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Runway Safety

Aviation's #1 Safety Priority

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3rd MID Safety Summit,

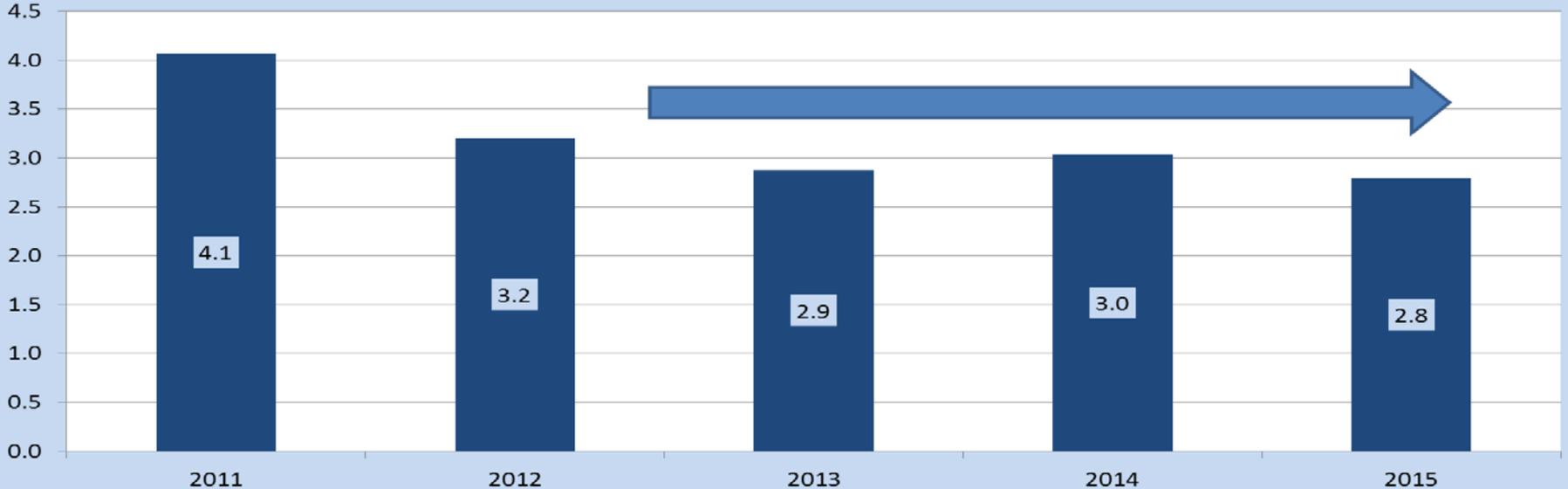
Doha, Qatar, 24 May 2016





GLOBAL ACCIDENT RATE

NUMBER OF ACCIDENTS PER MILLION DEPARTURES



GLOBAL ACCIDENT RATE CONTINUES TO BE *STABLE*

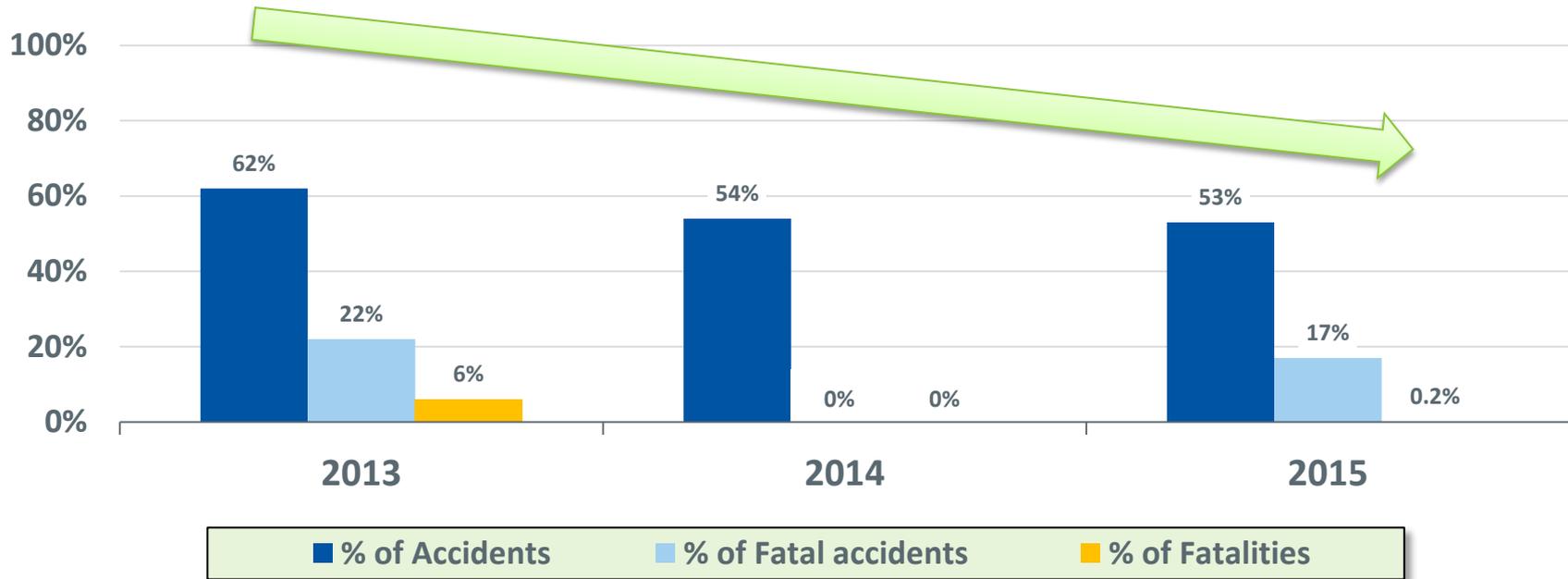
Percentage of all Accidents*: 2015

FOR TOP HIGH-RISK OCCURRENCE CATEGORIES (RS, LOC-I, CFIT)



