



Runway Excursion Statistics



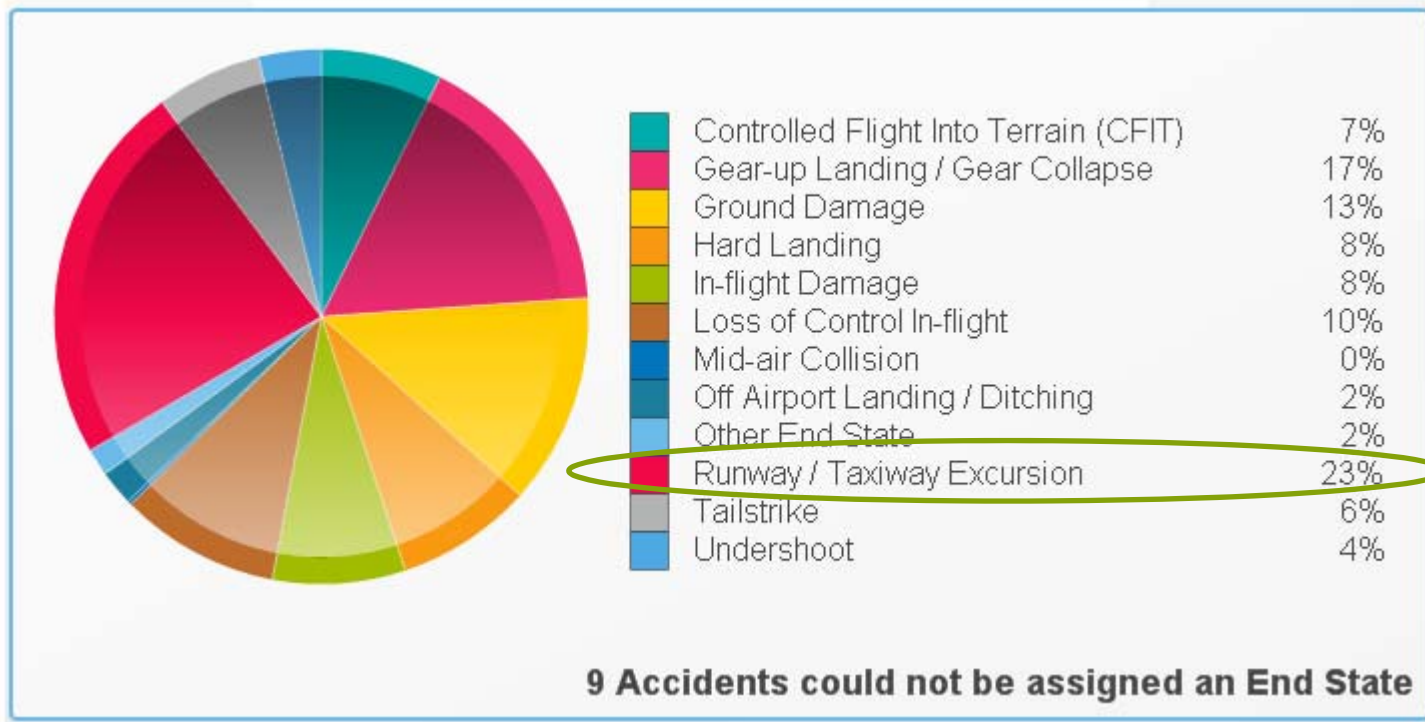
Runway/Taxiway Excursion Accidents

IATA Safety Data 2009 - 2013

There were 432 total commercial accidents during this period:

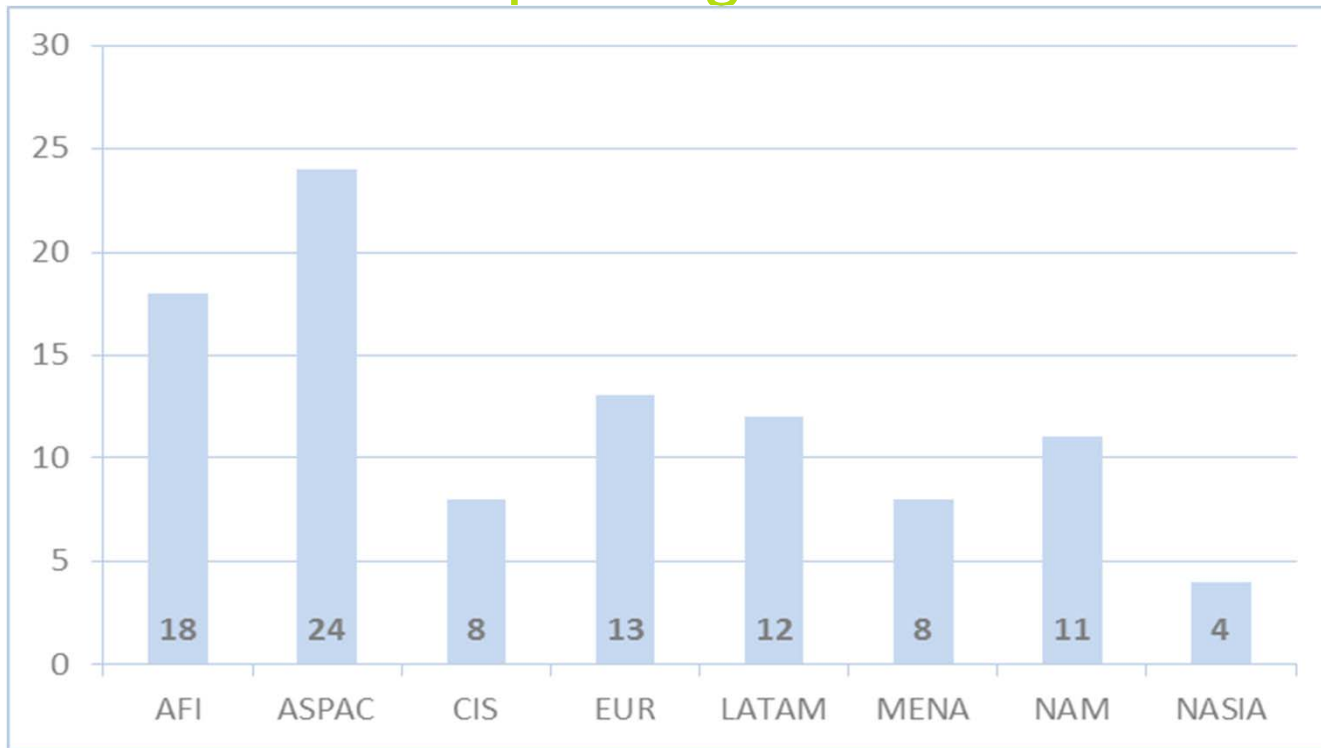
- 98 of these accidents were runway/taxiway excursions
 - 7 of the runway excursion accidents involved fatalities
 - Resulted in 191 deaths to passengers and crew
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Global Accidents: 2009-2013 Breakdown per accident categories



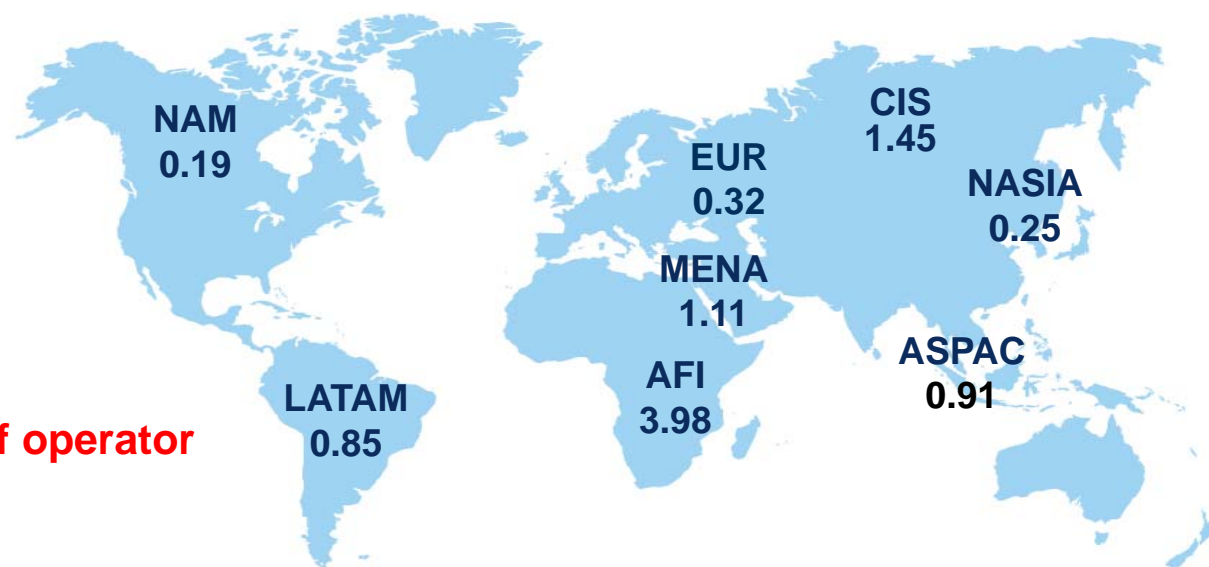
Runway/Taxiway Excursion Accidents

Accident count per region



Runway/Taxiway Excursion Accidents

2009 – 2013 Accident rates per million sectors



Based on region of operator

Global: 0.57

Runway Excursions - Top Contributing Factors

Latent Conditions <small>Deficiencies in...</small>	Threats	Flight Crew Errors <small>(relating to...)</small>	Undesired Aircraft States (UAS)	End State
Regularity Oversight	Airport Facilities	Manual Handling Flight Controls	Long, forced, bounded, firm or off-centerline landing	Runway Excursion
Safety Management	Meteorology	SOP adherence / Procedural	Loss of aircraft control while on ground	
Flt. Ops. Training	Contaminated runway	Failure to go-around after destabilization	Unstable Approach	
Maint. Ops. SOPs & Procedures	Aircraft Malfunction	Callouts	Continued Landing after unstable approach	
	Air Traffic Services			

