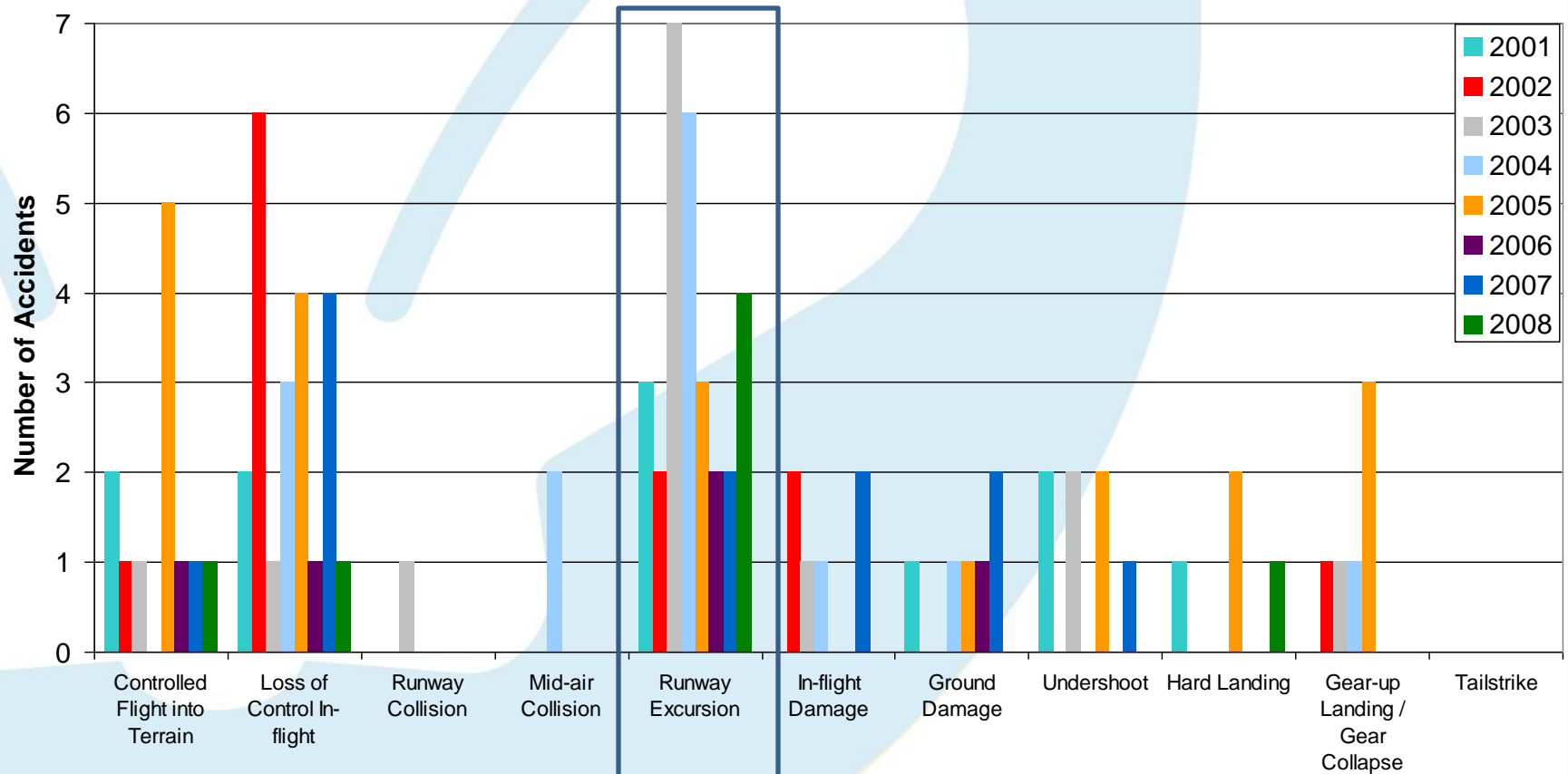
Organised by



Hosted by



AFI Region Accident Trend



Organised by



Hosted by



Challenges...Everyone has a role to play

Flight Operations

- Airport layout challenges, Frequency congestion and missed calls.

ATM

- Awareness on the importance of stabilized approaches

Aircraft Manufacturers

- Onboard technologies and information on aircraft performance limitations visa vi runway conditions.

