



Runway Safety Occurrences: When friction is not good enough

**Runway Friction and Aircraft Braking Workshop
11-12 March 2010, Paris**

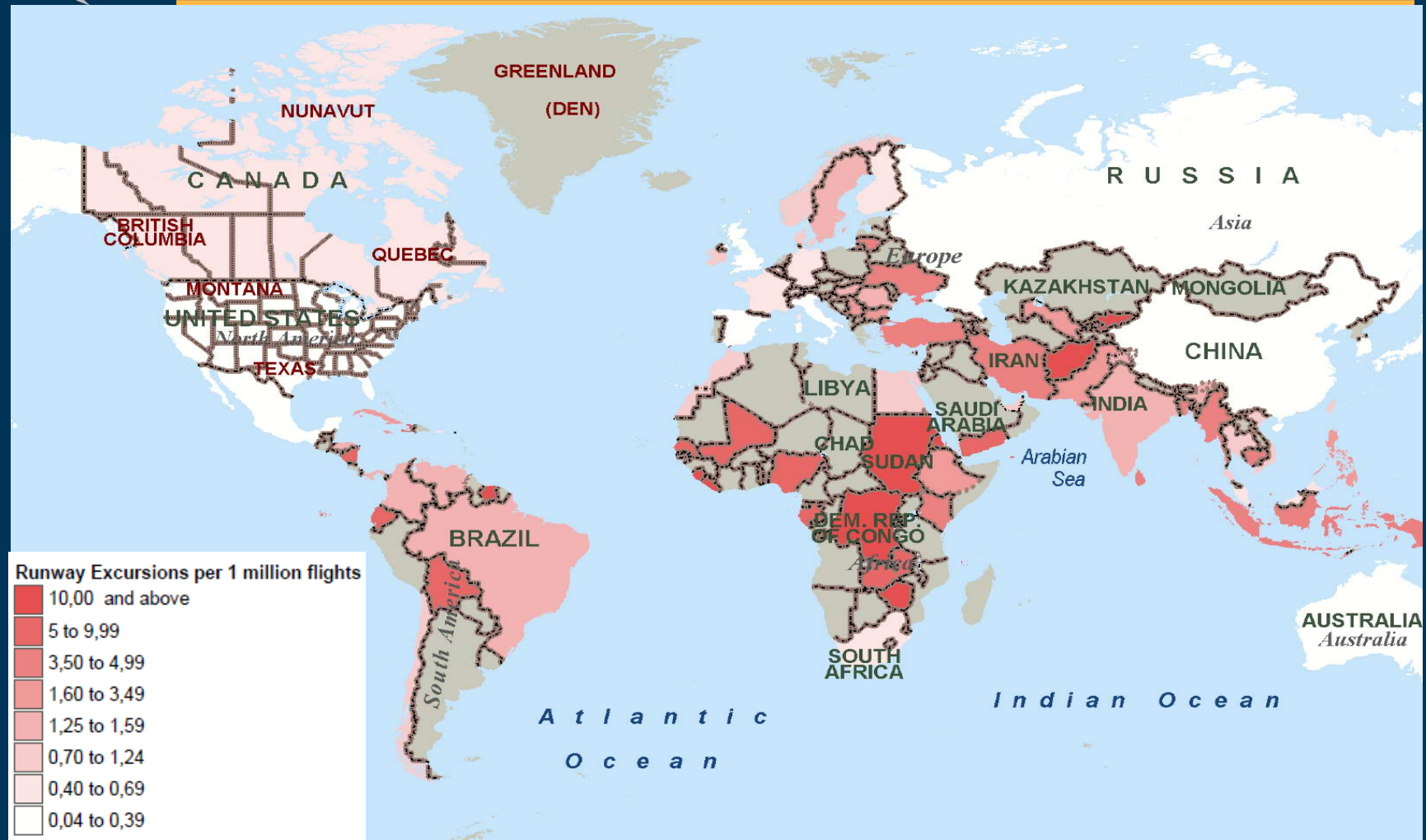
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Global Overview of Runway Excursions

