



ICAO

UNITING AVIATION

NO COUNTRY LEFT BEHIND



Keynote Address — Safety Brief

Singapore Aviation Safety Seminar 2018

Stepping up Safety: Enabling growth, Embracing New Technologies

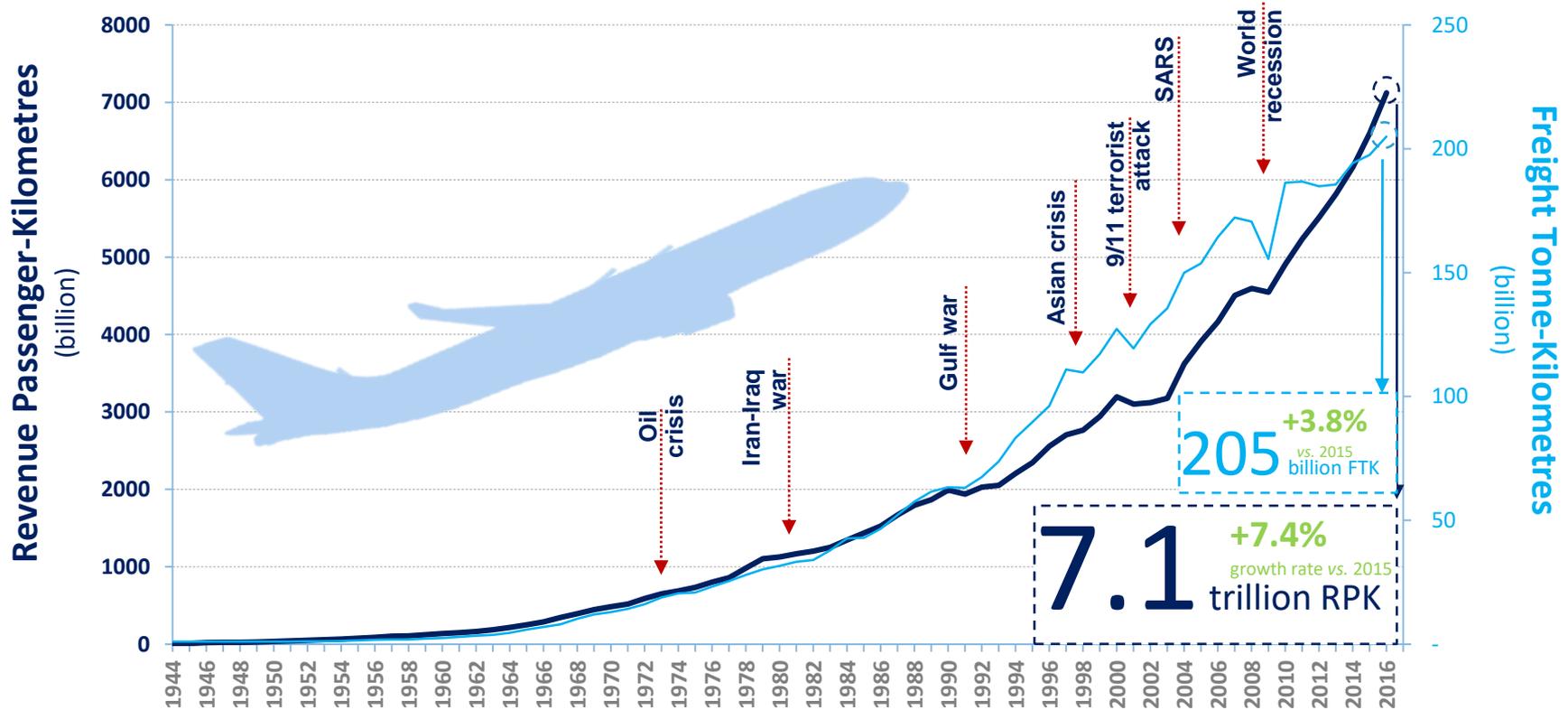
Manjit Singh

Deputy Regional Director - APAC

March 26-29th, 2018

