



Regional Aviation Safety Group – Pan America

Regional Risk Information

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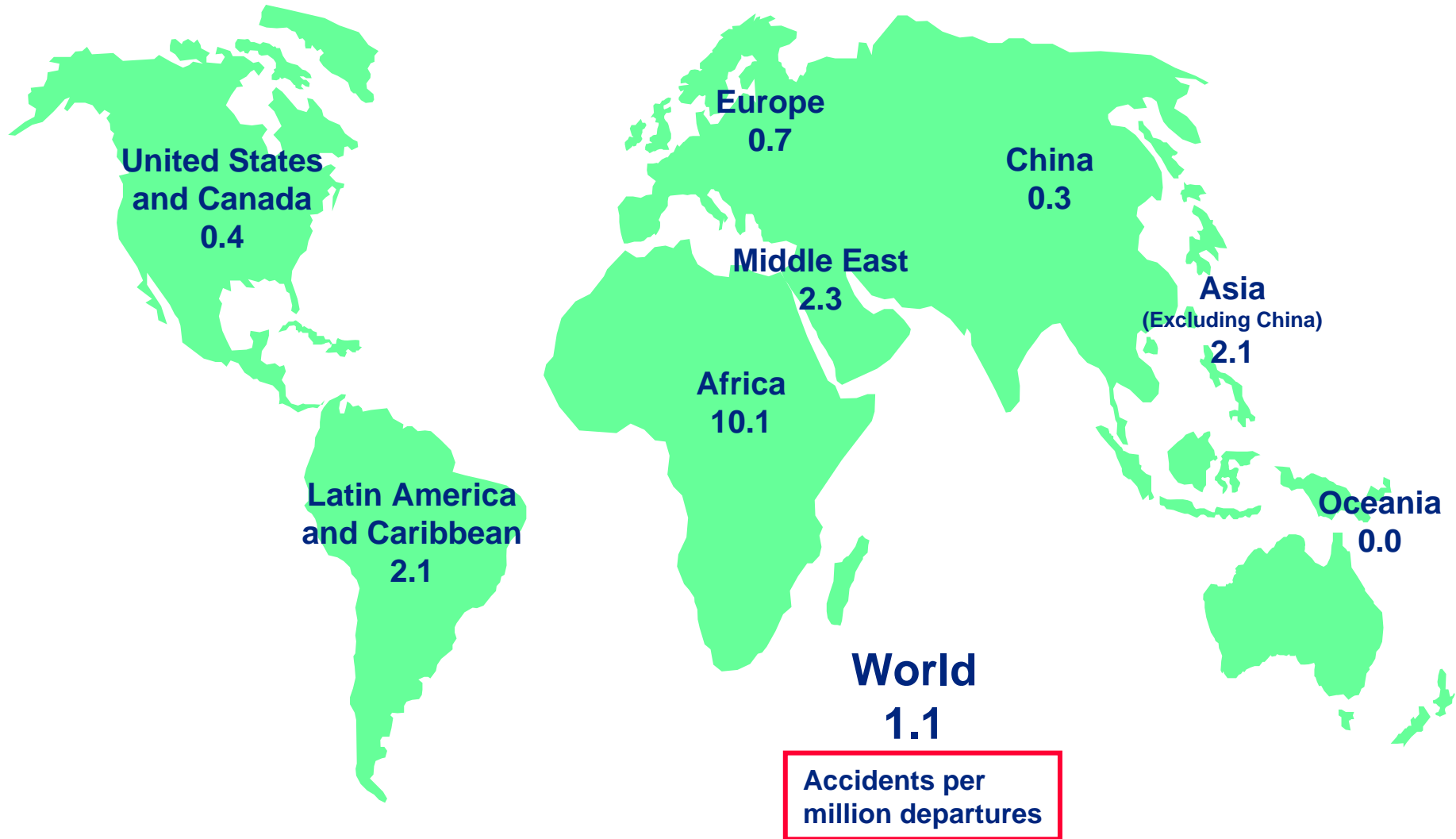
November 3-6 2009
Bogota, Colombia