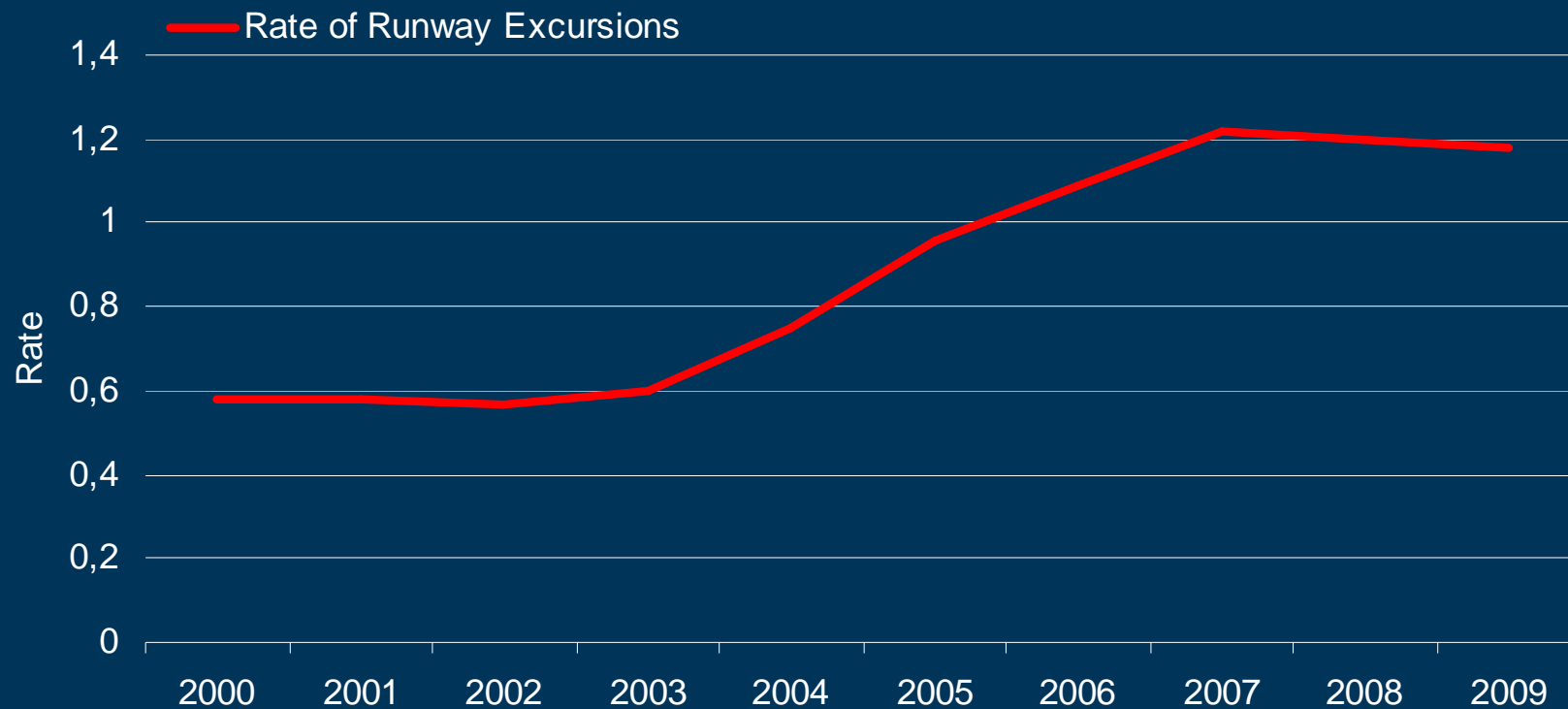




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Global Rate of Runway Excursions

Rate of Runway Excursions per 1 million flights
Scheduled CAT (3-year average; accidents and S incidents)