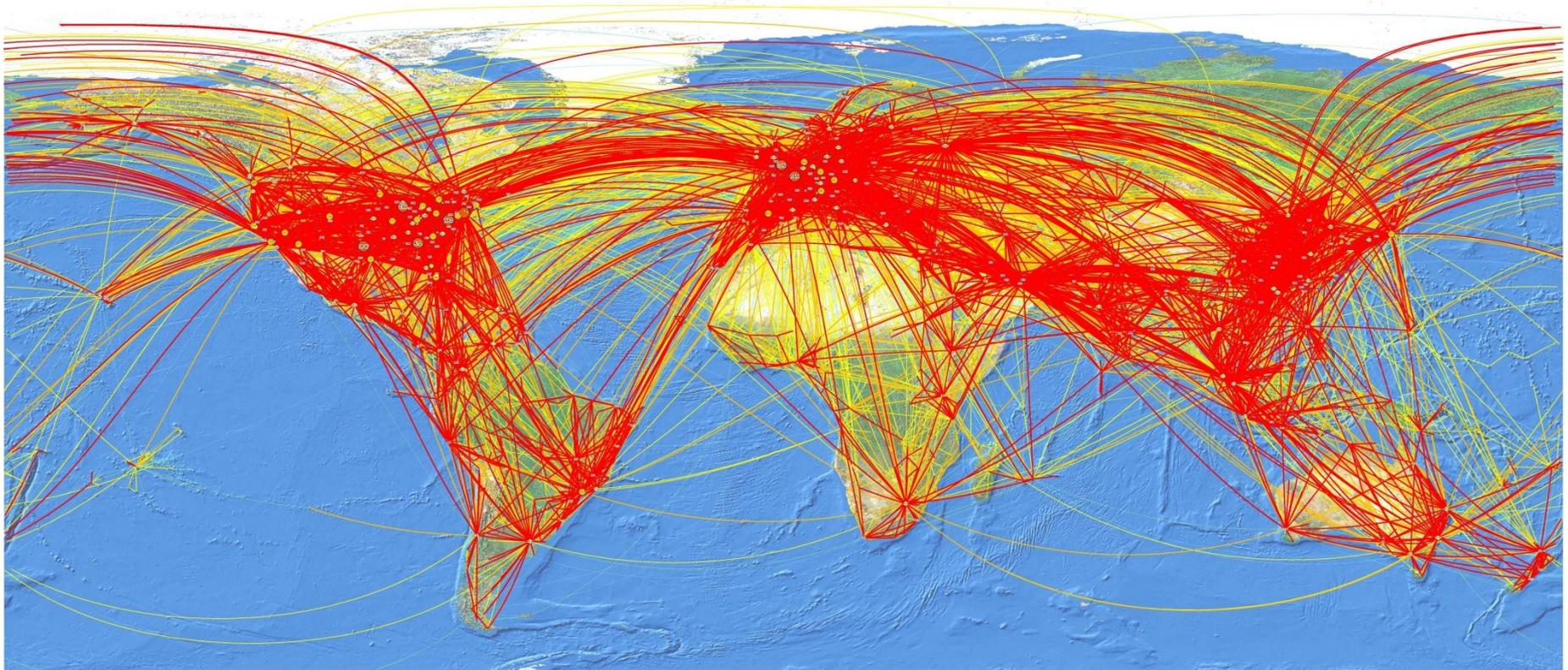


Growth of Air Transport





2040



A yellow diamond-shaped sign with a black border and two screws at the top and bottom. The sign is mounted on a brown post. The background is a clear blue sky with some light clouds.

**ZERO
FATALITIES**

Our
Aspirational
Safety Goal



We are not that far...

