



International Civil Aviation Organization

# The Status of Aviation Safety in Asia Pacific

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**8 – 12 October 2012**

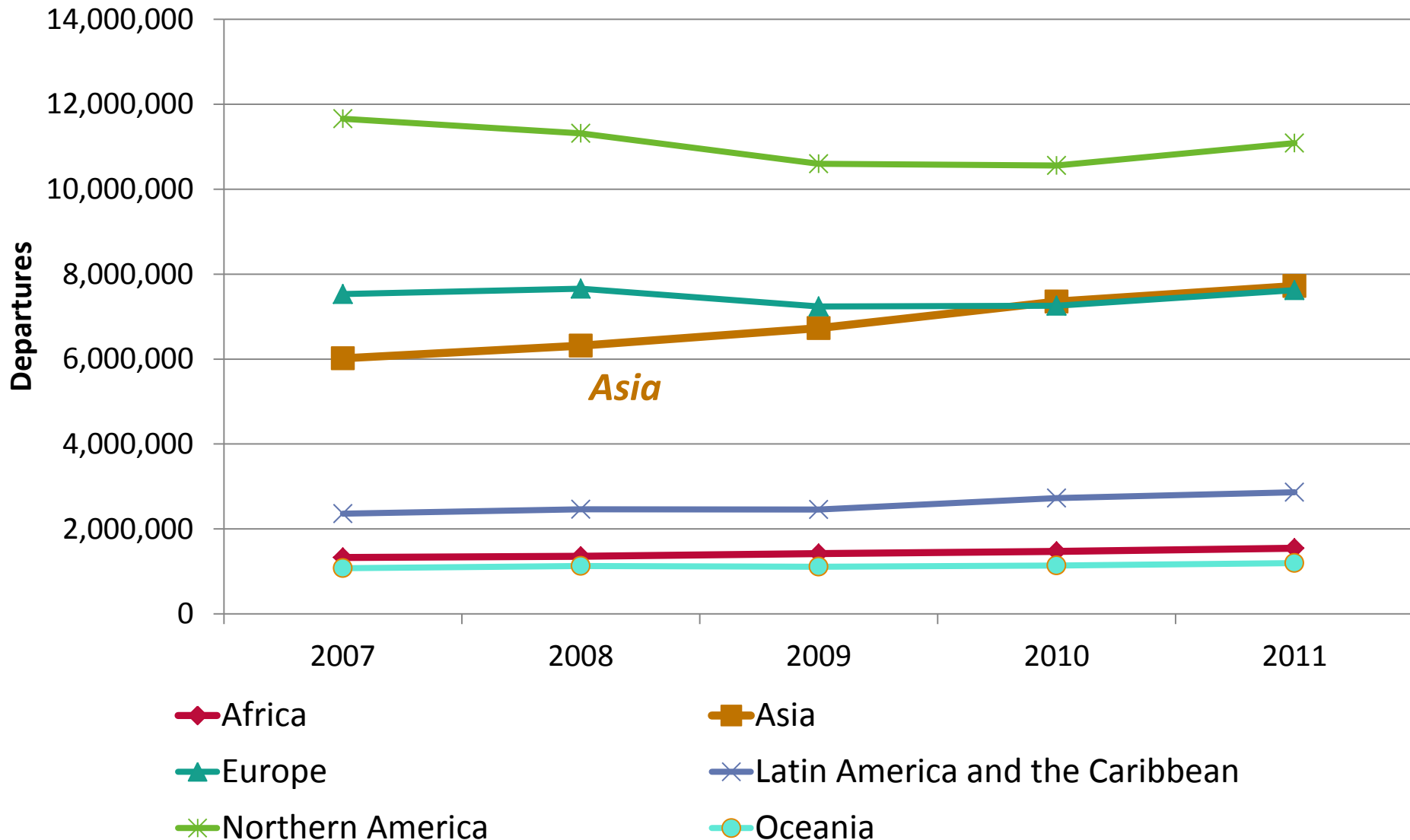
# ICAO as your Regional “Mirror”

