ALTA-IATA Safety Team

AITSP
ALTA IATA
TREND SHARING
PROGRAM Powered by IATA's FDX

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May 11 2016

IATA

Confidentiallity

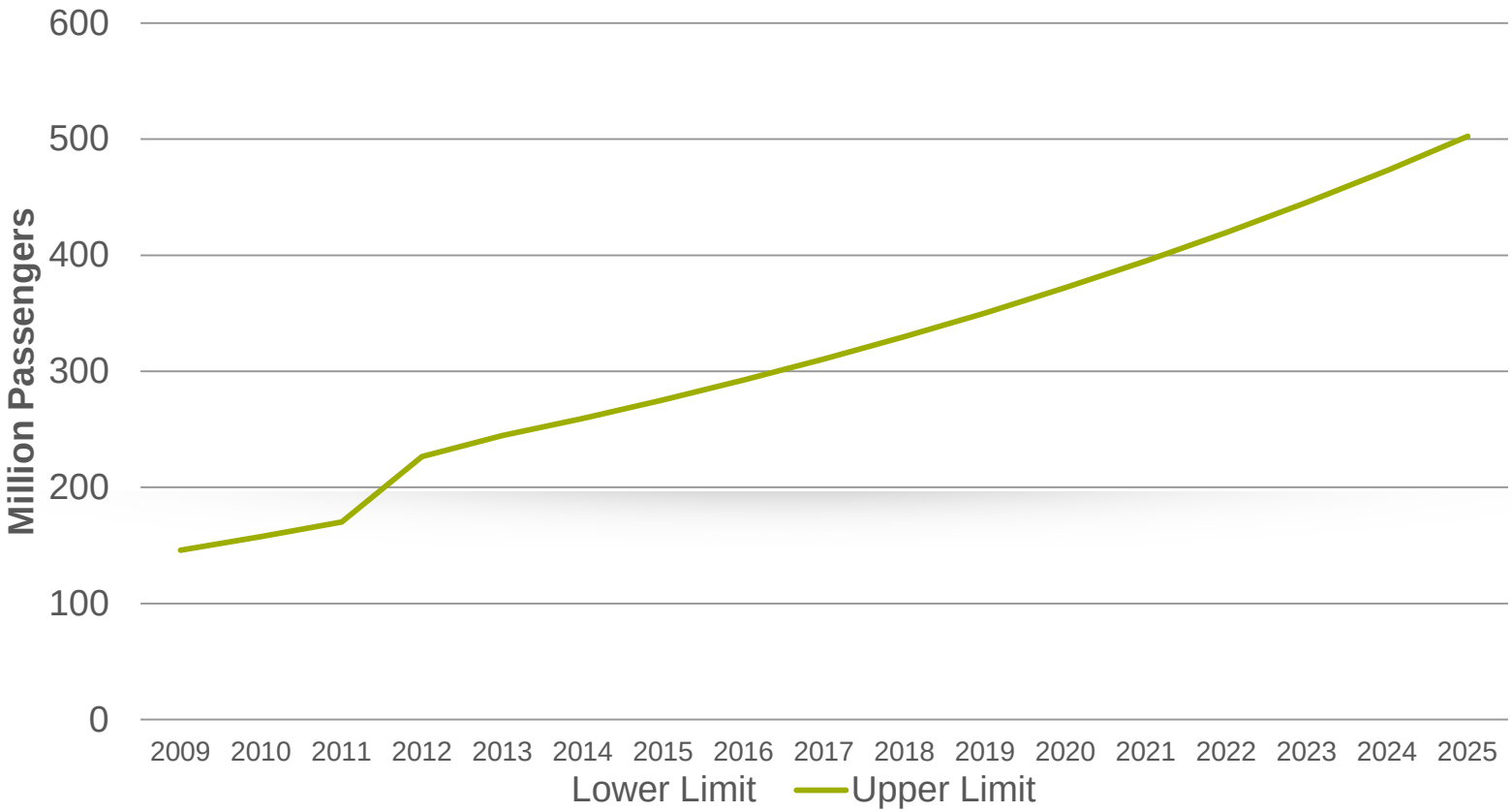
1.8 Million flights / year

1 Departure every **17** seconds

Carrying **115** Passengers

Connecting **378** airports through over **1100** city pairs

LAC Passenger Projections



Source: ATAG, IATA, Airbus, Boeing

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ALTA Airlines Fleet

	2004	2015	2033
Number of aircraft	538	1195	3580
Average age (years)	11.2	8.1	N/A

Source: Ascend, ALTA
* vs. 2008

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Urge to identify top threats to safety with hard data

- **Focus resources on main areas of concern**
- **Stimulate collaboration between private and public sectors**
- **Trust among parties**
- **Develop a "Just Culture" (no criminalization)**

2010: IATA's AGM mandate to create a centralized database for automated data sharing

- **Let's not reinvent the wheel: seek partners with know-how**
- **IATA's Global Aviation Data Management a natural solution (AITSP uses FDX)**
- **ALTA and IATA share mutual goals to improve safety performance in our region**

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85% (ASKs) of the region providing data


Avianca
A STAR ALLIANCE MEMBER


AEROMEXICO
SKYTEAM


Caribbean Airlines
the warmth of the islands


Copa
Airlines


Cayman Airways


InselAir
Reaching Higher


LAN
TAM
— LATAM AIRLINES GROUP —


GOL
Linhas aéreas inteligentes