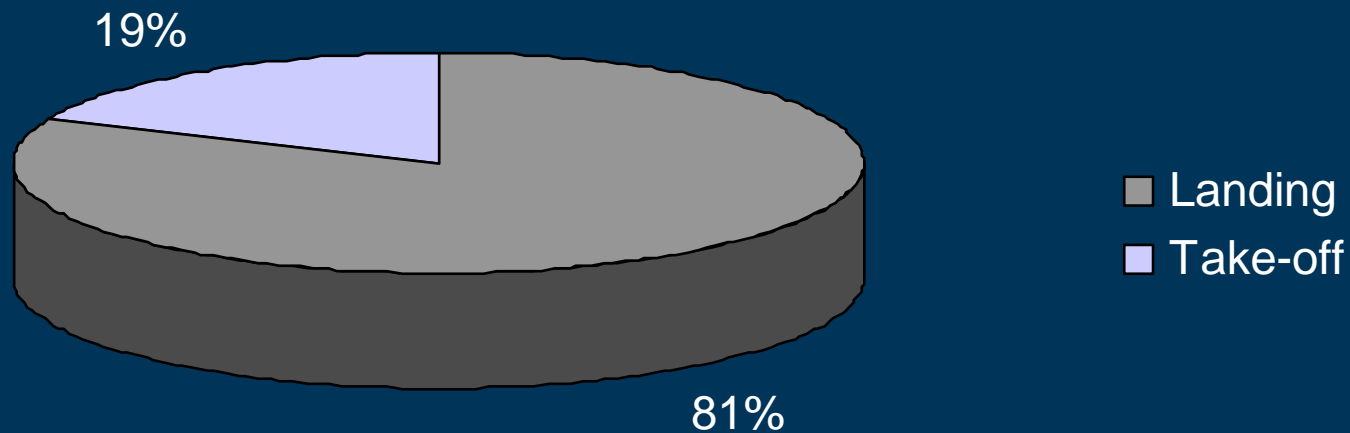




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Phase of Flight

Runway excursions occur more often during the Landing phase. Multiple other research shows the same results

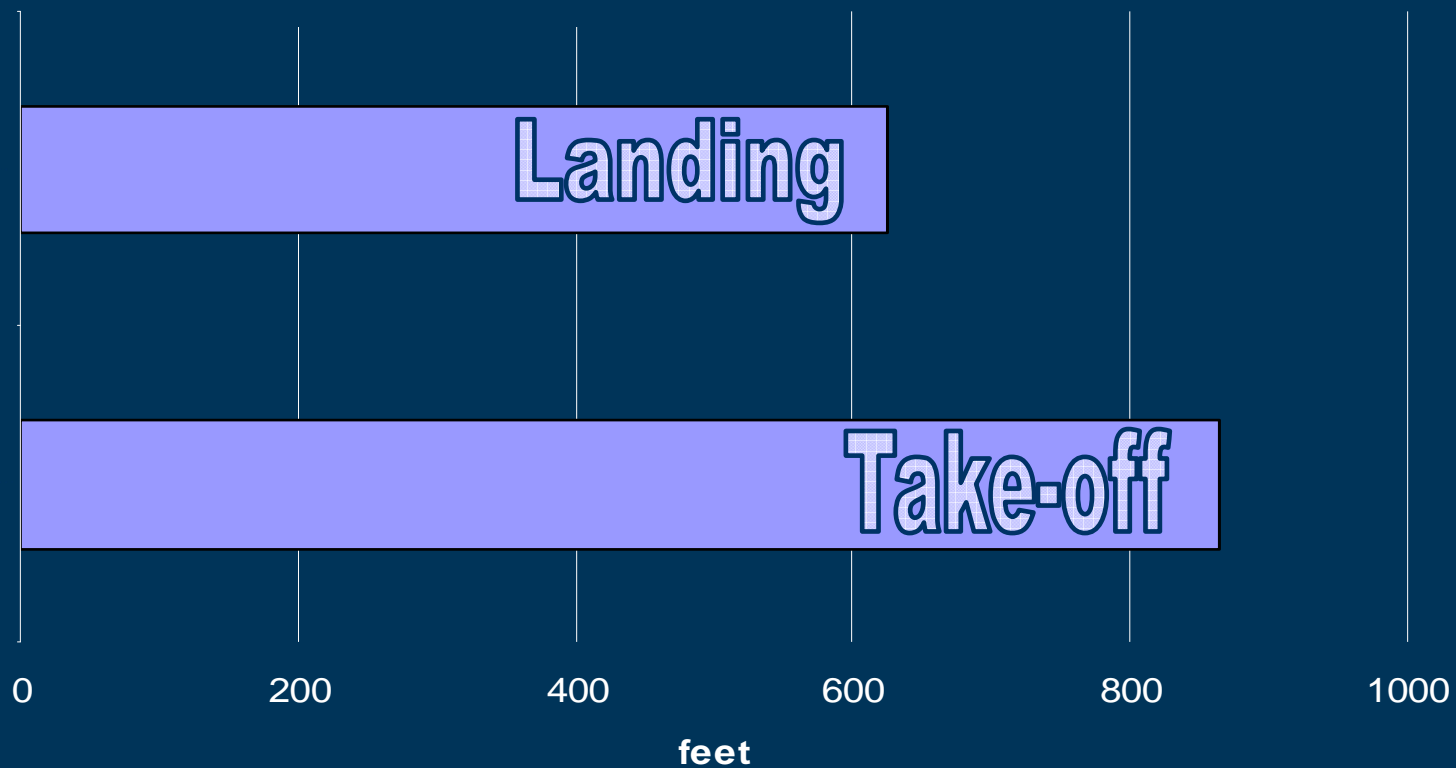




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Overrun distance

■ Average overrun distance (feet)