Accident Scenarios of Interest

- The destination airport has weak regulatory oversight, inadequate overrun areas and poor airport facilities
 - Operating in adverse weather conditions into an airport with contaminated runways
 - Inadequate flight crew training and Safety Management System
 - Flight crew lands long, lands off the centerline or bounces the landing
 - Flight crew commits manual handling, flight control errors leading to an Unstable Approach
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Tools and Products

- In line with ongoing cooperative efforts to resolve what remains the number one priority for global aviation safety experts:
 - a Runway Safety Implementation Kit (Runway Safety i-Kit) has been developed in collaboration with IATA, ICAO, ACI, CANSO, ICCAIA, FSF, IFALPA, IFATCA, IBAC, IAOPA, FAA, EASA and EUROCONTROL.
This i-Kit includes the latest guidance updates to assist aviation industry, including centralized online resources, publication of the ICAO Runway Safety Team Handbook and twelve Regional Safety Seminars.
- IATA/ICAO RERR 2nd edition
- IATA/IFALPA/IFATCA Pilots/ATCs Phraseology Study



Runway Excursion Risk Reduction Toolkit 2nd Edition





Runway Excursion Risk Reduction (RERR) Toolkit – 2nd Edition: Contents

Tabs	Name of File
Executive Material	IATA/ICAO Executive Letter
	IATA/ICAO Introductory Video
	IATA/ICAO CEO/COO Brief
IATA Analysis Report	IATA Runway Excursion Analysis Report
Airports/CAAs	ICAO Aerodrome Best Practices- Landscape Format
	ICAO Aerodrome Best Practices-Portrait Format
	ICAO Self Audit Checklist for Airports
	ICAO Self Audit Checklist for CAAs
	IATA Airport Markings and Signage- (STEADES analysis)
	IATA Use of Technology to Mitigate Overrun
	ACI Practices and Recommendations
Flight Ops	IATA Recommendations for Wet / Contaminated Runway Operations
	IATA Risk Management Process
	IATA Air Carrier Self Audit Checklist- Analysis
	IATA Air Carrier Self Audit Checklist-Questionnaire
	IATA Runway Excursion Case Studies Manual

Tabs	Name of File
ATM	IATA ATC/Pilots Best Practices:
	CANSO ATCO Educational Booklet:
Animations	IATA Animation
	- B733_Unstable Approach_VOR
	- B738_Unstable Approach_ILS - B738_Unstable Approach_VOR
Workshop Materials	IATA Workshop Materials
Contributing Reports	FSF Report - Reducing the Risk of Runway Excursions
	ECTL - A Study of Runway Excursions from a European Perspective
	ICAO Runway Friction Report
	NLR Report - Rejecting Take Off after V1
	ATSB Reports
	- Runway Excursion Part I - Runway Excursion Part II



Runway Safety - 2014

- Runway Safety, As part of IATA's Six-Point Safety Strategy to reduce operational risk, IATA will continue its effort to improve runway safety, including:
 - The outreach, awareness, lessons learnt and shared information, focusing on runway safety issues, hazards, and mitigating risks which were all effective means to generating effective solutions in reducing runway safety.
 - IATA will be looking at other events in runway safety arena such as runway incursions, tail strikes, hard landings.
 - IATA has taken the lead to establish global KPIs for Runway Safety.
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Runway Safety - 2014

- IATA has obtained consensus from ACI, CANSO, FAA, EASA and ICAO to establish a common language for runway safety from which we can share our information, analyze such information to develop global metrics, targets and performance benchmarks, and start introducing predictive analytics
 - Support the delivery of Regional Runway Safety Seminars
 - IATA will be publishing a guidance materials for Operators on Unstabilized approaches
 - IATA will continue to work in close coordination with and support the activities related to Regional Aviation Safety Groups (RASGs).
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Runway Safety - 2014

- Promote and support creation of local Runway Safety Teams (RSTs) as one of the best means to address the implementation of risk mitigation measures and best practices through RSTs
 - Promote and support the creation of Runway Safety Go-Teams
 - Promote and encourage implementation of PBN (RNAV/RNP) approach procedures with vertical guidance in order to reduce the number of un-stable approaches which are directly linked to runway excursions and enhance crew awareness of unstabilized approaches.
 - IATA is working on a global initiative for mitigating CFIT accidents through PBN.
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Safety benefits of PBN

- Vertically Guided Final Approaches
 - Stabilized approaches
 - Laterally Guided Missed Approaches
 - Increased Situational Awareness for flight crews
 - CFIT Reduction
 - More precise course guidance for terrain-impacted terminal areas
 - PBN promises to increase capacity / enhance safety
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