



**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

*A United Nations Specialized Agency*

# **Challenges and Opportunities for Aviation Training**

*RASG-PA Aviation Safety Seminar/Workshop*

*St. Johns', Antigua, 10-12 September 2013*

**Eduardo Chacin**

Regional Officer, Flight Safety

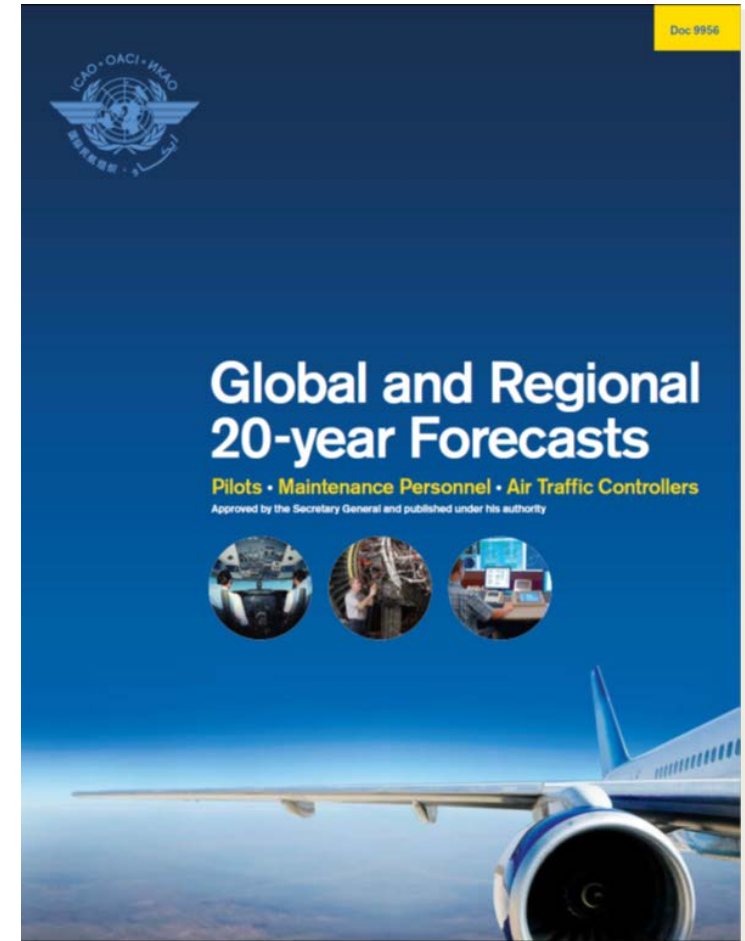
ICAO NACC Regional Office

# International Civil Aviation Organization Role

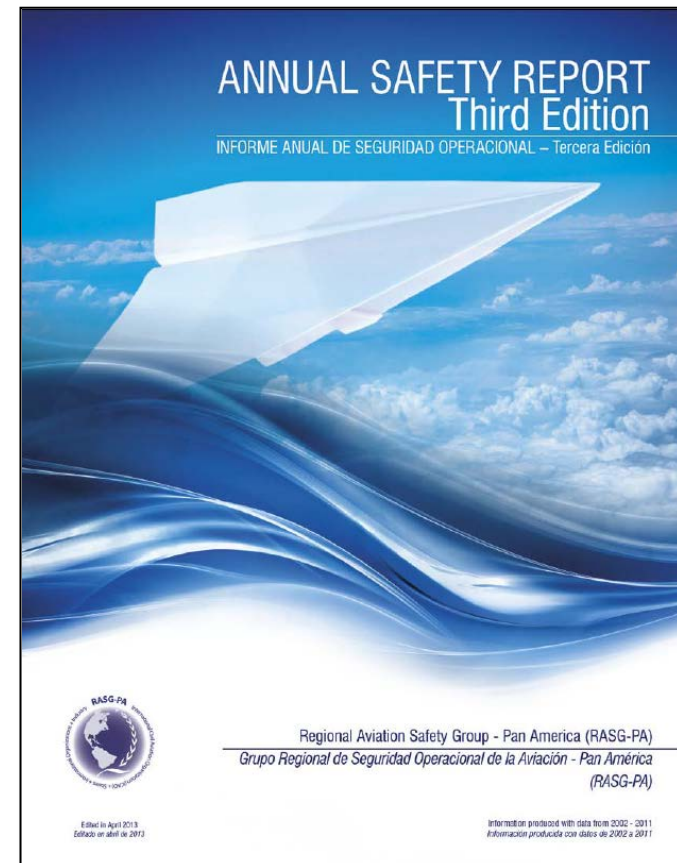


- Specialized agency of the United Nations
- Created in 1944 to promote the safe and orderly development of international civil aviation throughout the world
- Sets standards and regulations necessary for aviation safety, security, efficiency and regularity, and aviation environmental protection
- Serves as the forum for cooperation in all fields of civil aviation among its 191 Member States