* Note: no CFIT accidents for SCHEDCOM in 2015

Runway Safety related Accidents





Runway Safety related Accidents

Year	2013	2014	2015
% of accidents involving Runway Safety	62%	54%	53%
% of fatal accidents involving Runway Safety	22%	0%	17%
% fatalities involving Runway Safety	6%	0%	0.2%



Runway Safety in 2016*

Year	2016
Number of accidents involving Runway Safety	17

* Preliminary data not validated, as of May 2, 2016

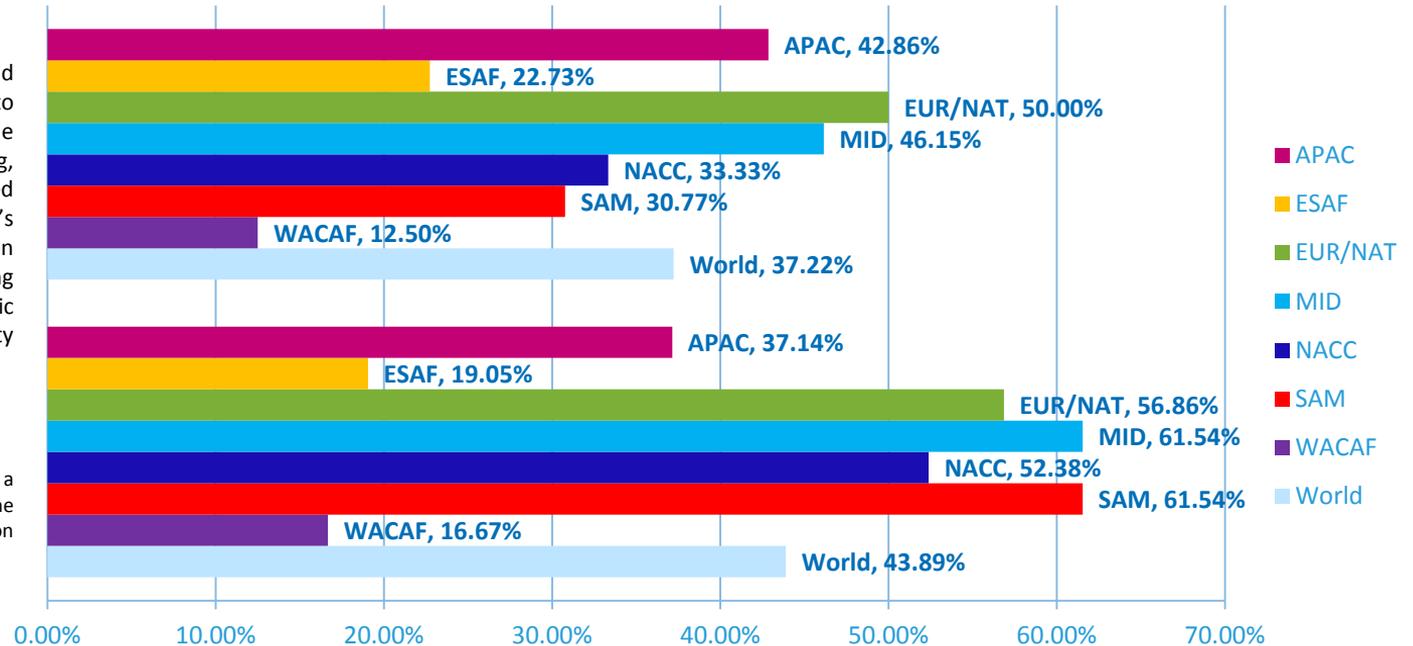
Average EI of PQs: 7.189 & 8.205 for World: 40.56%