Airports

- Runways not constructed and/or maintained to effectively maximize friction and drainage

Regulators

- Standardisation of metrics for oversight

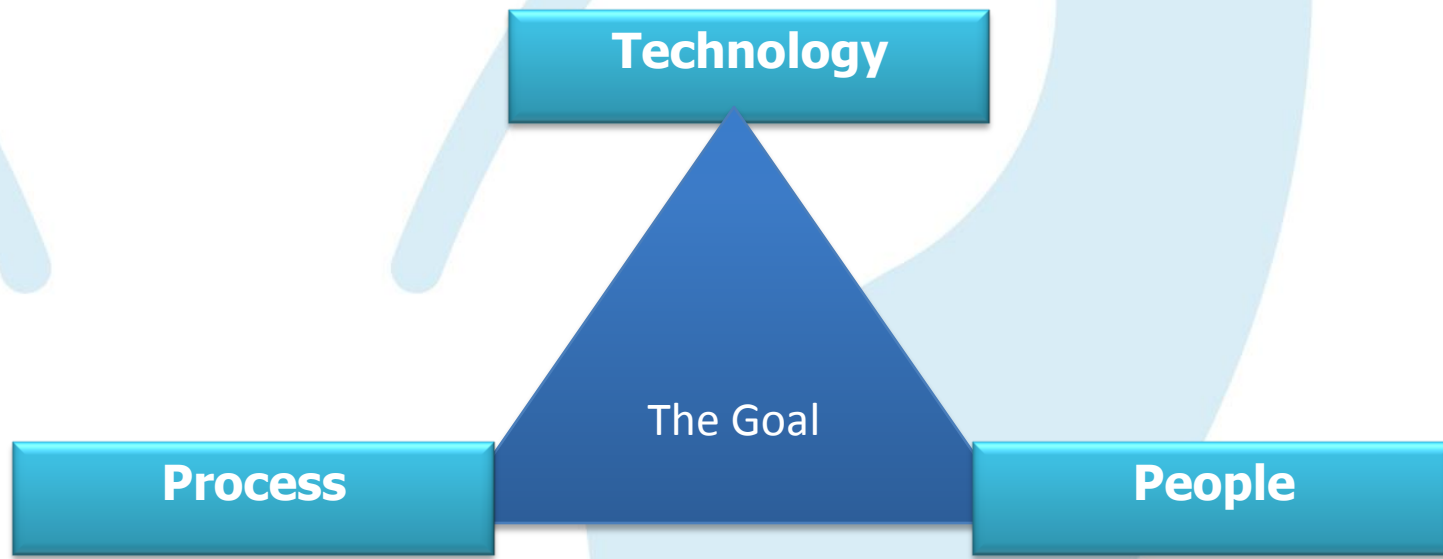
Organised by



Hosted by



Everyone has a role to play



Organised by



Hosted by



Solutions and Technologies Available

➤ **Flight operations**

- Upgrade of onboard equipment to match evolving technologies.
- Provide training and ensure adherence of the crew with SOP.

➤ **Air Traffic Management**

- ATC training focused on stabilized approaches
- ATM must understand the change of technology in the cockpit and its performance, as well as Airline SOP
- Collaboration in using experienced pilots as guest ATC instructors
- ATC familiarization with flight operations e.g. Jump seat
- Strict adherence to SOP (e.g. issuance of timely and accurate weather and airport conditions, RT)
- Investment in technologies e.g. SMR to improve LVOs
- Improved information systems for accurate data collection and analysis

Organised by



Hosted by



Solutions and Technologies Available

➤ **Airports**

- involvement in the local safety team collaborative decision making
- invest in technological advanced engineering materials for runway surface, arrestor bed systems e.g. EMAS, advance equipment for runway surface monitoring and management

➤ **Aircraft manufacturer**

- Development of Airbus (ROPS) and Boeing(SAAFER), and further developments of onboard solution

➤ **Regulators**

- The establishment of SMS which define specific and tangible KPI metrics.

Organised by



Hosted by



Mitigation strategies

- **Collaborative decision making among stakeholders.**
- **Shift away from reactive solutions**
- **Innovative and collaborative technological investments, to maximise on economies of scale**
- **Effective Information management systems**
- **Set a target and action plans that aim towards the deliberate attainment of the goal**

Organised by



Hosted by



Application of the technologies in ATNS

- Use of ASMGCS - provides monitoring and alerting service to aid tower controller in hazard resolution in bad weather (e.g. LVOs)
- Integration of stop bars into the A-SMGCS
- Weather radar and information available as a monitoring systems to provide immediate and timely information to pilots
- CAMU as a centralized tool to manage departures
- MAESTRO as a arrival management tool
- Currently investigating continental data link
- ATNS takes part in the local runway safety team, attending to factors contributing to runway incursions/excursions in order to collaboratively find measures to curb these events.

Organised by



Hosted by



Mitigation strategies

**All these initiatives require investment, but saves lives.
SAFETY FIRST, SAFETY ALWAYS!**

Organised by



Hosted by