# Data-driven Organization



# Data-driven Organization cont.



# Air Transport Facts & Figures (ICAO)



**3.0** billion  
*+4.7%*  
*growth rate vs. 2011*

*Passengers carried  
in 2012\**



**6.4** billion  
*+4.4%*  
*average annual  
growth rate*

*Forecasted passengers carried  
in 2030*

**31** million  
*+0.7%*  
*vs. 2011*

*Aircraft departures  
in 2012\**



**59** million  
*+3.6%*  
*average annual  
growth rate*

*Forecasted aircraft departures in  
2030*

*\*Preliminary figures*

**Traffic Statistics for Revenue Schedule Services**

# Air Transport Facts & Figures (ICAO) cont

**5.4** trillion  
*Revenue Passenger-Kilometres*  
in **2012\***

**+4.9%**  
*growth rate vs. 2011*

**182** billion  
*Freight Tonne-Kilometres*  
in **2012\***

**-1.1%**  
*growth rate vs. 2011*

**Traffic Statistics for Revenue Schedule Services**



# Economic & Social Benefits

## Air Transport Facts

### SOCIAL BENEFITS

60 million jobs → Worldwide  
Directly and supporting sectors

### ECONOMIC BENEFIT

2 trillion USD = 3.5% GDP  
global

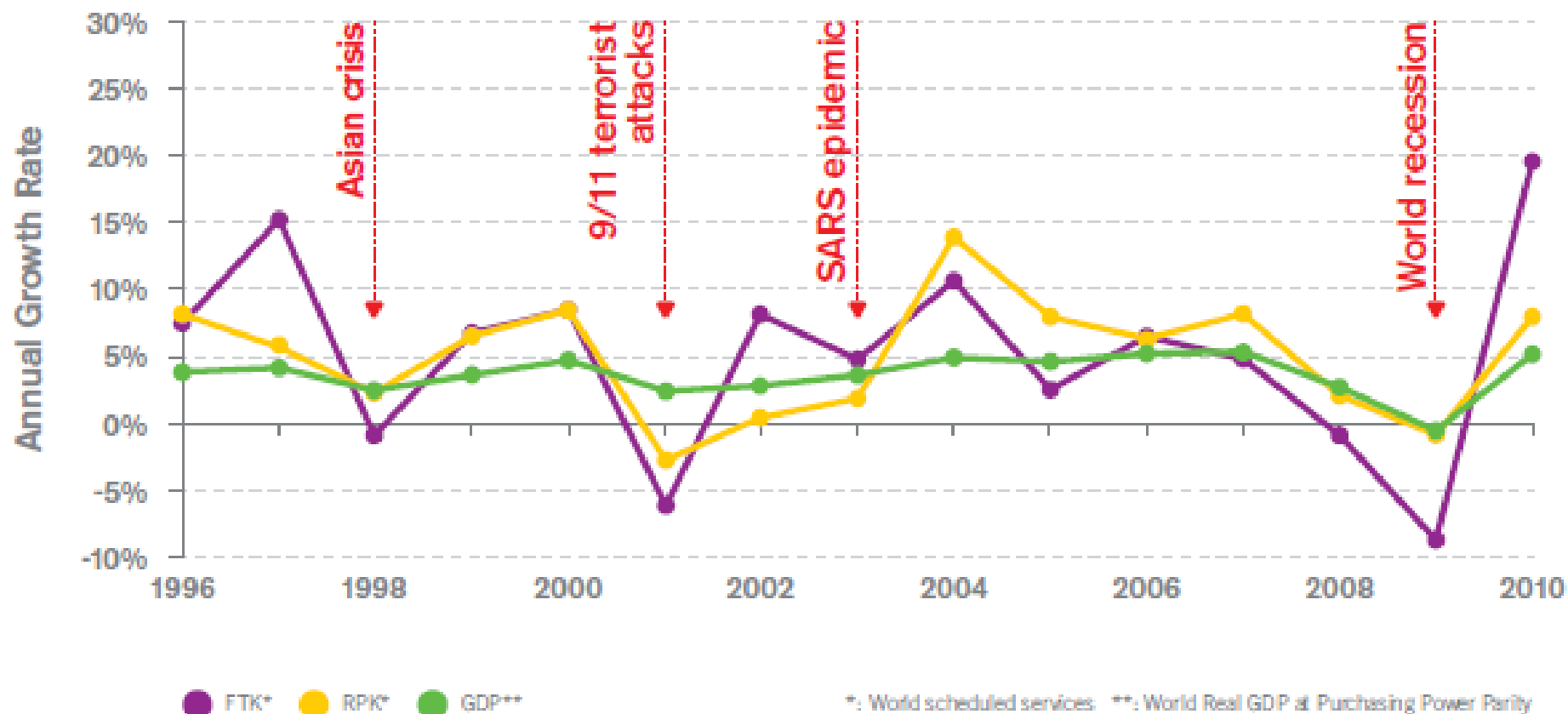
Aviation annually carries more than half of the  
1 billion international tourists

