ICAO MID-ASRT/2

MID Annual Safety Report

6th Edition Overview and Draft Report

Cairo, Egypt, 3-4 Feb 2018

Agenda

- ✓ ASRT objectives
- ✓ Data collection & sources of information
- ✓ IATA GADM Overview
- ✓ ASR structure
- ✓ Risk assessment methodology
- ✓ ASR high level results
- ✓ Focus areas & emerging risks for MID region
- ✓ Challenges & areas of improvement
- ✓ Where we need help
- ✓ Future framework for the 7th edition of the ASR

Objectives of ASRT

- Gathering safety information
- Identification of safety focus areas
- Production the annual safety report
  - 1st Edition, Nov 2012
  - 2ndEdition, Jan 2014
  - 3rd Edition, March 2015
  - 4th Edition, May 2016
  - 5th Edition, Jan 2017
  - 6th Edition, In progress

Data Collection & Sources

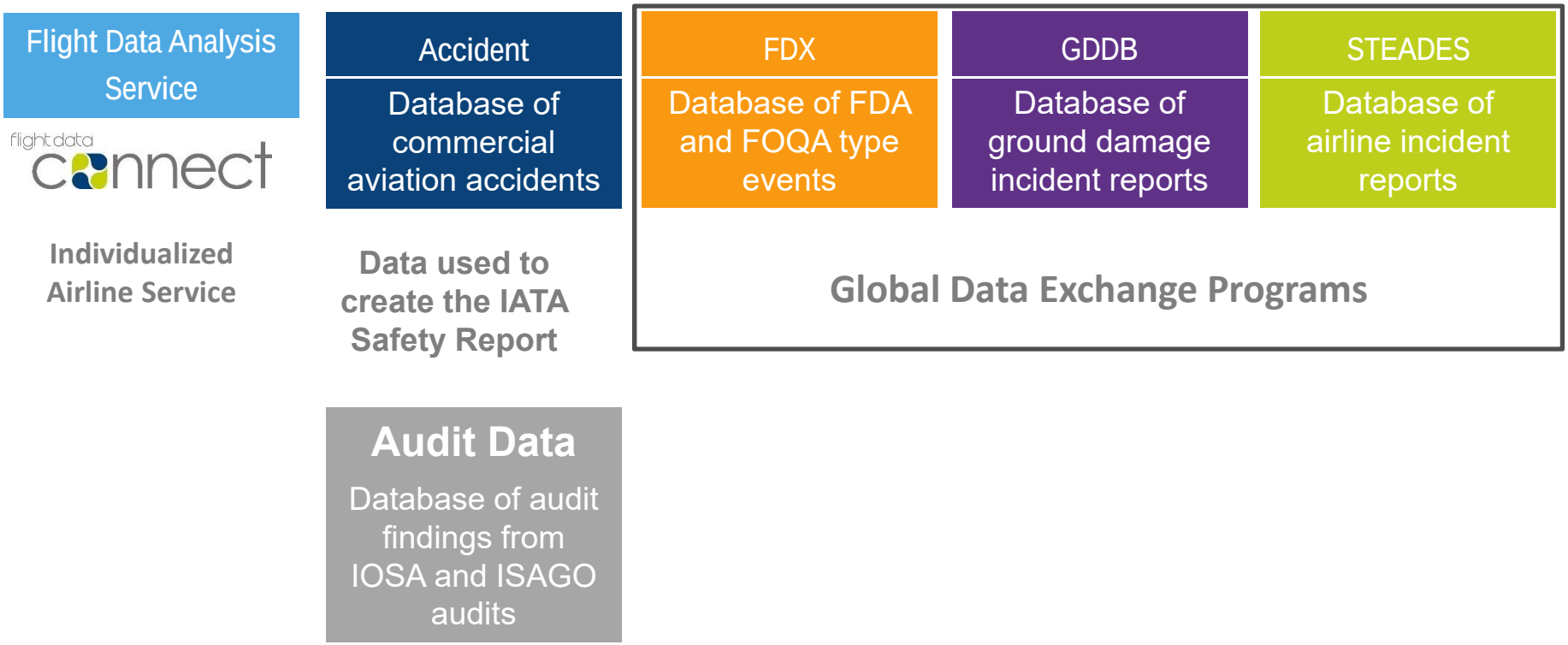
Data collection methods

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

Data sources for ASR (6th edition)

