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MID-ASRT/3 –PPT/1

ANNUAL SAFETY REPORT

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ASRT/3 Meeting
Nov 2018, Cairo



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ICAO MID-ASRT/3

MID Annual Safety Report
7th Edition Overview and Draft Report

Cairo, Egypt, 20-22 Nov 2018





Today's Meeting

- Objective of ASRT
- Risk Assessment Methodology
- Reactive information data
- Proactive information data
- Focus Areas and Emerging Risks
- Challenges
- Way forward





Objective of ASRT

- ❑ Gathering and Analyzing safety information
- ❑ Identification of safety focus areas & emerging risks
- ❑ Production of the annual safety report

- 1st Edition, Nov 2012
- 2nd Edition, Jan 2014
- 3rd Edition, March 2015
- 4th Edition, May 2016
- 5th Edition, Jan 2017
- 6th Edition, June 2018
- 7th Edition, **In progress**





Data Collection & Sources

Data collection methods

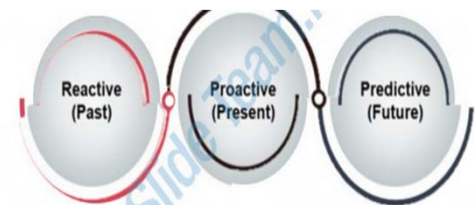
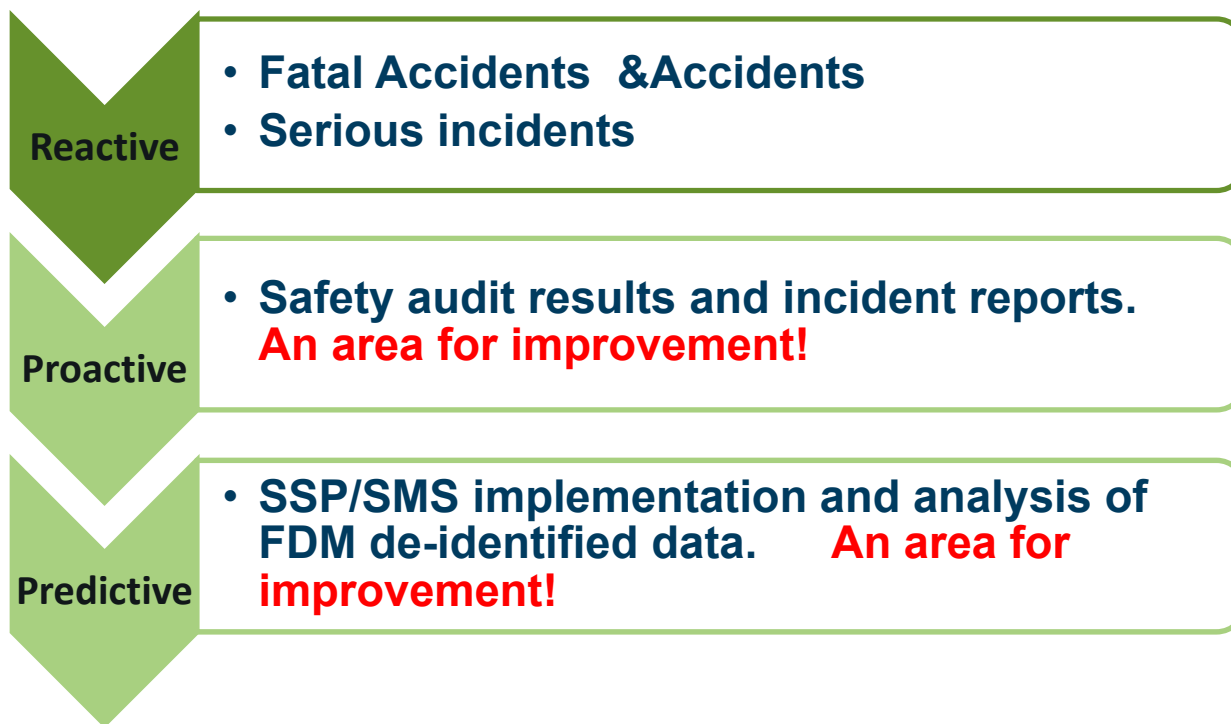
- Existing safety databases of different aviation stakeholders
- Surveys
- Experts opinion
- Industry meetings

Data sources for ASR (7th edition)





ASR Structure-7th Ed



Risk Assessments Methodology

Frequency \ Severity	1	2	3	4	5	6
1	1	2	3	4	5	6
2	2	4	6	8	10	12
3	3	6	9	12	15	18
4	4	8	12	16	20	24



Frequency rating: 1 is the most frequent and 6 is the least frequent

Severity: 1 is the most severe and 4 is the least severe

“Feared consequence” of the risk portfolio of DGAC France:

Nb	Identification of Undesirable Event	Accident types						
		CFTT	LOC-I	MAC	Ground Collision	RE	Damage to aircraft or injury inflight	Damage to aircraft or injury on ground
UE.1	Unstabilised or non-compliant approach	X	X			X		X
UE.2	Abnormal airplane attitude (Roll, pitch, speed...)		X				X	
UE.3	Events relating to aerodrome conditions (Runway surface condition and aerological parameters)		X			X	X	X
UE.4	En-route encounter of dangerous weather phenomena (Thunderstorm, turbulence, icing)		X	#			X	X
UE.5	Misuse of aircraft system (Weight and Balance, speed track, aircraft config)	X	X	X	X	X	X	X
UE.6	Event pertaining to works/maintenance operations on or close to a runway		#		X	X		X
UE.7	Bad coordination/execution of ground operations (deicing, loading, stowing, line maintenance, etc)	X	X		X		X	X
UE.8	Runway/taxiway incursion				X	X		X
UE.9	Loss of separation in flight/ and/or airspace infringement /level bust		X			X	X	X
UE.10	Wildlife hazard, including bird strike		X		X	X	X	
UE.11	Ground-onboard interface failure (Misunderstanding, unsuitability of transmitted information, etc)	X	X	X	X	X	X	X
UE.12	Aircraft maintenance event	X	X		#	X	X	X
UE.13	Fire/Smoke inflight	#	X				X	X
UE.14	Aircraft system failure resulting in flight management disturbance	X	X		#	X	X	X
UE.15	Loss of cabin pressure		X	#			X	
UE.16	Aircraft damage due to FOD		X			X	X	X