# Facts & Figures (ICAO)



## World economic growth vs. air traffic growth (passenger and cargo)

Source: IHS Global Insight, ICAO

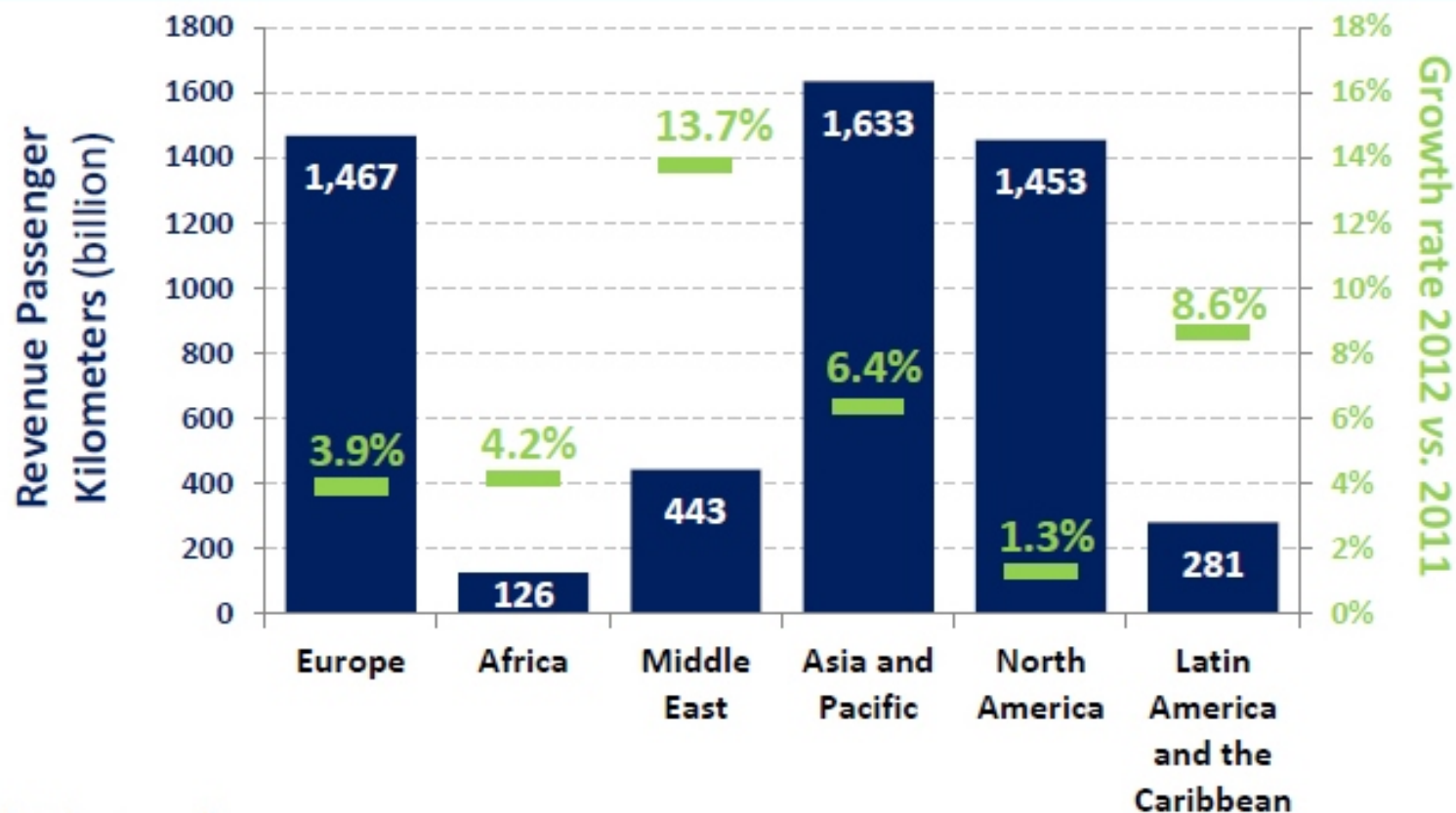




# Facts & Figures (ICAO) cont.



**World passenger traffic - Regional distribution in 2012\***

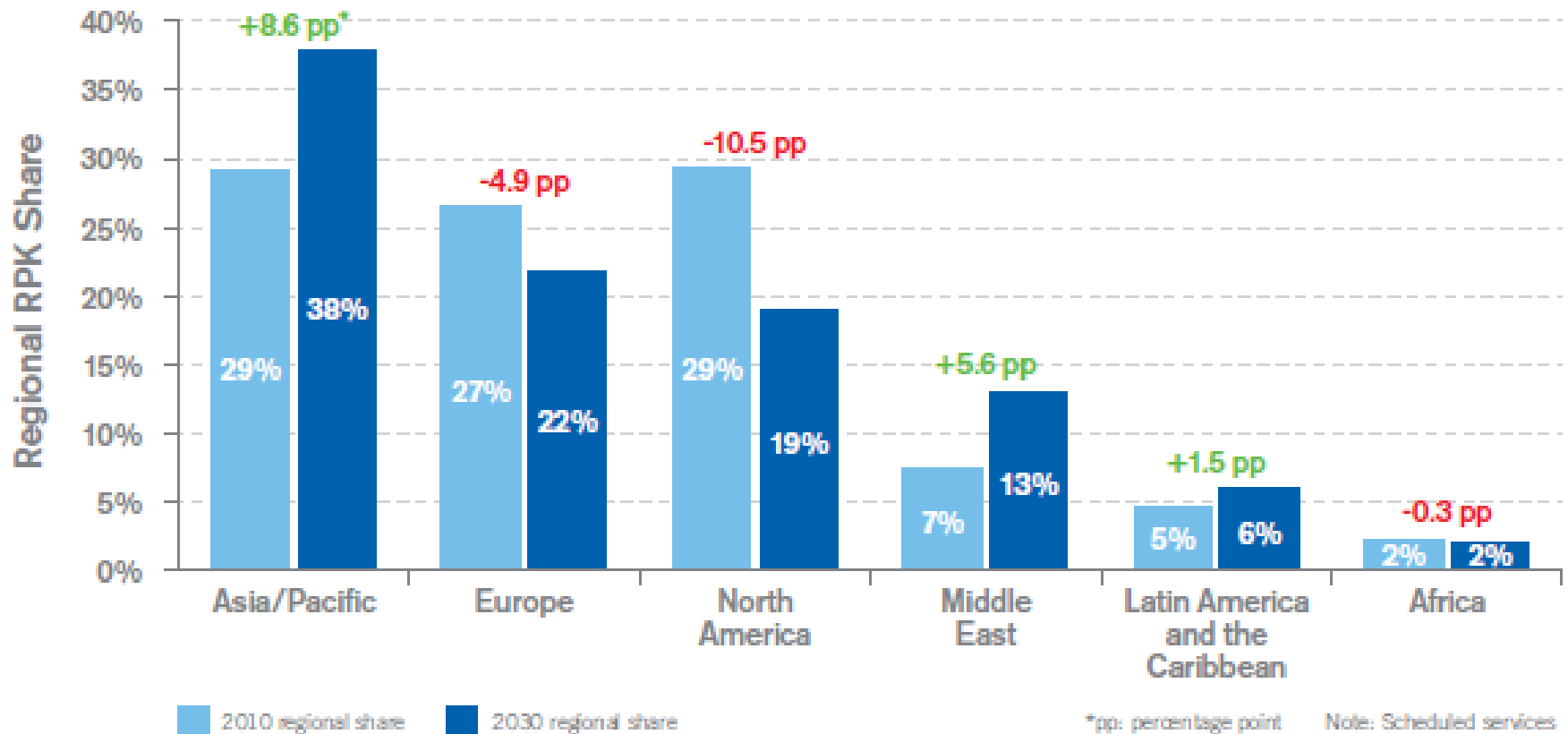