Regional Perspective

Accident Rates Vary by Region of the World

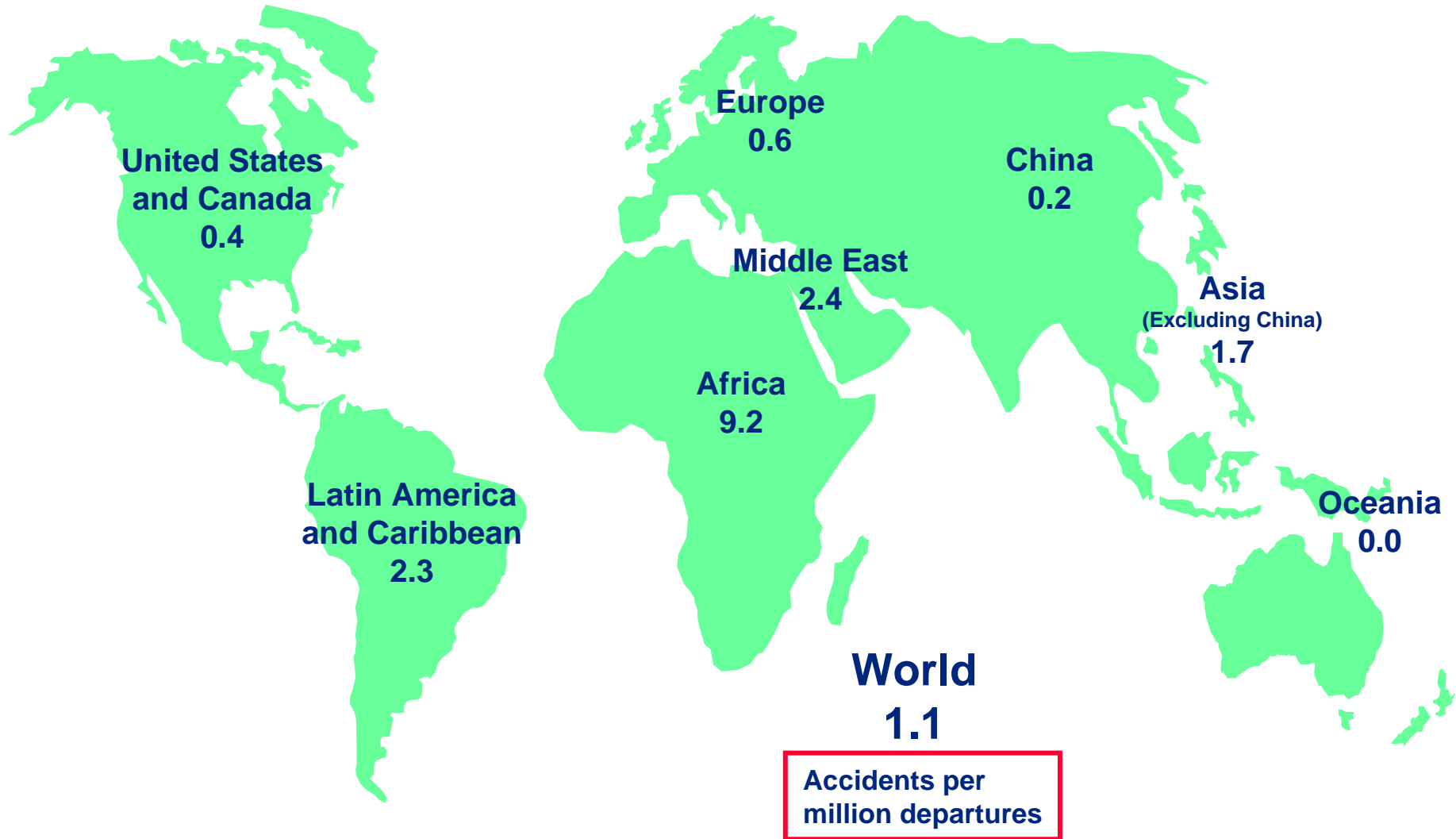
Western-built transport hull loss accidents, by airline domicile, 1998 through 2007



