



EUROPEAN AVIATION SAFETY AGENCY
AGENCE EUROPÉENNE DE LA SÉCURITÉ AÉRIENNE
EUROPÄISCHE AGENTUR FÜR FLUGSICHERHEIT

| 10TH ANNIVERSARY |

Safety Conference 2013

October 2013

John Vincent
Deputy Director - Strategic Safety

Your safety is our mission.
easa.europa.eu

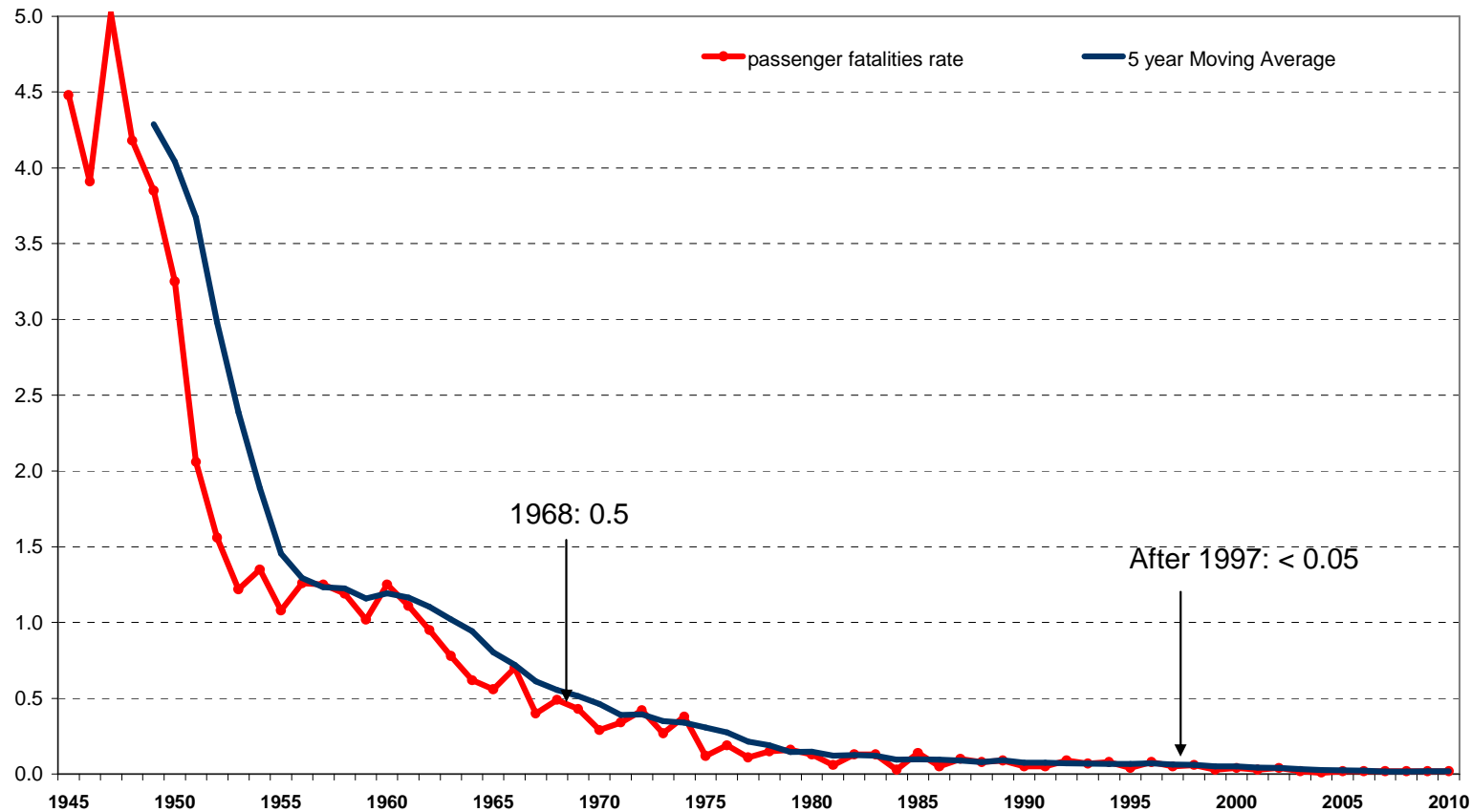


Aviation in itself is not inherently dangerous. But to an even greater degree than the sea, it is terribly unforgiving of any carelessness, incapacity or neglect.