\*Preliminary figures

# Facts & Figures (ICAO) cont.



## Regional share of passenger traffic by airline of registration: 2030 vs. 2010

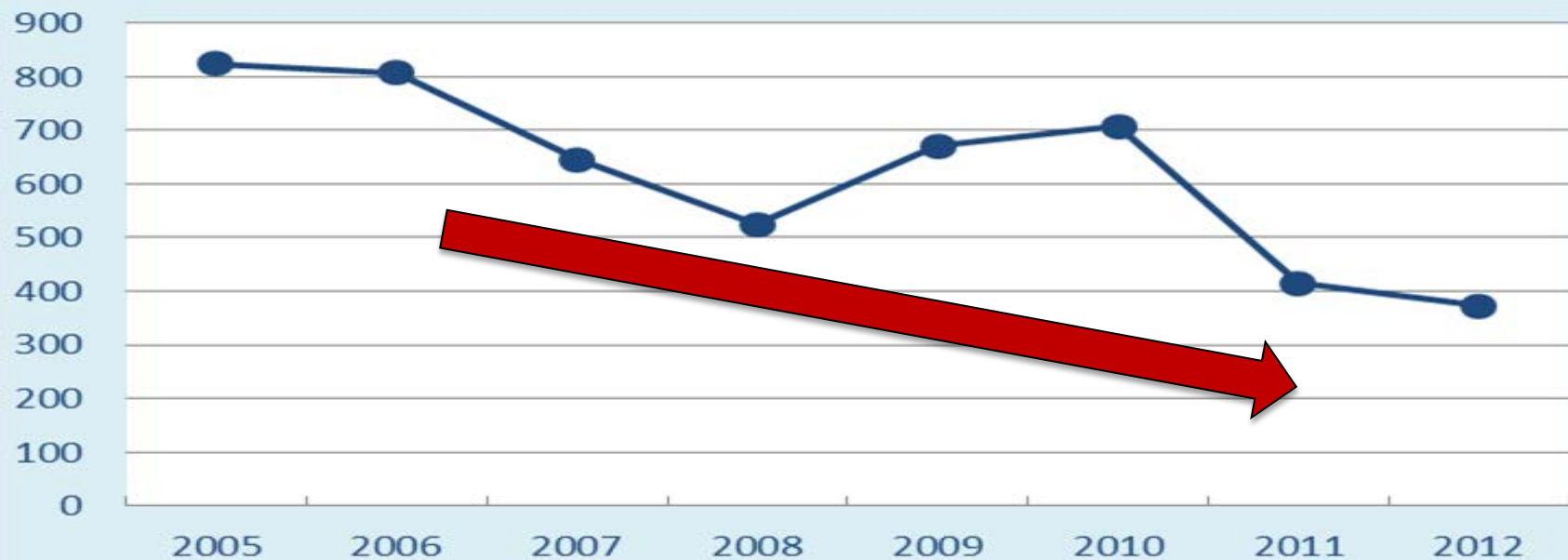


# Status of Global Aviation Safety

Based on scheduled commercial operations involving aircraft having a maximum take-off weight (MTOW) above 2250 kg.