Regional Perspective

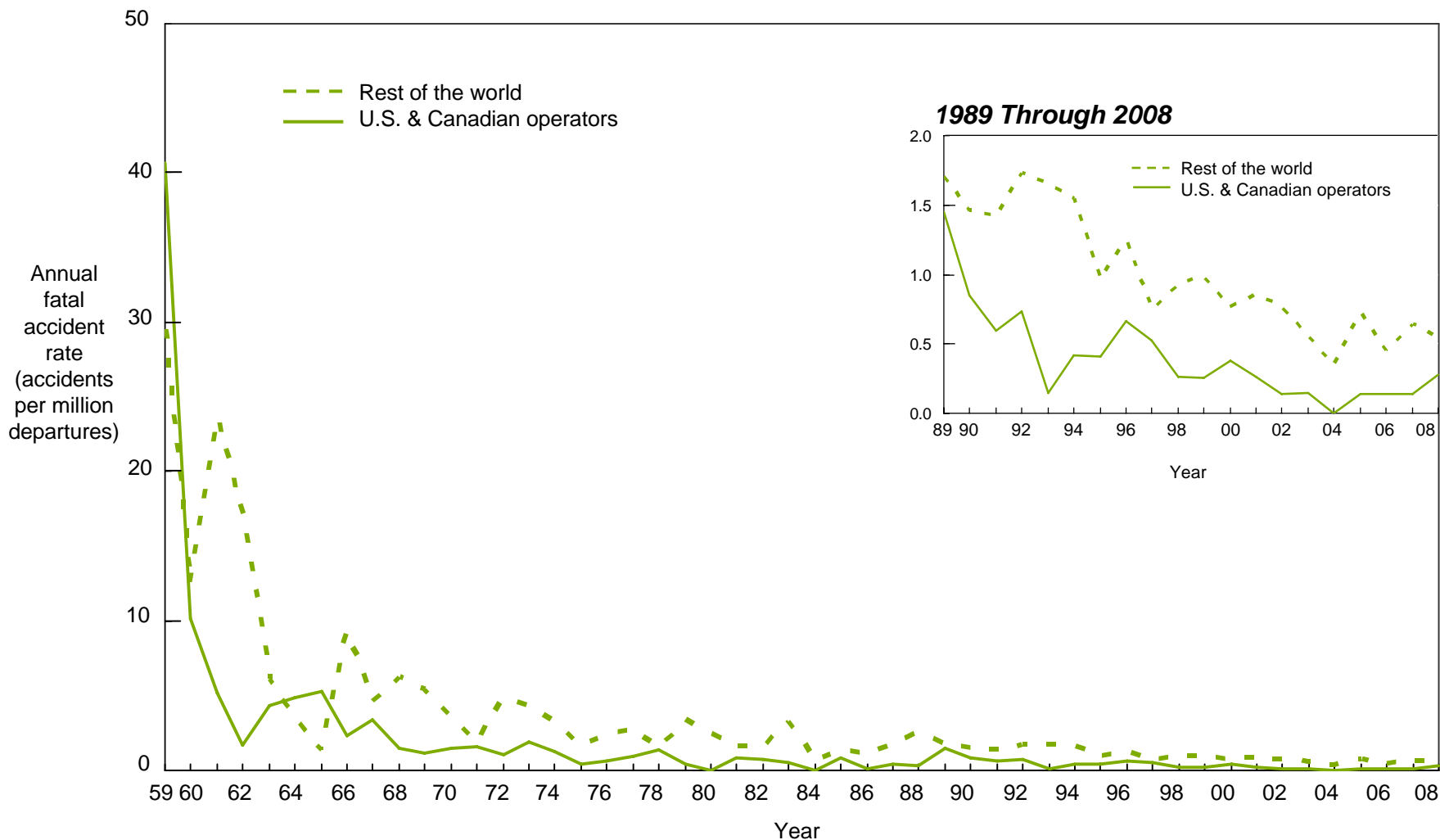
Accident Rates Vary by Region of the World

Western-built transport hull loss accidents, by airline domicile, 1999 through 2008



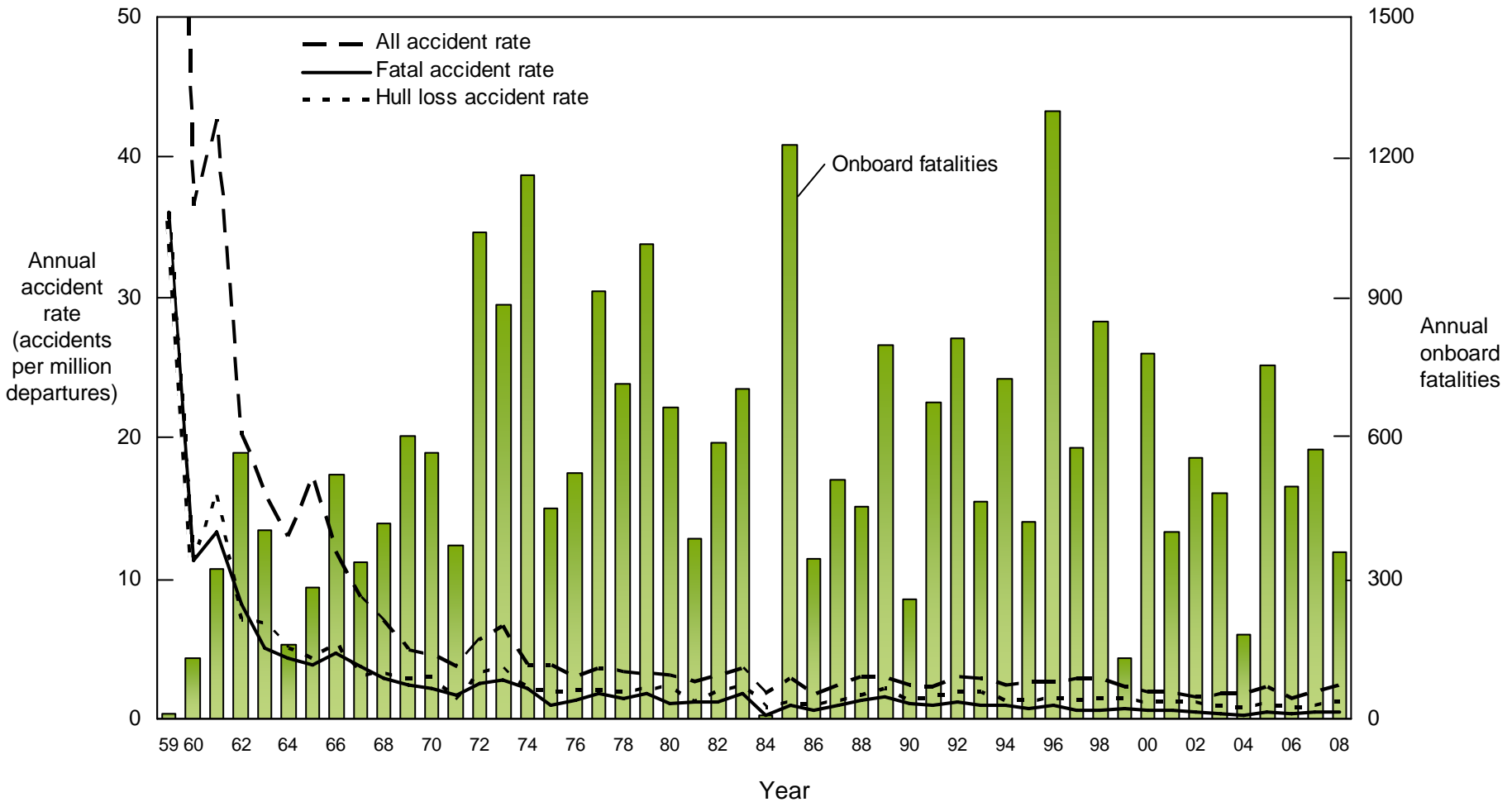
U.S. and Canadian Operators Accident Rates by Year