**CLARITY**

**IMPROVEMENT**



# Global Traffic by UN Region (2007-2011)

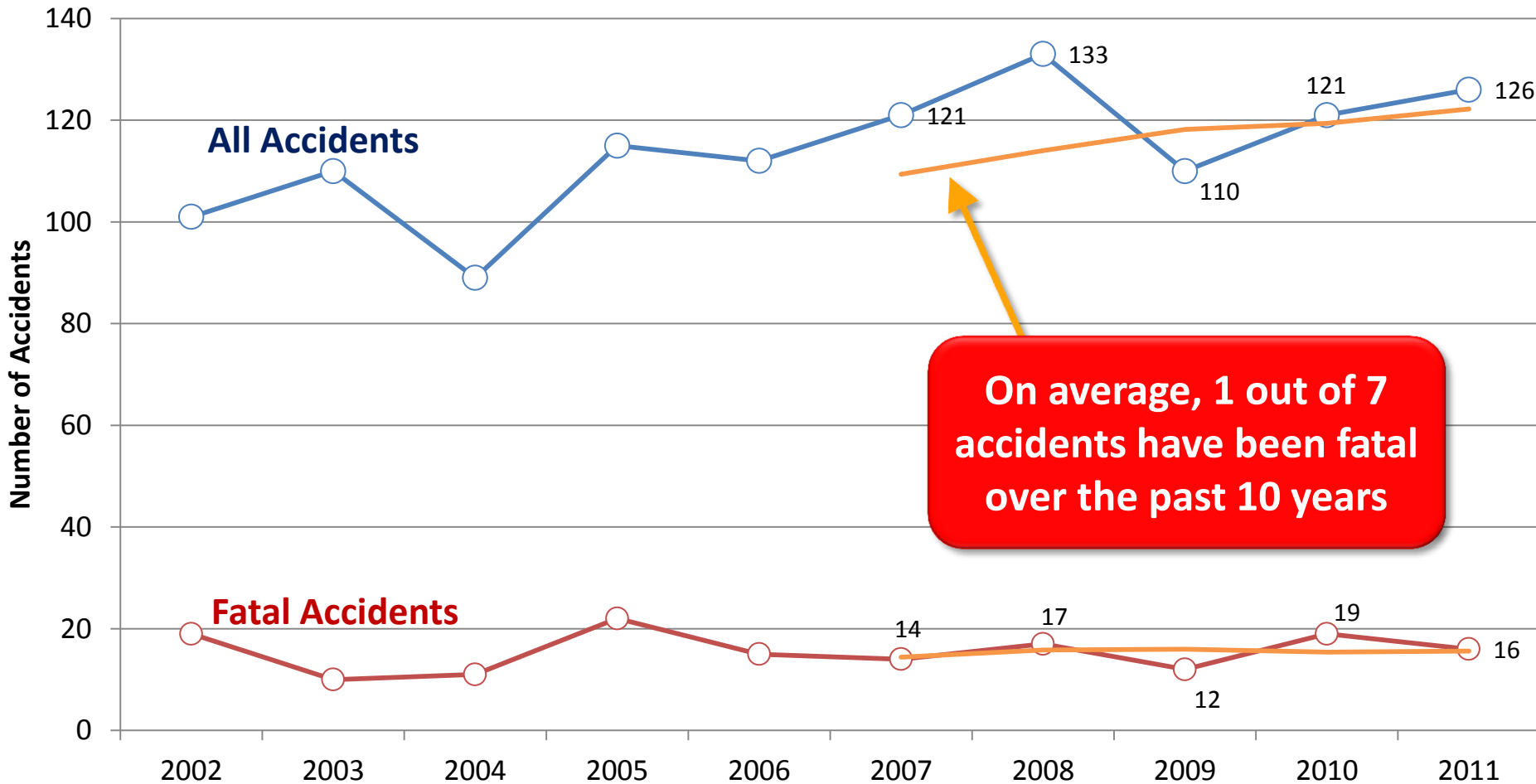


# Global Accidents (2002-2011)



## Accidents and Fatal Accidents per Year

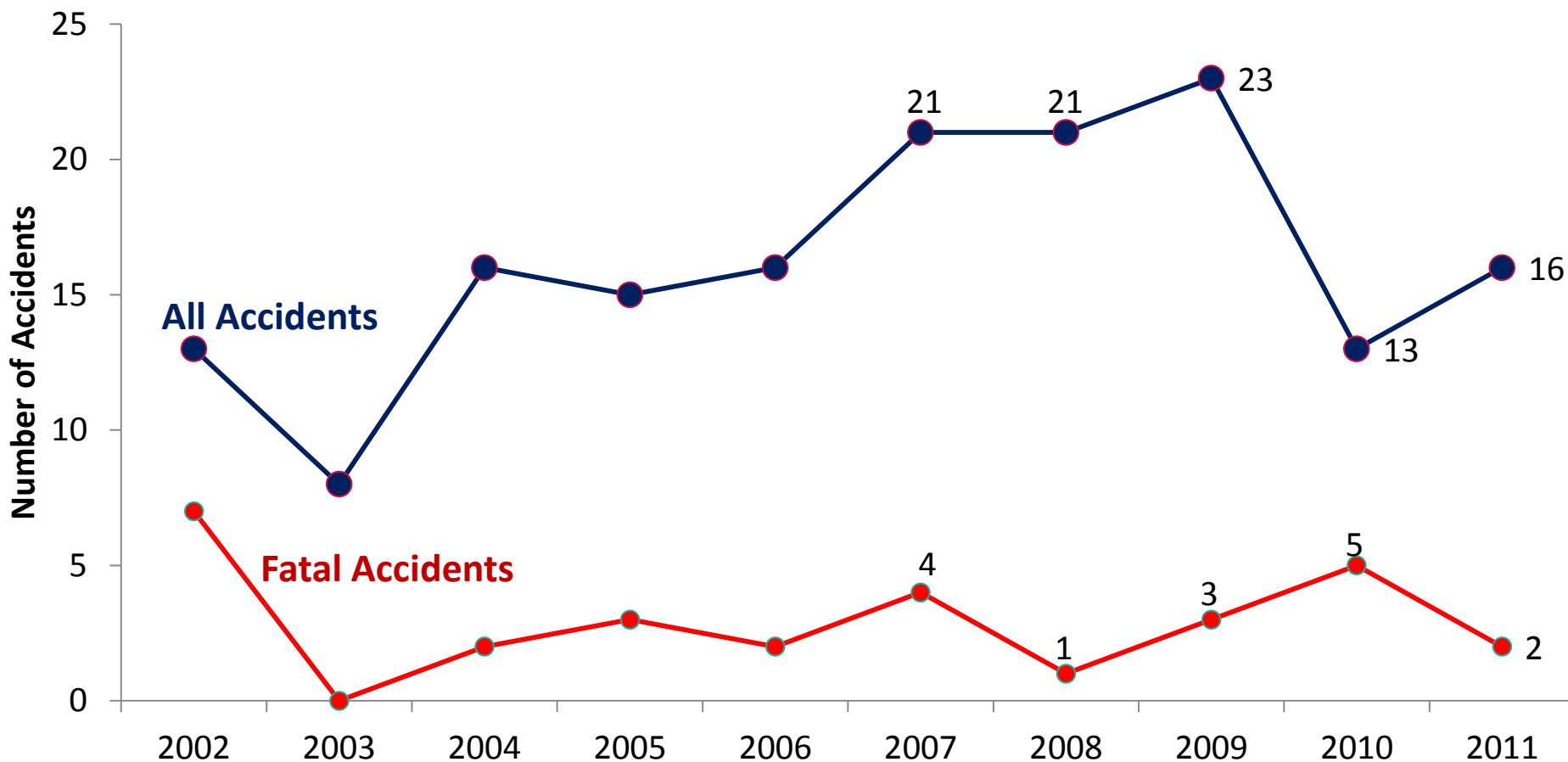
Scheduled Commercial Traffic – MTOW > 2250 kg