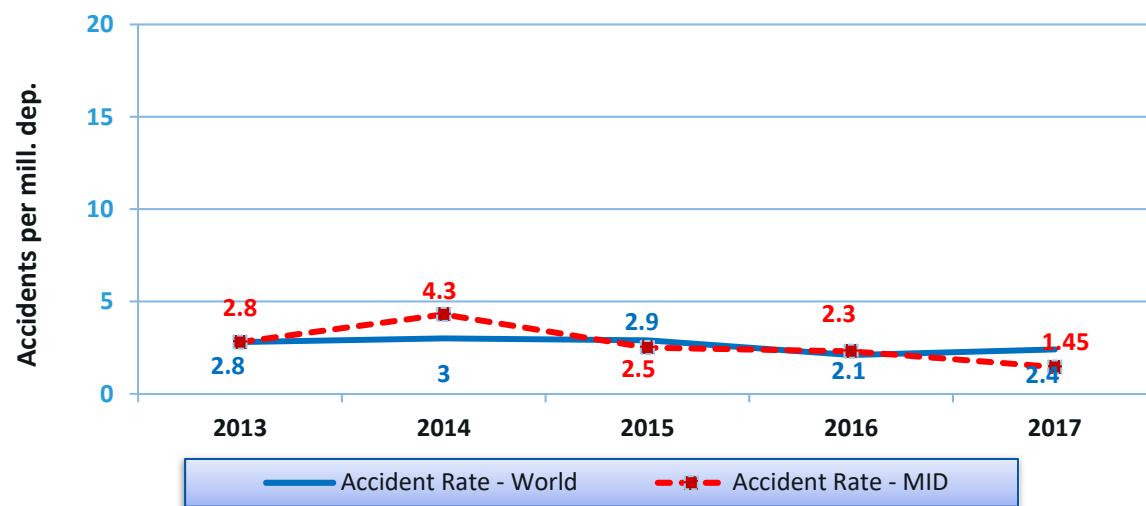
Reactive Safety Information

State of Occurrence



Accident Rate

Accident Rate
Scheduled Commercial above 5700 kg

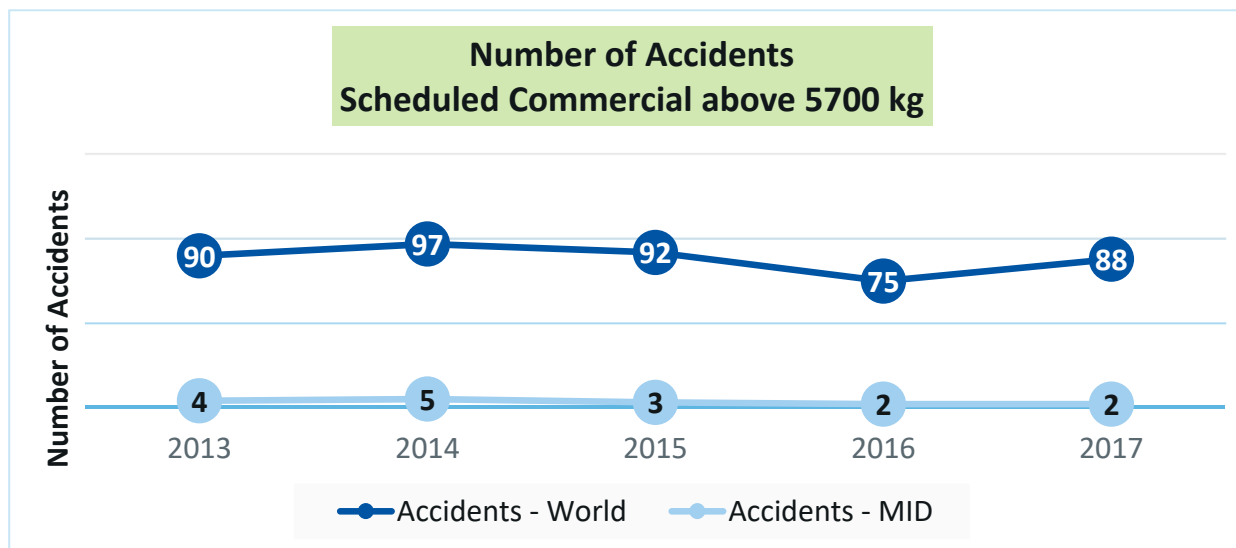


(Source iSATRS as of 10 Oct 2018)

- Reduced accident rate for 2017 compared to 2016
- Below global rate in 2017
- Matched 5 year average global rate! (avg global = 2.67)



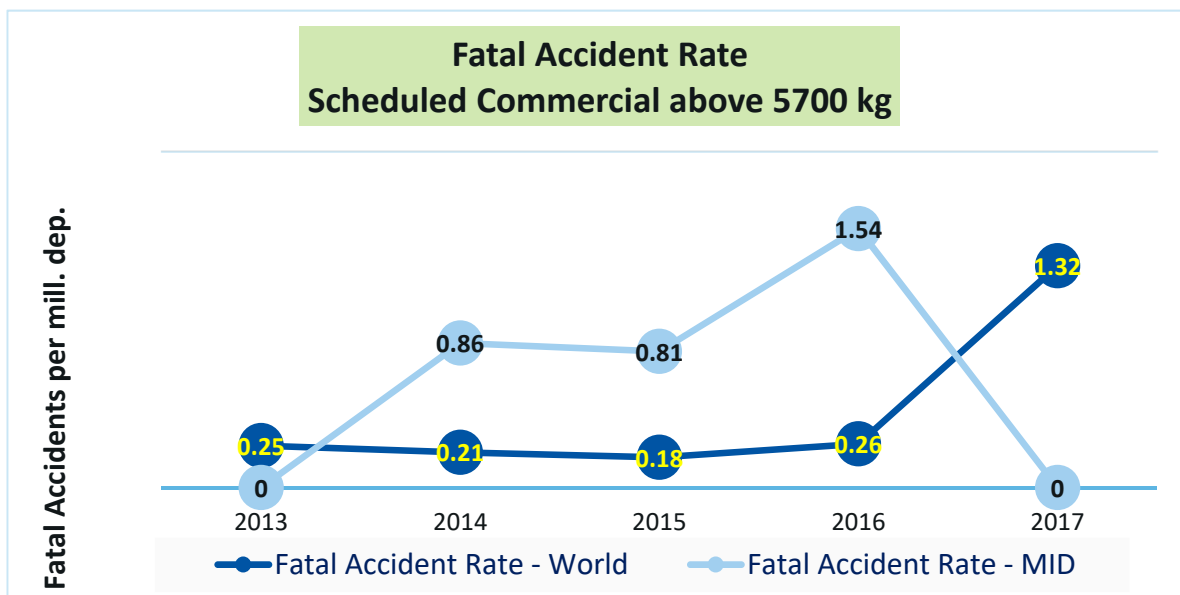
Number of Accident



(Source iSATRS as of 10 Oct 2018)