Fatal Accidents – Worldwide Commercial Jet Fleet – 1959 Through 2008



Accident Rates and Onboard Fatalities by Year

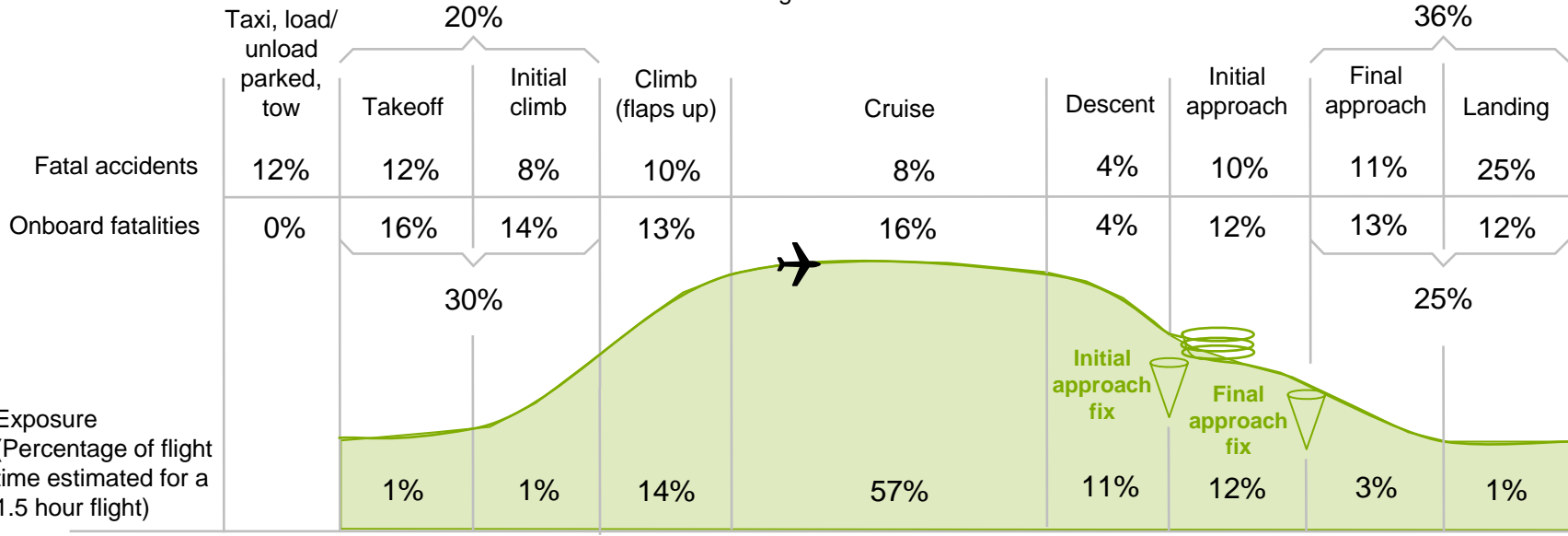
Worldwide Commercial Jet Fleet – 1959 Through 2008



