

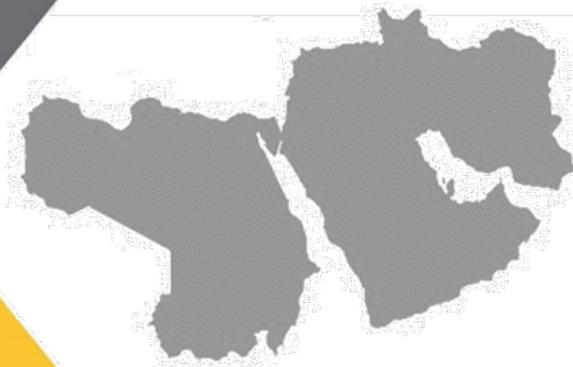


MIDANPIRG/18



RASG-MID/8

VIRTUAL MEETINGS



15-22 February 2021

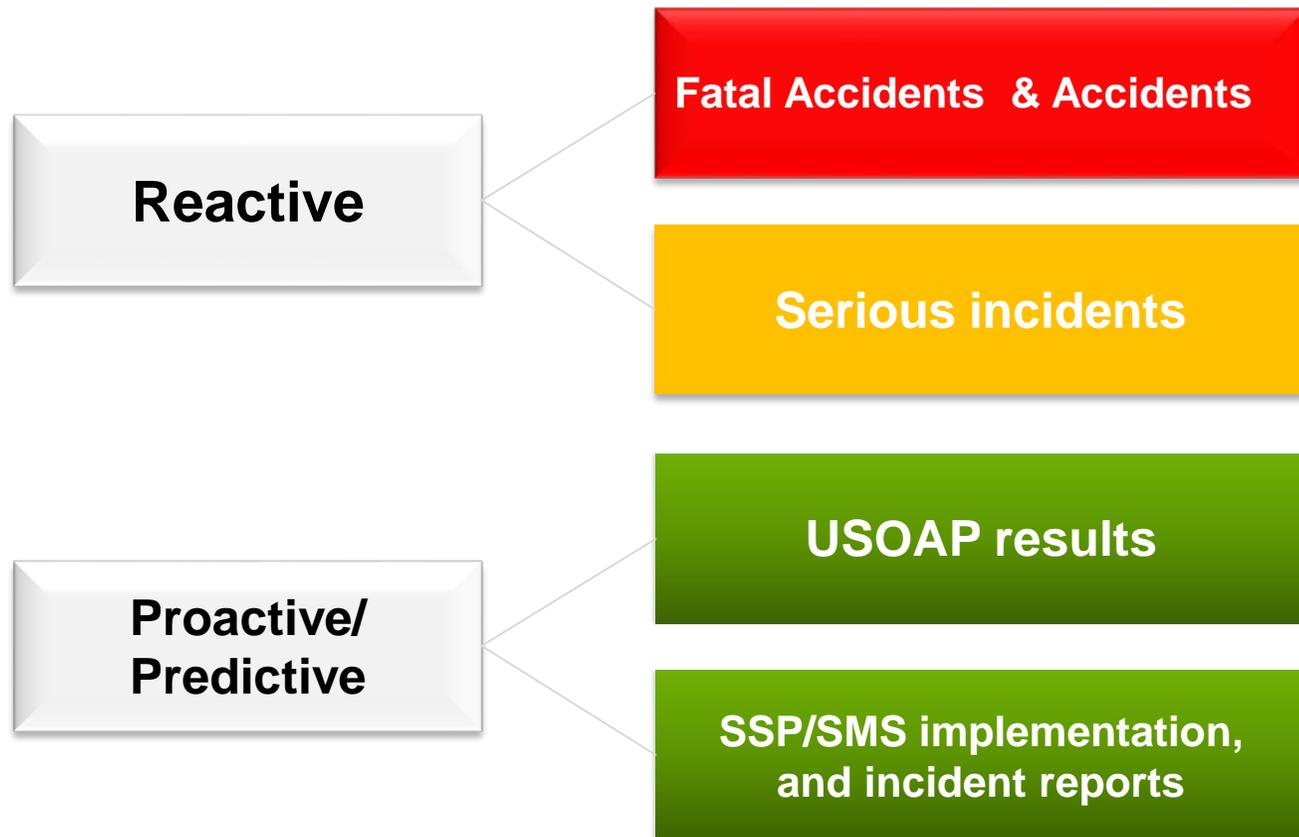
RASG-MID/8

9th MID Annual Safety Report



ICAO MID

ASR Structure-9th Ed

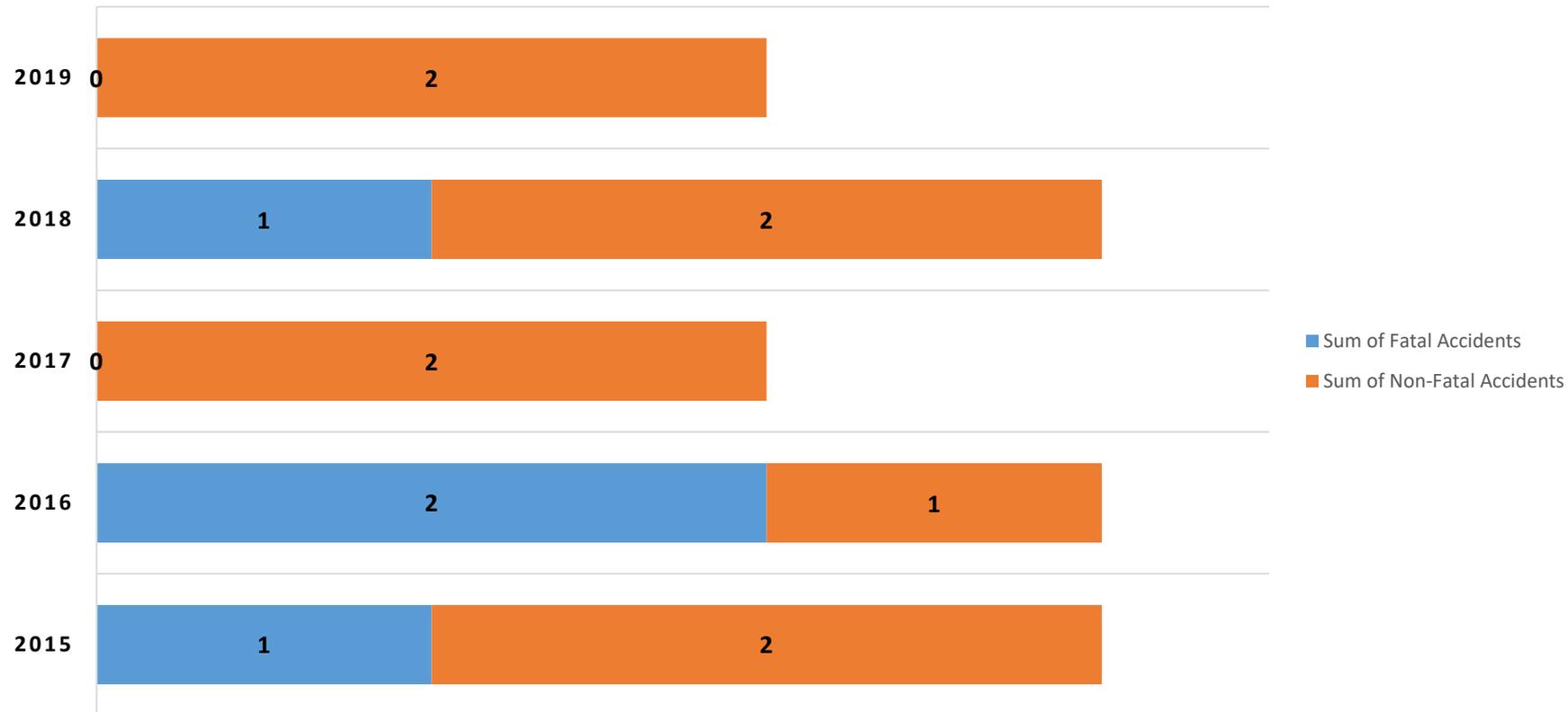




Reactive Safety Information

State of Occurrence

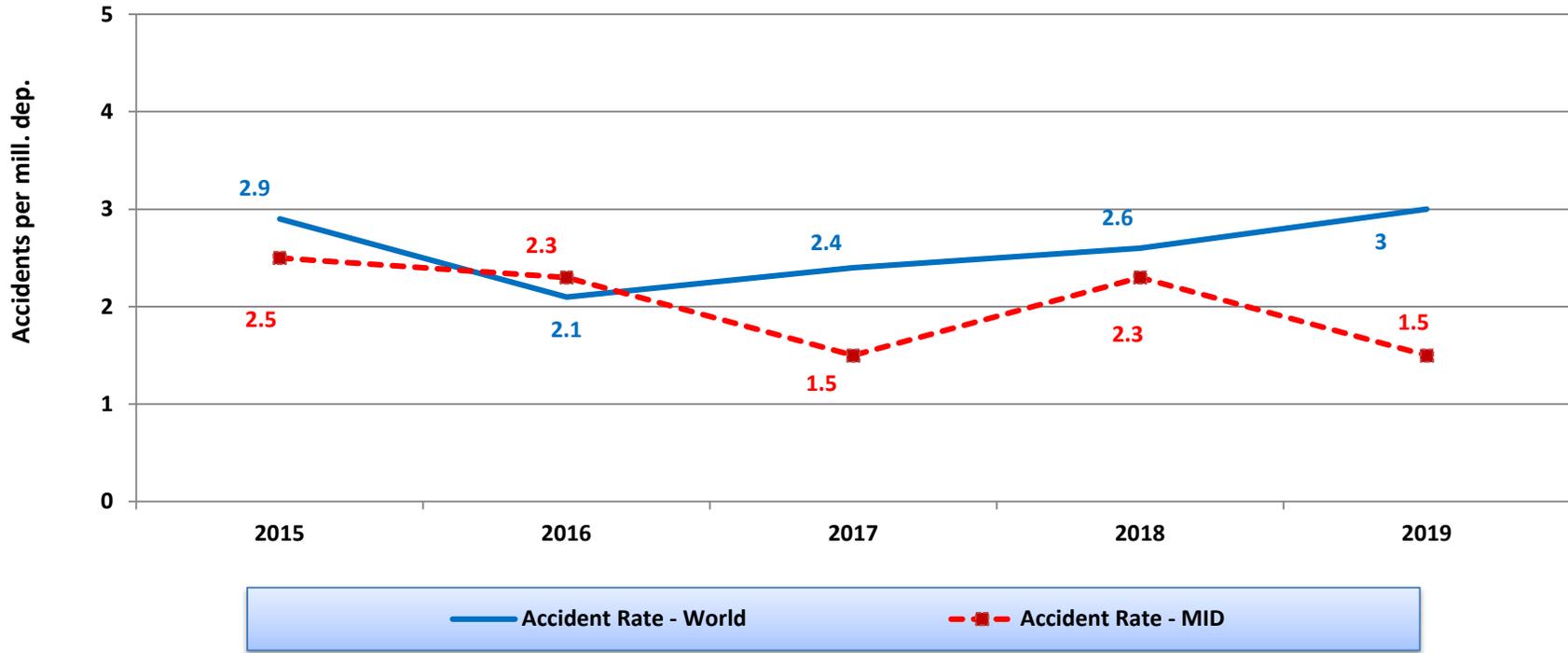
Number of Fatal Accidents & Accidents



(Source SISG Data and ICAO Report 2019)