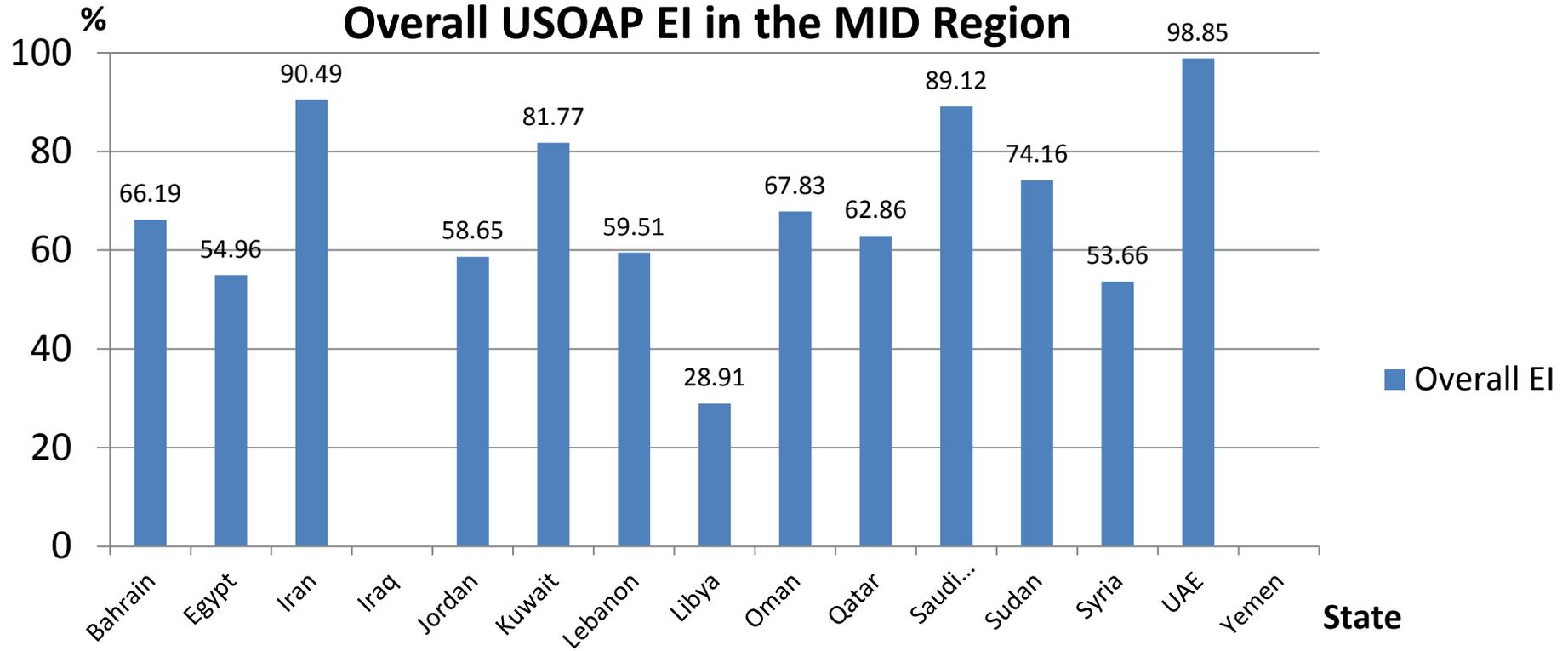
PQ 8.205

Has the State established and implemented a process to ensure that an aerodrome operator's plan for lighting, signs and markings is integrated as a whole into the aerodrome's runway incursion and collision avoidance strategy, taking account of different traffic intensities and visibility conditions?