IATA GADM Overview

Global Aviation Data Management



IATA GADM Overview - STEADES

Safety Trends Evaluation, Analysis & Data Exchange System

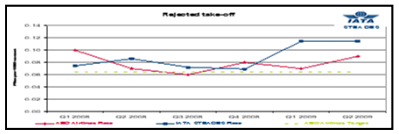
Airline safety office gets pilot and cabin reports (ASRs, CSRs)

Airline Safety Dept enter & classify reports

Quarterly, airline submits De-identified reports

Data is cleaned and collated

STEADES Report: analysis and prevention strategies



Interactive Benchmarking

Extract available to airlines on web Query Tool

IATA GADM Overview - GDDB

Ground Damage Database

Interesting fact!

Ground damage costs airlines on average 4 Billion USD a year!

Airline or Ground Service Provider safety office receives ground damage and near miss reports

Airline / GSP Safety Dept. enters and classifies reports

1 Airline / GSP **submits** reports to IATA GADM

2 Data is validated, de-identified, quality checked, and collated **by IATA GADM**

3 ↗ Ground Damage Quarterly Report

↗ Interactive Interface

IATA GADM Overview - FDX

Flight Data Exchange

Airline A

Airline B

Raw data from the aircraft is downloaded routinely for FOQA/FDM/FDA

Data is processed internally by the airline or its service provider or Flight Data Connect for FOQA/FDM/FDA

In **FDX**, airlines submit flight data to IATA*

where it is **processed** using a common **event set,**

de-identified results are **integrated** into a database with inputs from multiple operators,

to generate global trends, rates and training materials and to **support advocacy work**

IATA Safety Audit Programs

IOSA for Airlines

- An evaluation system to assess the operational management & control systems of an airline
- Covers 8 areas: ORG, MNT, CGO, SEC, FLT, DSP, CAB, GRH
- A proven record for improving airlines' safety performance

ISAGO for GSPs

- An evaluation system to assess the operational management & control systems of a GSP
- Covers 7 disciplines: LOD, PAB, HDL, AGM, CGM, ORM-H, ORM-S

ASR Structure (6th edition)

RASG-MID uses different types of safety information

REACTIVE
Accidents and serious incidents

PROACTIVE
Safety audit results and incident reports - an area for improvement!

PREDICTIVE
SSP/SMS implementation and analysis of FOQA de-identified data - an area for improvement!