Accident Rate

Accident Rate
Scheduled Commercial above 5700 kg



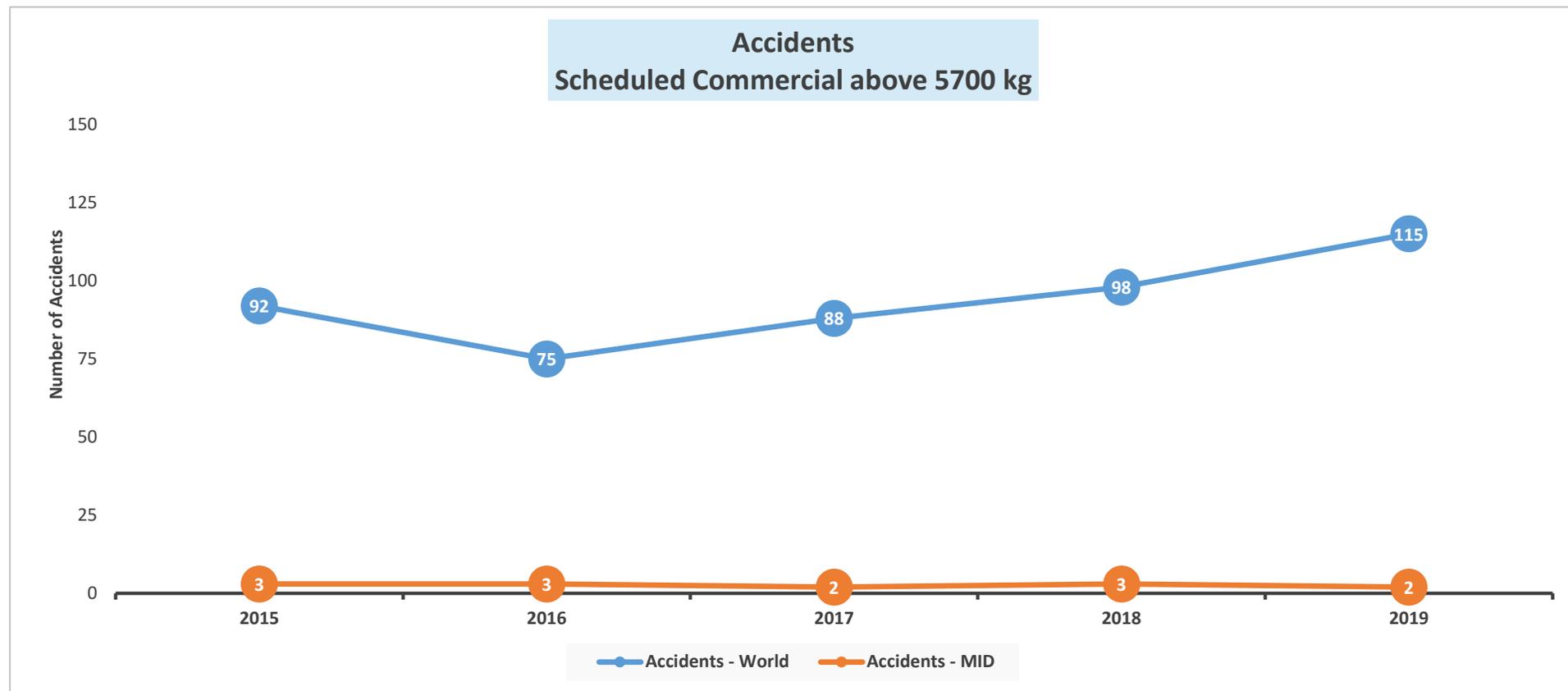
Average 2015-2019

Average MID
2.02

Average Global
2.6

(Source: SISG Data as of March 20 & ICAO ASR)

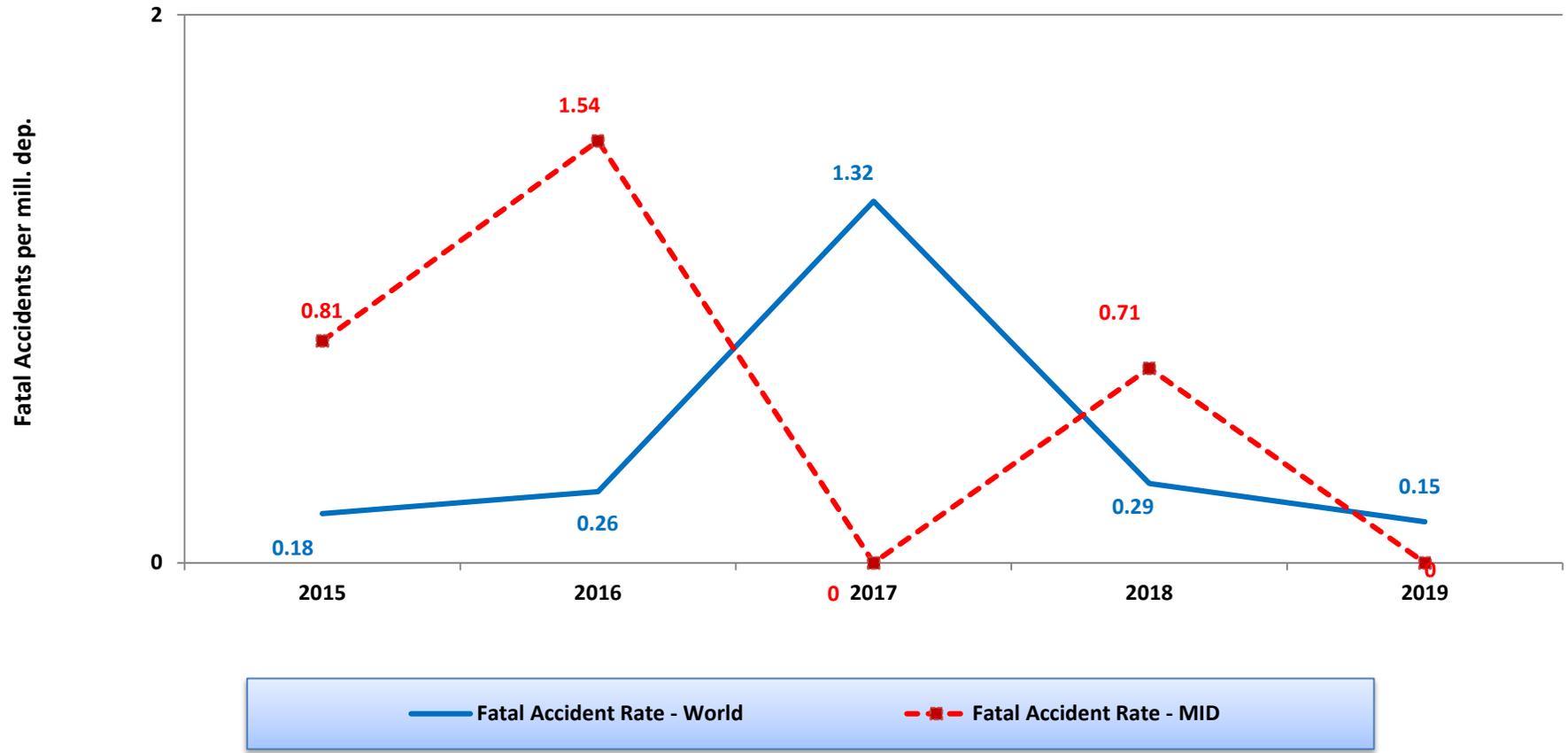
Number of Accident



(Number of MID Accidents Vs. Number of Global Accidents Per Year Source SISG Data and ICAO Report 2019)