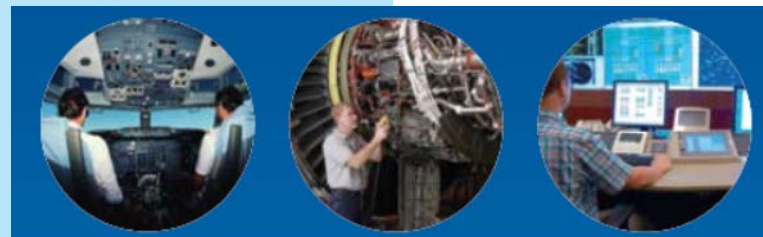
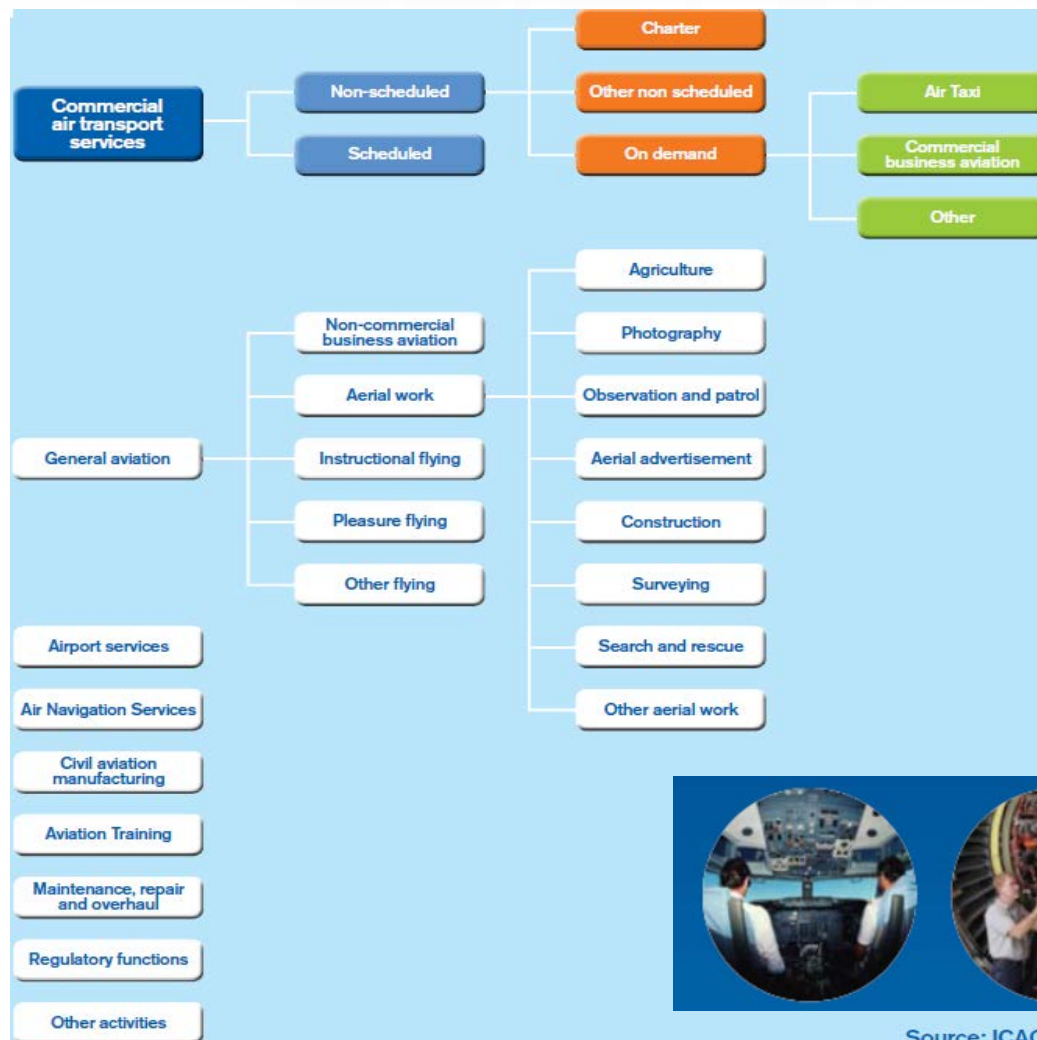


Fatality Trends: 2005 - 2012



**NUMBER OF FATALITIES CONTINUE TO DECLINE**  
**GLOBAL ACCIDENT RATE IS SIGNIFICANTLY LOWER**

# Civil Aviation Activities



Source: ICAO

# Training of Aviation Personnel



- National Strategy
- Regional Strategy
- Global Strategy
- Short, Medium and Long Term



# Challenges for Air Transport



- Commercial air transport has shown a strong traffic growth pattern
- Many new commercial air transport operators
- Highest number of aircraft orders ever registered
- Over the next twenty years, the demand for qualified aviation personnel pilots will need to be correlated to aircraft delivery plans



# Challenges for Air Transport cont.



## Global Challenges:

- Demand for skilled aviation personnel
- Training capacity
- Attractiveness of aviation
- Improvement of aviation safety
- Attrition related impact
- Others