Regional Accident Statistics: 2013

RASG	Estimated Departures (in millions)	Number of accidents	Accident rate (per million departures)	Fatal accidents	Fatalities
AFI	0.7	9	12.9	1	33
APAC	8.6	19	2.2	1	49
EUR	7.9	21			
MID	1.1	2			
PA	13.8	39			
WORLD	32.1	90			

Regional Accident Statistics: 2015

RASG	Estimated Departures (in millions)	Number of accidents	Accident rate (per million departures)	Fatal accidents	Fatalities
AFI	0.8	6	7.3	0	0
APAC	9.8	24	2.5	3	98
			3.0	1	150
			2.5	1	224
			2.6	1	2
			2.8	6	474

For 2017 (non-validated results)
MID and AFI
(APAC 2 – PA 1)

ZERO fatalities

Regional Accident Statistics: 2016

RASG	Estimated Departures (in millions)	Number of accidents	Accident Rate (per million departures)	Fatal Accidents	Fatalities
AFI	0.7	6			
APAC	10.2	18	1.8	3	449
EUR	8.9	26	2.9	1	298
MID	3.0	7	2.3	2	39
PA	9.9	41	4.1	0	0
WORLD	33	98	3.0	7	904

Regional Accident Statistics: 2016

RASG	Estimated Departures (in millions)	Number of accidents	Accident Rate (per million departures)	Fatal Accidents	Fatalities
			1.2	1	1
APAC	10.7	19	1.8	2	50
EUR	8.7	24	2.8	2	64
MID	1.3	3	2.3	2	67
PA	13.3	28	2.1	0	0
WORLD	34.9	75	2.1	7	182



Fatalities Trend for Scheduled Commercial Flights (2012 – 2017)



Fatalities showed a spike during 2014, and then recovered in 2015 & 2016



Complexity

- 39 States, 40 CAAs & 42 Air Navigation Service Providers (ANSPs)
- 49 Flight Information Regions, Vast Oceanic Airspace
- Diverse Aviation Capacity

Economic Growth 2016

- 10.2% growth in Revenue Passenger Kilometer (RPK)
- Global Market Share
 - 34% Passenger
 - 39% Cargo
- Supports 30.9m jobs & GDP of \$632b

Threats

- Natural Disasters (Earthquakes, Tsunami, Volcanoes, Tropical cyclones)
- Health threats (Avian Bird's Flu, H1NI)
- Financial Downturn



Rapid growth in air operators and aircraft fleet



Increased airspace and airport congestion



Insufficient resources to improve compliance with ICAO provisions



Slow progress of implementation of ATS infrastructure





Pacific Islands – remote location require extra resources to provide assistance



Lack of political will and awareness of aviation's benefits



Insufficient number of qualified Safety Inspectors and insufficient training capacity