Fatal Accident Rate

Fatal Accident Rate
Scheduled Commercial above 5700 kg



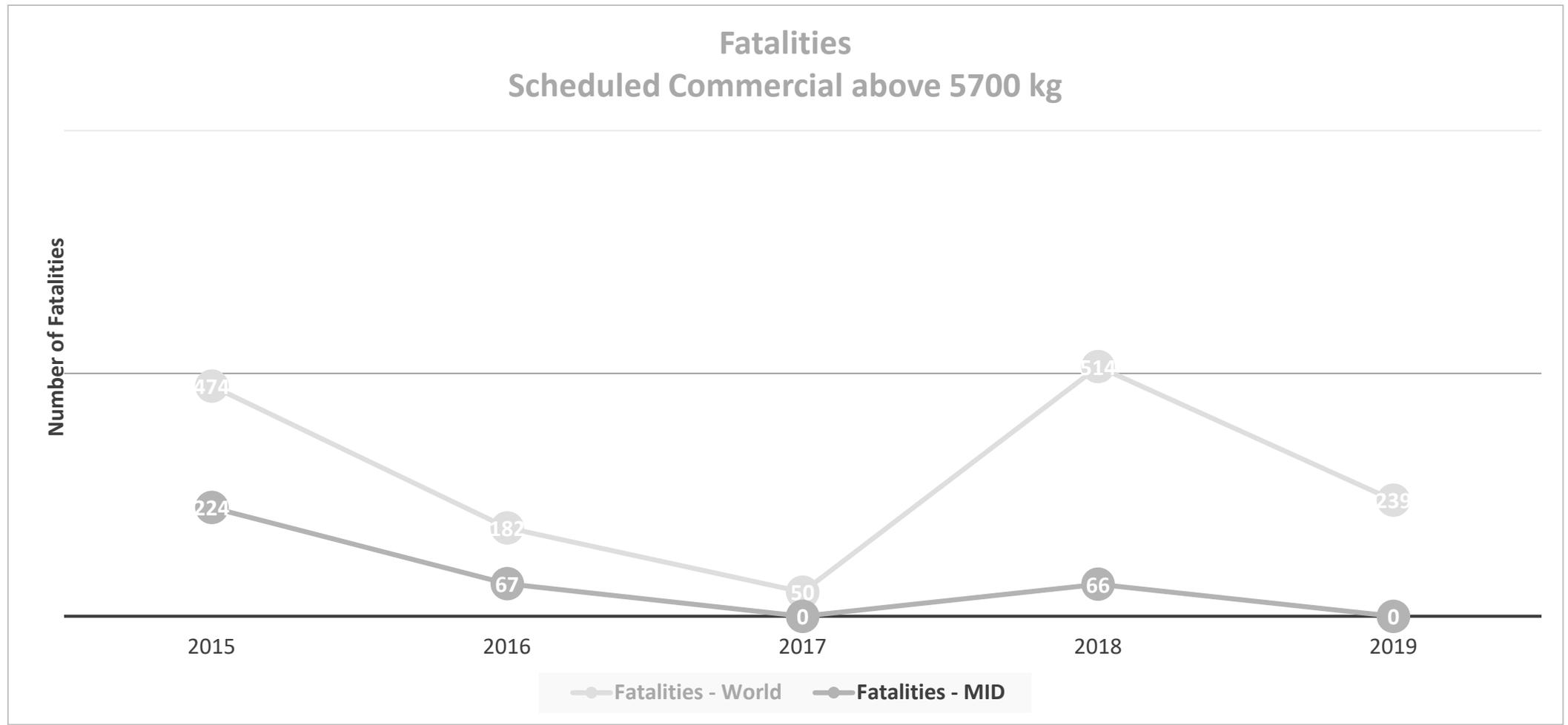
Average 2015-2019

Average MID
0.61

Average Global
0.44

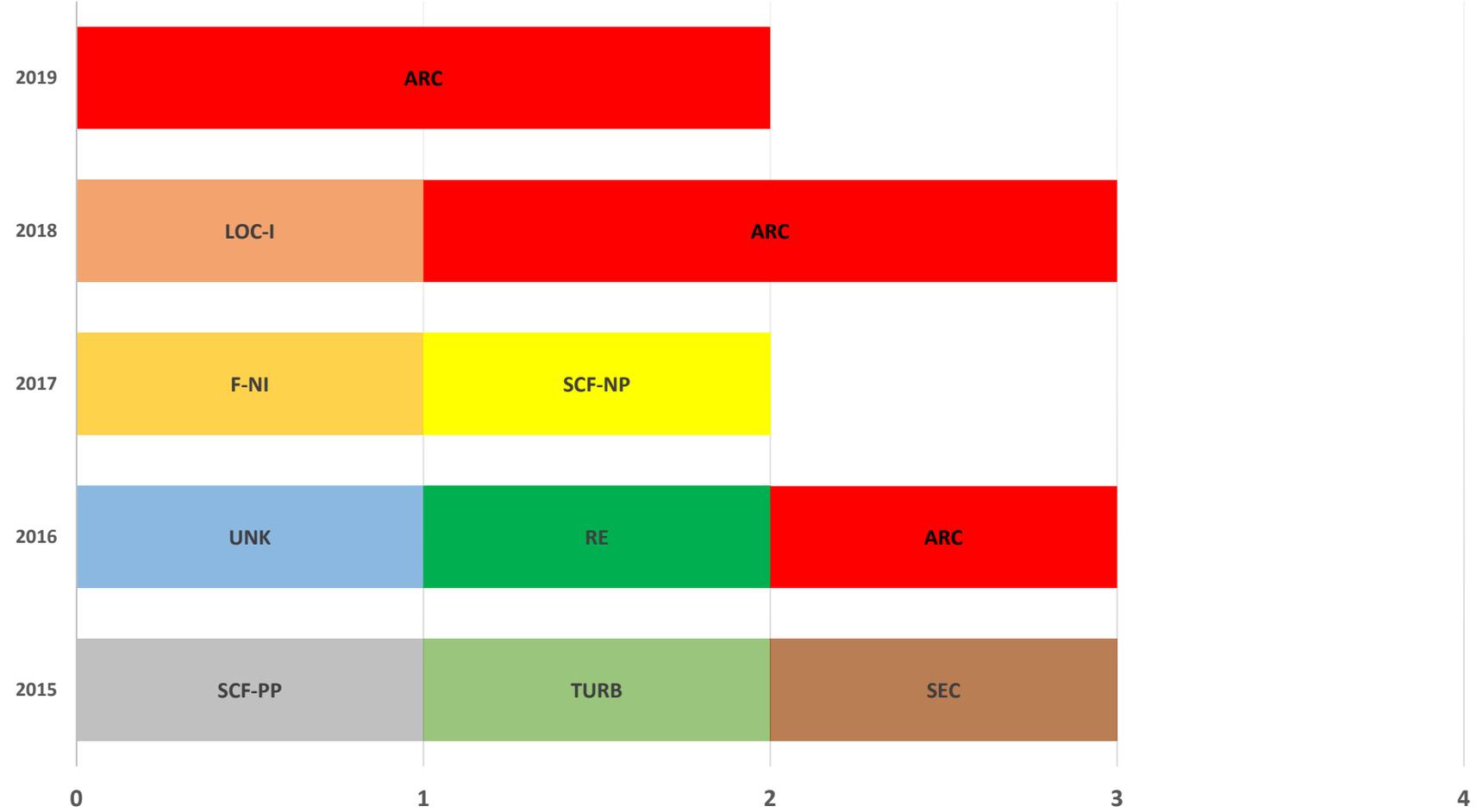
(Source: SISG Data and ICAO Reports)

Number of Fatalities



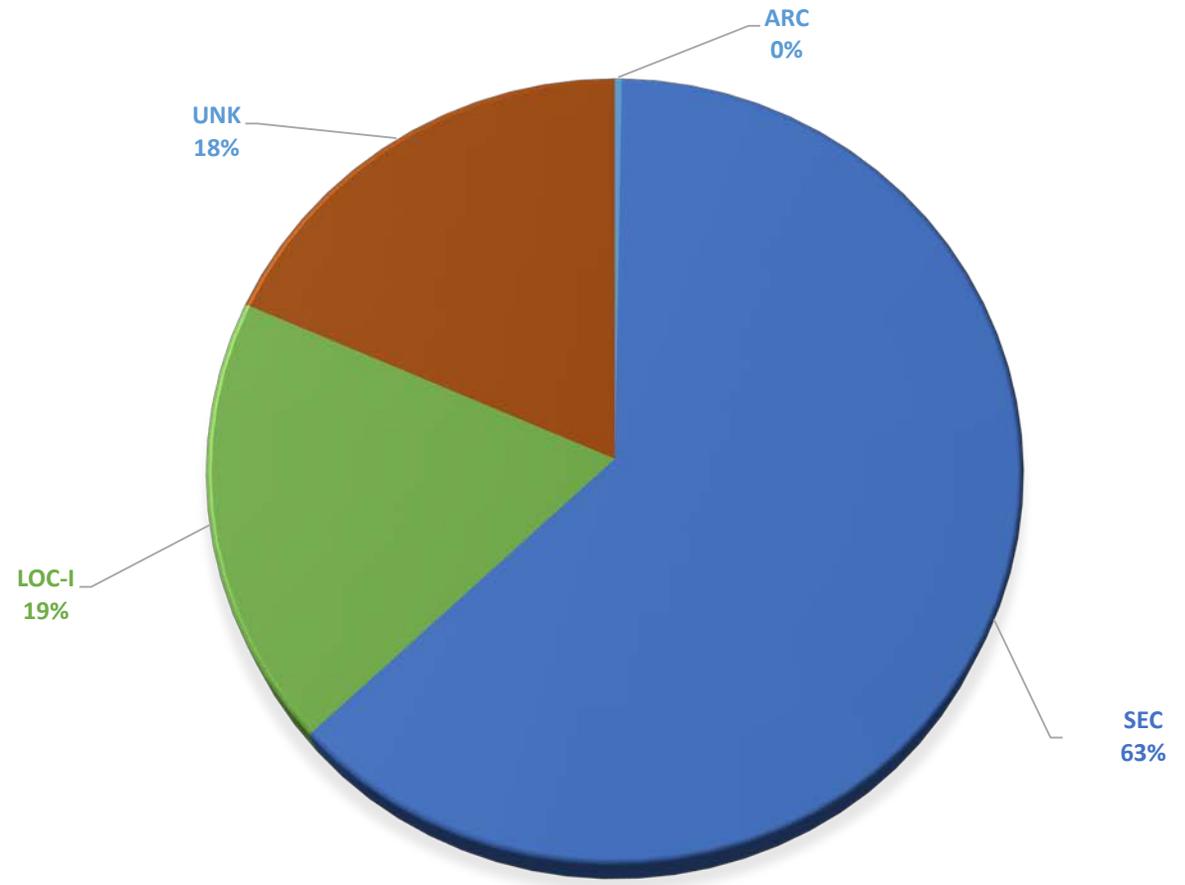
(Source ICAO Safety Reports)

Distribution of Occurrence Category Per Year (2015-2019)



Source: SISG & ICAO Safety Reports

Fatalities Distribution as Percentage by Occurrence Category (2015-2019)



Source: SISG & ICAO Safety Reports

State of Occurrence

The main safety risk areas identified according to the State of occurrence's accidents data are:

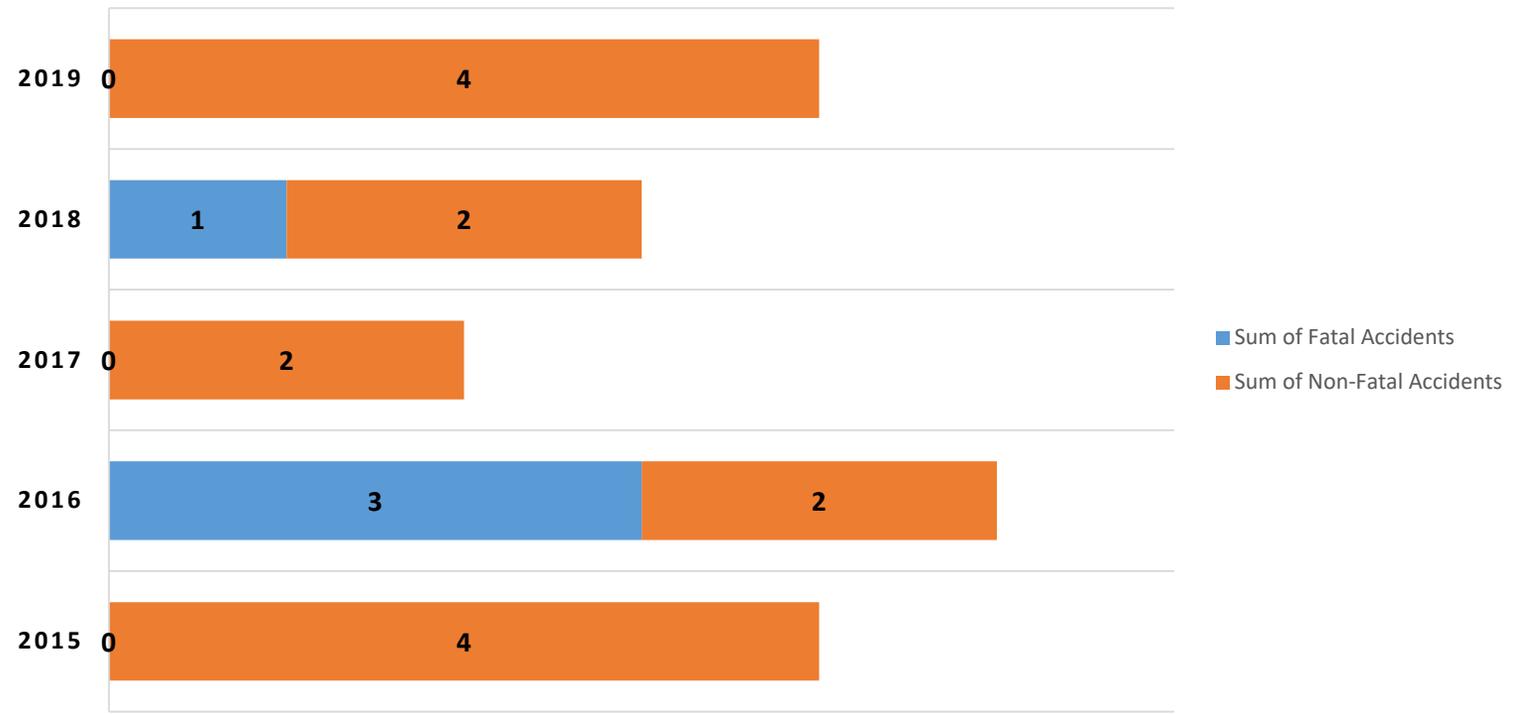
- 1 Loss of Control – Inflight – (LOC-I)
- 2 Runway Excursion (RE) and Abnormal Runway Contact (ARC) during landing
- 3 Security related-(SEC)