SURINAM AIRWAYS


volaris


TAP
TAP PORTUGAL


tame


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What is GADM?

- GADM is a data management program integrating several sources of operational data received from various channels and different IATA programs
- GADM is structured as an “umbrella” program comprising 3 streams:
  - Safety **› Focus of this presentation ‹**
  - Audit
  - Accidents

GADM Safety Programs

FDA	Accident	FDX	GDDB	STEADES
Web-based Flight Data Analysis service	Database of commercial aviation accidents	Database of FDA and FOQA type events	Database of ground damage incident reports	Database of airline incident reports

Individualized Airline Service on comm/cost recovery basis

+ FDA Consulting
+FDA Training

Data used to create the IATA Safety Report

Global Data Exchange Programs

Sources

FDA	Accident	FDX	GDDB	STEADES
Flight Data Recorder (FDR) or Quick Access Recorder (QAR)	Accident Reports, Accident Classification Task Force	more than **50** participants and a database of over **2.5 million** flights	more than **100** participants (airlines & ground service providers)	almost **200** participants and a database of over **1 million** records

FDX | How does it work?

Airline A

Airline B

Raw data from the aircraft is downloaded routinely for FOQA/FDM/FDA

Data is processed internally by the airline or its service provider for FOQA/FDM/FDA

In FDX, flight data is also sent to IATA,

where it is processed using a common event set,

de-identified (*) and integrated into a database with inputs from multiple operators,