Insufficient participation by States at ICAO regional meetings





Emerging safety issues



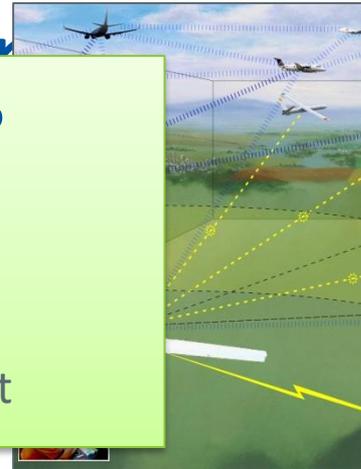
Conflict Zones



Global Tracking



Cyber Safety



RPAS



Space Transportation

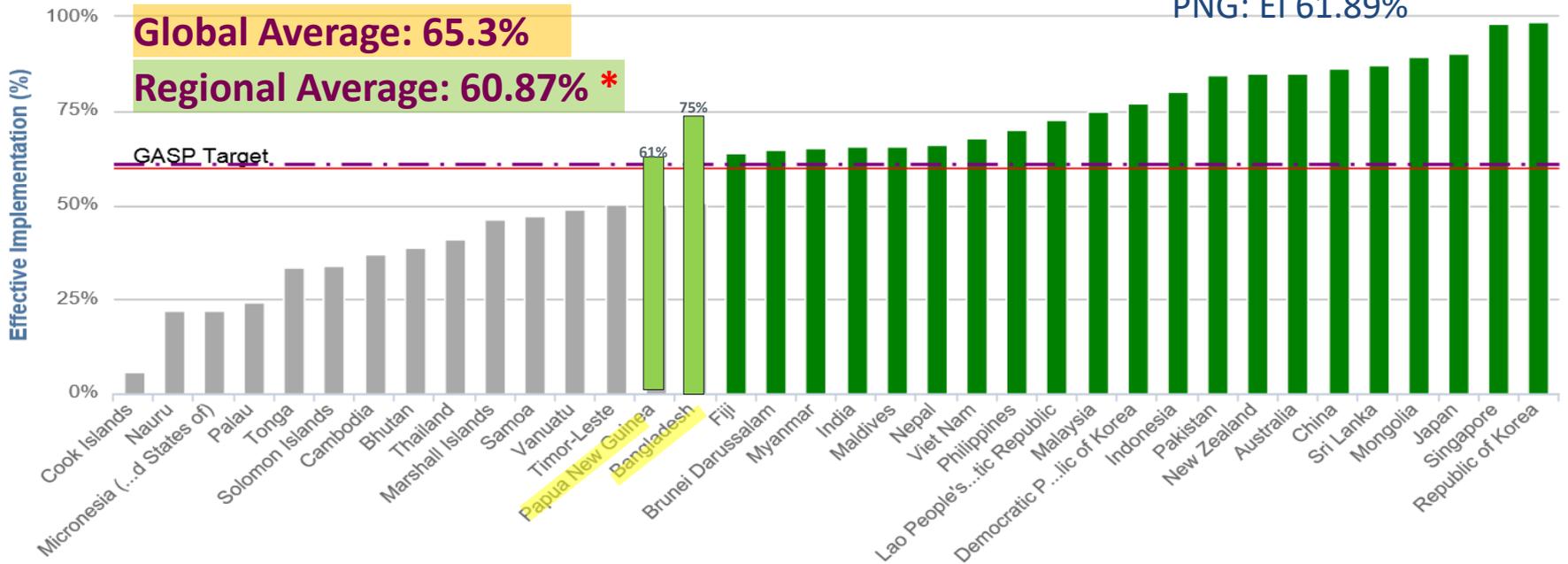
What's next?

- Mental Health
- UTM & FL600+
- Cargo Safety
- Supersonic aircraft

ICAO USOAP CMA results for APAC

Effective implementation of safety oversight systems by State

* Latest Results (nv):
 Bangladesh: EI 75%
 PNG: EI 61.89%



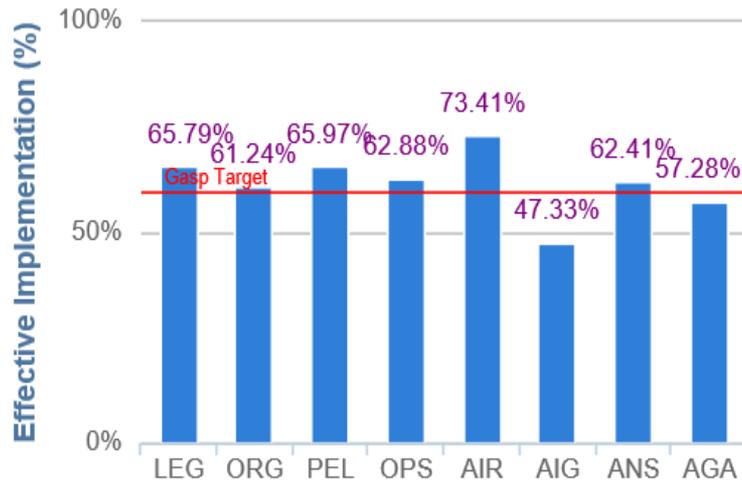
Source: **iSTARS 3.0 – Regional Safety Briefing** (<https://portal.icao.int/space>)