Reactive Safety Information

State of Registry and Operator

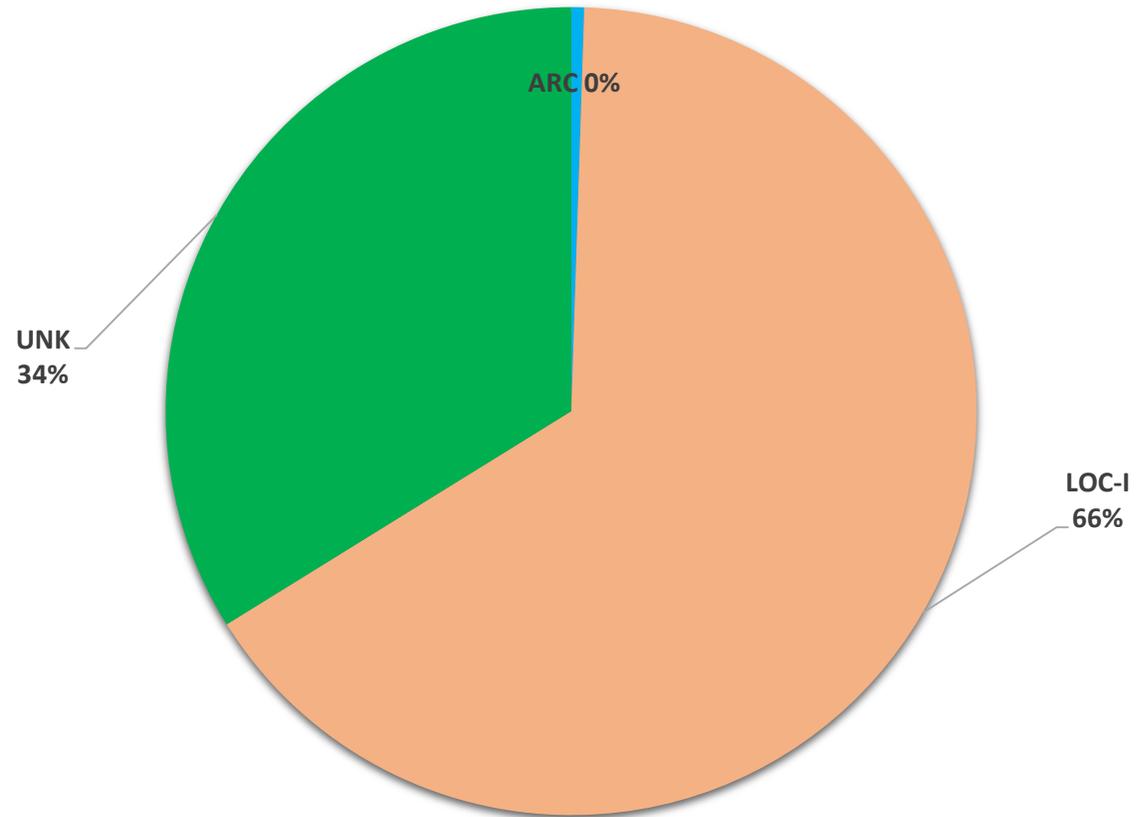
Number of Fatal Accidents & Accidents



(Source SISG Data and ICAO Report 2019)

Number of Fatal Accidents & Accidents

Occurrence category



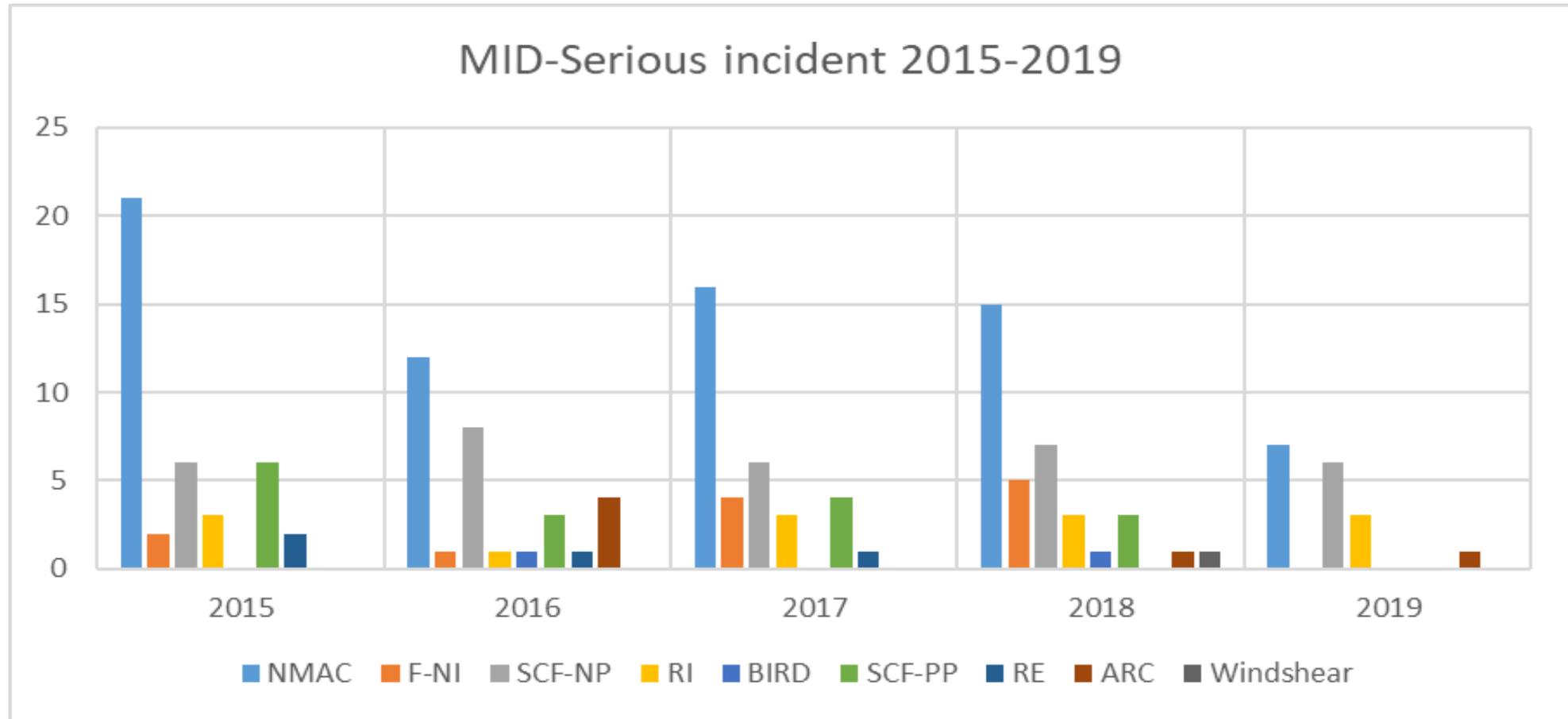
(Source SISG Data and ICAO Report 2019)

State of Registry

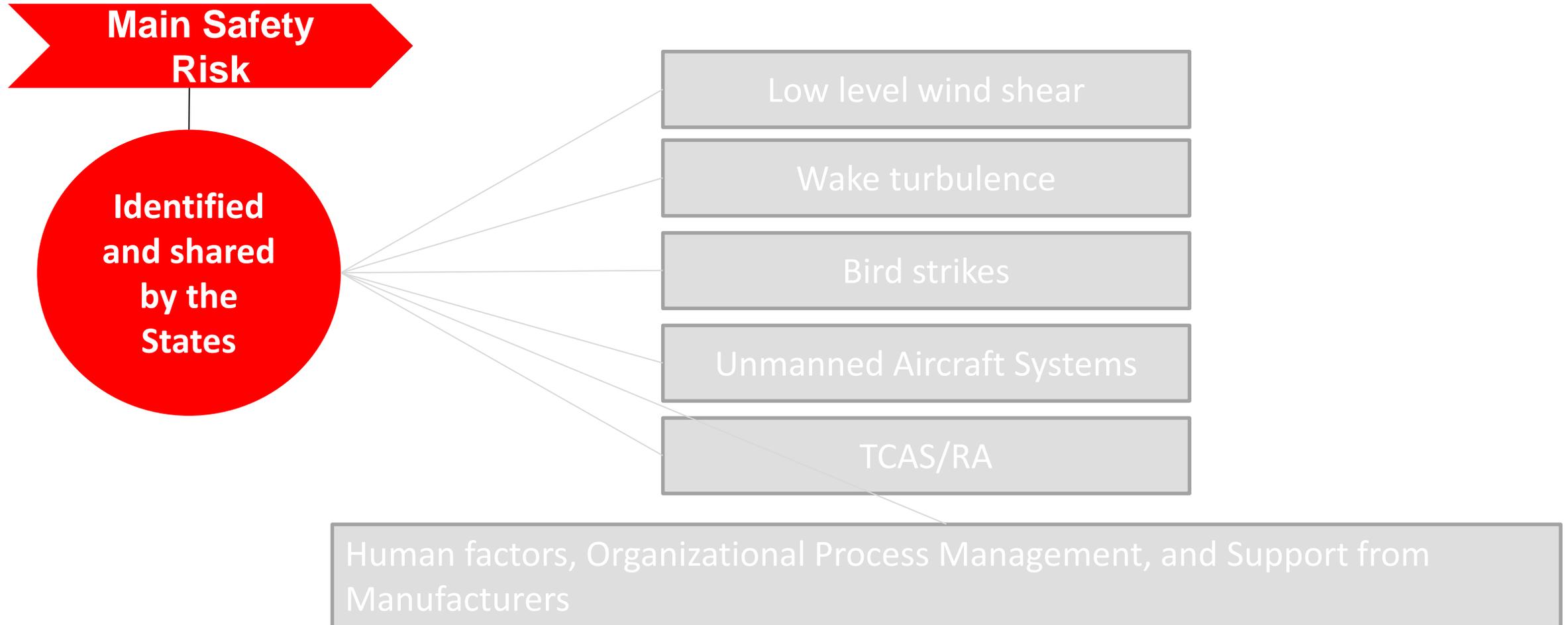
The main safety risk areas identified according to the State of registry and operator's accidents data are:

- 1 Loss of Control – Inflight – (LOC-I)
- 2 Runway Excursion (RE) and Abnormal Runway Contact (ARC) during landing

Serious Incidents Reported by States



Serious Incidents

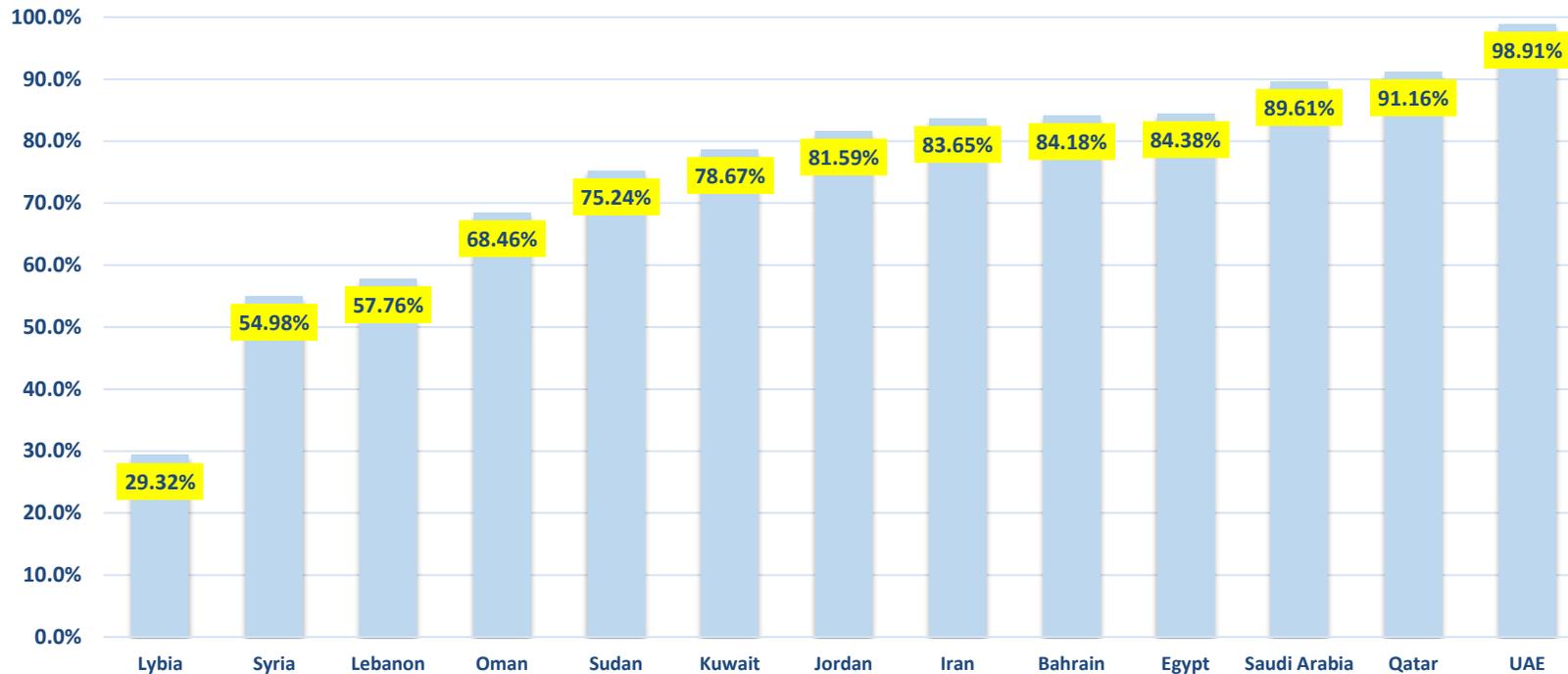




Proactive/Predictive Safety Information

ICAO USOAP

Effective Implementation (EI)