Fatal Accident Rate

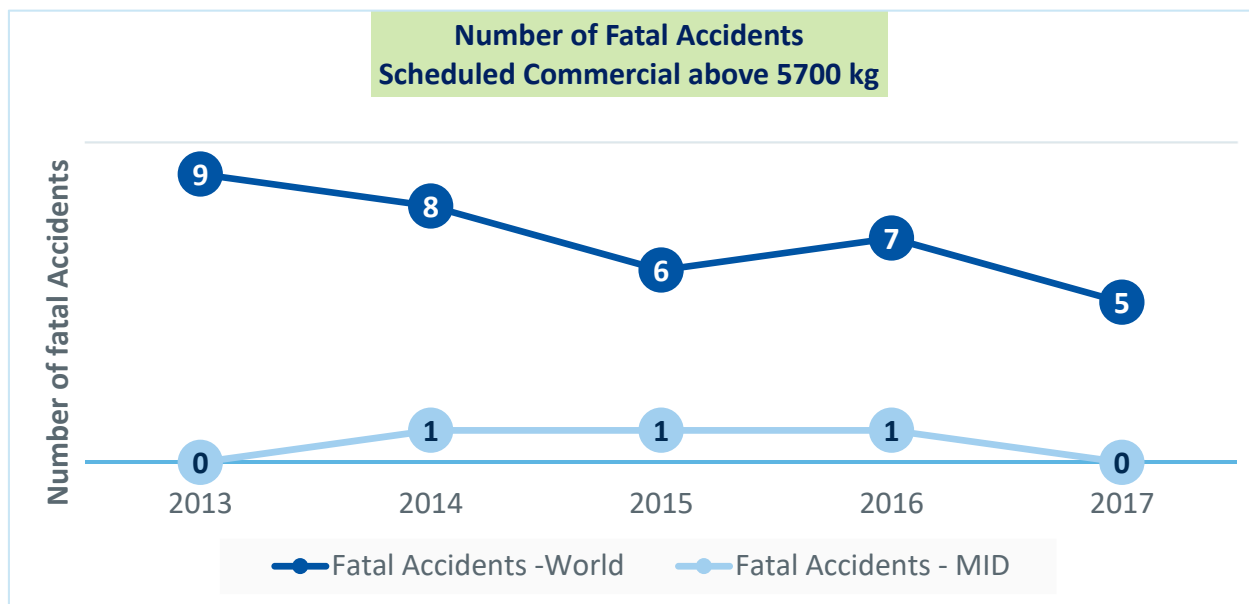


(Source ISATRS as of 10 Oct 2018)

- No fatal accident rate in 2017
- Average rate (2013-2017) is 0.64
- Slightly Above average global rate!
(avg global = 0.44)



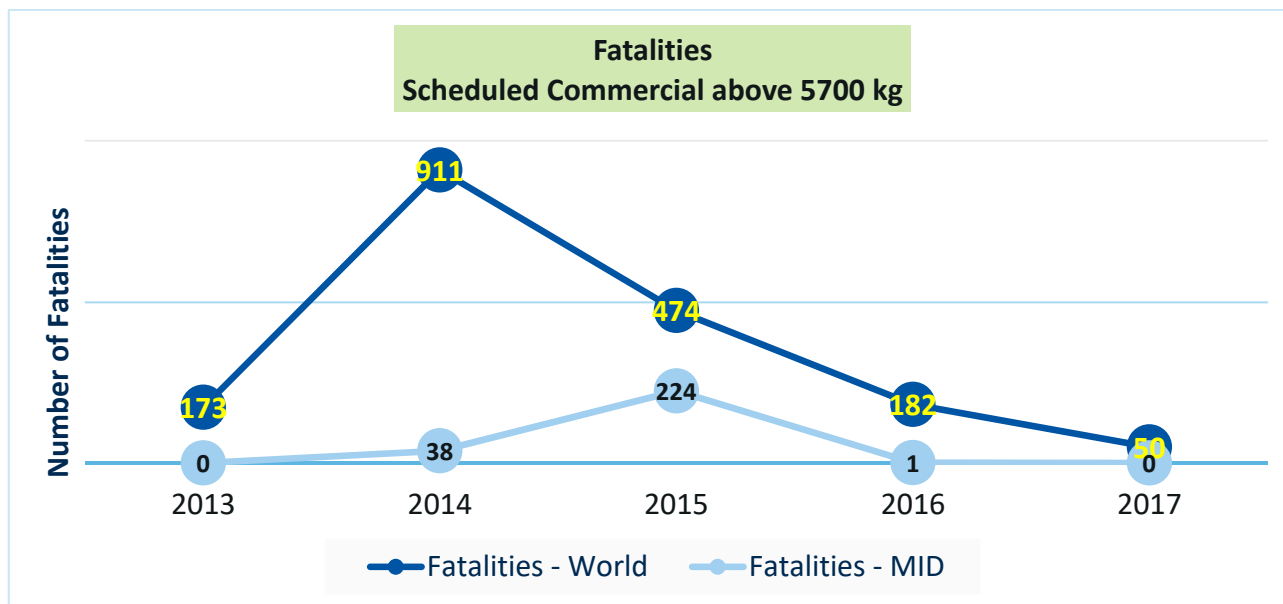
Number of Fatal Accident



(Source iSATRS as of 10 Oct 2018)



Fatalities



- Fatalities:
- 2014 = 38
 - 2015 = 224
 - 2016 = 1

(Source iSATRS as of 10 Oct 2018)



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Proactive Safety Information