Risk Assessment Methodology

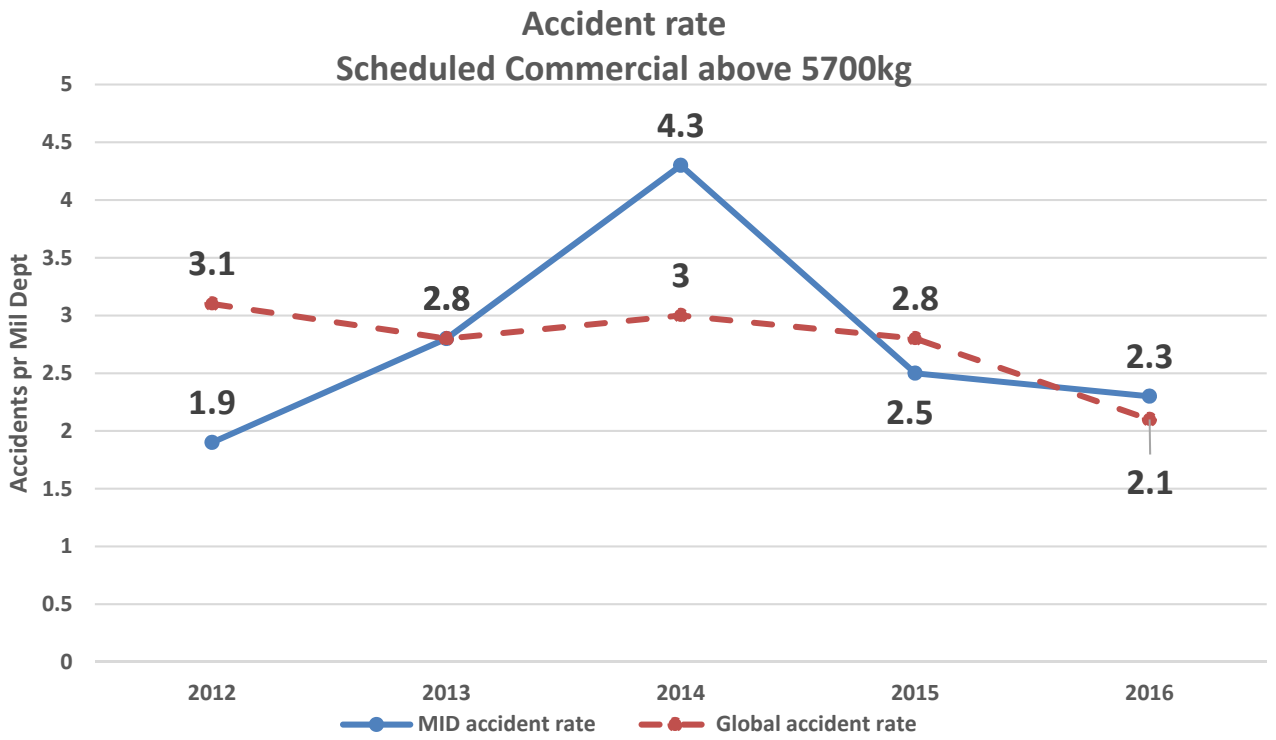
Risk assessment based on:

- ✓ Frequency
- ✓ Severity (fatality & damage)