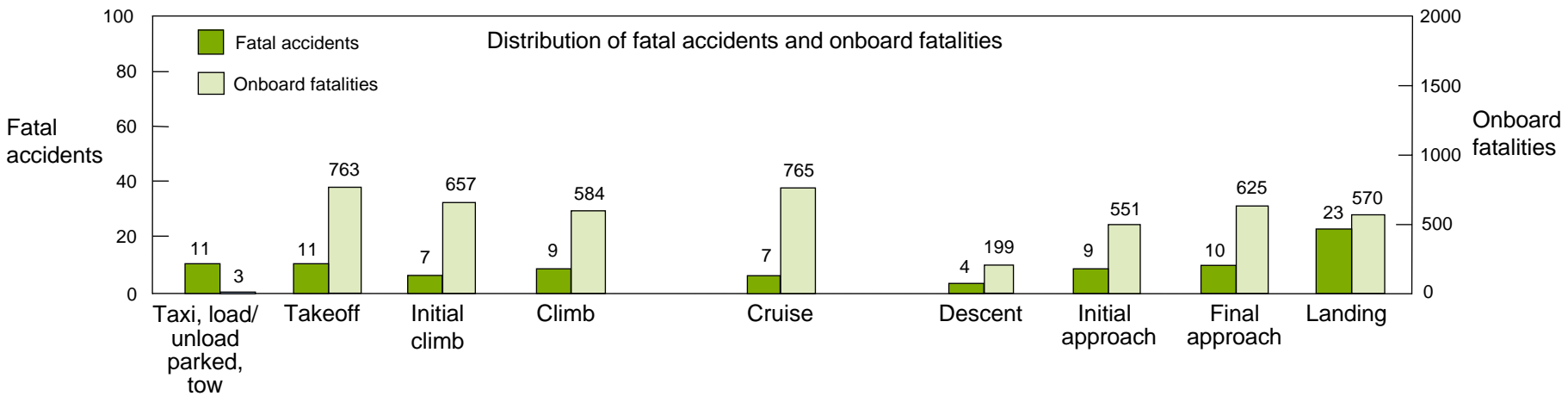
Fatal Accidents and Onboard Fatalities by Phase of Flight

Worldwide Commercial Jet Fleet – 1999 Through 2008

Percentage of accidents/fatalities



Percentages may not sum to 100% due to numerical rounding.



Hull Loss Accident Rates

By World Regions - By Airline Domicile

Western-Built Transports – 1999 through 2008

Region	Departures ¹ Millions	(% of total) ³	Accidents	(% of total) ³	Accident rates ¹
Africa	4.80	(3%)	44	(22%)	9.2
Asia (excluding China)	22.98	(12%)	40	(20%)	1.7
China	12.57	(7%)	3	(1%)	0.2
C.I.S	1.33	(1%)	4	(2%)	3.0
Europe	52.51	(28%)	33	(16%)	0.6
Latin America and Caribbean	14.52	(8%)	34	(17%)	2.3
Middle East	4.61	(2%)	11	(5%)	2.4
Oceania ²	4.53	(2%)	0	(0%)	0.0
USA and Canada	72.94	(38%)	32	(13%)	0.4
Overall totals	190.79		201		1.1