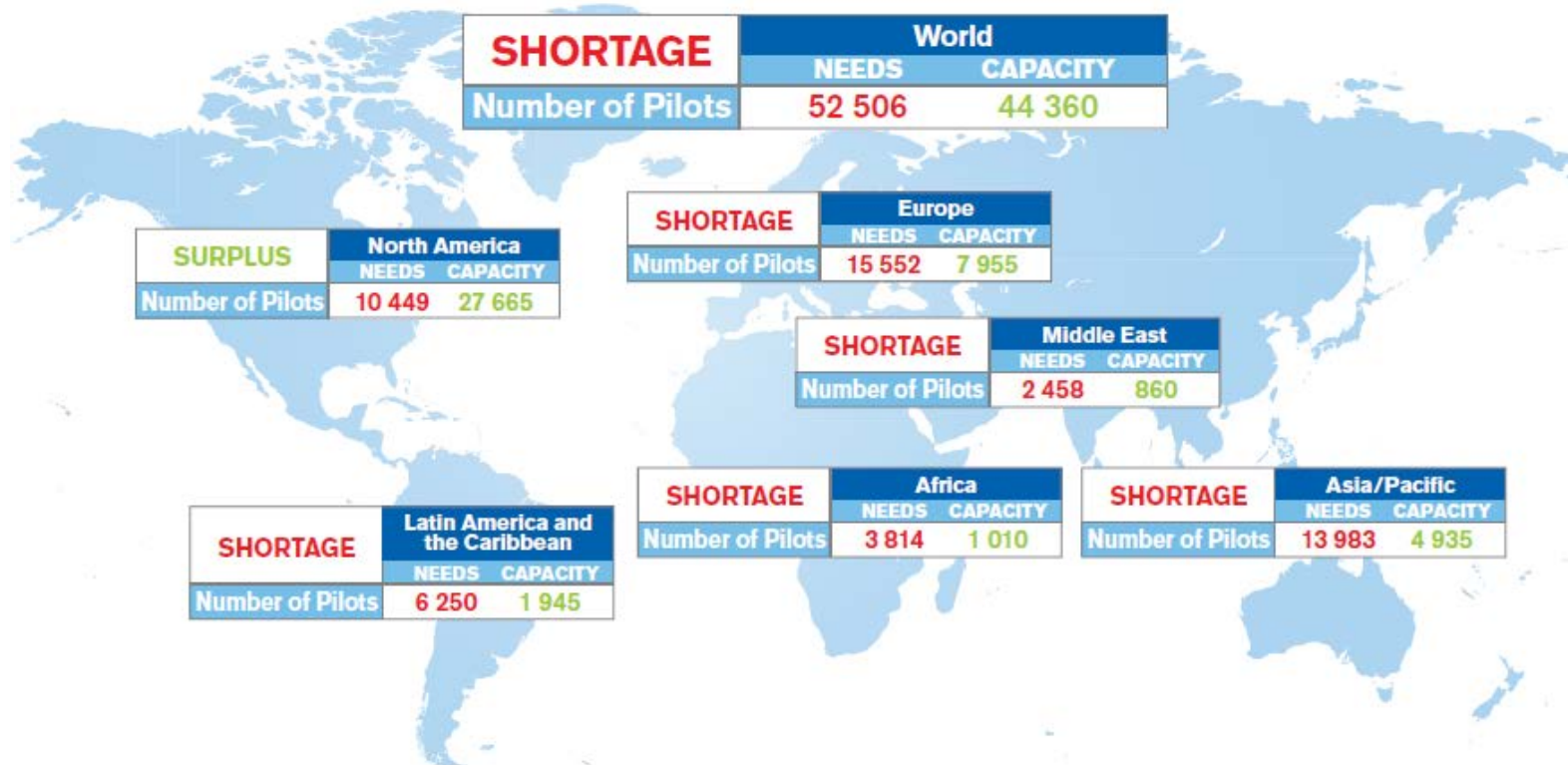




# Shortage of skilled aviation personnel

## Future pilot needs vs. air training capacities

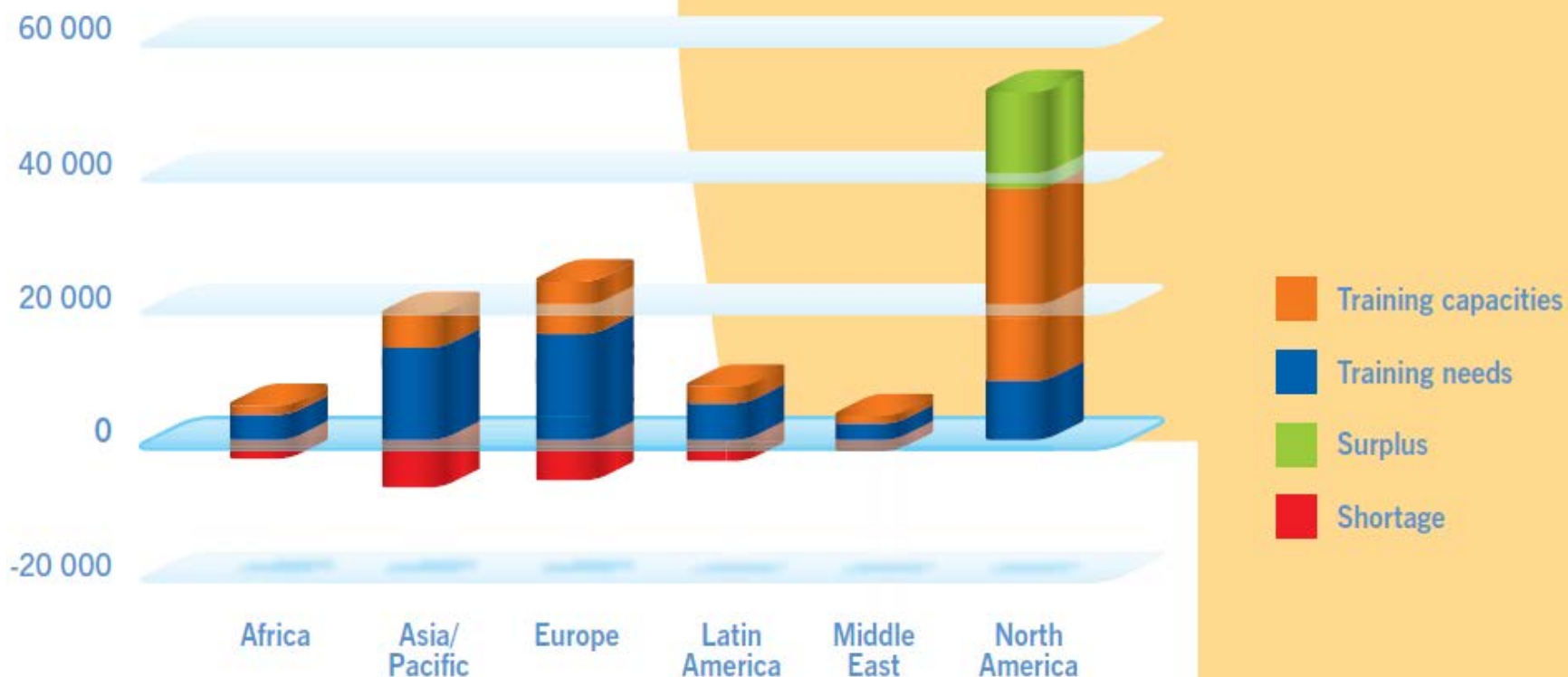
Source: ICAO Doc 9956



\* Estimate of average annual needs for the 2010–2030 period based on various world fleet categories: Regional and business jets, turboprops, single-aisle, twin-aisle and all-cargo aircraft.