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

High level ASR results - Reactive

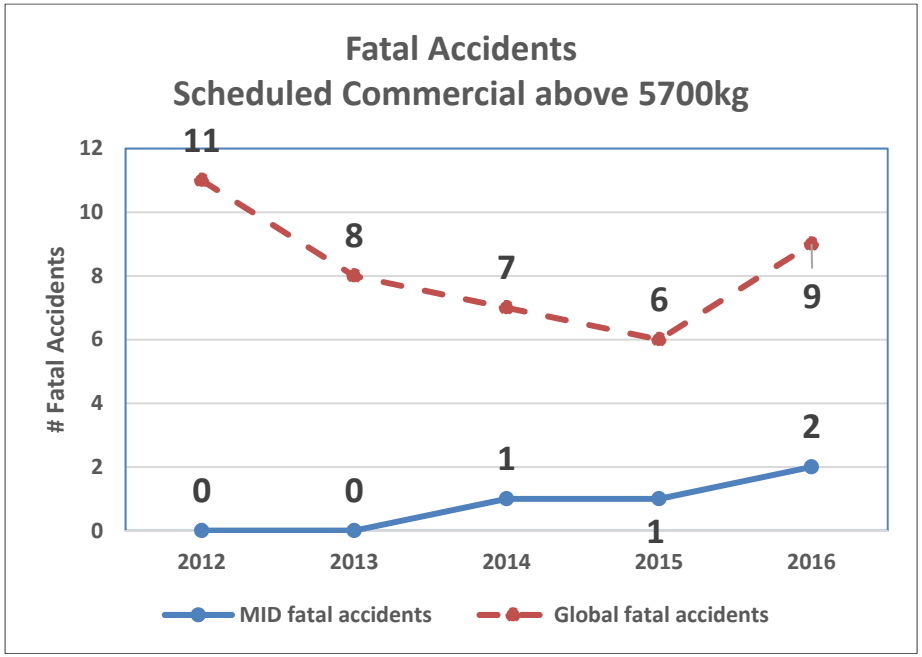
Accident rates – State of Occurrence

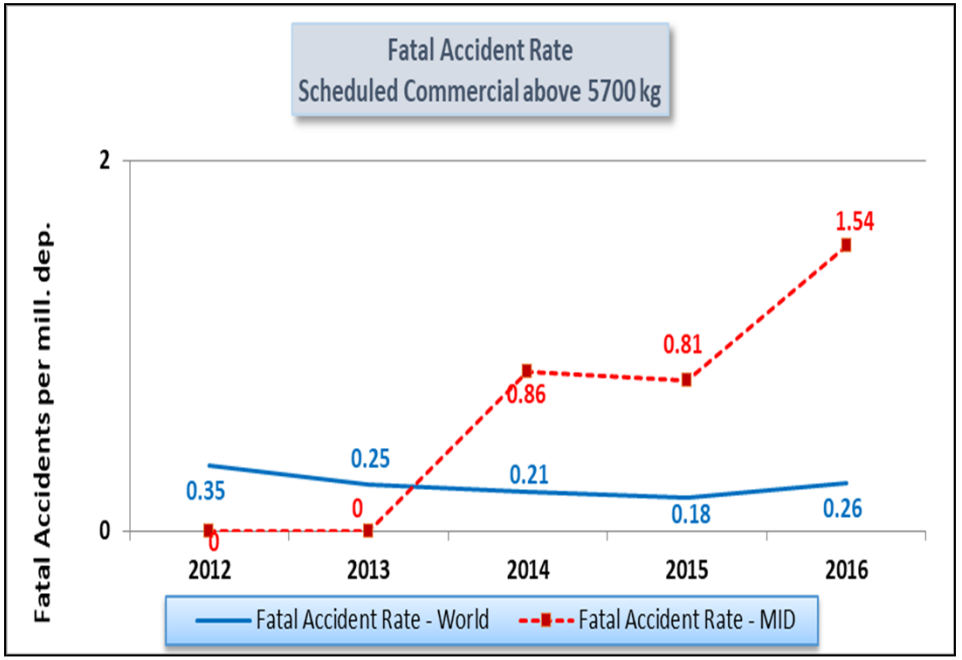


- Reduced accident rate for 2016 compared to 2015
- Above global rate in 2016
- Matched 5 yr average global rate! (avg global = 2.8)

High level ASR results - Reactive

Fatal accidents



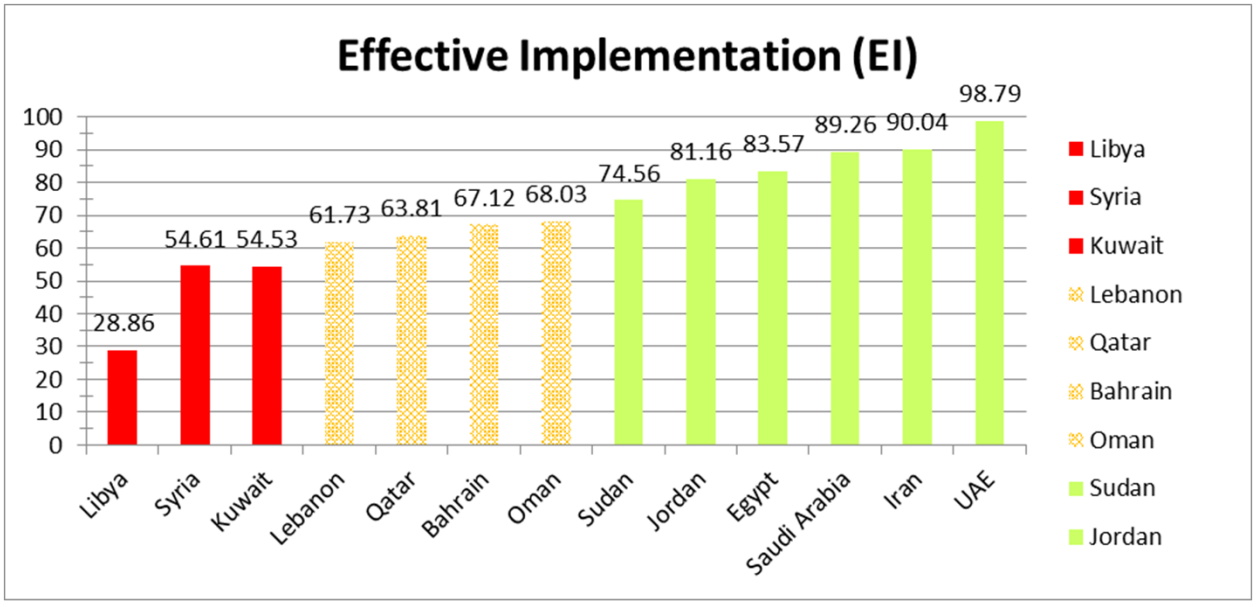


- Accident rate for MID fatal accidents (2012-2016) is 0.64
- Above global accident rate for World fatal accidents (2012 – 2016) which is 0.26
- Fatalities in 2014 = 38, 2015 = 224, 2016 = 67