PQ 7.189

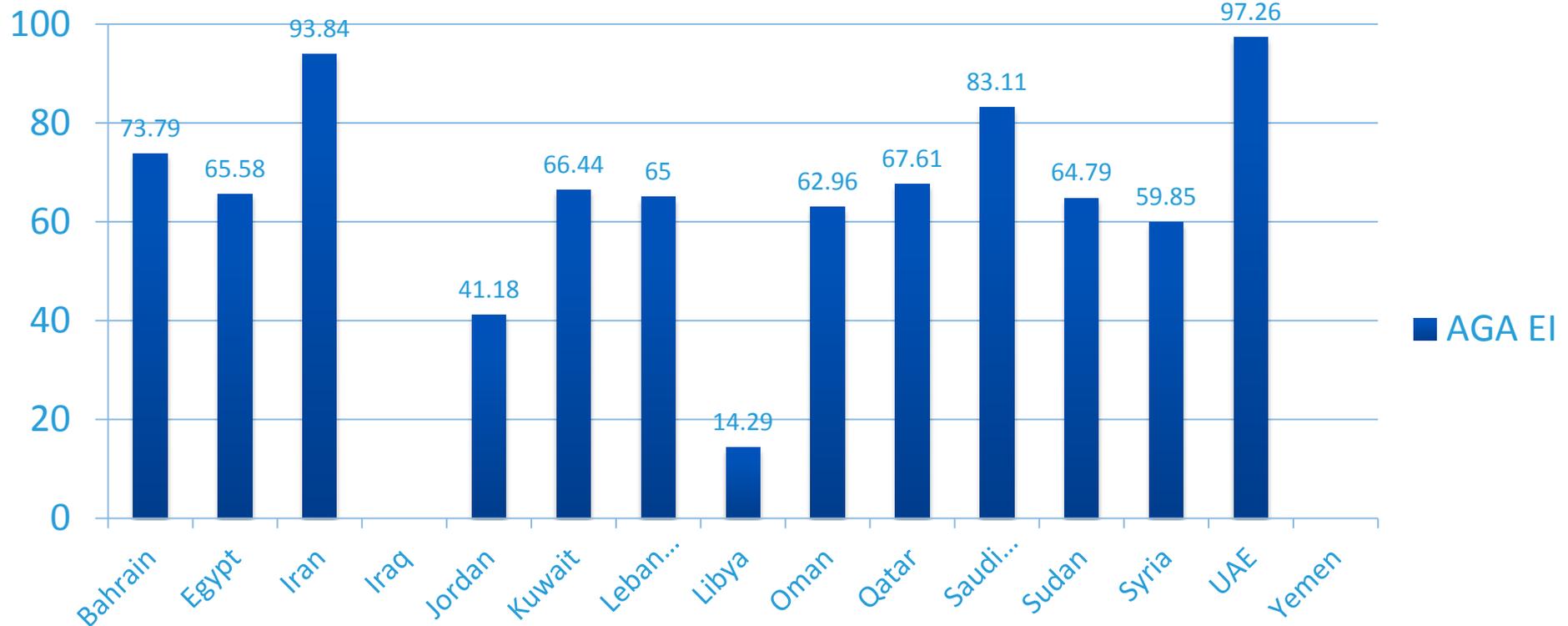
Has the State promulgated a regulation requiring the establishment and implementation of a runway safety programme?