# APAC Accidents (2002-2011)

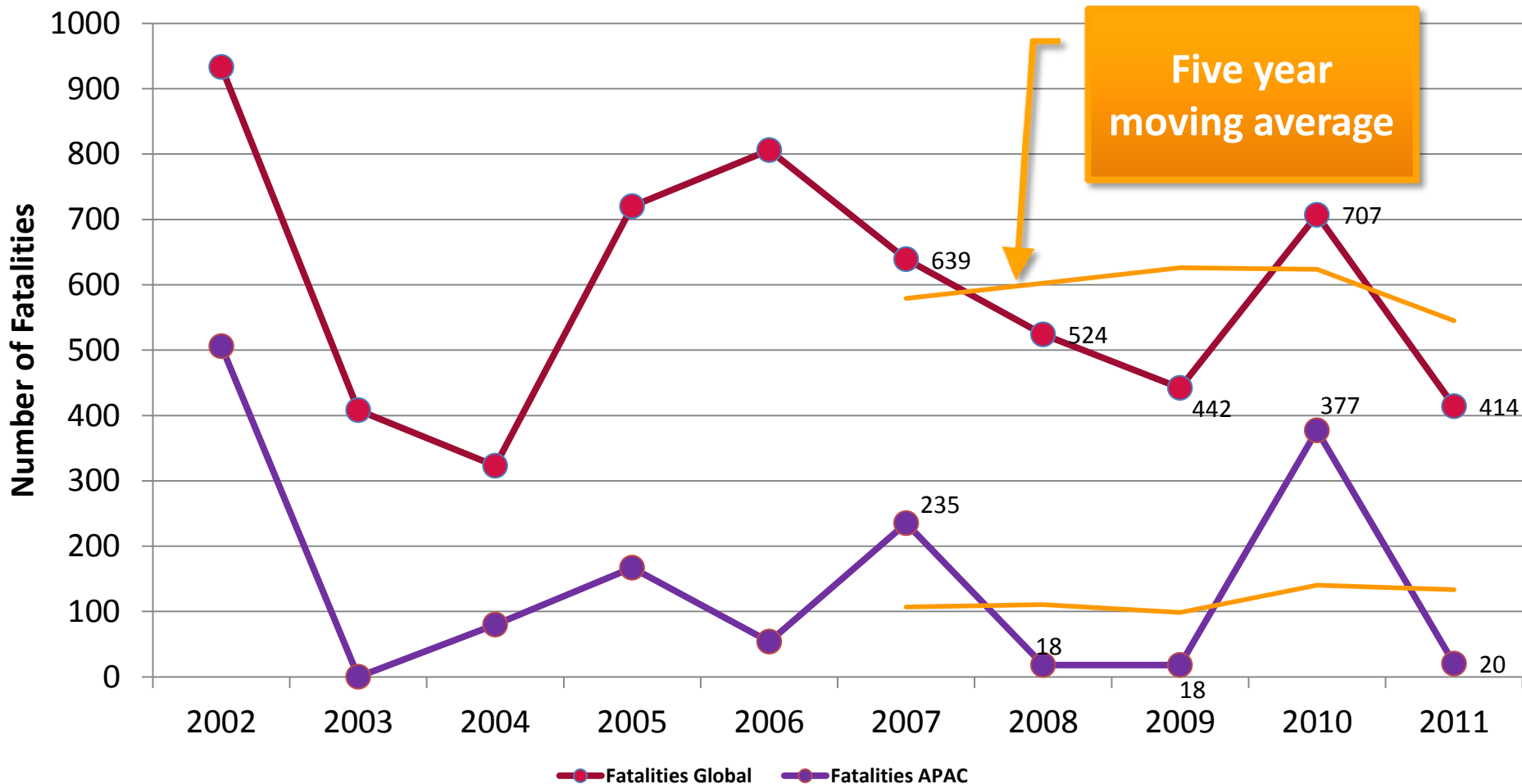
## Accidents and Fatal Accidents per Year