High level ASR results – Proactive

ICAO USOAP

- 13 out of 15 States have been audited
- Overall MID EI = 70.11% which is above Global average (64.71%)
- 3 states are below 60% (Libya, Syria, Kuwait)



High level ASR results – Proactive

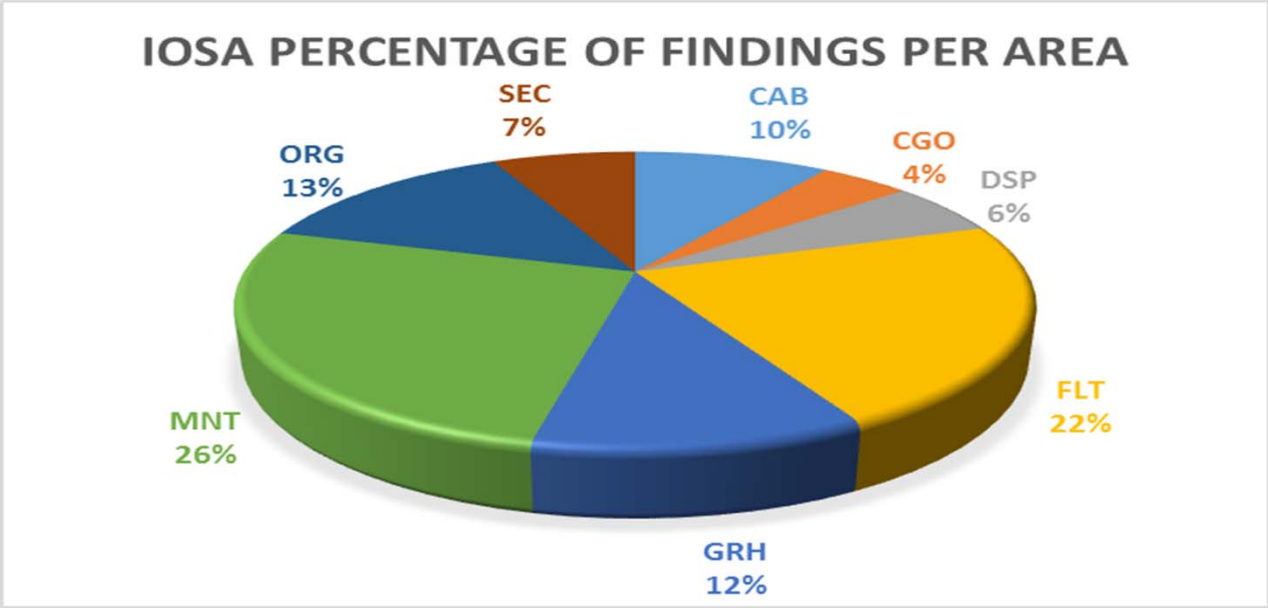
ICAO USOAP

- 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%)