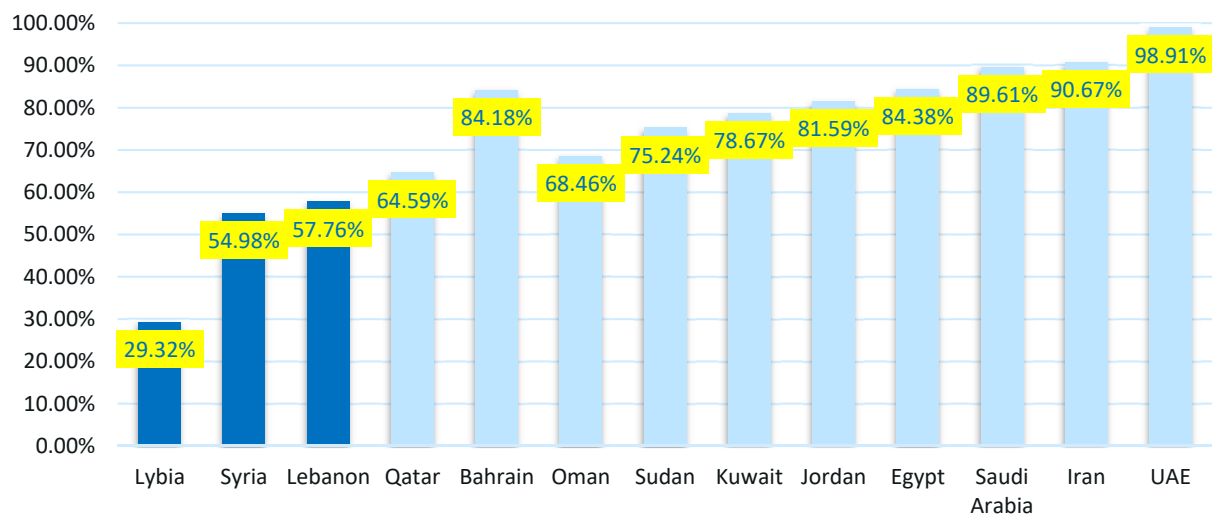
21 November 2018

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ICAO USOAP

Effective Implementation (EI)



Source: ICAO USOAP CMA On Line Framework (OLF), as of 10 October 2018

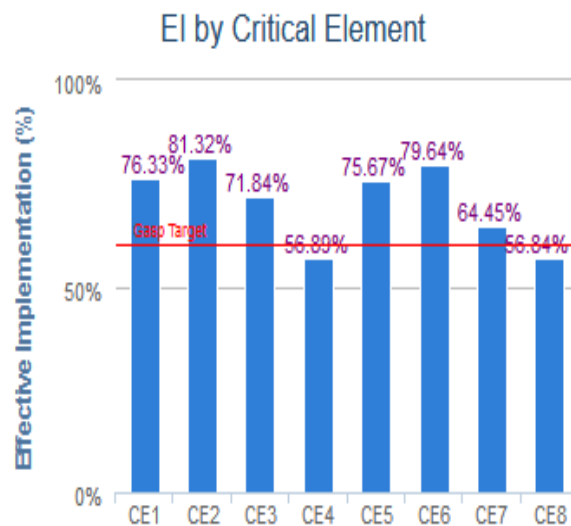
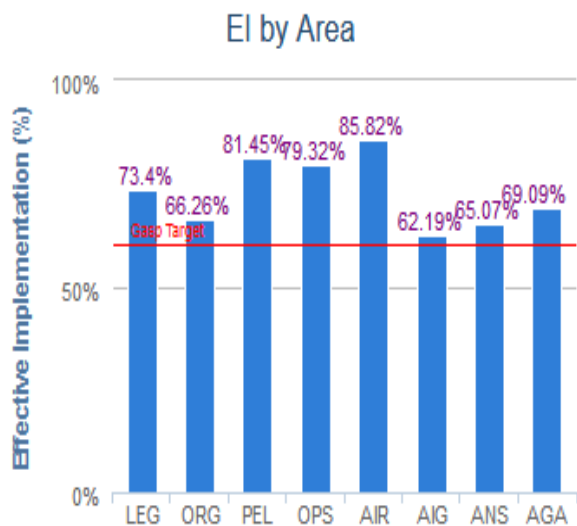
ICAO USOAP:

- 13 out of 15 States have been audited
- Overall MID EI = 73.24% which is above Global average (66.27%)
- 3 states are below 60% (Libya, Syria, Lebanon)