Scheduled Commercial Traffic - MTOW > 2250 kg



# Overall Fatalities (2002-2011)

Fatalities per Year  
Scheduled Commercial Traffic – MTOW > 2 250 kg



# Overview of Accident Trends

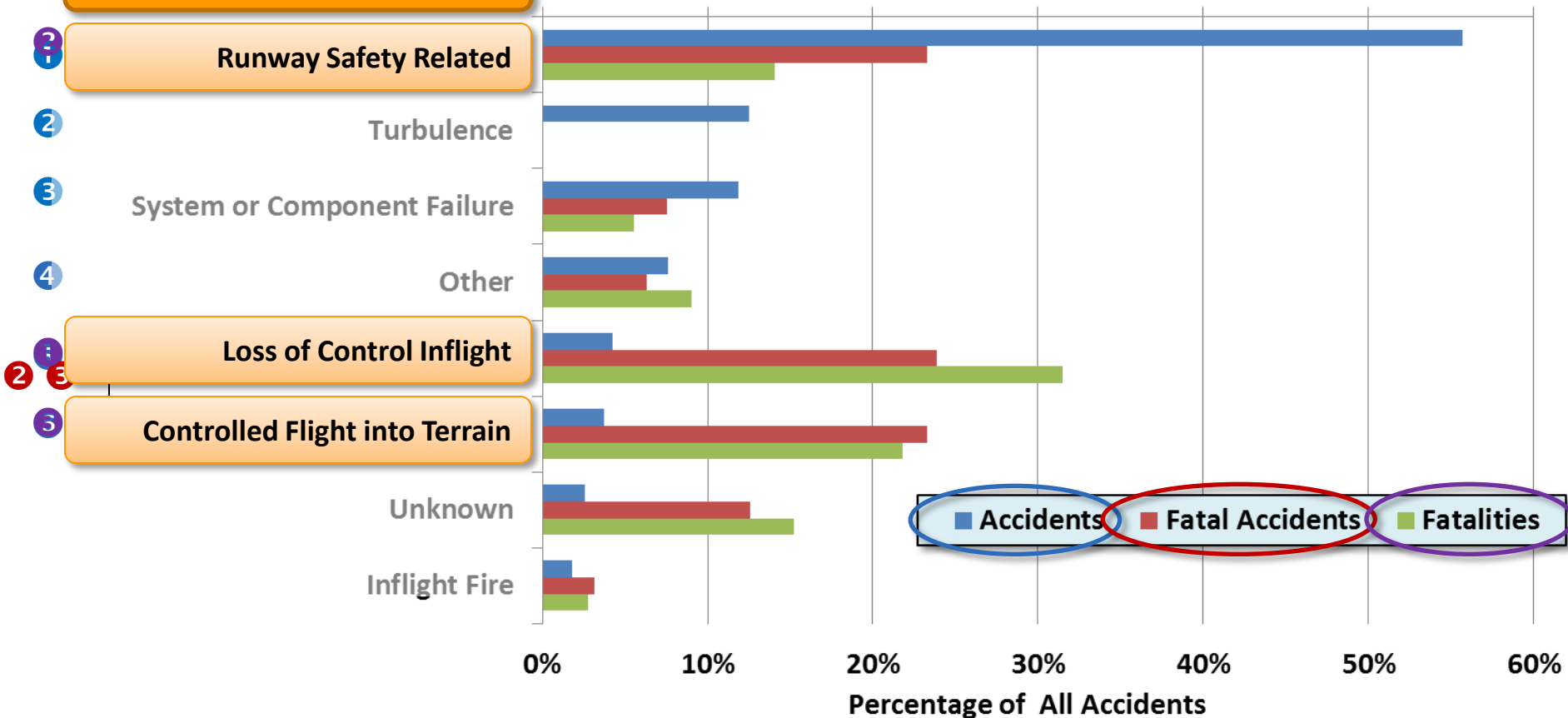
- ✈️ **Globally**, the number of accidents, number of fatal accidents and the accident rate are stable. 2011 had second-lowest number of fatalities in last 10 years.
  - ✈️ **Three categories (lack of runway safety, loss of control, and CFIT)** account for over *73% of all fatal accidents*; focused actions are ongoing in these areas.
- ✈️ **APAC** is a high traffic region – 2<sup>nd</sup> highest in the world just ahead of EUR
  - ✈️ Total accident and fatal accident numbers are *relatively constant with a significant decrease in fatalities in 2011*.

# Accidents in Detail – *Main Killers*

## Accidents & Related Fatalities by Occurrence Categories

Scheduled Commercial Traffic – MTOW > 2,250 kg (2006- 2010 )

### ICAO SAFETY PRIORITIES





# Addressing the Operational Issue: – Runway Safety



- **Collaboration of all stakeholders**
  - **Runway Safety Teams** – multidisciplinary teams established locally
- **Regional Runway Safety Seminars :**
  - 3-day format includes optional workshop for new Runway Safety Teams
  - Example: 29-30 October 2012 in Cape Town, South Africa
- **Runway Safety Website** [www.icao.int/RunwaySafety](http://www.icao.int/RunwaySafety)
  - Easy access to information on public website, including documents and toolkits
  - Development of online guidance material



# Addressing the Operational Issue: – Loss of Control Inflight



## ✈️ ICAO Actions:

- Host monthly meetings of international regulators and experts, in coordination with the US FAA ARC and the International Committee for Aviation Training in Extended Envelope (March through September 2012)
- Collect globally acceptable best practices, for upset prevention and recovery training as a basis for ICAO Standards development

## ✈️ Deliverables:

- Licensing and training Standards in Annex 1 and Annex 6, Part I – Nov 2013
- Symposium on preventing Loss of Control Inflight – 2014