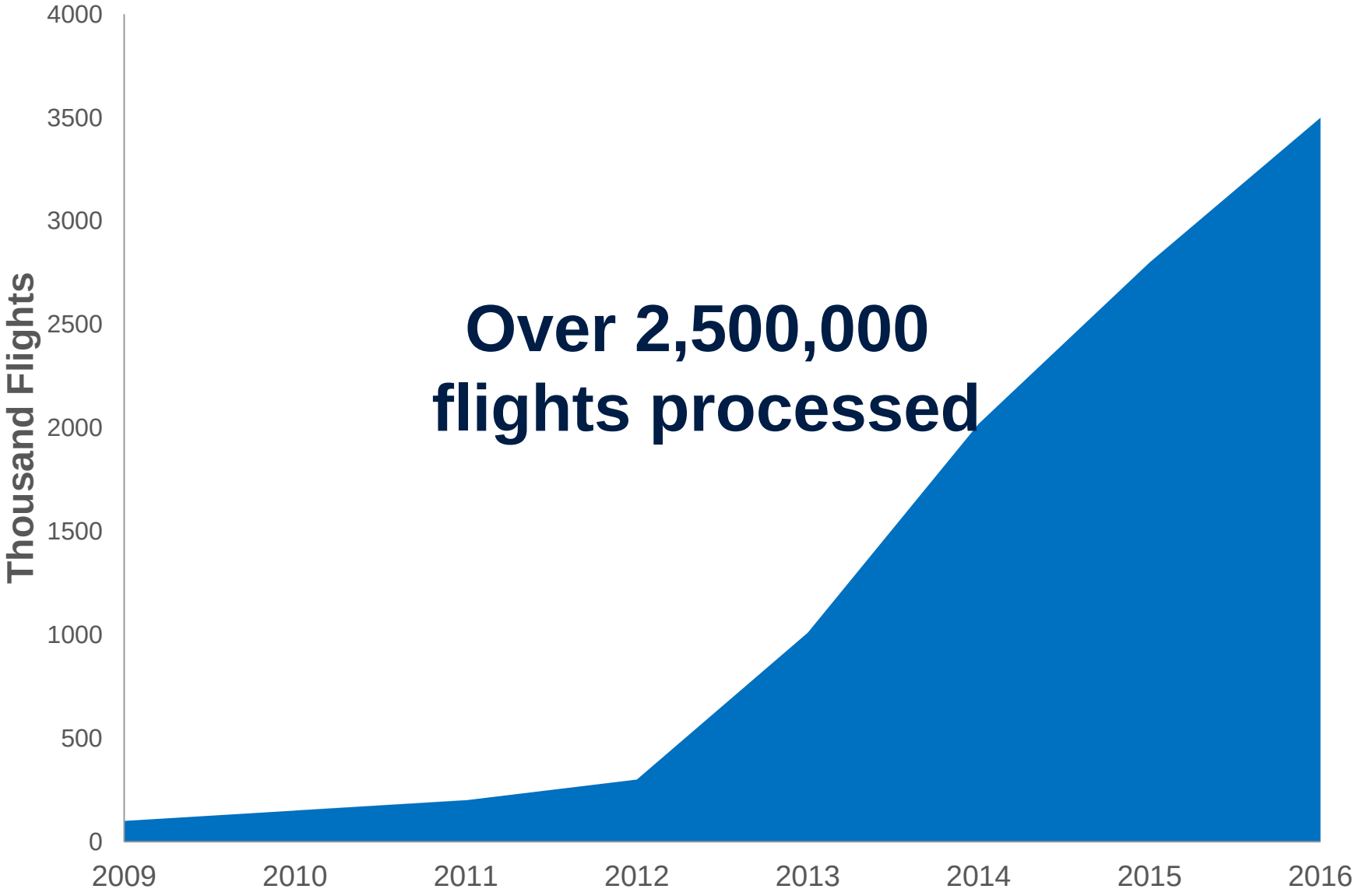
to generate global trends, rates and training materials and to support advocacy work

(*) Data is displayed only when there are at least 3 operators with the same aircraft type. De-identification includes: no airline information is available, the tail numbers and the flight numbers are written off, the flight date is set to the first day of the month.

Unstable Approach

An unstable approach consists of one or more of the following events:

Event Name	Description	Altitude (AGL) Max	Altitude (AGL) Min	Limit
Above Glideslope (1000'-500')	High on approach between 1000' and 500'	1000	500	> 2 dots
Above Glideslope (500'-200')	High on approach between 500' and 200'	500	200	> 2 dots
Below Glideslope (1000'-500')	Low on approach between 1000' and 500'	1000	500	< 2 dots
Below Glideslope (500'-200')	Low on approach between 500' and 200'	500	200	< 2 dots
Excessive Localizer Deviation (1000'-500')	Excessive localizer deviation between 1000'-500'	1000	500	> 2 dots
Excessive Localizer Deviation (500'-200')	Excessive localizer deviation between 500'-200'	500	200	> 2 dots
Excessive Tailwind on Landing	Excessive tailwind between 100' and touchdown	100	0	> 15 kts
Go Around	Event triggered when a go around is detected	3000	500	500 AGL
Hard Landing	Hard landing triggered based on vertical acceleration at touchdown	0	0	> 2.1G
High Rate of Descent	Excessive descent rate on approach	1000	0	> 1400 fpm
High Speed on Approach	Excessive airspeed on approach	1000	0	> Vref +40
Low Speed on Approach	Low airspeed on approach	1000	0	< Vref -15
Low Power on Approach	Low power setting on approach	1000	0	< 35% N1
Late Flap Change	Flap setting change below 500'	500	0	
Late Flap Selection	Landing flap not selected by 1000' on approach	1000	0	
Late Gear Selection	Gear not down by 1000' on approach	1000	0	
GPWS Warning (All Modes)	All GPWS modes detected during approach, landing or initial climb	3000	0	
Rejected Takeoff	Event triggered when a rejected takeoff is detected			
TCAS RA Warning	TCAS RA warning detected during all phases of flight			



Source: AITSP Powered by: FDX

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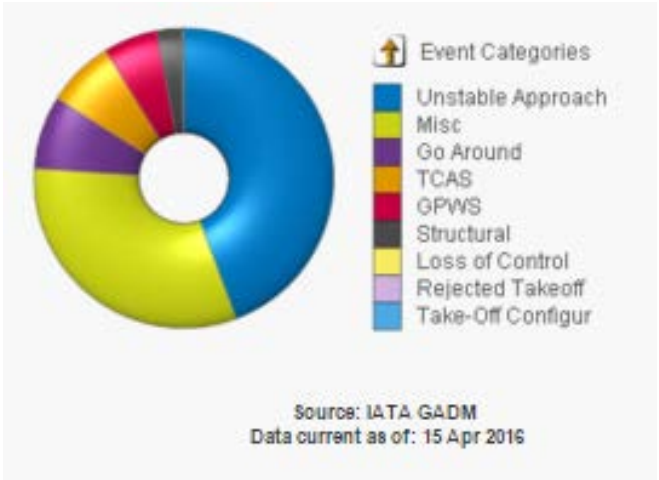
256 Rule of 3 Compliant Airports