NO SSC in MID Region



ICAO USOAP

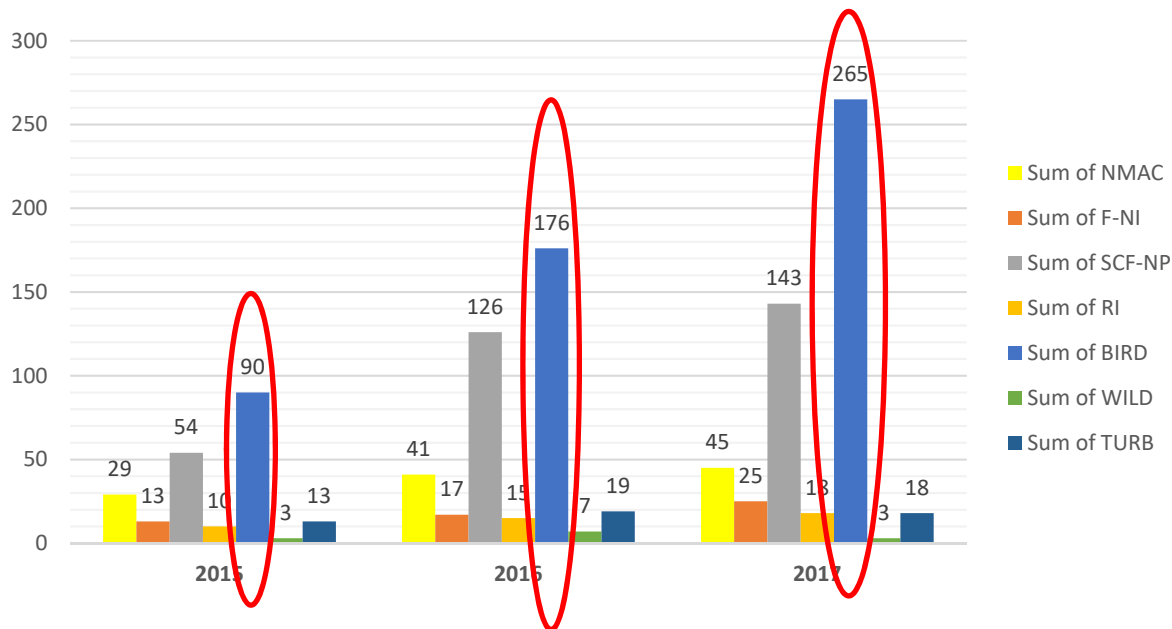


- ❑ 8 areas and 6 critical elements are above the target of 60%
- ❑ Critical elements CE4 (Qualified technical personnel), and CE8 (Resolution of Safety issues) are the lowest in terms of EI (below 60%)

Source: ICAO iSTARS, as of 10 October 2018



Incidents Reported by the States



what are other words for occurrence?

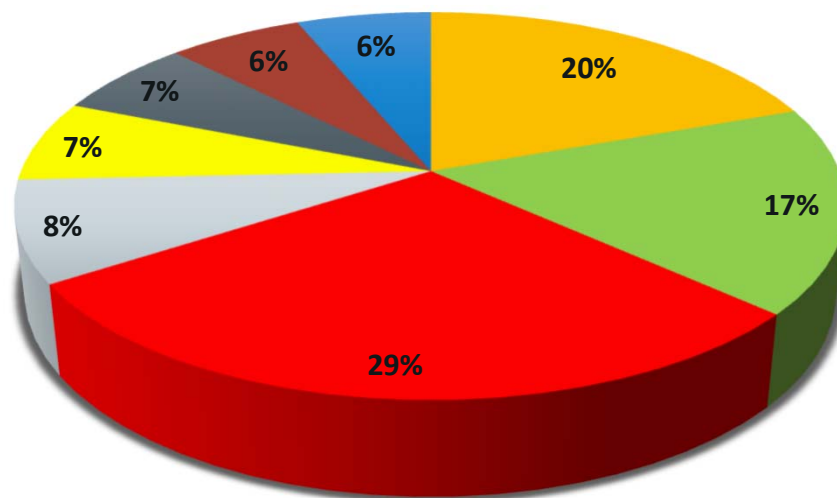
incident, happening, event, circumstance, episode, appearance, occasion, manifestation, affair, instance





IATA IOSA

2017-IOSA % of findings per area



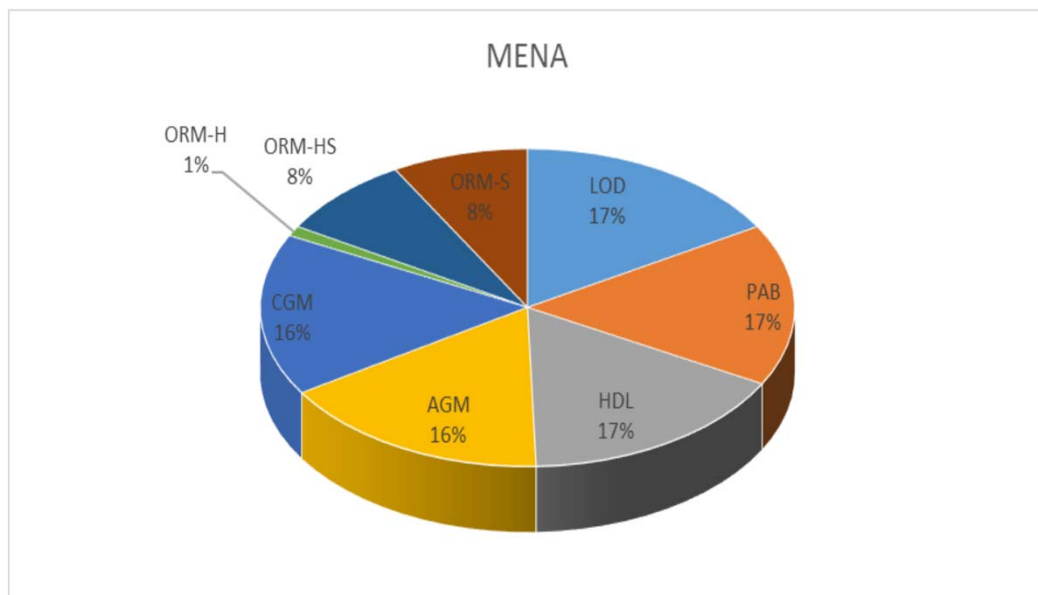
ORG MNT FLT GRH CAB DSP CGO SEC

Findings were mainly in the areas:

- Flight Operations (FLT) (29.1%),
- Organization Management (ORG)(19.49%),
- Maintenance (MNT) (17.23%) , and
- Ground Handling Operations (GRH) (8.47%).