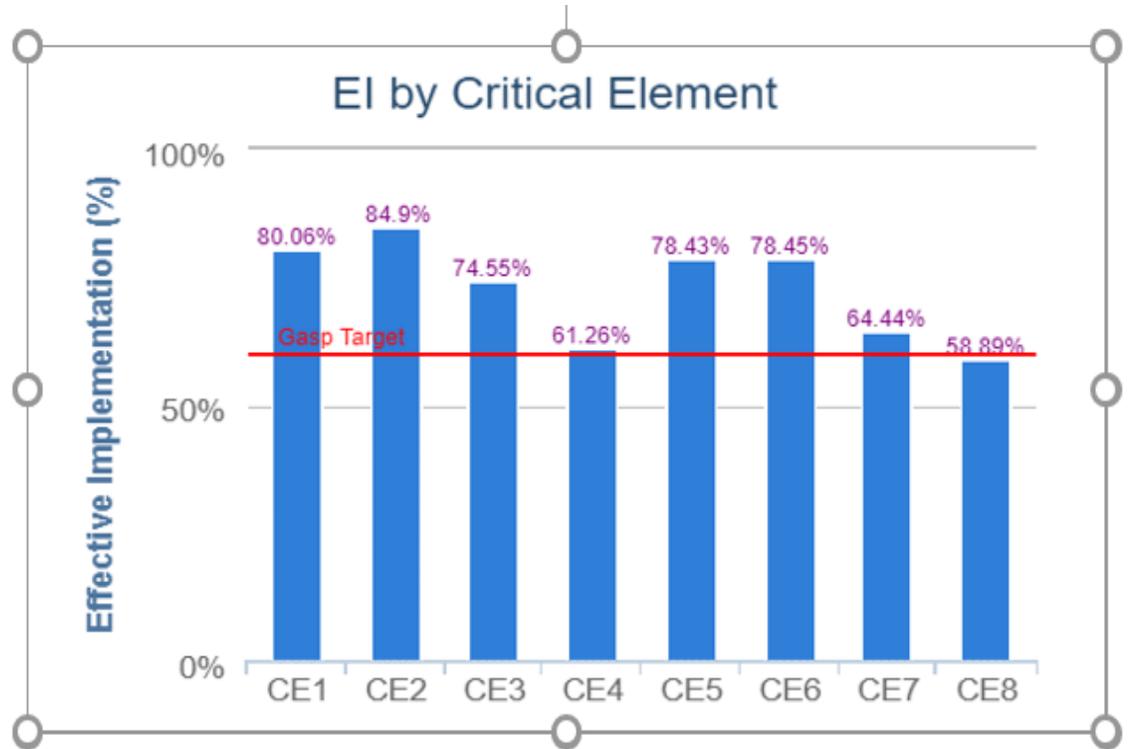
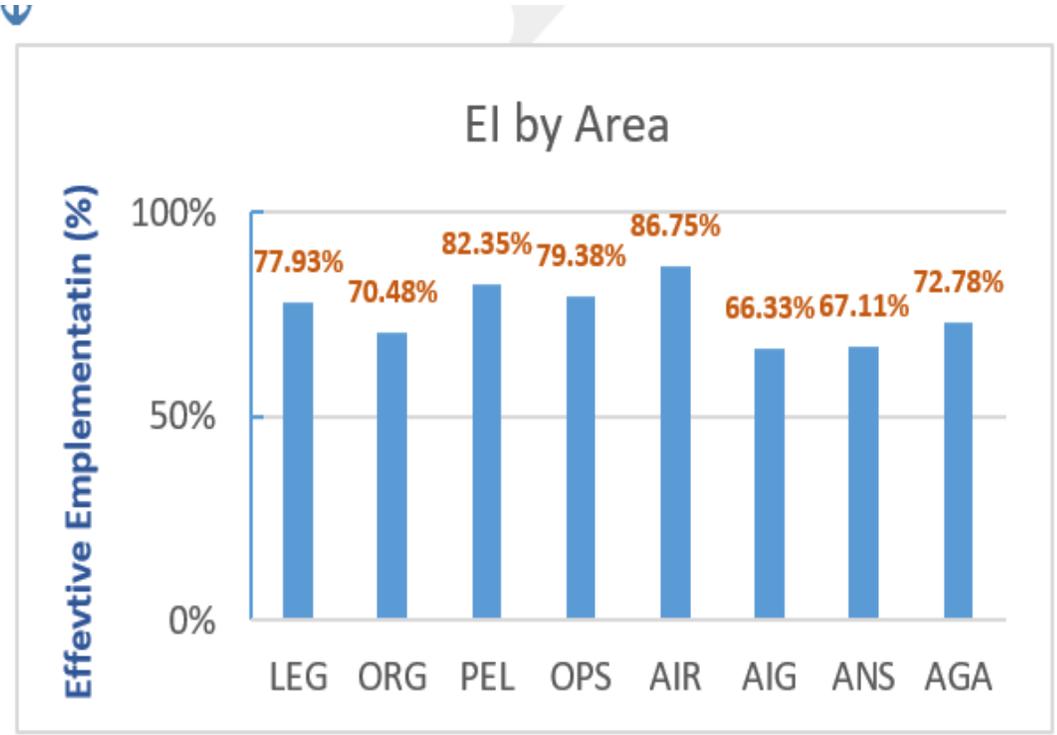
13 out of 15 States have been audited

Overall MID EI = 75.59% which is above Global average (68.39%)

3 states are below 60% (Libya, Syria, Lebanon)

NO SSC in MID Region

ICAO USOAP



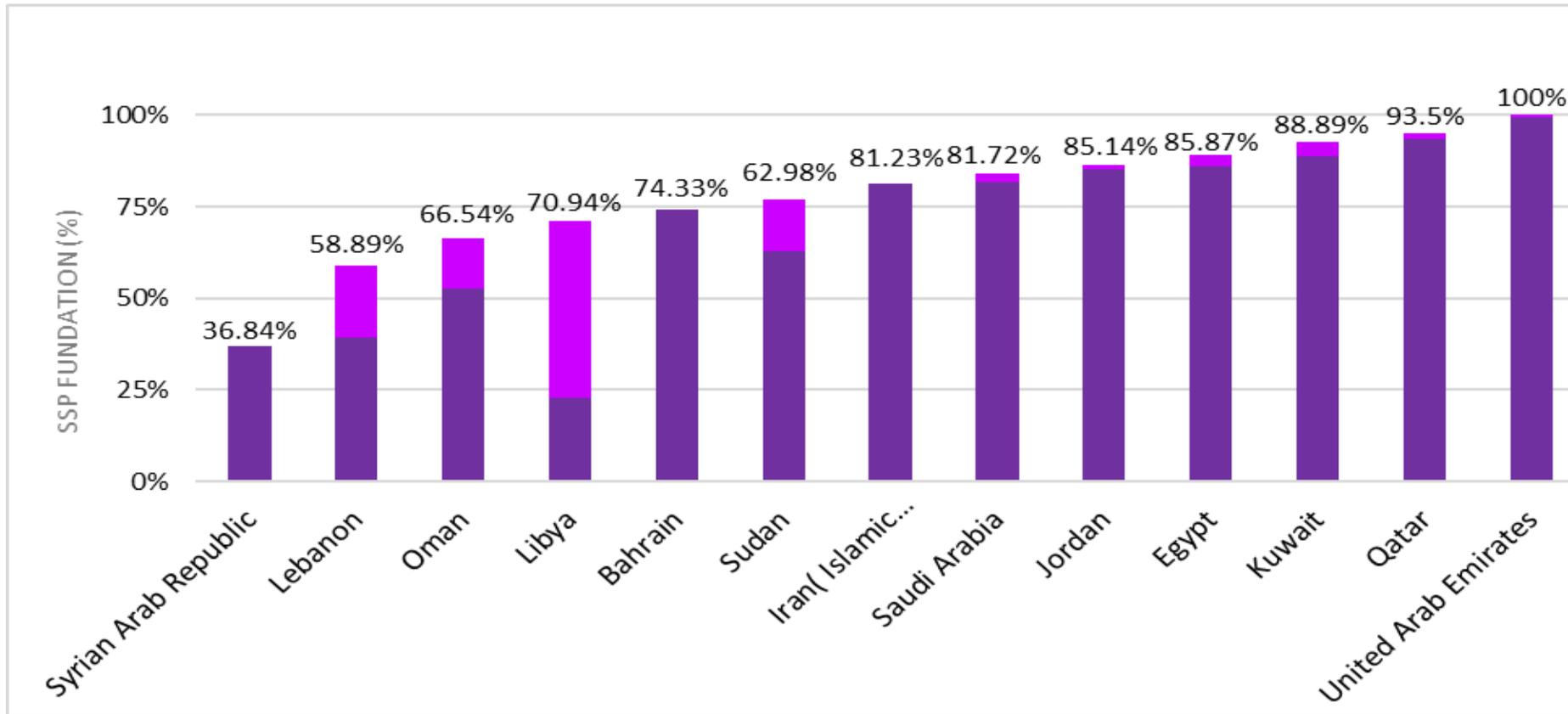
Source: ICAO iSTARS, as of May 8 2020

8 areas and 6 critical elements are above the target of 60%

Critical element CE8 (Resolution of Safety issues) is the lowest in terms of EI (below 60%)

State Safety Programme (SSP)

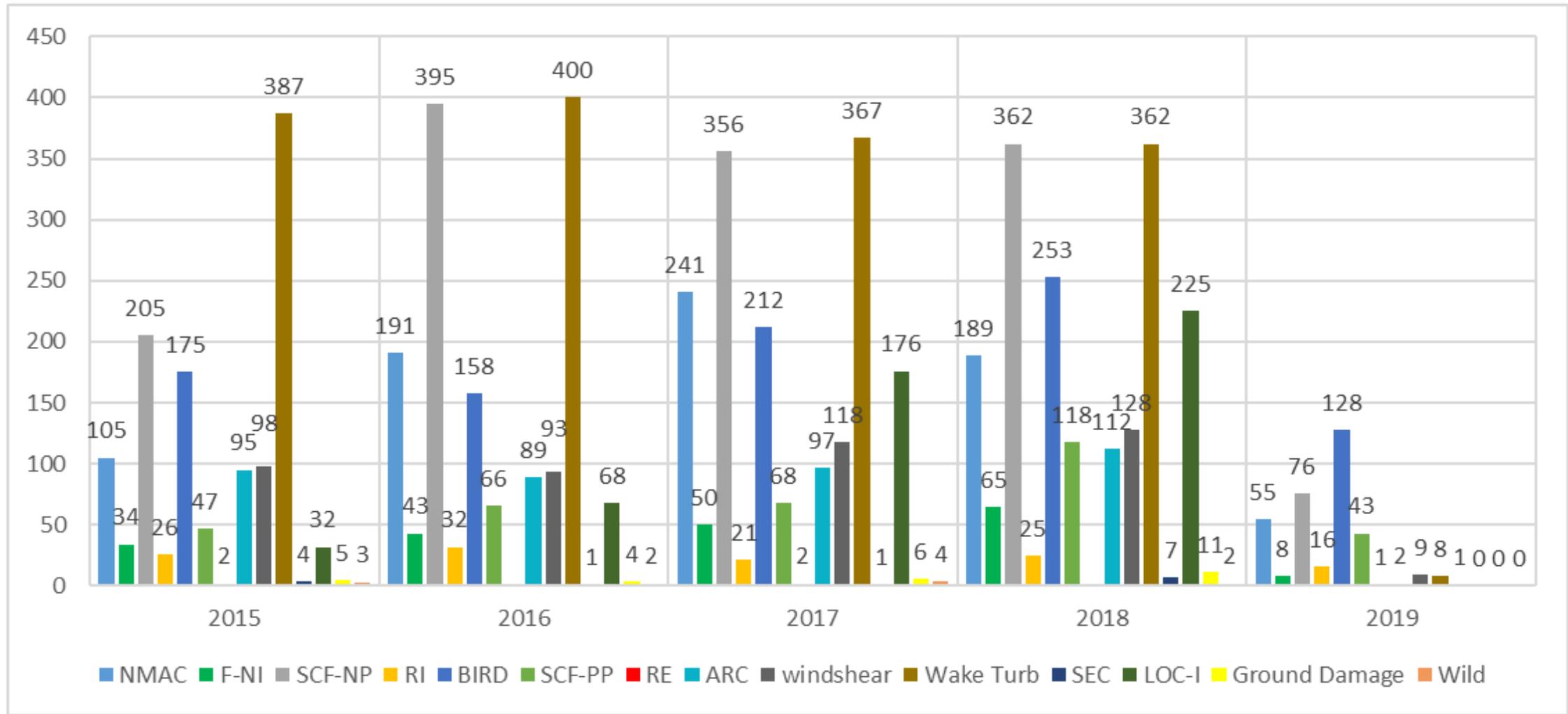
MID Region State Safety Programme (SSP) Foundation