1 Accidents per million departures -- Departure data from Ascend/Boeing

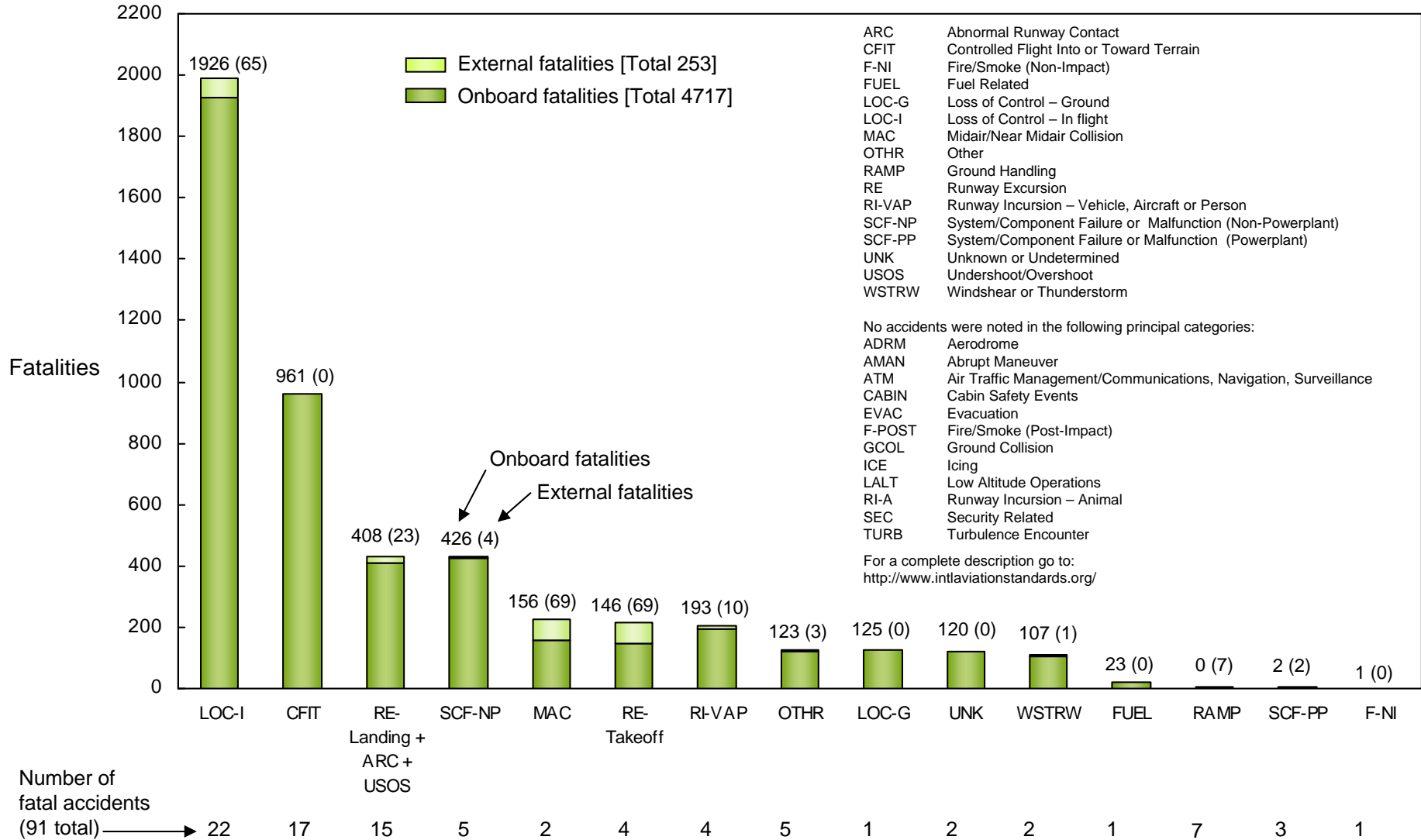
2 Australia, New Zealand, Micronesia, Melanesia, Polynesia, etc.

3 Percentages may not add to 100% due to rounding

Fatalities by CAST/ICAO Common Taxonomy Team (CICTT)