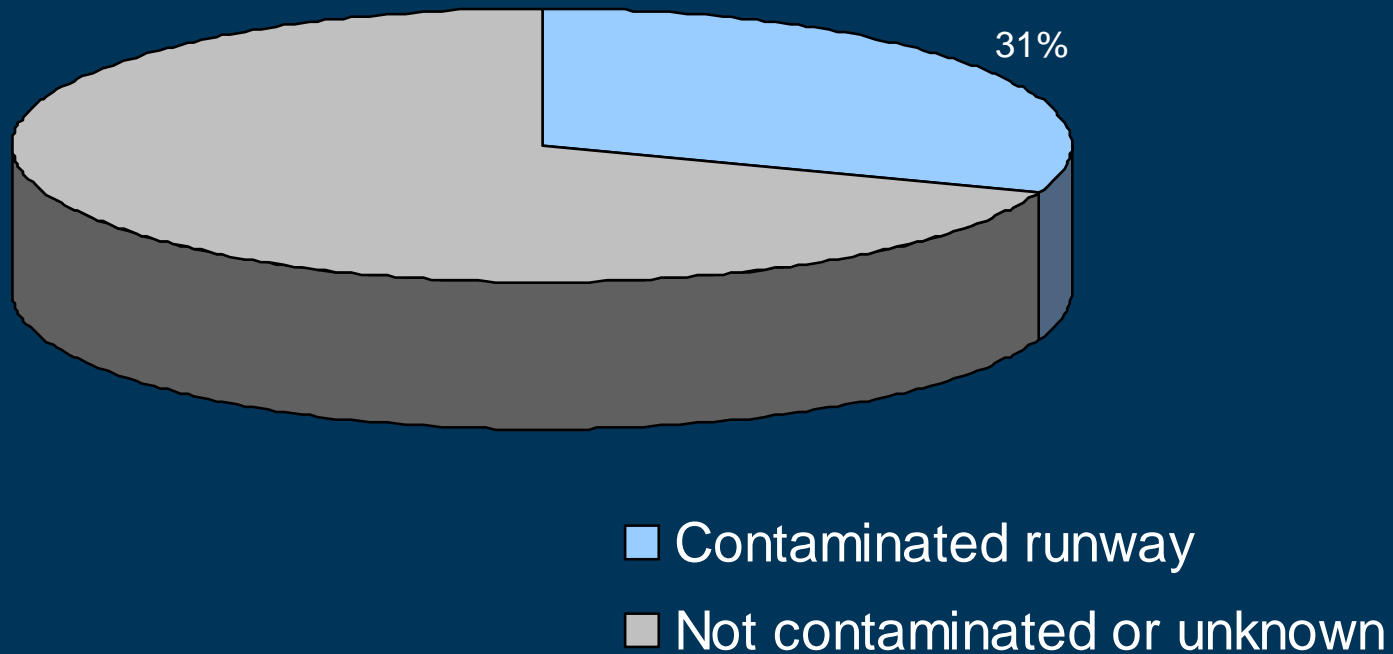




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Runway contamination

More than 30% of runway excursion accidents involved a contaminated runway





Conclusions

- **Runway excursions continue to be a safety issue of priority**
 - **It is an issue not limited to specific regions or States**
 - **Runway contamination and therefore runway friction has been a factor in runway excursions**
 - **The measurement and assessment of runway friction is paramount in reducing the number of runway excursions**
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Global Overview of Runway Excursions

- **Accidents and Serious Incidents (Annex 13)**
- **Commercial Air Transport**
- **Scheduled Operations**
- **Aeroplanes (i.e. fixed wing)**
- **MTOM above 5,701 kg**
- **Years: 2000-2009**
- **Geographically assigned: by State of occurrence**

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Phase of flight

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Overrun Distance

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Runway Contamination

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