Average EI for SSP foundation PQs for States in the MID Region is **76, 21%**.

Source: iSTARS as of 8 May 2020

Incidents Reported by the States





MID Region Safety Priorities



MID Region Safety Priorities

Regional Operational Safety Risks

Organizational Issues

Emerging Safety Risks

Regional Operational Safety Risks



Loss of Control In-flight



Runway Excursion/ARC



Controlled Flight into Terrain



Mid Air Collision

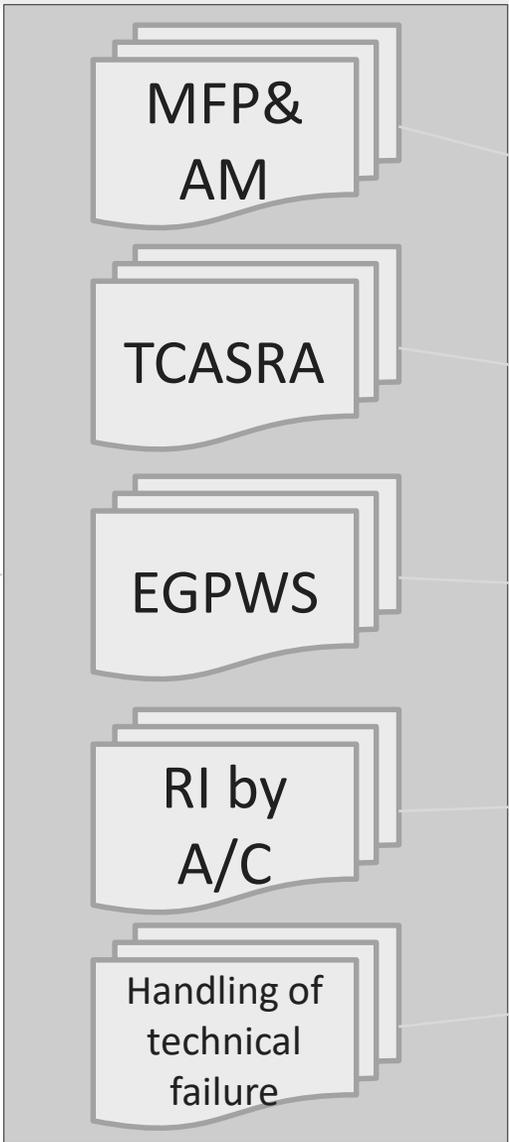


Runway Incursion

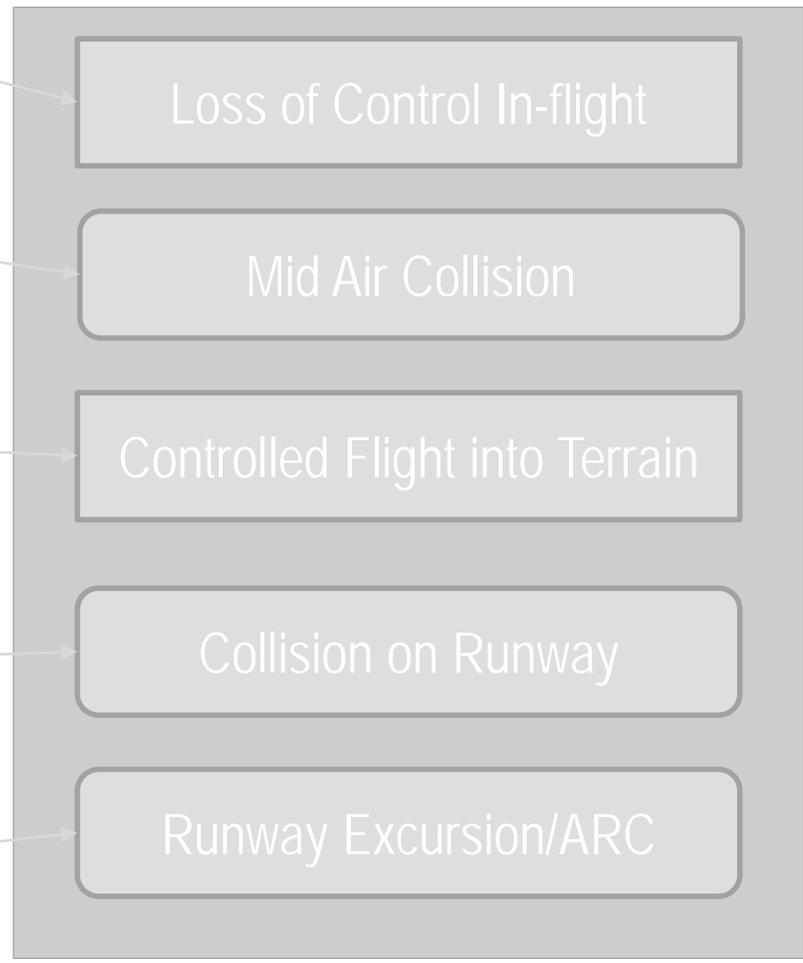


Identified Safety Issues

Identified Safety issues

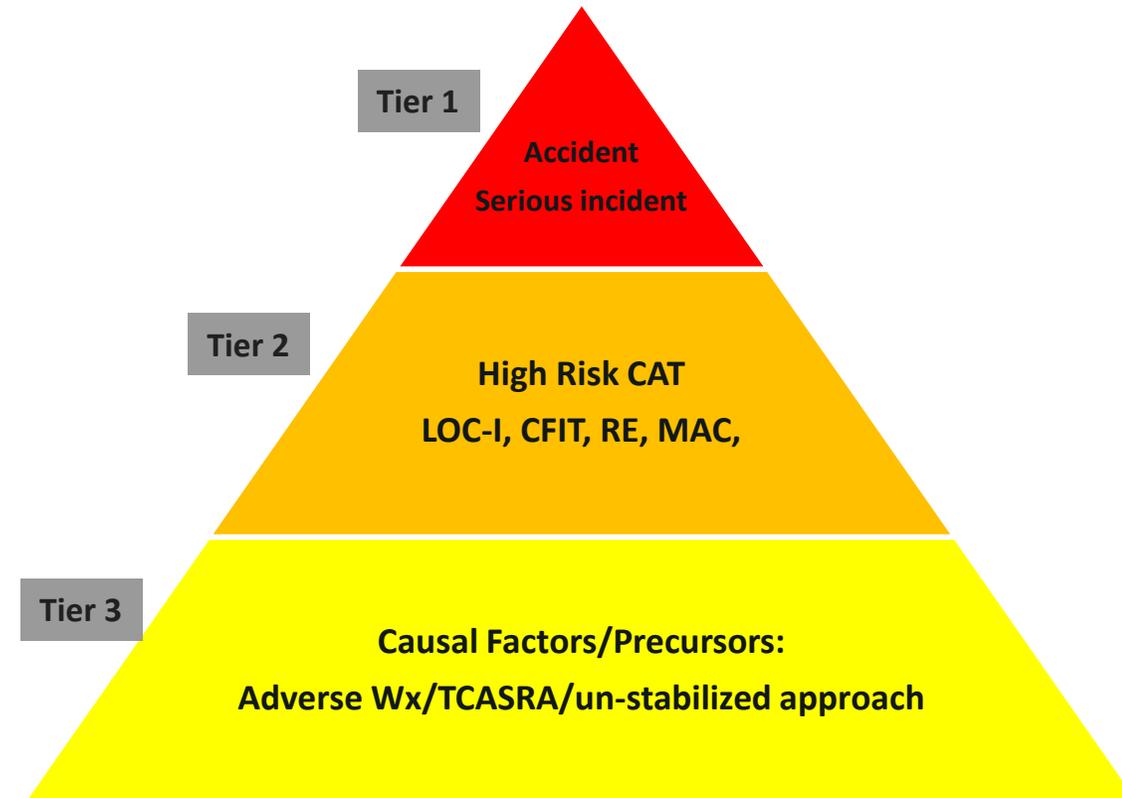


Potential High Risk Accidents



Safety Issues	Accident Severity	Potential Accident Outcome						
		CFIT	LOC-I	MAC	GCOL	RE/ARC	Injury Damage inflight	Injury on C
Monitoring of flight parameters and automation modes	Catastrophic	x	x			x	x	
Convective weather	Catastrophic	x	x			x		
Flight planning and preparation	Catastrophic	x	x			x		
Crew Resource Management	Catastrophic	x	x	x		x		
Handling of technical failure	Catastrophic	x	x			x		
Handling and execution of GOA	Catastrophic	x	x			x		
Loss of separation in flight/ and or airspace/TCAS RA	Catastrophic			x			x	
Experience, training and competence of Flight Crews	Catastrophic	x	x	x		x		
Deconfliction between IFR and VFR traffic	Catastrophic			x			x	
Inappropriate flight control inputs	Catastrophic		x			x		
Contained engine Failure/Power Plant Malfunctions	Catastrophic	x	x			x	x	
Birdstrike/Engine Bird ingestion	Catastrophic		x			x		
Fire/Smoke-non impact	Catastrophic		x				x	
Wake Vortex	Catastrophic		x				x	
Deviation from pitch or roll attitude	Catastrophic	x	x			x		
Security Risks with impact on Safety	Catastrophic		x					
Tail/Cross wind/Windshear	Catastrophic		x			x		
Runway Incursion	Catastrophic				x	x		
Maintenance events	Catastrophic	x	x			x	x	
Contaminated runway/Poor braking action	Major					x		
Clear Air Turbulence (CAT) and Mountain Waves	Catastrophic		x				x	

Identified Safety Issues



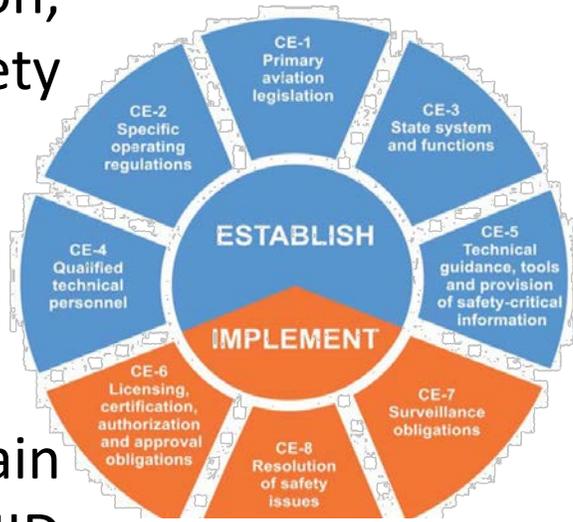
ORGANIZATIONAL ISSUES

1 States' Safety Oversight capabilities

Effective implementation in certification, surveillance, and resolution of Safety concerns need to be improved

1 Safety Management

Implementation of SSP is one of the main challenges faced by the State in the MID Region



Emerging Safety risks

GNSS Outages/ Vulnerability



COVID-19 Pandemic outbreak



Sharing of Safety Data & information



States are encouraged to provide necessary safety information to the ICAO MID Office, by 31 May 2021

The Draft of the 10th edition of the MID ASR will be presented to the ASRG/3 meeting for review (July 2021).