High level ASR results – Proactive

IATA IOSA

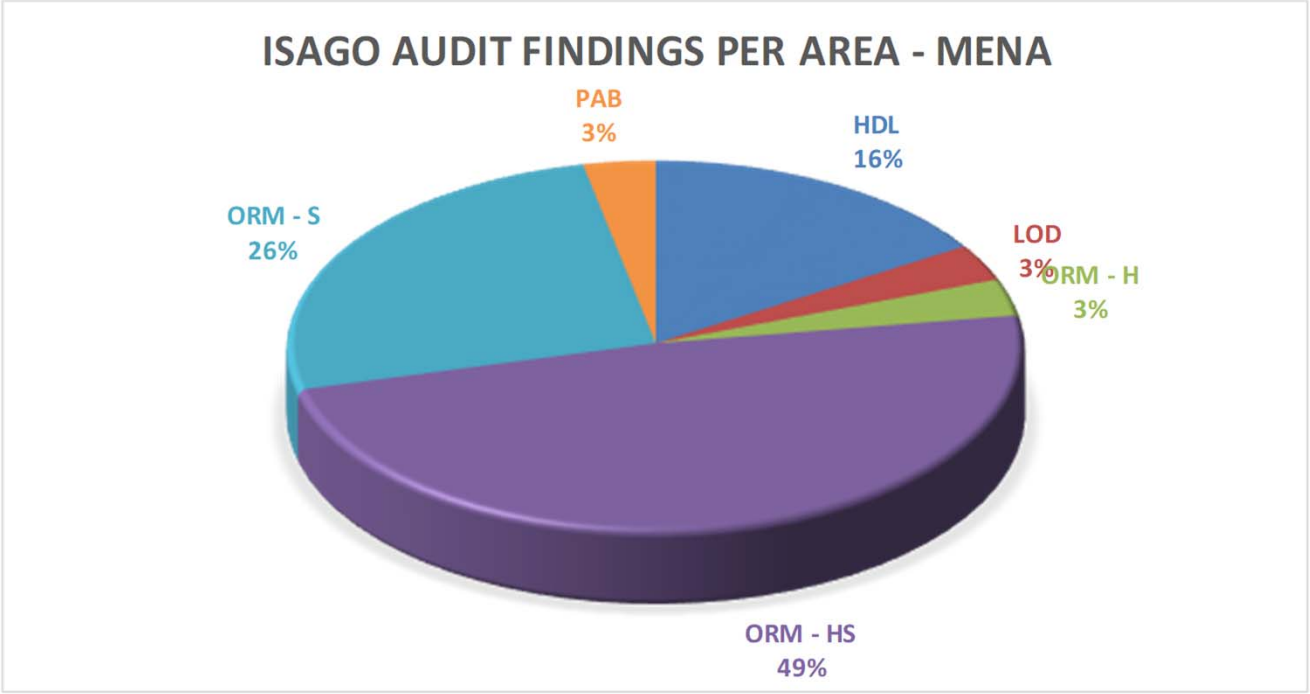
- **All MID accidents rate among non-IOSA registered operators was above the world average by an average of 8.55** (2012-2016)
- **27 audits were performed in the MENA Region with an average of 5.8 findings per audit.**



High level ASR results – Proactive

IATA ISAGO

- 15 audits in 2016 (5 initial and 10 renewals)
- Majority of findings were in the areas of:
  - ✓ Organization & Management
  - ✓ Aircraft Handling & Control (HDL)



High level ASR results – Proactive

- **IATA STEADES Increasing trends**
  - Deep landing - an increasing trend in 2016
  - Stall warning – no trend identified (higher MID incident rates)
  - TCAS RA – no trend identified (higher MID incident rates)
  - Unstable approaches – an increasing trend in 2016
  - Loss of communication with ATC– an increasing trend in 2016
  - Engine Surge/Stall – an increasing trend in 2016

Focus Areas & Emerging Risks

- **Focus Areas for MID region for 2018** **(based on 2012-2016 period)**
  - Runway Safety (RS) – RE & ARC
  - System/ Component Failure (SCF-PP)
  - Loss of Control In Flight (LOC-I)
- **Regional emerging risks:**
  - Fire Smoke (non impact) – F-NI
  - Turbulence Encounter (TURB)
  - Medical (MED)

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 Editions

- Approach States for additional information regarding “unknown classifications”
- Streamline organizational content & contribution
- Monitor the effectiveness of the SEIs
- Add a safety recommendations section
- Expand the proactive section with incidents analysis provided by States
- Improve the look and feel (reader friendly)
- Enhance the production time of the report