123 in LATAM/CAR



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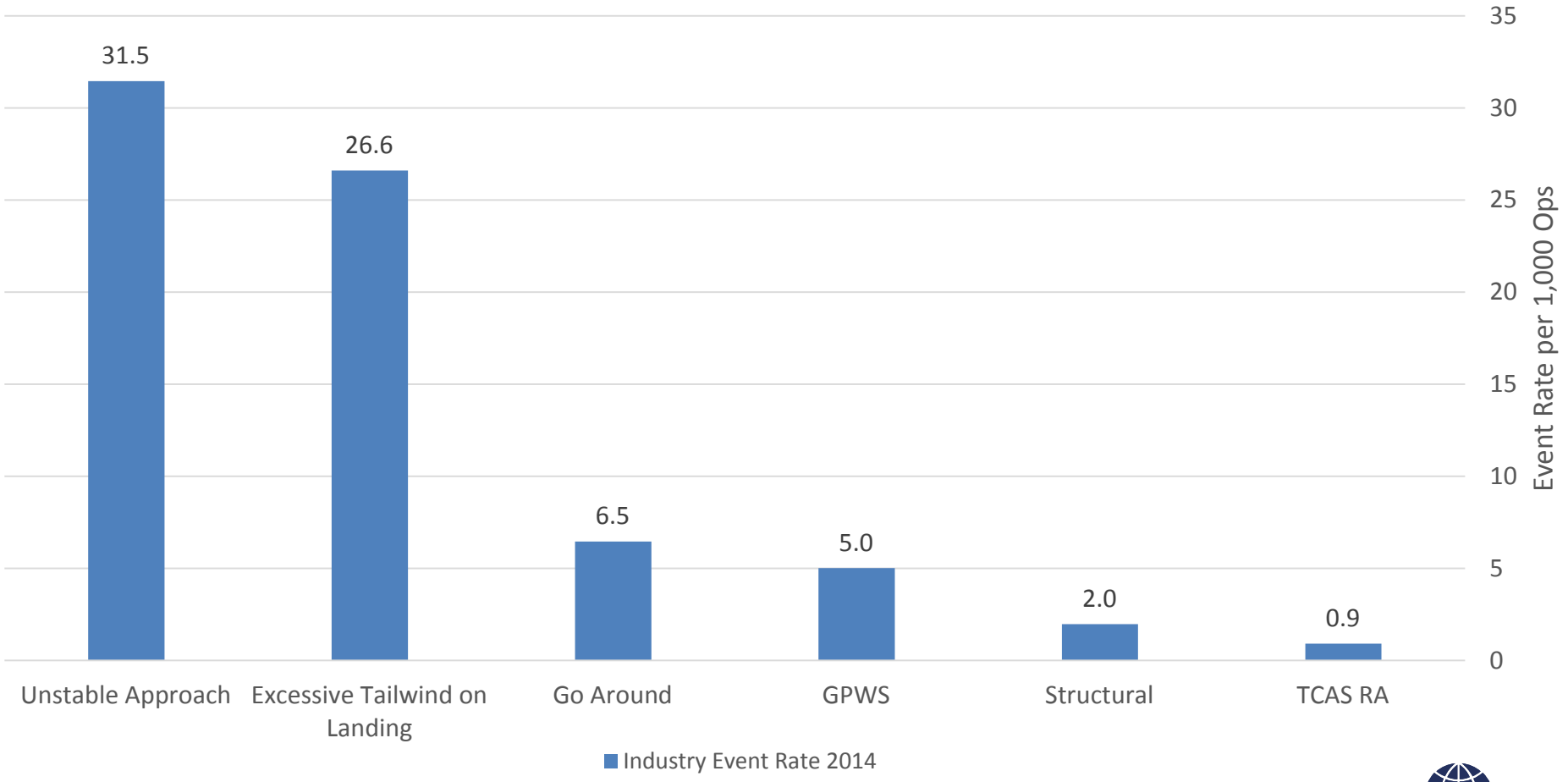
Top 15 Airports (LATAM/CAR) by Flight Operations

	Airport	City	Country	Total Flights	Total Flights (FDX Participating Carriers)	FDX Flights	% of Total Flights in FDX
1	MEX	Mexico City	Mexico	371,354	52,736	26,156	50%
2	GRU	Sao Paulo	Brazil	279,540	50,552	43,837	87%
3	BOG	Bogota	Colombia	254,168	54,641	46,101	84%
4	CGH	Sao Paulo	Brazil	159,492	47,636	40,583	85%
5	BSB	Brasilia	Brazil	151,338	29,828	26,581	89%
6	LIM	Lima	Peru	140,828	32,452	30,563	94%
7	SJU	San Juan (PR)	Puerto Rico	131,046	547	448	82%
8	PTY	Panama City (PA)	Panama	126,830	27,797	26,034	94%
9	GIG	Rio de Janeiro	Brazil	126,118	25,739	23,570	92%
10	VCP	Sao Paulo	Brazil	125,556	2,653	2,407	91%
11	SCL	Santiago (CL)	Chile	118,792	21,618	13,332	62%
12	CUN	Cancun	Mexico	116,806	7,925	7,862	99%
13	AEP	Buenos Aires	Argentina	110,772	12,856	9,673	75%
14	SDU	Rio de Janeiro	Brazil	106,990	23,823	21,364	90%
15	CNF	Belo Horizonte	Brazil	102,684	13,719	731	5%
16	GDL	Guadalajara	Mexico	92,480	13,681	9,858	72%
17	CCS	Caracas	Venezuela	89,300	2,264	2,012	89%
18	MTY	Monterrey	Mexico	86,400	10,608	3,948	37%
19	SSA	Salvador	Brazil	81,046	29,967	16,218	54%
20	SJO	San Jose	Costa Rica	76,700	7,925	3,764	47%