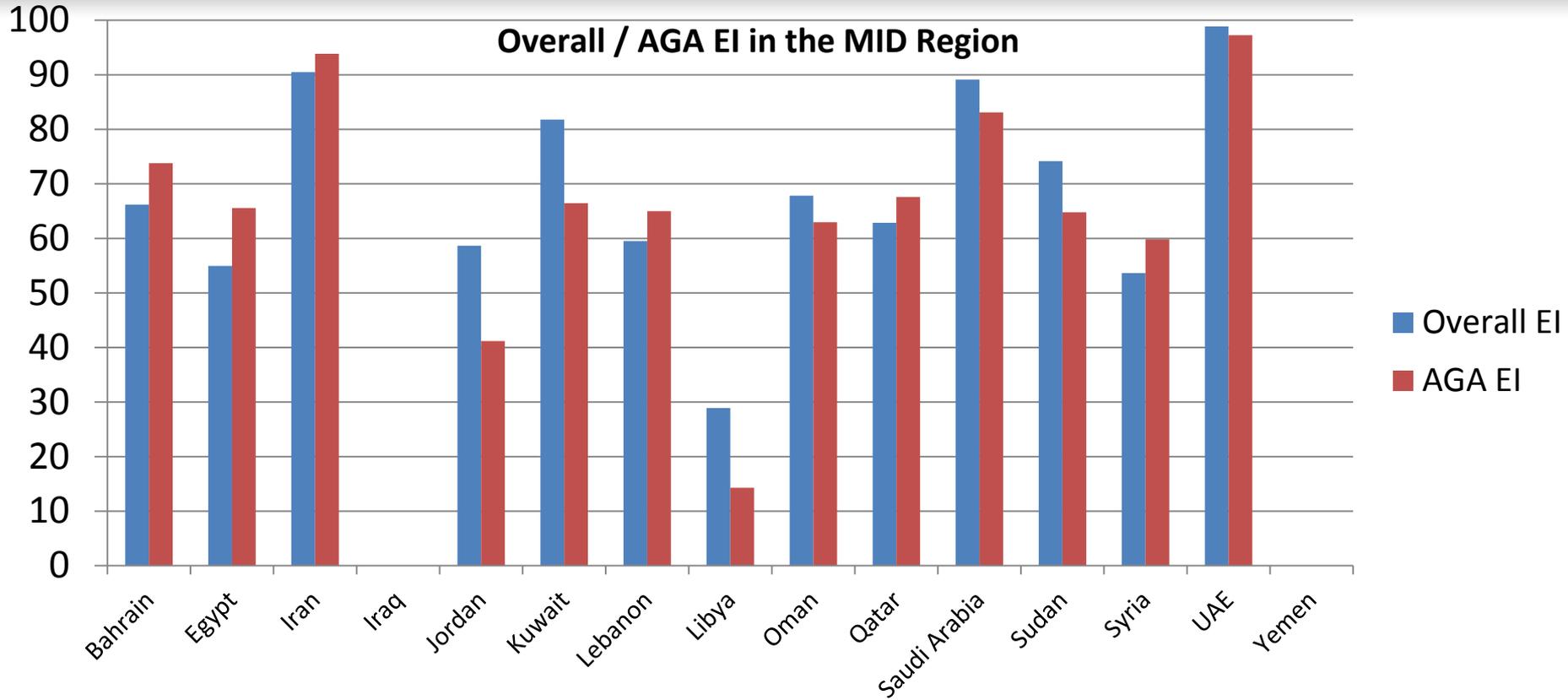






AGA EI in the MID Region





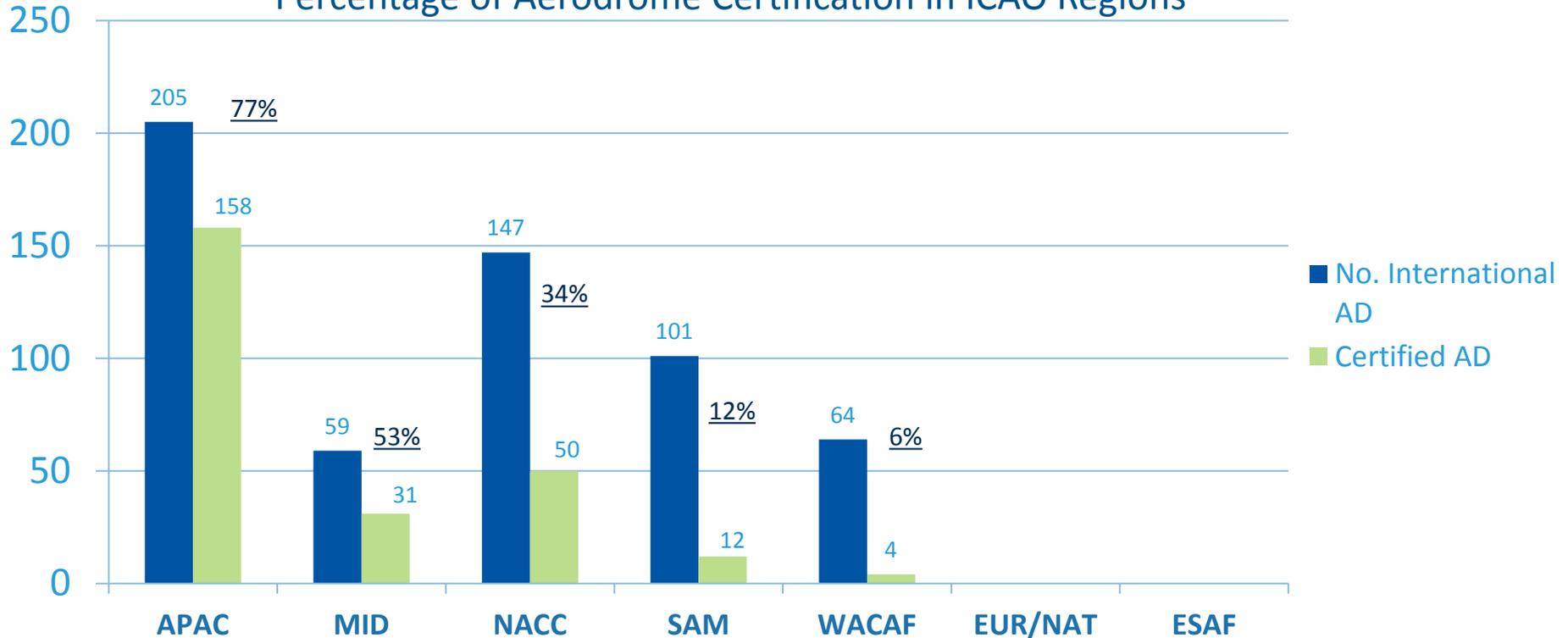


Status of Implementation of Aerodrome Certification in the MID Region

	State	Number of Int'l Aerodromes	Number of Certified Int'l Aerodromes	Percentage Certified
1	Bahrain	1	1	100%
2	Egypt	7	4	57%
3	Iran	9	4	44%
4	Iraq	6	2	33%
5	Jordan	3	1	33%
6	Kuwait	1	1	100%
7	Lebanon	1	0	0%
8	Libya	3	0	0%
9	Oman	2	2	100%
10	Qatar	2	2	100%
11	Saudi Arabia	4	4	100%
12	Sudan	4	2	50%
13	Syria	3	0	0%
14	UAE	8	8	100%
15	Yemen	5	0	0%
	Total	59	31	53%



Percentage of Aerodrome Certification in ICAO Regions





MID Aerodrome Certification

- **31 out of 59 aerodromes are certified (53%)**
- **Current percentage meets the MID Aviation Strategy target for 2015 (50%)**
- **Target for 2017 is 75%.**
- **Main challenge is States with political instability (17 aerodromes)**
- **If States with political instability are excluded, AD certification would be 69%**
- **MID RSA-05 provided Aerodromes Certification Toolkit**
- **Runway Safety Go-Team supports certification aerodromes as part of its objectives.**
- **ICAO MID Regional Office prepared a Technical Assistance Proposal to support AD Certification in Some MID Sates under NCLB**



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Runway Safety Programme



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RSP Achievements - 2014

- Published ICAO RST Handbook
- Launched RS Implementation Kit (I-Kit)
- RRSS (AFI, SAM & MID)
- Runway Safety KPIs WG – Workout Sessions
- Regional Dashboards – RS accidents
- Runway Safety Go-Teams – methodology, pilot missions
- iSTARS/SPACE on-line list of aerodromes
- ACI APEX Airport Safety Reviews
- IATA Airport Analyses





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RSP Achievements - 2015

- 2nd edition of ICAO Runway Safety Team (RST) Handbook
- RASG Safety Enhancement Initiatives (SEI) related to runway safety, Detailed implementation plans (DIP), & related activities
- Regional publications – guidance and safety advisories
- Runway Safety Go-Team missions
- ACI APEX Airport Safety Reviews
- IATA Unstabilised Approach Guidance
- US FAA Academy ICAO TRAINAIR Standardized Training Package (STP) on “Runway Incursion Prevention”
- Updated Runway Safety implementation kit (iKIT) on ICAO website at www.icao.int/safety/runwaysafety





