International Civil Aviation Organization

Regional Aviation Safety Group - Middle East

Fifth Meeting (RASG-MID/5)
(Doha, Qatar, 22-24 May 2016)

Agenda Item 3: Regional Performance Framework for Safety

THE ACCIDENT AND INCIDENT ANALYSIS WORKING GROUP (AIA WG)

(Presented by the AIA WG Chairman)

SUMMARY

The AIA WG was established to review, analyse and categorize on annual basis the accidents and incidents at the regional level and provide an agreed and harmonized regional dataset of accidents and incidents.

Action by the meeting is at paragraph 3.

REFERENCES

- AIA WG/1 Report
- RASG-MID/4 Report

1. INTRODUCTION

1.1 The RASG-MID/4 meeting (Jeddah, Saudi Arabia, 30 March-1 April 2015), through Decision 4/5, established the AIA WG to review, analyse and categorize on annual basis the accidents and incidents at the regional level and provide an agreed and harmonized regional dataset of accidents and incidents. The AIA WG would also, to the extent possible, identify the main root causes and contributing factors of the reviewed accidents and incidents.

1.2 The First meeting of the Accident and Incident Analysis Working Group (AIA WG/1) was held at the ICAO Middle East Regional Office in Cairo, Egypt, 29 – 31 March 2016.

2. DISCUSSION

2.1 ICAO iSTARS (ADREP et al.) application contains an aggregation of different accident and incident data sources including ADREP, Aviation Safety Network and Aviation Herald. This application is used for the development of the ICAO Safety Reports. It's a web-based platform for the reporting and analysis of safety information and provides quasi real-time information on occurrences as reported by various official and media sources. The data is updated automatically every 24 hours. The data fields provided by those sources cover information about the flight history, the aircraft, the operator and the location of occurrence. More data fields would be needed to allow for useful safety analysis.

2.2 The AIA WG/1 highlighted that there are currently no features allowing users to create or modify occurrences in iSTARS ADREP application/database. The application is being enhanced by ICAO-HQ to include the following features:

1) an occurrence data form containing a limited number of fields, for the collection and analysis purposes;

2) auto-population mechanism of fields based on the aircraft registration number;

3) create and upload function to allow authorized users to add data;

4) editing and reviewing function to allow authorized users (creators and selected reviewers) to modify existing data, correct or add missing information; and

5) validation function to allow the regional office (on behalf of the RASG) in coordination with concerned States to validate the information.

2.3 Taking into consideration the proposed tool and features that is being developed on iSTARS ADREP application, the meeting recognized the need to agree on a mechanism to fulfil the mandate assigned to the AIA WG (collection/reporting, validation and analysis of data). Accordingly, it was agreed that a Core Team led by the Chairman of the Group be established to advance the work of the AIA WG between the face-to-face meetings of the group. Accordingly, the meeting agreed to the following Draft Decision:

WHY	To advance the work of the AIA WG between the face-to-face meetings of the group
What	AIA WG Core Team
Who	RASG-MID
When	May 2016

DRAFT DECISION 1/1: ESTABLISHMENT OF AIA WG CORE TEAM

That, the AIA WG Core Team composed of the following experts, is established to advance the work of the AIA WG between the face-to-face meetings:

- *Mr. Adnan Mohamed Malak from Saudi Arabia (Chairman)*
- *Dr. Abdallah Falah Suleiman Al-Samarat from Jordan*
- *Mr. Hassan Rezaeifar from Iran*
- *Mr. Kamil Ahmed Mohamed from Sudan*
- *Mr. Amr Mokhtar from Egypt*
- *Ms. Rose Al Osta from IATA*
- *Capt. Fadi Khalil from IFALPA*
- *Mr. Mashhor Alblowi from ICAO*

2.4 The meeting developed a draft Form, which includes the data fields to be used for adding/modifying accidents/incidents data through iSTARS ADREP application as at **Appendix A**. In order to foster and facilitate the reporting, the form contains a very limited number of mandatory fields; the rest of the information could be generated automatically by the application (based on the aircraft registration) or entered at a later stage. The meeting may wish to note that the Form is being finalized by the AIA WG Core Team.