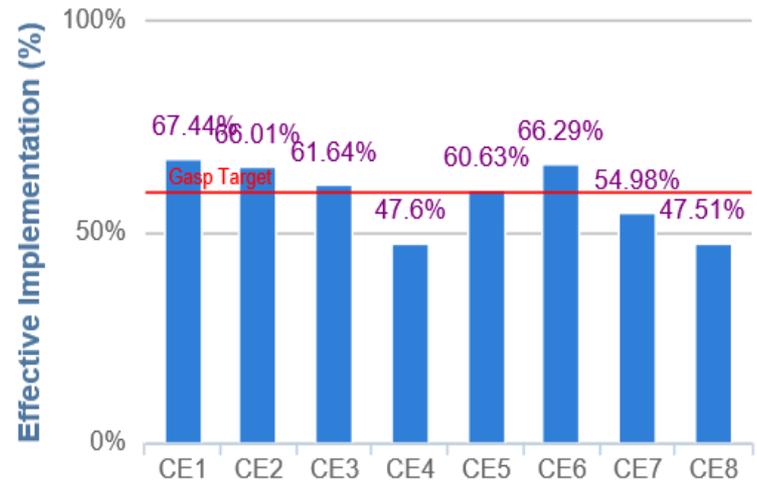
ICAO USOAP CMA results for APAC

USOAP Results by Area and Critical Element

EI by Area



EI by Critical Element



Source: *ISTARS 3.0 – Regional Safety Briefing* (<https://portal.icao.int/space>)



APAC Regional Safety Priorities & Annual Safety Report

ICAO / Asia and Pacific (APAC) Office / REGIONAL AVIATION SAFETY GROUPS – ASIA PACIFIC

MEETINGS

RASG-APAC

ToR

APRAST

ToR

Starter Kit to APRAST

APAC - AIG

ToR

AP SRP WG

ToR

SEI WG

ToR

SAFETY INFORMATION

Safety Tools

Implementation Status

User Guide for RASG-
APAC Monitoring
Mechanism

REGIONAL AVIATION SAFETY GROUPS – ASIA PACIFIC (RASG-APAC)

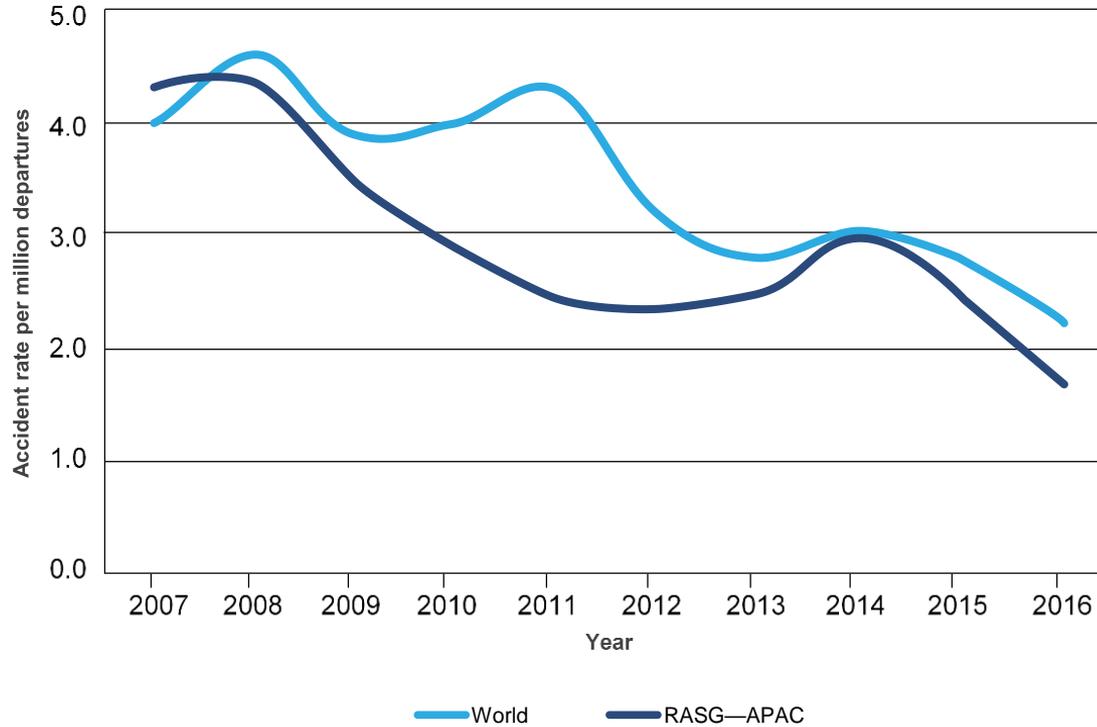
- [Annual Safety Report - Asia Pacific Region 2017](#) (File size 3.5 MB)
- [RASG-APAC 2016-2017 Work Programme](#)
- [Asia Pacific Regional Aviation Safety Priorities and Targets](#)
- [RASG-APAC Procedural Handbook – First Edition \(March 2016\)](#)
- [List of Point of Contact for RASG and APRAST](#)
- [Asia Pacific Accident/Incident Investigation Bodies](#)
- [RASG-APAC Meetings***](#)
- [ANNUAL SAFETY REPORT Asia Pacific Region ***](#)