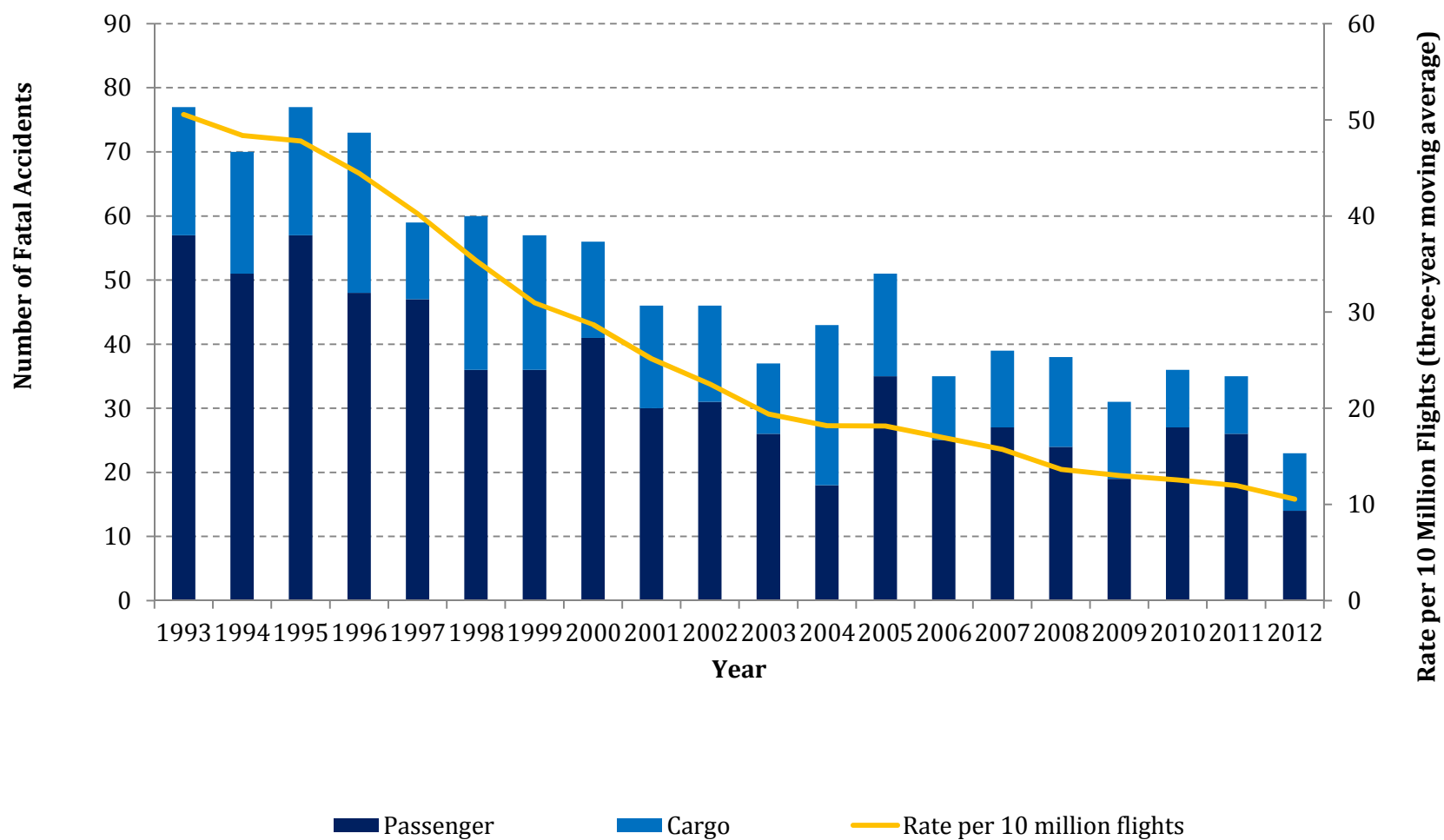


Global fatalities / 100 million pax miles





Worldwide Fatal Accident Rate





International

Global Aviation Safety Plan (GASP)