Aviation Occurrence Categories

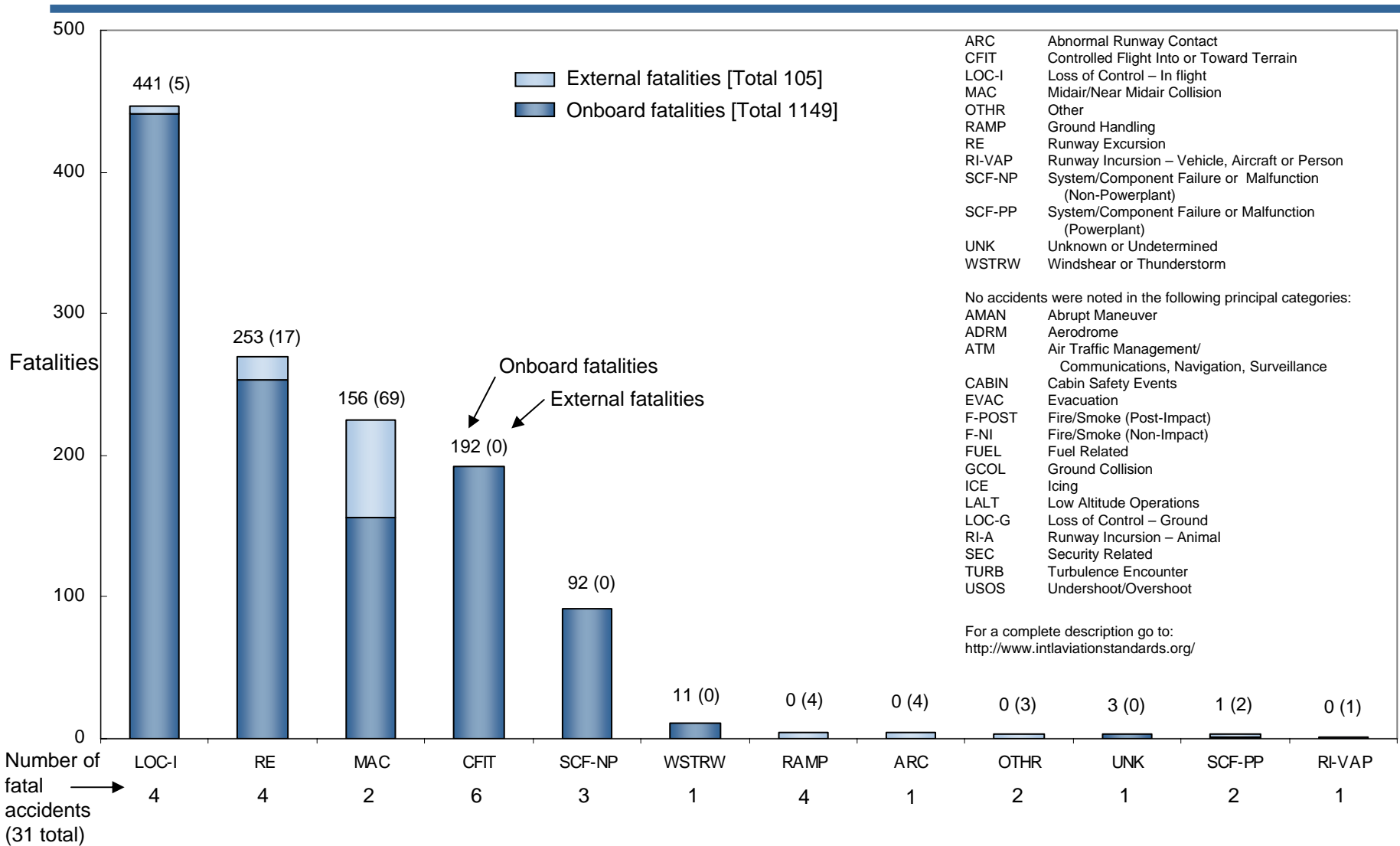
Fatal Accidents – Worldwide Commercial Jet Fleet – 1999 Through 2008



Note: Principal categories as assigned by CAST.

Fatalities by CAST/ICAO Common Taxonomy Team (CICTT) Aviation Occurrence Categories

Fatal Accidents by Airline Domicile – Pan American Commercial Jet Fleet 1999 Through 2008



Note: Principal categories as assigned by CAST.



Fatal Accidents by Airline Domicile-Pan America– 2008

Date	Aircraft	Title	Location	Airline Name
5/30/2008	A320	RUNWAY OVERRUN ON LANDING	TEGUCIGALPA	TACA International
7/6/2008	DC-9	DC9 FREIGHTER CRASHED ON APPROACH TO LAND	SALTILLO	U.S.A. Jet Airlines
7/7/2008	747-200F	CRASH SHORTLY AFTER TAKE OFF ATTEMPTING TO RETURN	(near) Madrid, Colombia	Kalitta Air
8/30/2008	737-200	CRASHED WHILE ON APPROACH TO LAND	(near) Latacunga	CONVIASA S.A.

Non-Fatal Accidents by Airline Domicile-Pan America– 2008

Date	Aircraft	Title	Location	Airline Name
2/1/2008	727-200	FORCED LANDING DUE FUEL EXHAUSTION	Near Trinidad	LAB
2/2/2008	747-200	UNRESTRAINED CARGO PENETRATED REAR PRESS BULKHEAD	LOME	Atlas Air
2/5/2008	A321	HEAVY TAILSTRIKE ON LANDING ((DAMAGE UNCONFIRMED))	EDMONTON	Air Canada
2/25/2008	777-200	LEFT WING DAMAGED FROM IMPACT ON LIGHT POLE	MEXICO CITY	Aeromexico
5/16/2008	727-200	RUNWAY EXCURSION ON LANDING	PONAPE	Asia Pacific Airlines
5/25/2008	747-200	CRASHED DURING TAKEOFF ROLL	BRUSSELS	Kalitta Air
6/6/2008	737-200	SEVERE VIBRATION EVENT ELEVATOR AND TAB DAMAGE	(near) Pucallpa	Aerocondor
6/14/2008	DC-10	AIRCRAFT DAMAGE DUE AUTOSLAT EXTENSION	(near) New York City	FedEx
6/28/2008	767-200	FIRE DAMAGE TO FORWARD FUSELAGE	SAN FRANCISCO	ABX Air
9/22/2008	F-28	ABORTED TAKEOFF RUNWAY OVERRUN AND CRASH	QUITO	ICARO
10/16/2008	737-200	LANDED LONG SUBSEQUENT RUNWAY DEPARTURE	CARACAS	Rutaca
12/15/2008	CRJ 700	AIRCRAFT LANDED WITH LEFT MLG RETRACTED	CHICAGO	Mesa Airlines
12/20/2008	737-500	RUNWAY EXCURSION ON TAKEOFF CRASHED INTO RAVINE	DENVER	Continental Airlines