*** Access to the above pages require members to login at <http://portal.icao.int> and subscribe to group name RO_APAC. If you do not have Secure Portal account please follow the instruction outline in [ICAO Secure Portal Access Instructions.pdf](#)

Note: ICAO Secure Portal access is restricted to users from a Member State's Civil Aviation Administration and governmental bodies/agencies involved in non-commercial aviation activities.



Global accident rate versus APAC accident rate (2007–2016)



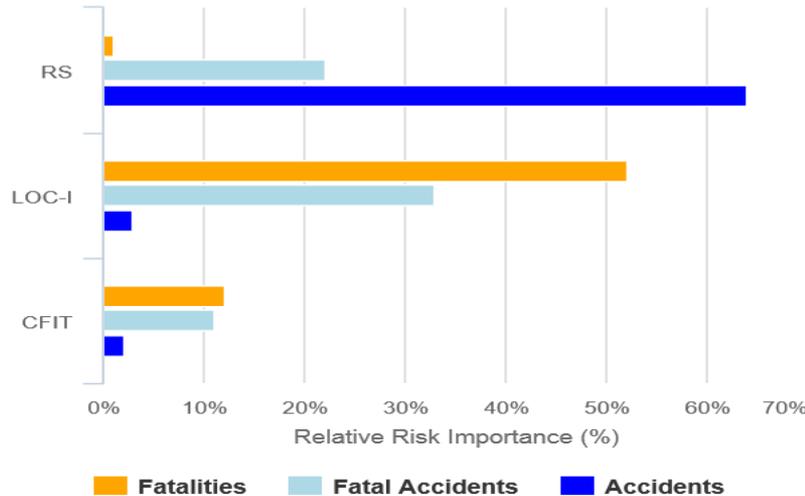


APAC Statistics and Data on Accidents

Scheduled Commercial above 5700kg

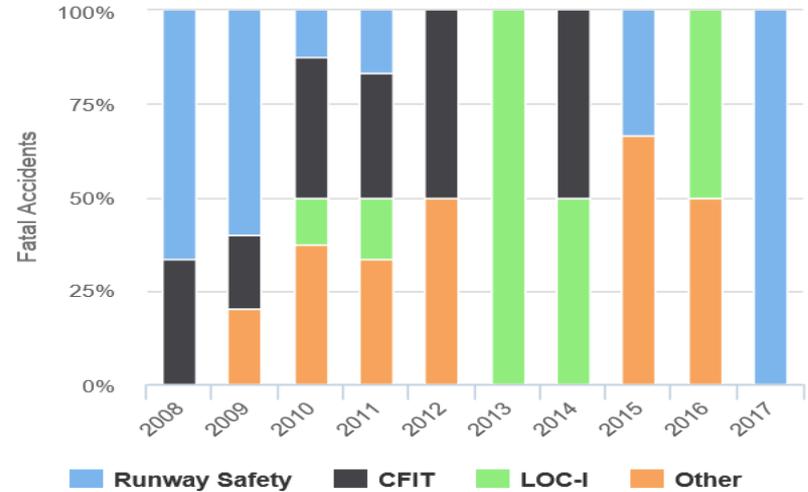
Risk Distribution

Scheduled Commercial flights on airplanes above 5.7t 2013-2017



Share of Fatal Accidents by Risk Category

Scheduled Commercial flights on airplanes above 5.7t only





1. Reduction of operational risks



2. Improvements to safety oversight/Industry safety audits



3. Consistent and effective SMS and SSP



4. Predictive risk management and advanced regulatory oversight



5. Enhanced Aviation Infrastructure – ATS & Aerodrome Facilities



APAC Combined Action Team (CAT)