## ✈️ ICAO website for Loss of Control Inflight:

- Easy access to information on public website, including documents and toolkits
- Development of online guidance material

# Addressing the Operational Issue: – Controlled Flight Into Terrain (CFIT)

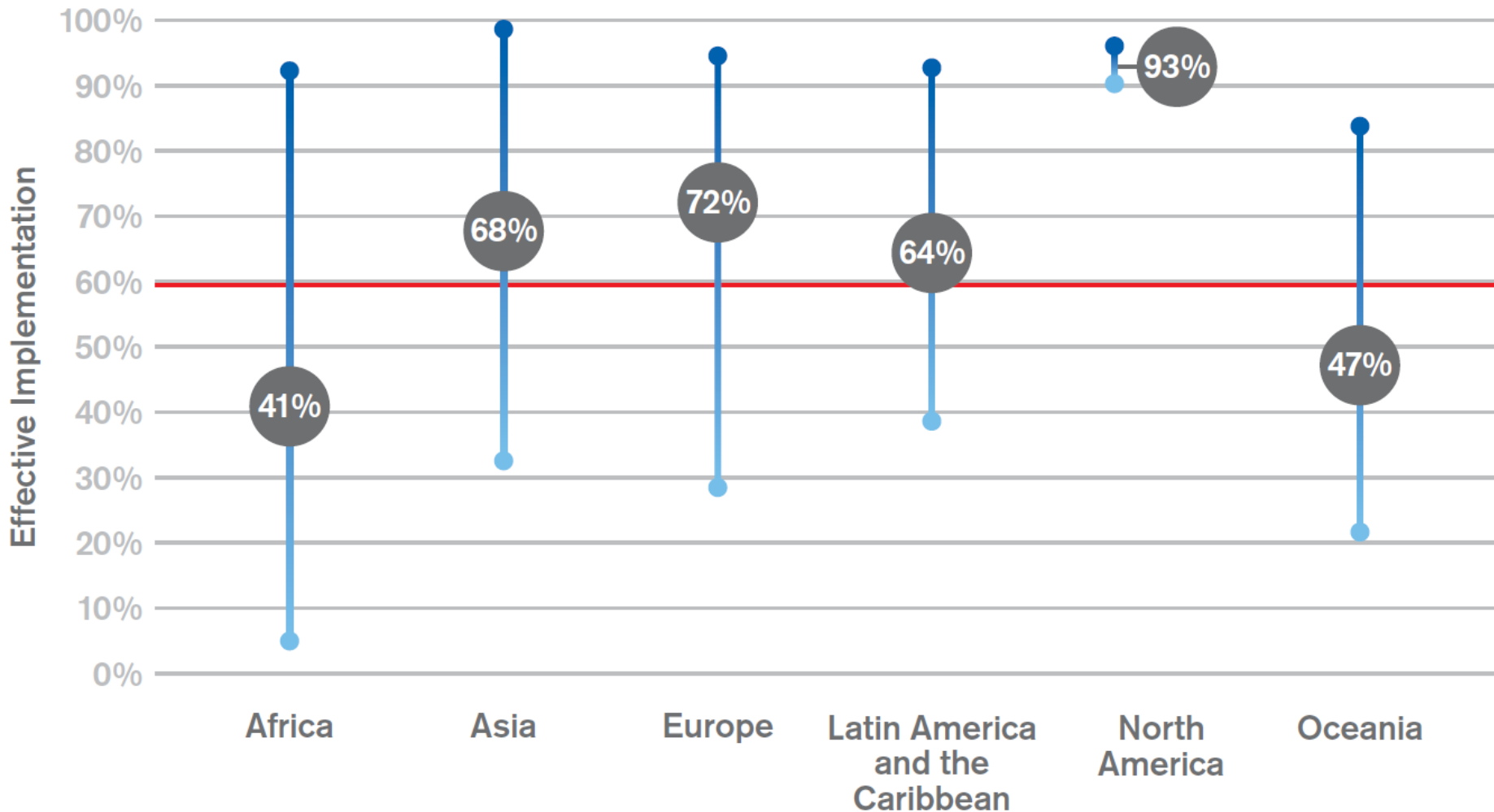


- ✈ **Major improvement in the last decade due to:**
  - Enhanced ground proximity warning systems
  - Glass cockpits, terrain alerting systems
  - Emphasis by ICAO, regulators and industry on education and training
- ✈ **Focus is now on implementation of Performance-based Navigation (PBN)**
- ✈ **Several initiatives under consideration to increase situational awareness**
  - Head-up display, synthetic and enhanced vision systems