Fatal Accidents by CAST/ICAO Taxonomy Accident Category Pan American Airline Domicile – 1999 through 2008

CFT				■	■		■	■		■ ■	6
RAMP	■			■	■			■			4
LOC-I	■		■ ■				■				4
RE	■						■		■	■	4
SCF-NP		■ ■ ■									3
MAC				■				■			2
OTHR			■						■		2
SCF-PP			■							■	2
UNK					■						1
ARC		■									1
RI-VAP	■										1
WSTRW	■										1
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	

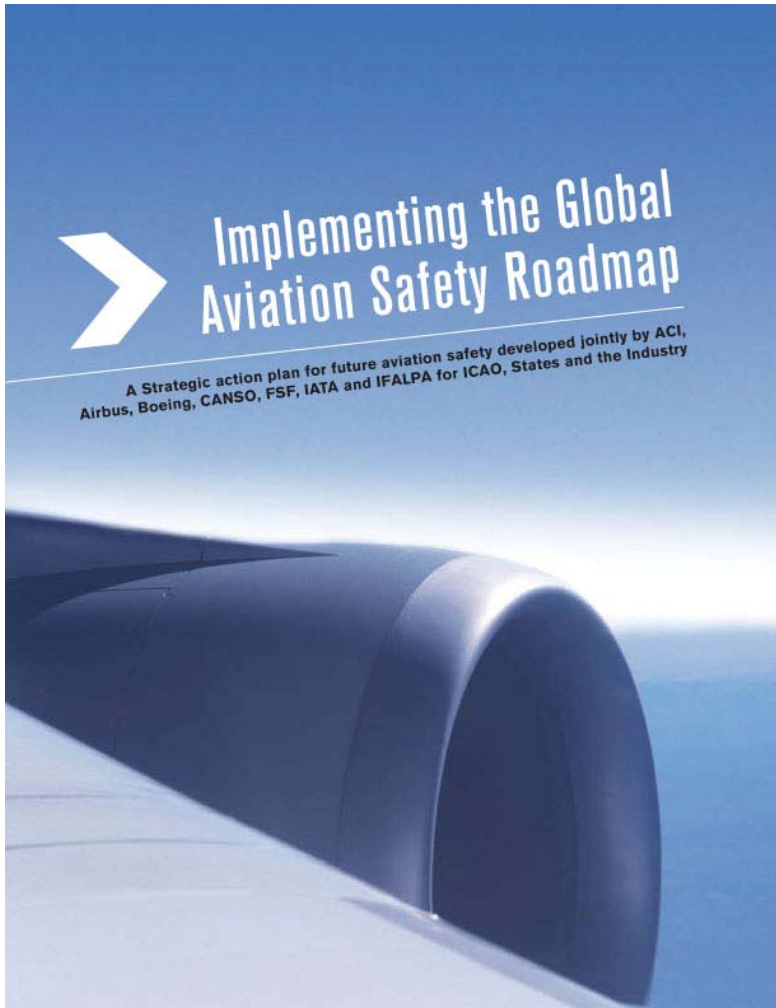
ARC	Abnormal Runway Contact	RE	Runway Excursion
CFIT	Controlled Flight into or Toward Terrain	RI-VAP	Runway Incursion – Vehicle, Aircraft or Person
LOC-I	Loss of Control – In flight	SCF-PP	System/Component Failure or Malfunction (Powerplant)
MAC	Midair/Near Midair Collision	SCF-NP	System/Component Failure or Malfunction (Non-Powerplant)
RAMP	Ground Handling	OTHR	Other
WSTRW	Wind shear or Thunderstorm	UNK	Unknown or Undetermined

No accidents were noted with the following principal categories:

AMAN	Abrupt Maneuver	F-NI	Fire/Smoke (Non-Impact)	RI-A	Runway Incursion – Animal
ADRM	Aerodrome	F-POST	Fire/Smoke (Post-Impact)	SEC	Security Related
ATM	Air Traffic Management/Communications, Navigation, Surveillance	FUEL	Fuel Related	TURB	Turbulence Encounter
CABIN	Cabin Safety Events	GCOL	Ground Collision	LALT	Low Altitude Operations
EVAC	Evacuation	ICE	Icing	LOC-G	Loss of Control – Ground
		USOS	Undershoot -Overshoot		

For a complete description go to: <http://www.intlaviationstandards.org/>

Thank you!



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