## Most likely scenario

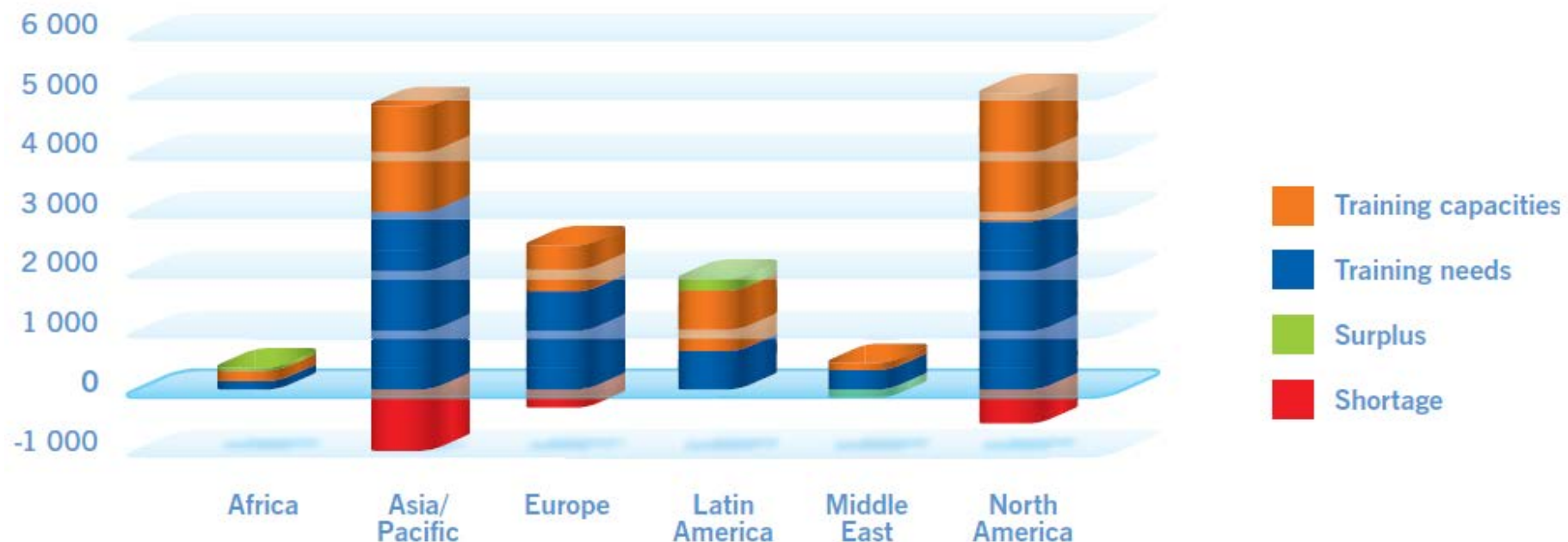
Pilot comparison: 2010–2030



# Air Traffic Controllers



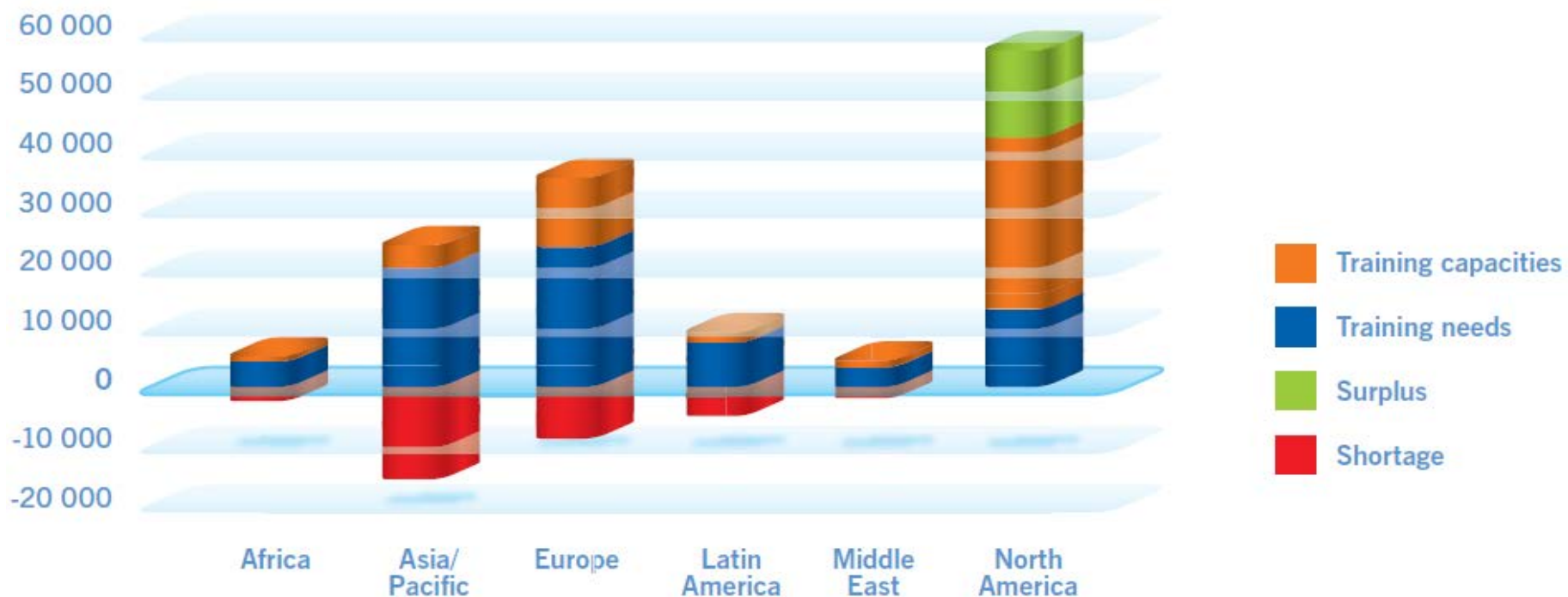
## ATCO comparison: 2010–2030



# Maintenance Personnel

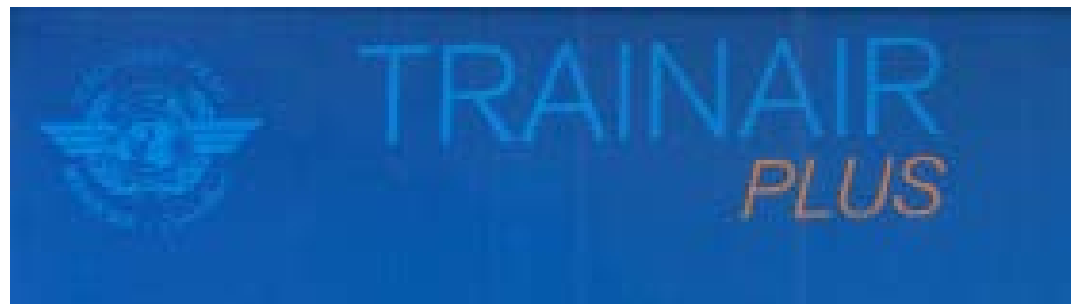


## Maintenance personnel comparison: 2010–2030





# ICAO Initiatives



# Opportunities



- Business
- Positioning
- Partnering
- Visibility
- Development
- Jobs
- Alignment
- Standardization



# Summary



- Need for reliable statistics
- Attraction and retention of personnel
- Access to affordable quality aviation education and training
- Facilitating the use of competency-based approaches
- Removing regulatory obstacles
- Need for a coordinating mechanism



# Conclusion



- Orderly and safe development of the air transportation system depends on the availability of the required human resources
- International aviation community should recognize this as a strategic issue
- Mission of ICAO is to lead efforts to ensure that enough competent personnel are available to manage, operate and maintain the global air transportation system of the future



# ICAO

Uniting Aviation on

Safety | Security | Environment

*Thank you!*

Contact: [echacin@icao.int](mailto:echacin@icao.int)

Visit: [www.icao.int](http://www.icao.int)