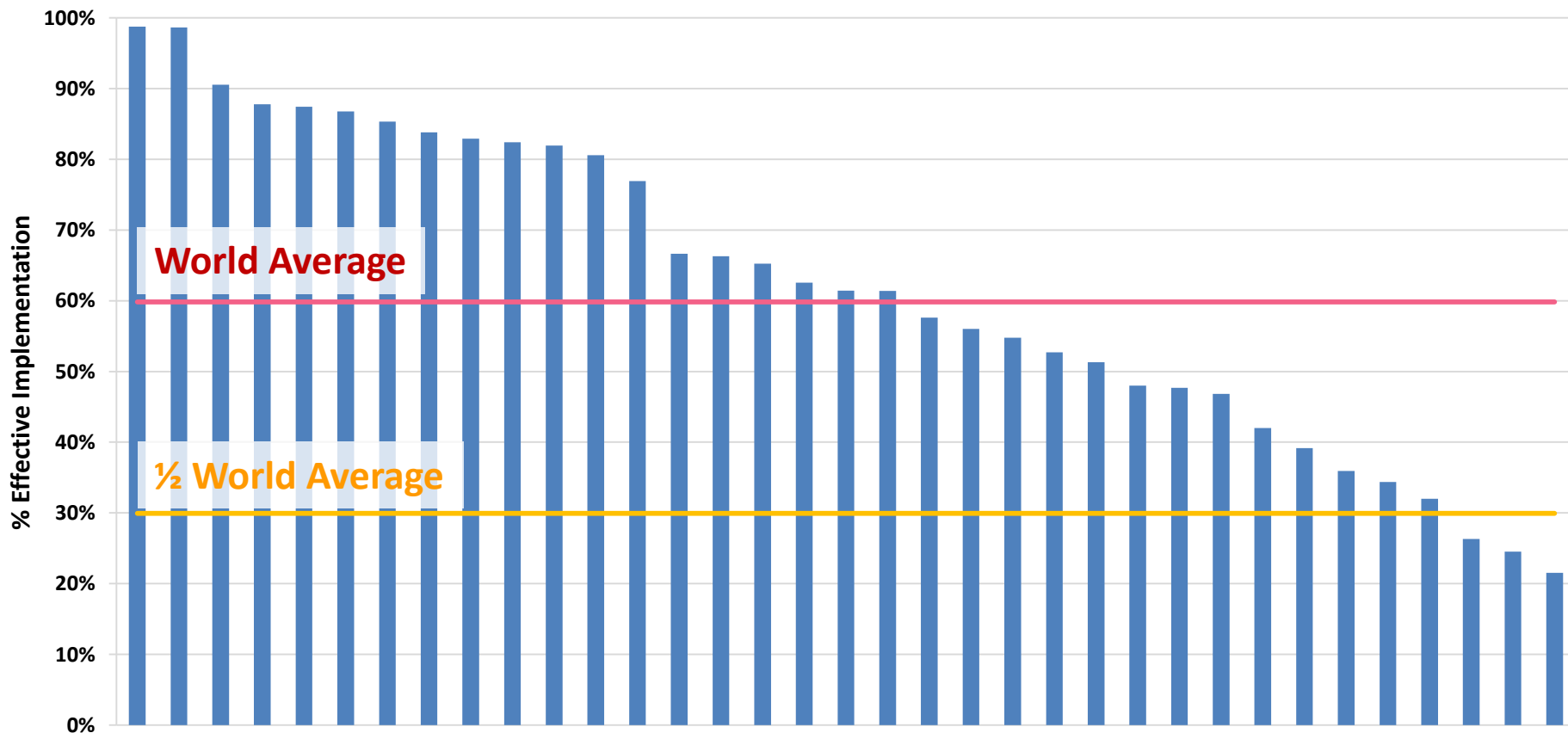
# Global USOAP Results – Effective Implementation by Region



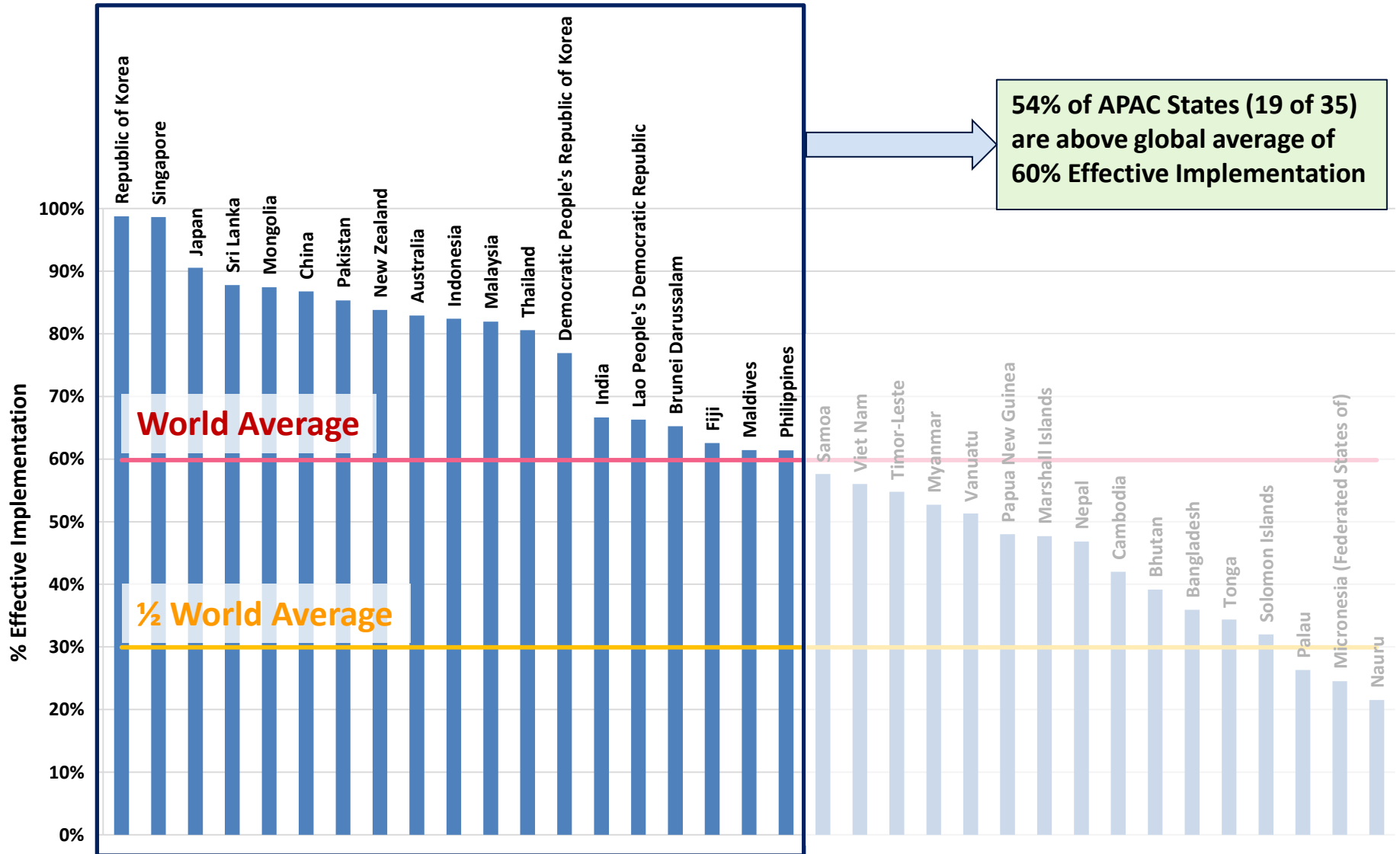
● Minimum ● Maximum ● Average — Worldwide Average