Event Rate per Category



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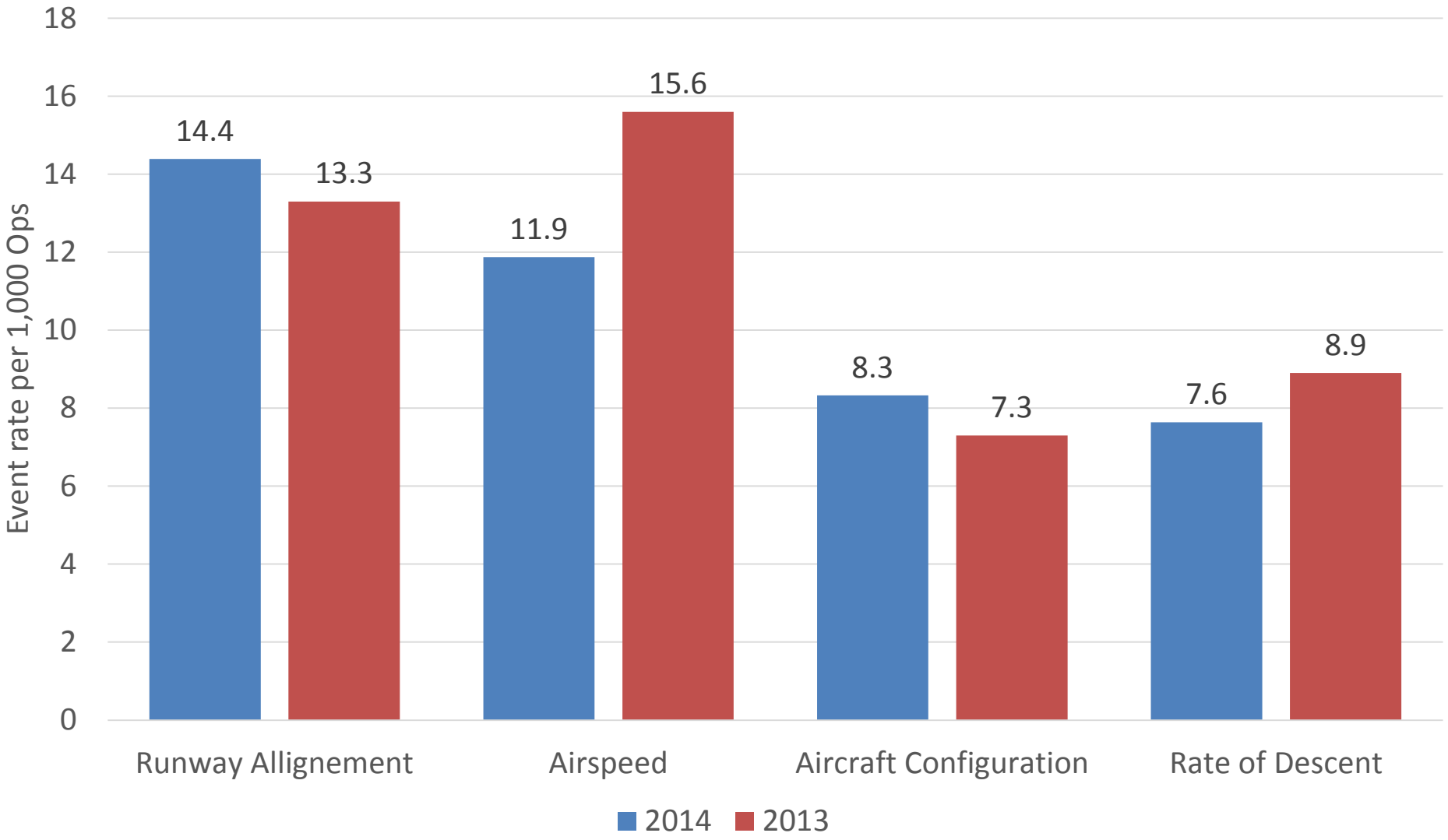
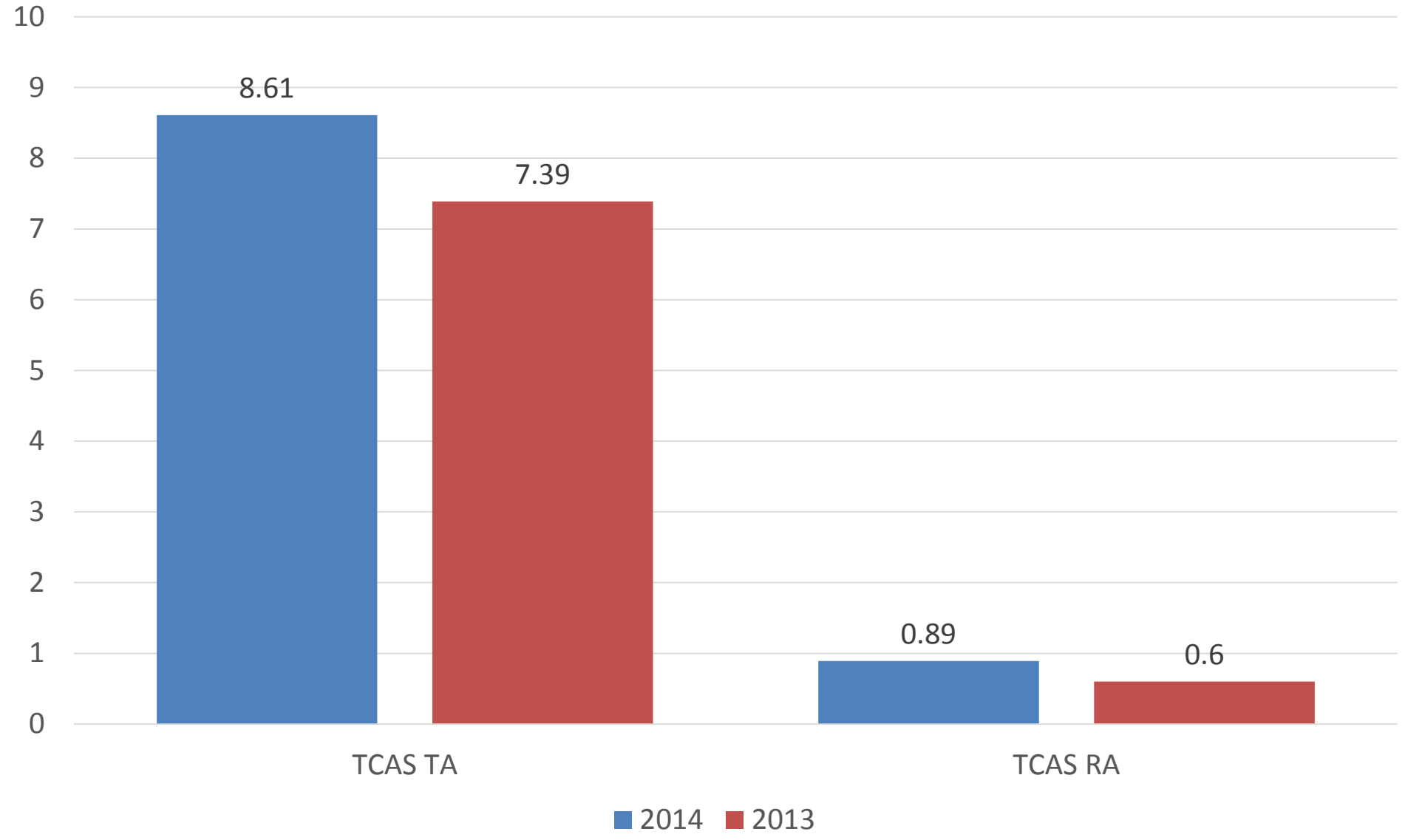
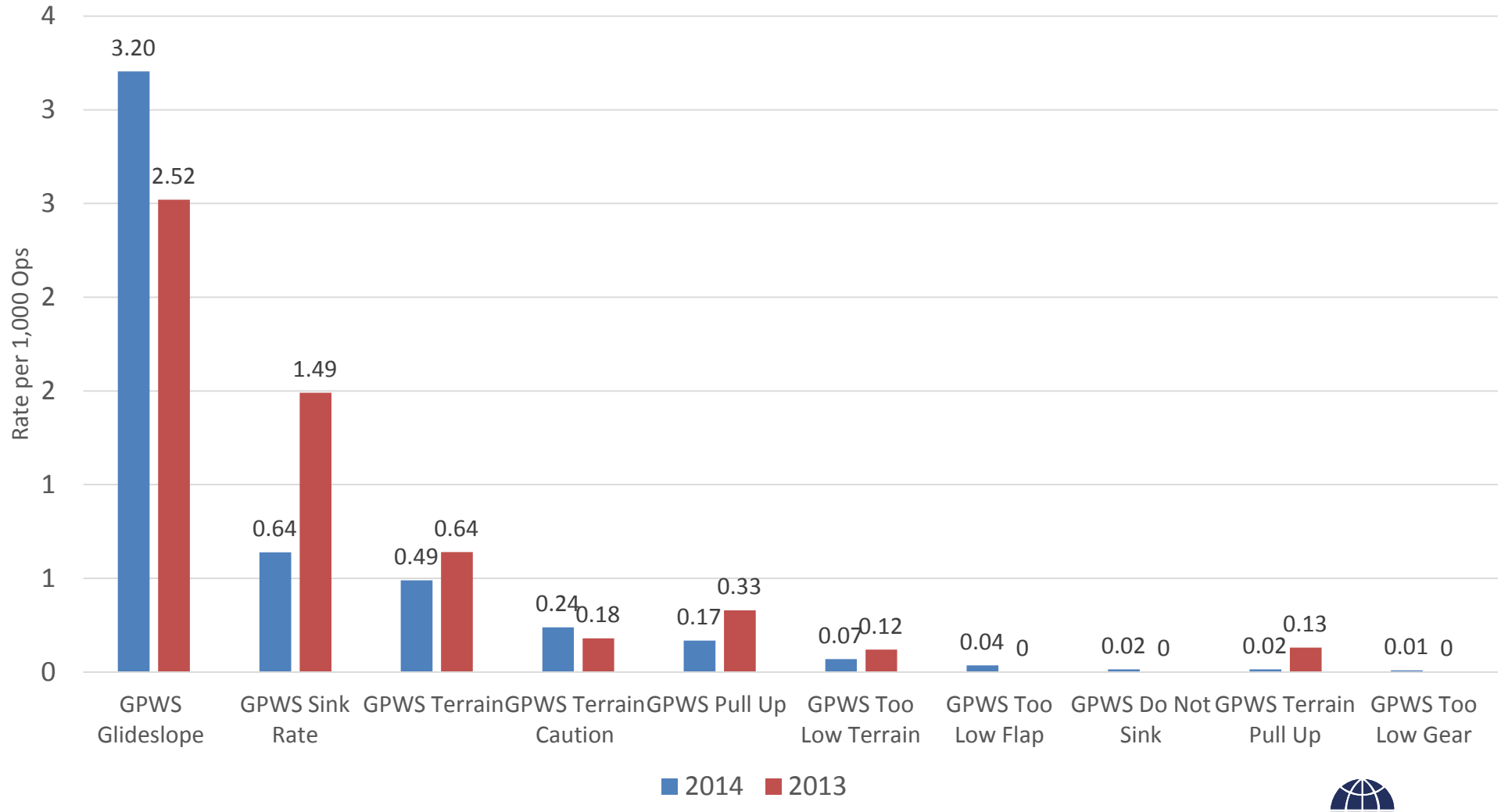
Unstable Approach-Regional Breakdown by Event



TCAS-Regional Breakdown by Event



GPWS – Regional Breakdown by Event



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Regional initiatives

Operational Safety Program (PASO)

San Jose- Costa Rica

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THANK YOU!

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