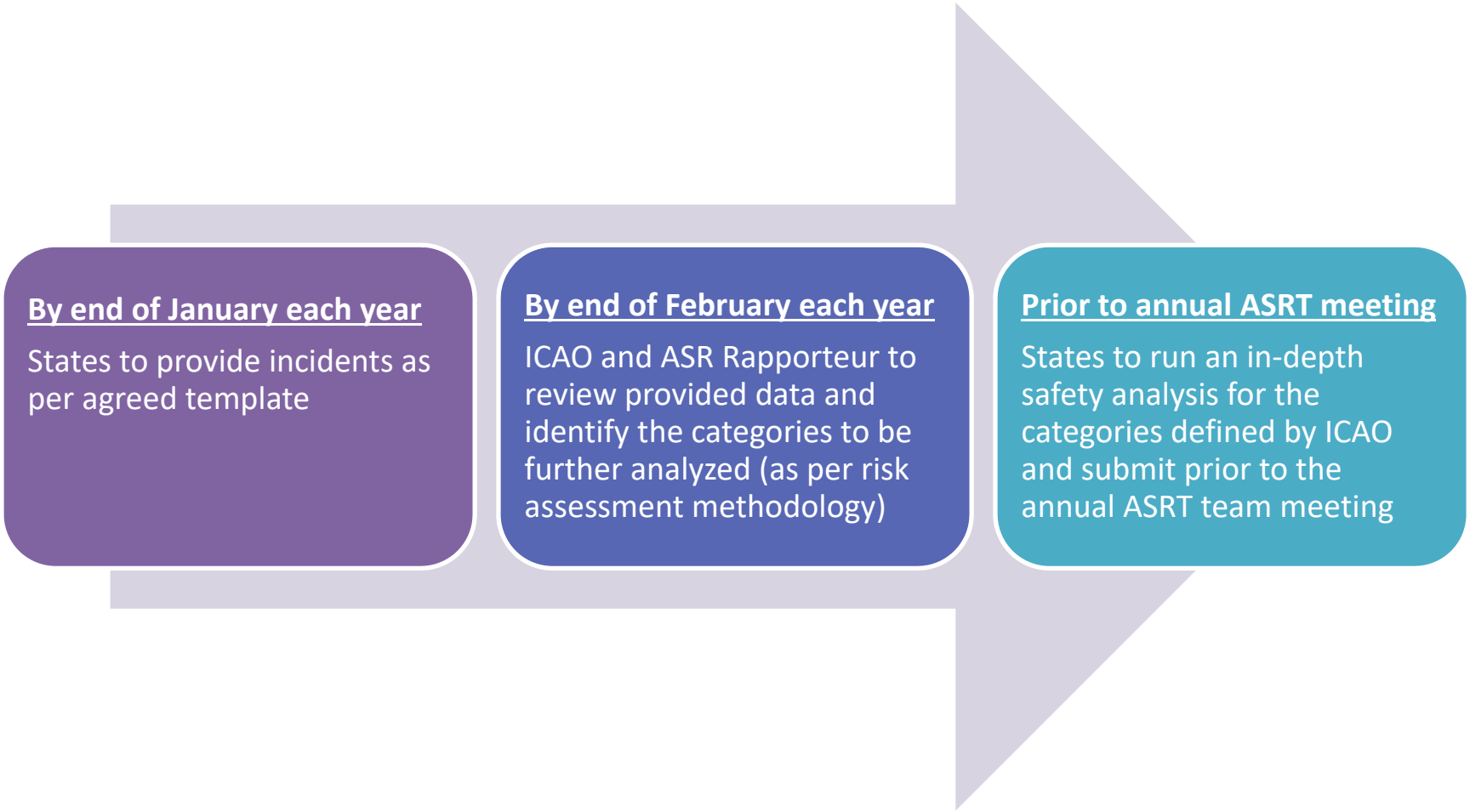
Where we need your help

- **Support with the identification of root causes/contributing factors and safety recommendations in the reactive part (in addition to accidents classification for the "unknown" category**
- **Provide serious incidents data**
- **Enhancing the proactive part and the identification of the emerging risks in the region**

Proposed Framework and way forward

- **Develop a process for future work methodology**
- **Develop a reporting template for the States to submit their data** – proposed is the CARC template
- **Agree on the reporting scope and criteria (time frame, type of operations, A/C, State of Occ/Reg/Operator…etc)**
- **Agree on the future structure of the ASR**

Proposed Framework - workflow



Thank you!