Challenges

01 Challenge: Low level of safety information, analysis and safety recommendations shared by States (confidentiality concerns); and

02 Challenge: Low participation in the meeting from the States and organizations

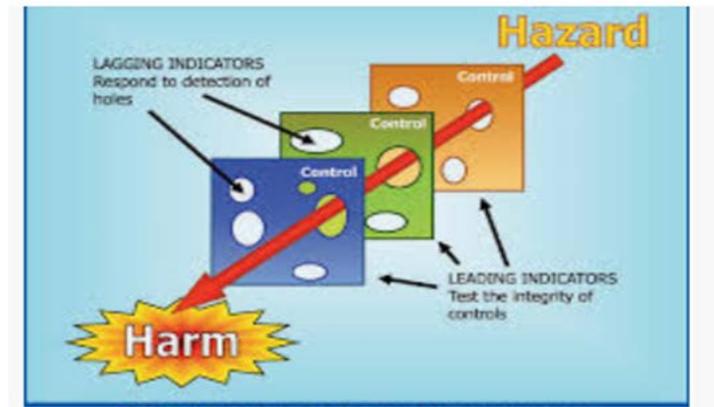


Status of Achieving Safety Targets

MID Region Safety Performance – Safety Indicators

Goals

- 1 Achieve a Continuous Reduction of Operational Safety Risks
- 2 Strengthen States' Safety Oversight Capabilities
- 3 Improve Aerodrome Safety
- 4 Expand the use of Industry Programmes
- 5 Implementation of Effective SSPs and SMSs
- 6 Increase Collaboration at the Regional Level to Enhance Safety



Goal 1: Achieve a Continuous Reduction of Operational Safety Risks

Safety Indicator	Safety Target	Average 2015-2019		2019	
		MID	Global	MID	Global
Number of accidents per million departures	Reduce/Maintain the regional average rate of accidents to be in line with the global average rate by 2016	2.02	2.6	1.5	3
Number of fatal accidents per million departures	Reduce/Maintain the regional average rate of fatal accidents to be in line with the global average rate by 2016	0.61	0.44	0	0.15
Number of Runway Excursion related accidents per million departures	Reduce/Maintain the regional average rate of Runway Excursion related accidents to be below the global average rate by 2016	0.15	0.36 (2017-2019)	0	0.43
Number of Runway Incursion accidents per million departures	Regional average rate of Runway Incursion accidents to be below the global average rate	0	0 (2017-2019)	0	0
Number of LOC-I related accidents per million departures	Reduce/Maintain the regional average rate of LOC-I related accidents to be below the global rate by 2016.	0.14	0.08	0	0.05
Number of CFIT related accidents per million departures	Reduce/Maintain the regional average rate of CFIT related accidents to be below the global rate by 2016.	0	0	0	0
Number of Mid Air Collision (accidents)	Zero Mid Air Collision accident	0	0	0	0

Goal 1: Achieve a Continuous Reduction of Operational Safety Risks

Accidents

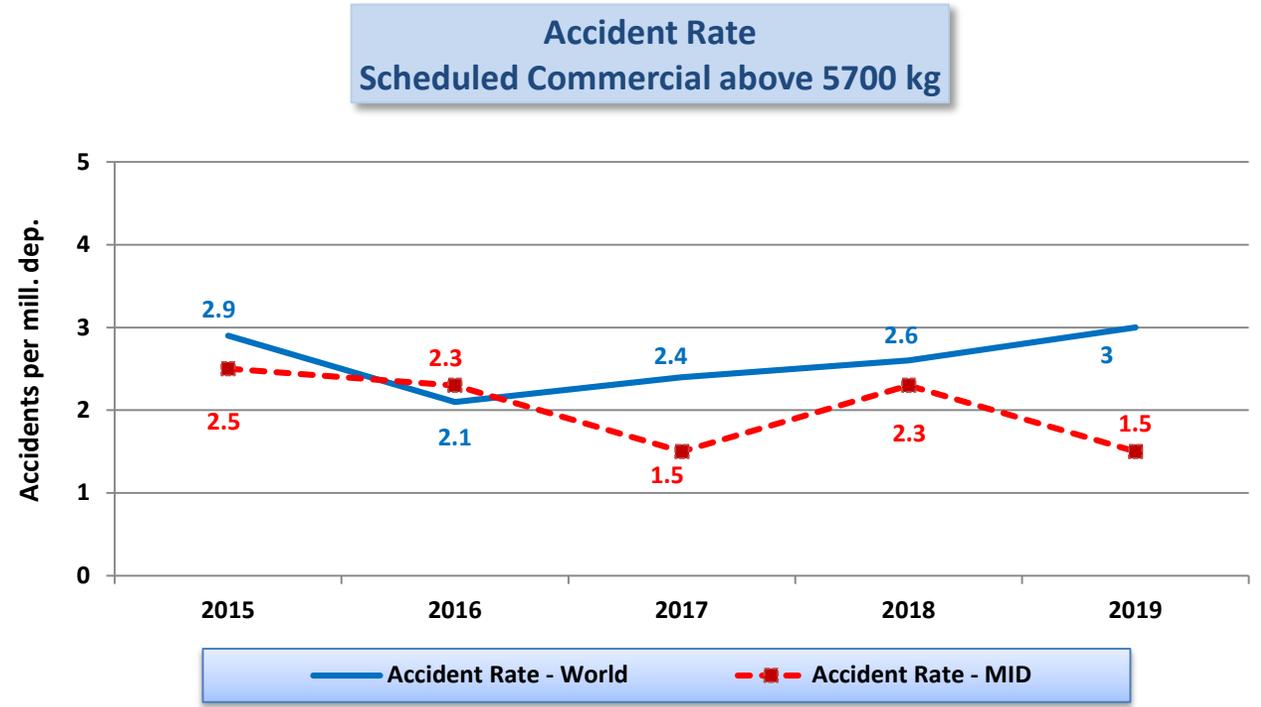
Safety Indicator
Number of accidents per million departures

Safety Target
Reduce/Maintain the regional average rate of accidents to be in line with the global average rate by 2016

Average 2015-2019

Average MID
2.02

Average Global
2.6



*Official ICAO accident statistics, used for the development of the ICAO safety reports
Scheduled commercial operations involving aircraft with MTOW above 5700 kg*

Goal 1: Achieve a Continuous Reduction of Operational Safety Risks

Fatal Accidents

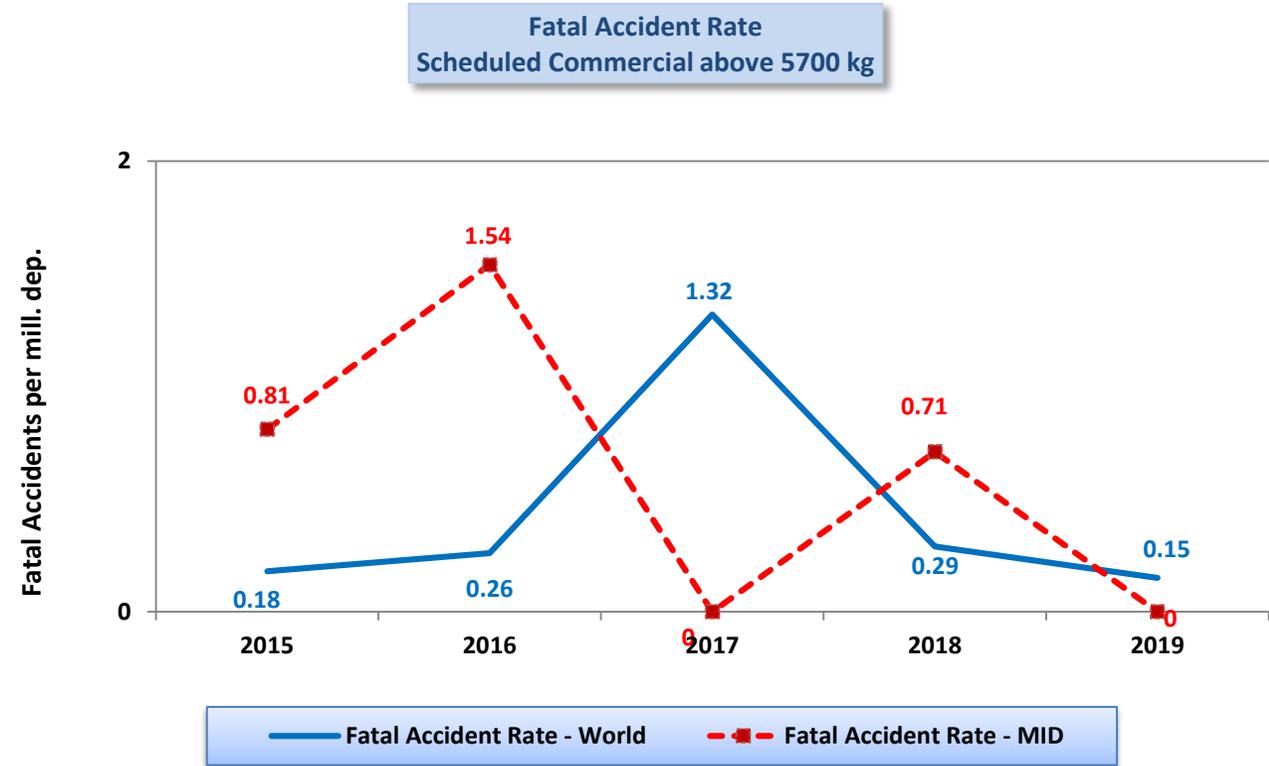
Safety Indicator
Number of fatal accidents per million departures

Safety Target
Reduce/Maintain the regional average rate of fatal accidents to be in line with the global average rate by 2016

Average 2015-2019

Average MID
0.61

Average Global
0.44



Official ICAO accident statistics, used for the development of the ICAO safety reports
Scheduled commercial operations involving aircraft with MTOW above 5700 kg

Goal 1: Achieve a Continuous Reduction of Operational Safety Risks

Runway Excursion (RE)

Safety Indicator

Number of RE related accidents per million departures

Safety Target - 1

Reduce/Maintain the regional average rate of RE related accidents to be below the global average rate by 2016



Average 2015-2019

Average MID
0.15

Average 2017-2019

Average Global
0.36

Goal 1: Achieve a Continuous Reduction of Operational Safety Risks

Runway Inclusion (RI)

Safety Indicator

Number of RI related accidents per million departures

Safety Target - 1

Reduce/Maintain the regional average rate of RI related accidents to be below the global average rate by 2016



Average 2015-2019

Average MID
0

Average 2017-2019

Average Global
0

Goal 1: Achieve a Continuous Reduction of Operational Safety Risks

Loss of Control-Inflight (LOC-I)

Safety Indicator

Number of LOC-I related accidents per million departures

Safety Target - 1

Reduce/Maintain the regional average rate of LOC-I related accidents to be below the global average rate by 2016