# APAC USOAP Results – Effective Implementation by each State

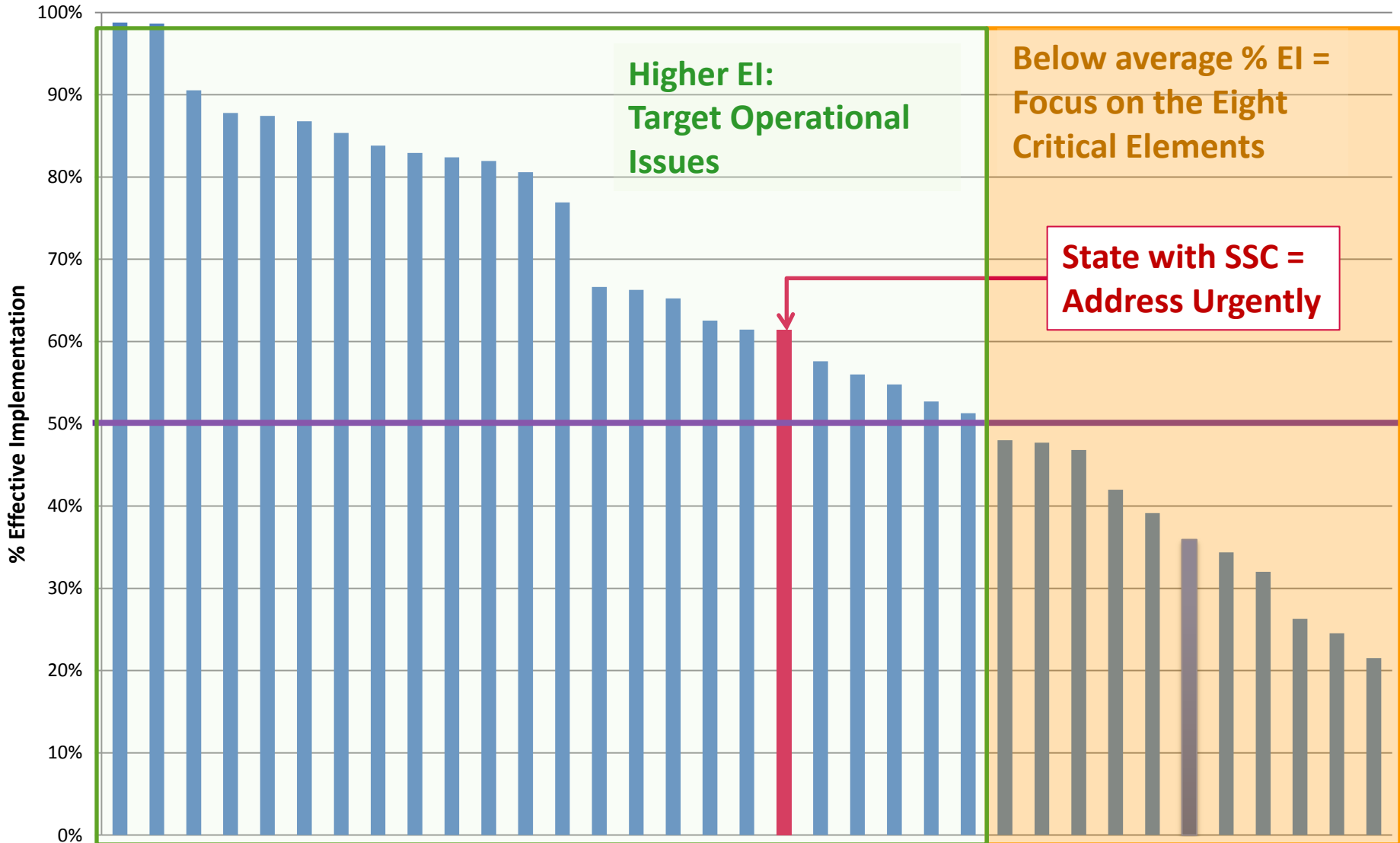


# APAC USOAP Results – Effective Implementation by each State



# Matching Priorities for Improvement

## Effective Implementation by each State



# Targets recently set for Africa

- ✈ Reduce runway related accidents to no more than **8** by **2015**
- ✈ Reduce controlled flight into terrain related accidents to no more than **1** by **2015**
- ✈ Establish Civil Aviation Authorities with full autonomy and sustainable sources of funding
- ✈ Require Services Providers to implement an SMS by 2015
- ✈ Certify International Aerodromes by 2015
- ✈ Require African carriers to complete IOSA audit by 2015