IATA ISAGO



A total of 34 audits took place in 2017 have been included in the analysis covering the IATA MENA Region.

- 40 findings were recorded
- Majority of findings were in the areas of:
 - ✓ Passengers & Baggage handlings (PAB)
 - ✓ Aircraft Handling & Control (HDL)
 - ✓ Load Control (LOD)

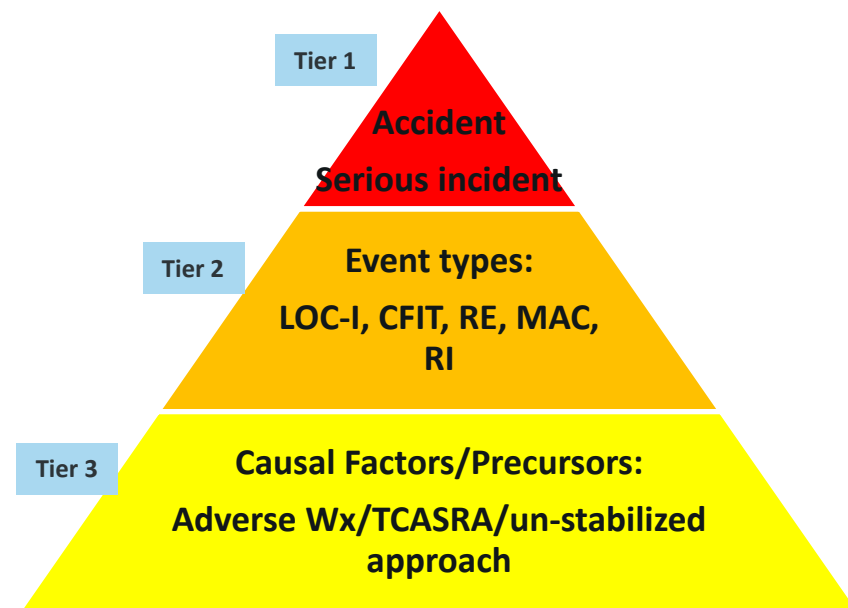


Identification of Focus areas & Emerging Risks



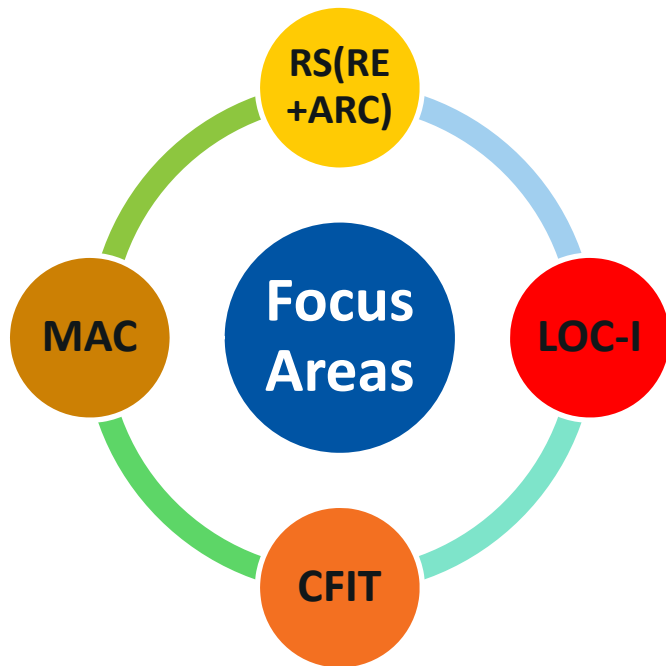


Undesirable/Safety Event	Accident Severity	Potential Accident Outcome						
		CFIT	LOC-I	MAC	GCOL	RE/ARC	Injury or Damage inflight	Inj Da Gr
Technical Problems with Landing Gear Collapse/not Extended during landing	Major					x		x
Contained engine Failure/Power Plant Malfunctions	Catastrophic	x	x				x	
Fire/Smoke-non impact	Catastrophic		x				x	x
Un-stable or non-compliant Approach	Catastrophic	x	x			x		x
Deviation from pitch or roll attitude	Catastrophic	x	x			x		
Security Risks with impact on safety	Catastrophic		x					
Tail/Cross wind/Windshear	Major		x			x		x
Loss of separation in flight/ and or airspace/TCAS RA infringement	Catastrophic		x	x			x	
Runway Incursion	Catastrophic				x	x		x
Maintenance events and technical failures	Catastrophic	x	x			x	x	x
Contaminated runway/Poor braking action	Major					x		x
Birdstrike/Engine Bird ingestion	Catastrophic		x			x	x	x
Wake Turbulence	Catastrophic			x			x	
High energy go-around			x				x	