4-6 SMEs (ICAO & Champion States) to address areas of USOAP deficiency.
'ICAO Funded'

2016

Thailand, Cambodia, Indonesia, Philippines, Myanmar, Papua New Guinea, Bhutan, Nepal, Bangladesh, Solomon Islands and Tonga

2017

Bangladesh, Cambodia, Fiji, Indonesia, Maldives, Myanmar, PNG and Timor-Leste



- 2 States resolved SSC
- 5 States improved EI to above 60%
- Regional EI improved from 58% to 61%

APAC NCLB SUCCESS STORY...





APAC Ministerial Conference on Civil Aviation

- 31 Jan – 1 Feb 2018, Beijing, China
- The Beijing Declaration encompasses high level commitments - Aviation Safety, Air Navigation Services, Accident Investigation and Human Resource Development
- 250 participants,
- 32 APAC States,
- 6 Int. Orgs





BEIJING Declaration: Aviation Safety

- Progressively enhance safety oversight capability to achieve a Universal Safety Oversight Audit Programme (USOAP) Effective Implementation (EI) score higher or equal to the global average by **2022**;
- Implement an effective State Safety Programme (SSP) by **2025**; and
- Certify all aerodromes used for international operations by **2020**.





39th

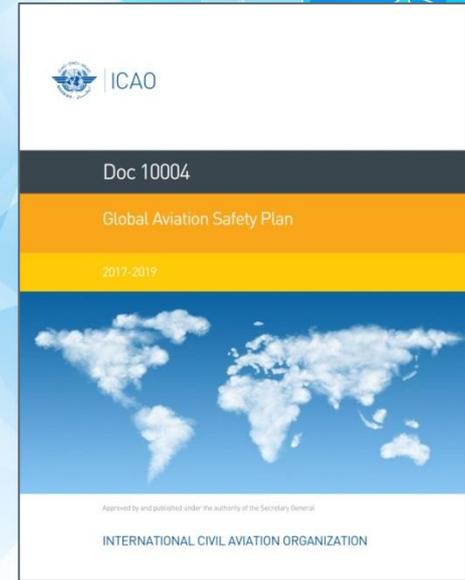
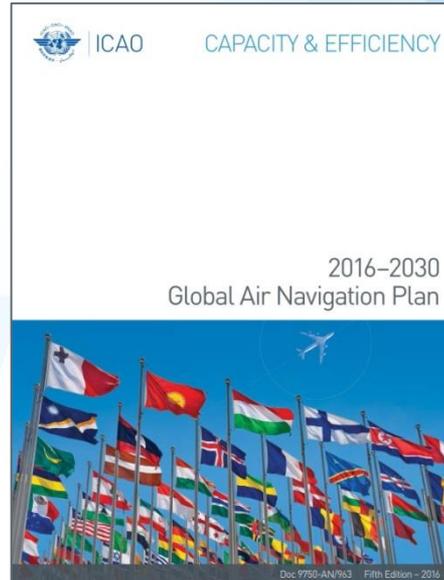
TRIENNIAL ASSEMBLY