# ICAO Plan of Action

- ✈ **States with SSCs and/or poor audit results prepare an ICAO Plan of Action**
- ✈ **Developed by the State and ICAO to target the high priority objectives**
- ✈ **Includes input from existing and potential assistance providers and donors**
- ✈ **Formally accepted by the State at the level of the Minister**



HOME PAGE

DOCUMENTS OF INTEREST   LINKS   EXISTING PROJECTS TABLE   PROPOSED PROJECTS TABLE   OPEN MAP IN NEW WINDOW

- Angola
- Benin
- Botswana
- Cameroon
- Central African Republic
- Comoros
- Congo
- Djibouti
- DR Congo
- Eritrea
- Equatorial Guinea
- Gabon
- Lesotho
- Madagascar
- Malawi
- Mozambique
- Rwanda
- Sierra Leone
- Swaziland
- Zambia



ICAO Safety Collaborative Assistance Network (SCAN)  
Activity Symbolology

# Expanding Safety Analysis Capabilities

## GIS Airport Departures 2010

Report a problem >

**Description**

The interactive map below shows all airports with scheduled commercial traffic in 2010. Red indicates that the traffic at that airport increased between 2009 and 2010, blue indicates a decrease. The size of the dot is related to the number of departures in 2010.

Select an airport from the list on the left and click "MAP". The map will zoom to the airport. You may further zoom using the +/- range inside the map. You may also choose another background map like Aerial, Streets etc. by selecting it at the top on the map. By clicking on an airport on the map, departure information will be shown.

You can print the map by clicking on the printer icon. Save the map as a JPG image by clicking on the floppy disk icon on the top bar, and then click on the floppy disk which appears in the bottom left corner of the map.

**Dataset: Airport Movements**  
Last updated: 12/07/2011  
Items: 3446

Search for airport

Country:

Combined:

Count = 3446

United States

ATL-Atlanta/United States

ORD-Chicago/United States

DFW-Dallas/Fort Worth/United States

DEN-Denver/United States

LAX-Los Angeles/United States

HKI-Houston/United States

PEK-Beijing/China


CGO-Paris/China

CDG-Paris/United States

LHR-London/United Kingdom

FRA-Frankfurt/Germany

PHL-Philadelphia/United States




<http://www.icao.int/iSTARS>

## State Traffic Charts

**Description**

This dynamic chart lists all commercial scheduled departures from airports of a given State or Region from 2000 to 2010. To query a specific state, click on the drop down menu and choose a state or region from the list, then click on "Go". You may also define a start and end year for the analysis.

The left Y-Axis lists the traffic value in Millions, while the right Y-Axis contains the Year-over-year (YOY) percentage change comparison.

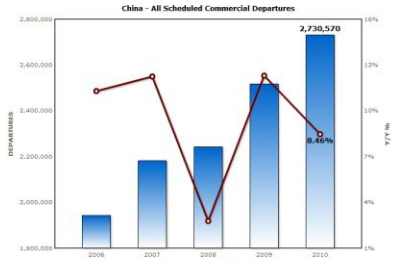
The domestic departures only feature is only available when selecting a State, not a region or the world.

For data used to generate these charts, access the iSTARS State Traffic Data page.

Choose a State or Region

China  From 2006 To 2010 Domestic departures only

**China - All Scheduled Commercial Departures**



Year	Departures (Millions)	YOY %
2006	~1,800,000	-
2007	~2,200,000	~22%
2008	~2,200,000	~0%
2009	~2,700,000	~23%
2010	2,730,570	8.65%

## Air Navigation

### Air Navigation Deficiencies

**Description**

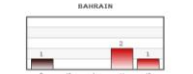
The below list contains all action plans filed for a particular state. Edit a specific action by clicking on the reference number. You may add an action plan using the buttons on the left.

Select a State

BAHRAIN

**Deficiency summary**

BAHRAIN



**AN Actions**

Deficiency	Area	Action	Executing body	EID	State	Status	Update	Edit
<b>Count = 4</b>								
Area : AOP (1)								
Area : ATM (2)								
<b>Count = 2</b>								
ATMSAR/195-MD	ATM	A. States to commence negotiations with neighbors to establish SAR agreements	Bahrain	31/12/2011	BAHRAIN	Not determined	<input type="button" value="Go"/>	<input type="button" value="Go"/>
ATMSAR/195-MD	ATM	B. Implement operational SAR agreements						
		C. Implement entry agreements for SAR aircraft of other States						
ATMSAR/195-MD	ATM	Need to develop and promulgate contingency plans for implementation in the event of disruption of ADS and related supporting services	Bahrain	31/12/2011	BAHRAIN	Not determined	<input type="button" value="Go"/>	<input type="button" value="Go"/>
Area : CNS (1)								

Priority (Yellow), Priority (Red), Priority (Blue)

**AN Deficiencies**



★ **RASGS**

**Thank you!**