Average 2015-2019

Average MID
0.14

Average Global
0.08



Goal 1: Achieve a Continuous Reduction of Operational Safety Risks

Controlled Flight into Terrain (CFIT)

Safety Indicator

Number of CFIT related accidents per million departures

Safety Target - 1

Reduce/Maintain the regional average rate of CFIT related accidents to be below the global average rate by 2016



Average 2015-2019

Average MID

0

Average Global

0

Goal 1: Achieve a Continuous Reduction of Operational Safety Risks

Mid-air Collision (MAC)

Safety Indicator

Number of MAC related accidents per million departures

Safety Target - 1

Reduce/Maintain the regional average rate of MAC related accidents to be below the global average rate by 2016

Average 2015-2019

Average MID
0

Average Global
0



Goal 2: Strengthen States' Safety Oversight Capabilities

USOAP-CMA

Safety Indicator - a
Regional average EI

Safety Target - a
Increase the regional average EI to be above 70% by 2020

Regional Average EI
75.59%

Global Average EI
68.39%

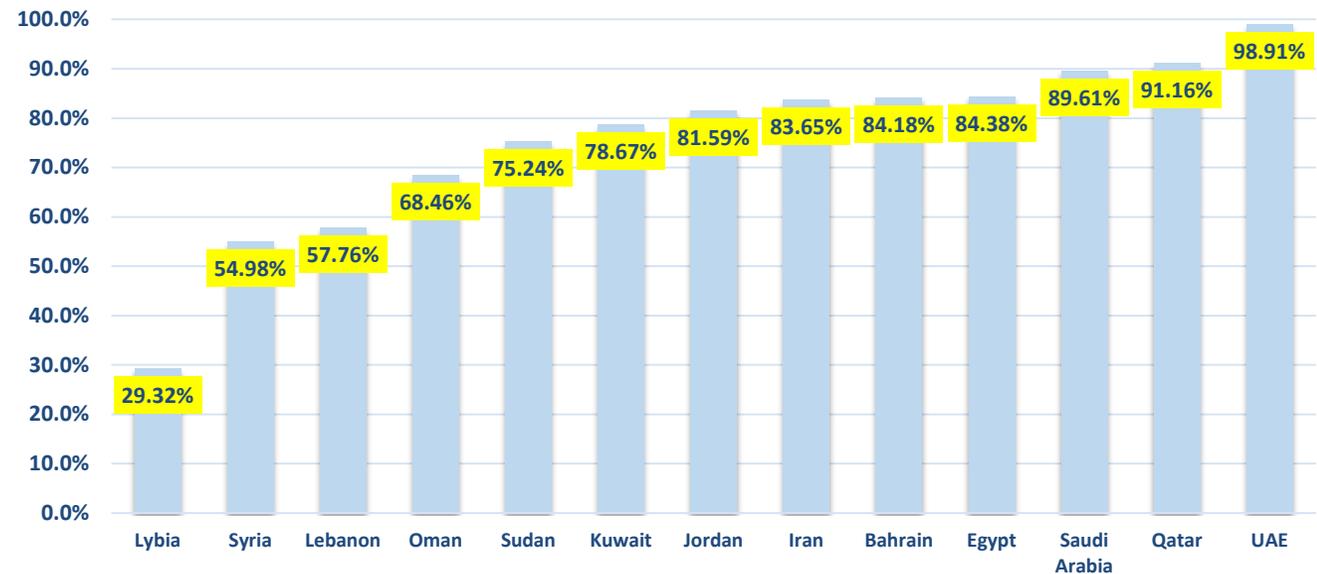
Safety Indicator - b
Number of MID States with an overall EI over 60%

Safety Target - b
11 MID States to have at least 60% EI by 2020

10 States have achieved the target of 60% EI



Effective Implementation (EI)



Source: ICAO USOAP CMA On Line Framework (OLF), as of May 8, 2020

Goal 2: Strengthen States' Safety Oversight Capabilities

USOAP-CMA

Safety Indicator - c

Regional average EI by area

Safety Target - c

Regional average EI for each area to be above 70% by 2020

6 areas above 70%

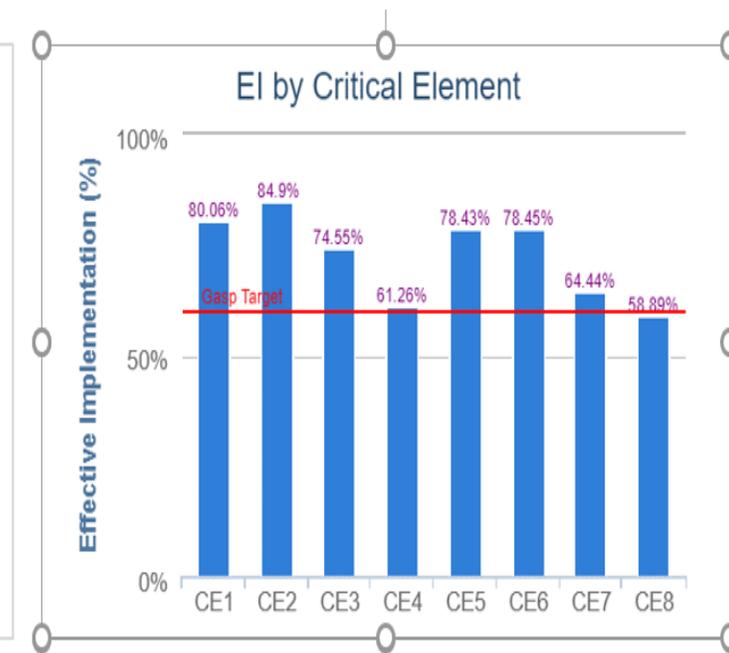
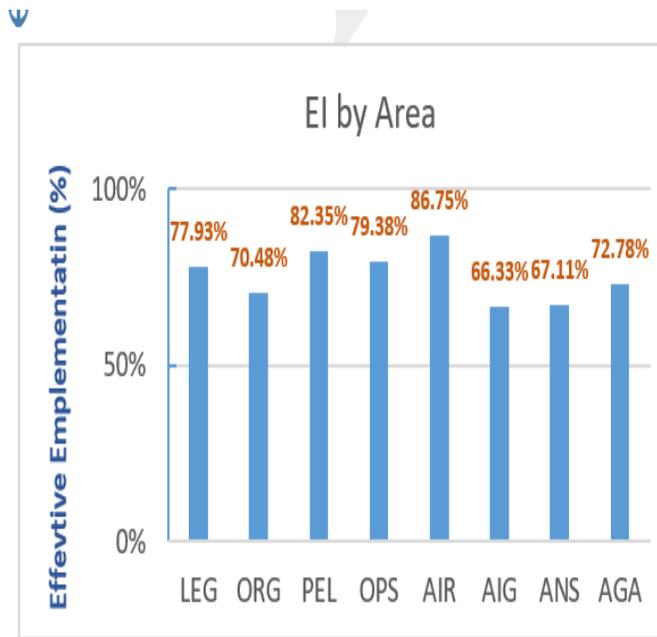
Safety Indicator - d

Regional average EI by CE

Safety Target - d

Regional average EI for each CE to be above 70% by 2020

5 CEs above 70%



Source: ICAO USOAP CMA On Line Framework (OLF), as of May 8, 2020

Goal 3: Improve Aerodrome Safety

Aerodrome Certification

Safety Indicator

Number of certified international aerodrome as a percentage of all international aerodromes in the MID Region

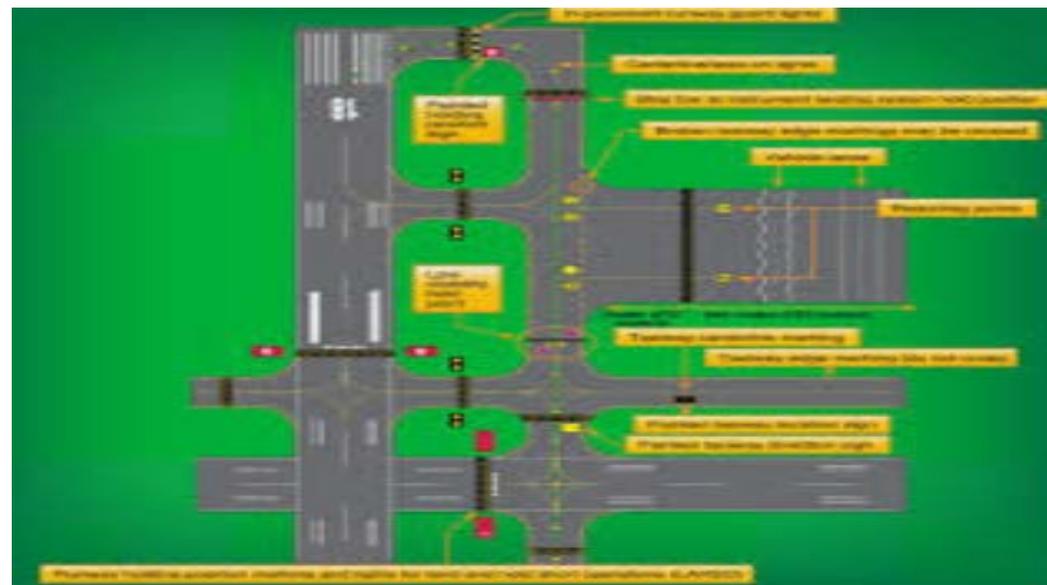
Safety Target

50% of the international aerodromes certified by 2015

75% of the international aerodromes certified by 2017

Status

67%



Goal 3: Improve Aerodrome Safety

Runway Safety Team (RST) at MID International Aerodromes

Safety Indicator

Number of established Runway Safety Team (RST) at MID International Aerodromes

Safety Target

50% of the international aerodromes by 2020

Status

57%



Goal 4: Expand the use of Industry Programmes

IATA Operational Safety Audit (IOSA)

Safety Indicator

Use of the IATA Operational Safety Audit (IOSA), to complement safety oversight activities.

Safety Target - 1

Maintain at least 60% of eligible MID airlines to be certified IATA-IOSA by 2015 at all times

Status

57% as of 2017

Safety Target - 2

All MID States with an EI of at least 60% use the IATA Operational Safety Audit (IOSA) to complement their safety oversight activities, by 2018.

Status

5 out of 10



Safety Indicator

Use of the IATA Safety Audit for Ground Operations (ISAGO) certification, as a percentage of all Ground Handling service providers

Safety Target - 1

The IATA Ground Handling Manual (IGOM) endorsed as a reference for ground handling safety standards by all MID States by 2020

Status

5 States out of 10 signed ISAGO MOU

Goal 5: Implementation of Effective SSPs and SMSs

Safety Indicator	Safety Target	MID	Remark
Number of States that have completed the SSP Gap Analysis on iSTARS	13 MID States by 2020	9 States	
Number of States that have developed an SSP implementation plan	13 MID States by 2020	9 States	
Regional Average overall SSP Foundation (in %)	70% by 2022	76.22%	Target achieved
Number of States that have fully implemented the SSP Foundation	10 MID States by 2022	1 State	
Number of States that have implemented an effective SSP	7 MID States by 2025	TBD	

Goal 6: Increase Collaboration at the Regional Level to Enhance Safety

Safety Indicator	Safety Target	MID	Remark
Number of States attending the RASG-MID meetings	At least 12 States from the MID Region	14 States	
Number of States providing required data related to accidents, serious incidents and incidents to the MID-ASRTASRG	All States from the MID Region	9 States	
Number of States that received assistance/support through the RASG-MID, MENA RSOO and/or other NCLB mechanisms	All States having an EI below 60% to be member of the MENA RSOO	3 States	
	All States having an EI below 60% to have an approved NCLB Plan of Actions for Safety (agreed upon with the ICAO MID Office)		