ICAO HQ, MONTREAL, 27 SEP-07 OCT 2016



ICAO

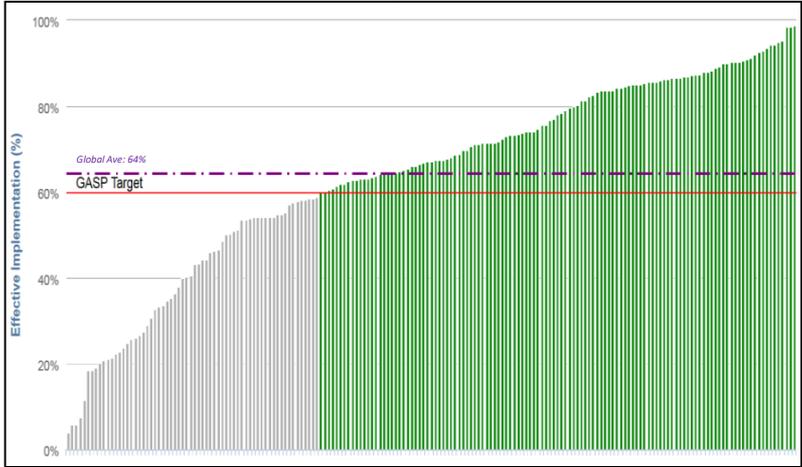
UNITING AVIATION





PROPOSAL FOR NEXT GASP

Effective Implementation

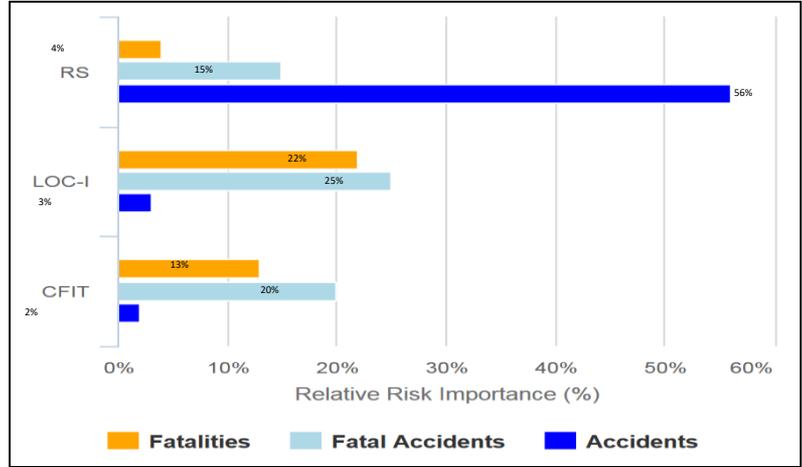


USOAP Audit Results



GANP
ASBU
BBBs

Operational Risks



Scheduled Commercial flights on airplanes above 5.7t 2012-2016

TARGET 4.1	TARGET 2.1	TARGET 2.2	TARGET 3.1	TARGET 3.2	TARGET 6.1	TARGET 1.1	TARGET 5.1	TARGET 5.2	TARGET 4.2	TARGET 4.3
ICAO Recognized functions	Implement Safety Oversight	Positive Safety Margin	Sustainable SSP	Effective SSP	Appropriate Infrastructure	Reduced Accident rate	INDUSTRY assessment programmes	Harmonized KPIs in SMS	Safety risk information to RASG	RASG Risk mgmt. activities
2020	2022+	2022	2022	2025	2022	Yearly	2020	2022	2022	2022



13th Air Navigation Conference (AN-Conf/13)

9 – 19 October 2018, Montréal, Canada

Air Navigation Committee (Committee A)	Aviation Safety Committee (Committee B)
1: Air navigation global strategy	
2: Enabling the global air navigation system	6: Organizational safety issues GASOS
3: Enhancing the global air navigation system	
4: Implementing the global air navigation system and the role of planning and implementation regional groups (PIRGs)	7: Operational safety risks
5: Emerging issues	8: Emerging safety issues



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North Atlantic
(EUR/NAT) Office
Paris

Middle East
(MID) Office
Cairo

Eastern and
Southern African
(ESAF) Office
Nairobi

Asia and Pacific
(APAC) Sub-office
Beijing

Asia and Pacific
(APAC) Office
Bangkok



THANK YOU