MID Region

20 RSTs established which represents 30% of the required RSTs of the MID Region aerodromes

Second meeting of the RASG-MID Runway and Ground Safety Working Group (RGS WG/2) held in Cairo, Egypt, 19 to 21 May 2015

Runway Safety Go-Team missions:

- KHARTOUM (HSSS) - Khartoum, Sudan (30 November to 4 December 2014 in conjunction with ACI APEX Safety review)
- KUWAIT INTL (OKBK) - KUWAIT, Kuwait (15-18 February 2016)
- Planning a mission to Amman, Jordan first week of Sep. 2016

RASG-MID Safety Advisories which have been circulated by State Letters and are available on the ICAO MID website at:

www.icao.int/MID/Pages/rasgmid.aspx

- RSA-01 containing Guidance for Harmonising the Use & Management of Stop Bars at Airports - November 2014
- RSA-02 containing Guidance on Regulatory Framework Supporting Establishment of Runway Safety Teams - January 2015
- RSA-03 containing Model Checklist for Runway Safety Teams (RSTs) - March 2015
- In the pipeline: RSAs on Wildlife management, Laser Attack, Aerodrome maintenance, and Aerodrome Safeguarding.

Global Runway Safety Teams – 63 Teams Reported to ICAO



Please visit the following link to complete survey and see the complete list of reported Runway Safety Teams:
<http://www.icao.int/safety/RunwaySafety/Pages/Runway%20Safety%20Team%20Register.aspx>



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RSP Activities/Plans - 2016 and beyond

- Runway safety team survey – 63 RSTs have registered
- Runway Safety Go-Team missions
- Annex 14 Vol. I Amendment 13 – Nov 2016
- PANS-Aerodromes 1st edition (Doc 9981) – Nov 2016
- Global Runway Safety Detailed Implementation Plan - 2016
- PANS-Aerodromes 2nd edition (Chapter 5) – 2018
- Annex 14 Vol. I Amendment – Nov 2018
- USOAP audit protocol questions on runway safety provisions





Upcoming SARPs

- **Amendment 13 to Annex 14 includes provisions for enhancing runway safety. They mainly cover the following areas:**
 - Global reporting format for measuring and reporting runway surface condition to prevent runway excursions
 - Autonomous runway incursion warning system to prevent runway incursions
 - Requirement for publishing runway end safety area (RESA) and arresting system information in the AIP to raise situational awareness
 - Improved provisions relating to aerodrome visual aids, including runway-holding position markings to prevent runway incursions
 - Taxiway design guidance to assist in the prevention of runway incursions
 - Guidance on runway surface unevenness



Future SARPs work

- **In the next triennium, in the field of aerodromes, ICAO will deliver more SARPs, PANS and guidance material to address runway safety:**
 - Second edition of PANS-Aerodromes, which will include a specific Chapter on runway safety
 - More guidance material for the assessment and reporting of runway surface condition, including the use of new technology
 - Provisions on the criteria for the design specification, installation and acceptance by a State of an arresting system in lieu of part or all of a RESA
 - Provisions on surface management, including prevention of runway incursions using A-SMGCS
 - Provisions on standardized taxiway naming convention to help prevent runway incursions
 - Procedures and updated guidance on reduction of bird/wildlife strike hazard, including the use of new methodologies and technologies
 - New/updated provisions in Annex 14 Volume I and PANS-Aerodromes for the prevention, and the installation of devices for the detection, of Foreign Object Debris (FOD) ingestion



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Runway Safety Recommendations

- RASGs to analyze **regional runway safety data** and develop related Safety Enhancement Initiative (SEI) & Detailed Implementation Plans (DIP)
- States to implement **runway safety programmes**
- Airports to implement and enhance **Runway Safety Teams (RST) and safety management systems**
- Airports to make use of the **Runway Safety iKit, RST Handbook, and other guidance material**
- Airports to request **ICAO Runway Safety Go-Team visits** and/or **ACI APEX Airport Safety Review**



RECOMMENDED



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THANK YOU!