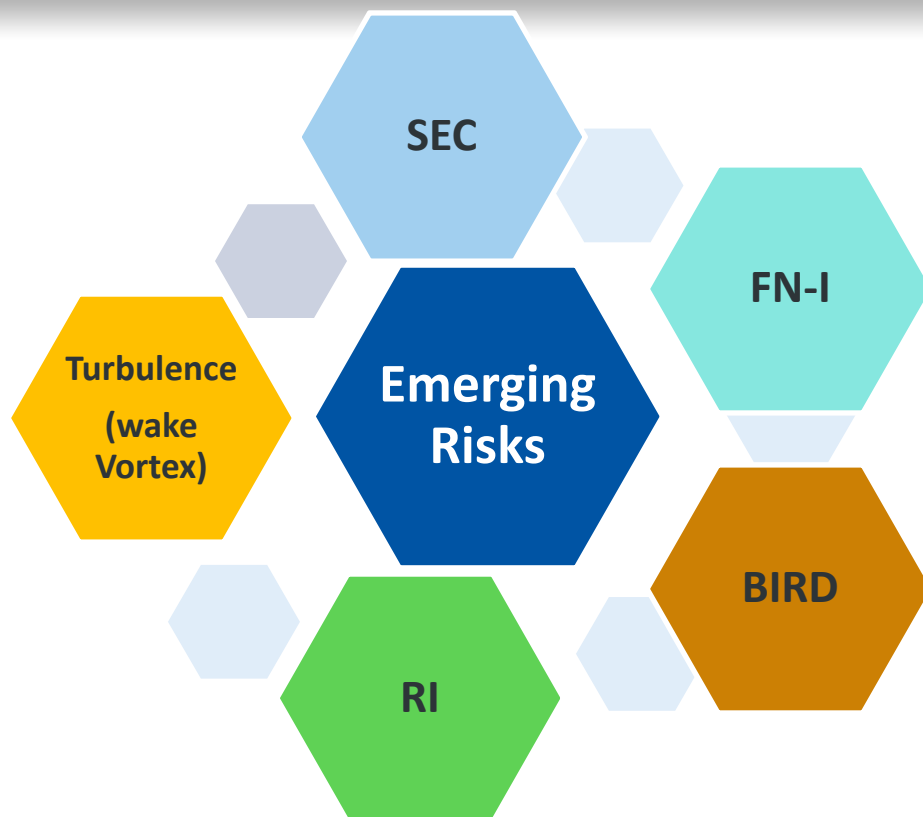


Focus Areas



□ Focus Areas:

1. Runway Safety (RS); (RE and ARC during landing);
2. Loss of Control-In Flight (LOC-I);
3. Controlled Flight Into Terrain (CFIT); and
4. Mid-Air Collision (MAC)



Emerging risks:

1. **Security Risks with impact on safety-SEC;**
2. **Fire/smoke- (non-impact)- (FN-I);**
3. **Runway incursion (RI);**
4. **Birdstrike-(BIRD); and**
5. **Wake Vortex.**



Challenges

- ❑ Accidents with the category “Unknown”
- ❑ Low level of incidents reporting by States (confidentiality concerns)
- ❑ Unavailability of predictive safety information
- ❑ Differences between organizations with respect to:
 - Taxonomy and classifications/categories
 - Reporting criteria (State of occurrence/operator/registry, MTOW..etc)
 - Regional distribution (MENA, MID...etc)





Areas of improvement for future Edition

- Approach States for additional information regarding “unknown classifications”
- Monitor the effectiveness of the SEIs
- Add a safety recommendations section
- Expand the proactive section with incidents analysis provided by States
- Enhance the production time of the report





Where we need your help

- Support with the identification of root causes/contributing factors and safety recommendations in the reactive part
- Provide serious incidents data
- Enhancing the proactive part and the identification of the emerging risks in the region





way forward...

- **Develop a process for future work methodology**
- **Establishment of ASRT Core Team to support the Rapporteur & Secretariat in performing the root cause Analysis/contributory factors**
- **States to use the previous developed template which will contain the focus areas and emerging risks to submit their occurrences as well as to share analysis data**





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PARIS
(EUROPEAN AND NORTH ATLANTIC)

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(WESTERN AFRICA)

NAIROBI
(EASTERN AFRICA)

CAIRO
(MIDDLE EAST)

BANGKOK
(ASIA-PACIFIC)

BEIJING
(ASIA-PACIFIC SUB-OFFICE)

THANK YOU!