2013

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Regional – Europe - EASP

Integrated set of regulations and activities aimed at improving safety





Systematic Approach

Maintaining a high and uniform level of safety





Total Systems Approach

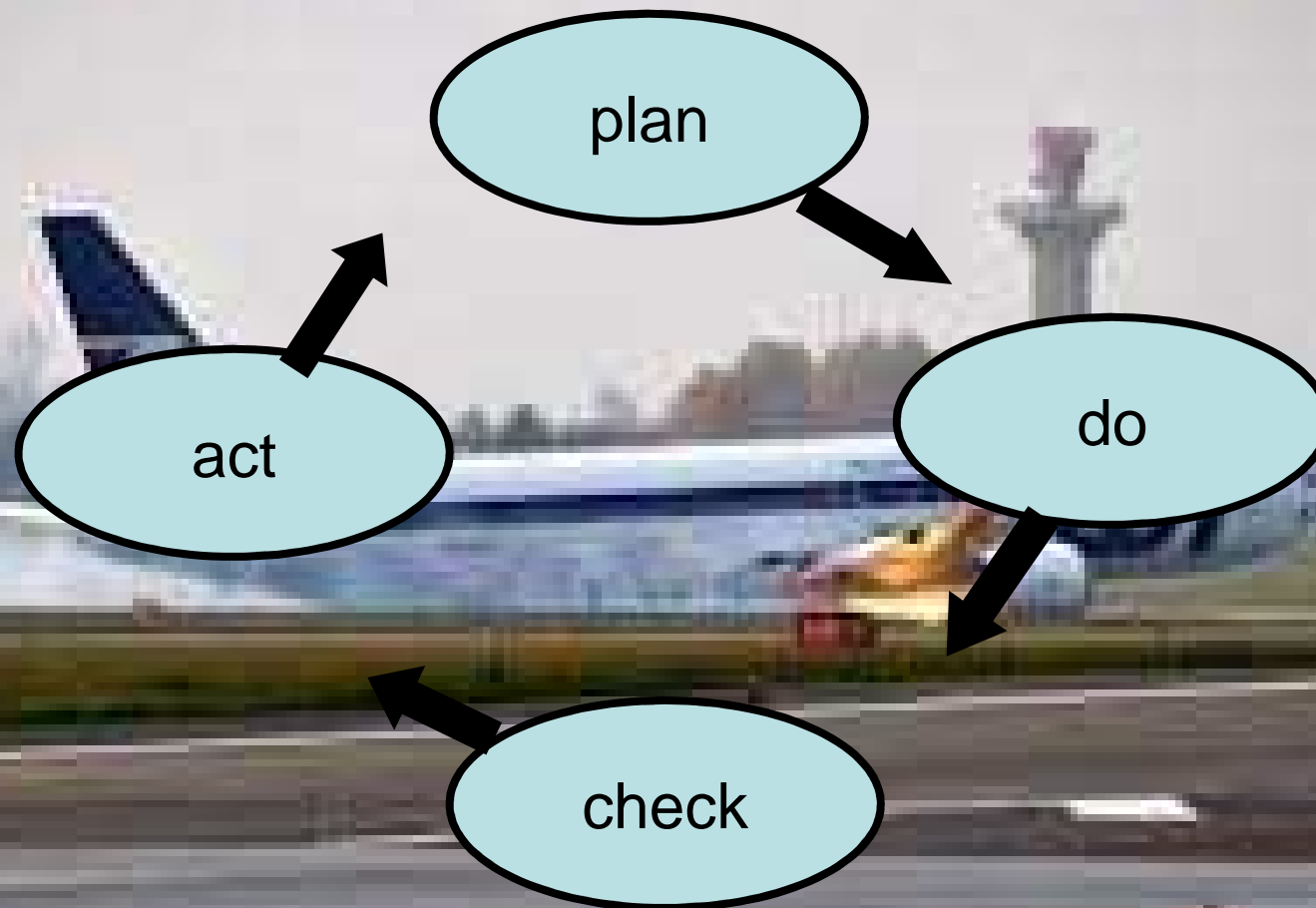
Connect the dots

Ground – Air





Continuous improvement





European Safety Plan – EASp

**a plan to prevent accidents
implementing Version 3
building Version 4**





European Safety Conferences

➤ 2009

- EASA Conference on pilot training: "Are pilots trained to meet the challenge?"

➤ 2010

- International Air Safety & Climate Change Conference (IASCC)
 - High Altitude Icing Environment
 - Water Ice in Turbine Fuel



European Safety Conferences

➤ 2011

- EASA Safety Conference: Staying in Control - Loss-of-Control Prevention & Recovery

➤ 2012

- Safety Oversight: Managing Safety in a Performance Based Regulatory Environment. Effective safety management is the recognised way forward



Water, Water Everywhere

▶ H_2O

▶ covers 71% of the Earth's surface

▶ exists in three states: liquid, solid (ice) and water vapour



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Still chilling after > 31 years

- Jan. 13, 1982 Air Florida fatal accident
- All but four passengers and one flight attendant of the 79 people aboard died in the crash into the 14th St bridge over the Potomac River. Four people on the bridge also were killed.
- Rescue crews search the ice-choked Potomac River under the northbound span of the 14th Street bridge after Air Florida Flight 90 crashed
- The NTSB determined that the probable cause of this accident:
- crew's failure to use engine anti-ice during ground operation and take off, their decision to take off with snow/ice on the aerofoil surfaces of the aircraft, and the captain's failure to reject the take-off during the early stage when his attention was called to anomalous engine instrument readings.



European Aviation Safety Programme

- European Aviation Safety Plan 2013-2016
- AER4.15 *Icing* Organise a safety conference to exchange views on the safety issue and identify mitigation opportunities
- The *Icing* environment relates to all aircraft structures and systems, and to all types of aircraft: general aviation, transport aircraft, and rotorcraft



Dangers of Winters Operations

“The aircraft started to taxi but by the time it got to the end of the runway it was still not lifting and finished up in a large snow drift”

1926





The Challenge is Now





And its not always obvious

- Residues are a hazard too



Last 10 Years

- Over 80 icing related accidents
- Resulting in 263 Fatalities
- Icing issues affect all types of operations – everywhere in the world



© State Ministry of Emergency Situations of Russia in the Tyumen region

aviation-safety.net





Runway Excursion





Loss of Control





Agency's research on icing



De-Icing Fluid Testing

Planned for 2014



High-altitude icing conditions

*Measurement campaign
planned for 2014*



Ice crystal formation

Completed

Ice accretion and release

On-going

Use of anti-ice additives

In review



Runway friction and
Aircraft braking efficiency

Completed



Summary

**International/Regional/National
Continue to identify risk mitigation
opportunities**

**Key factors from analysis of icing
related accidents show –**

Be Prepared

Be Alert

Your Safety is our mission.



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Thank you for your attention

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