2.5 The AIA WG/1 meeting also initiated a brainstorming related to the processes to be implemented for the creation of an occurrence, addition and amendment of data to existing occurrences as well as for the validation process. In this respect, it was agreed that for each action/function, there's a need to clearly define the WHO, WHAT and HOW. With regard to the validation process, the meeting agreed that there will be different layers of validation (initial validation and final validation), which will involve ICAO, the AIA WG Core Team, the concerned State and the RASG-MID. The validation process related to voluntary safety information might also be different from the process related to mandatory information.

2.6 For the purpose of analysis, the meeting agreed that the *iSTARS ADREP Occurrence Data Form* should include fields related to the main root cause and contributing factors. Standard and limited lists of main root causes and contributing factors are being developed by the AIA WG Core Team. It was emphasized that step-by-step approach should be followed for the development of the analysis function. In this regard, the meeting agreed to the following Draft Decision:

WHY	To develop a Form to include the data fields to be used for adding/modifying accidents/incidents data through iSTARS ADREP application
What	iSTARS ADREP Occurrence Data Form
Who	RASG-MID
When	May 2016

DRAFT DECISION 1/2: iSTARS ADREP OCCURRENCE DATA FORM

That, the AIA WG Core Team:

a) *further review and finalize the iSTARS ADREP Occurrence Data Form;*

b) *develop guidelines for the use of the Form;*

c) *establish a validation process of data provided; and*

d) *develop standard and limited lists of main root causes and contributing factors to be included in the Form.*

2.7 The meeting also recognized the difficulties facing some States and stakeholders to share data related to accidents/incidents through iSTARS ADREP application, due to national policy. Accordingly, the meeting agreed to the following Draft Conclusion:

WHY	To facilitate providing/sharing of available data related to safety occurrences using iSTARS application
What	State Letter
Who	ICAO
When	Once the dedicated iSTARS application is ready

DRAFT CONCLUSION 1/3: PROVISION OF SAFETY DATA USING iSTARS APPLICATION

That, States be urged to allow their regulators and service providers (ANSPs, Aerodrome Operators, Airlines, etc.) to provide/share available data related to safety occurrences using the dedicated iSTARS application.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) endorse the Draft Decisions in para. 2.3 and 2.6 and Draft Conclusion in para. 2.7; and

b) encourage States and stakeholders to support the AIA WG activities and provide/share available data related to safety occurrences.

APPENDIX A

iSTARS ADREP Occurrence Data Form

Section	Name	Data type	Source
Filing Information	**Reporting State/Organization**	Value list	ISO 3166-1 list of country codes
When	**Occurrence Date**	Date	ISO 8601
	Occurrence Time (UTC)	Time	ISO 8601
Where	**State of occurrence**	Value list	ISO 3166-1 list of country codes
	Location of occurrence	Text	
	FIR	Value list	FIR Codes
	Latitude (ddmmss)	Latitude	
	Longitude (dddmmss)	Longitude	
Classification	Occurrence class	Value list	Occurrence Class Taxonomy
	Occurrence category	Value list	Occurrence Category Taxonomy
Severity	Damage aircraft	Value list	Damage Aircraft Taxonomy
	Injury level	Value list	Injury Level Taxonomy
	Fatalities	Number	
Narrative	Narrative	Text	
Aircraft Identification	Aircraft registration	Text	
	Aircraft Category	Value List	
	Manufacturer/model	Text	
	State of registry	Value list	ISO 3166-1 list of country codes
Operator	State of the Operator Operator Name/Code	Text	
Operation Type	Operation type	Value list	Operation Type Taxonomy
Mass Group	Mass group	Value list	MG1: 0-2250 kg MG2: 2251 - 5700 kg MG3: 5701 - 27000 kg MG4: 27001 - 272000 kg MG5: >272000 kg UNK: Unkown
History of Flight: Itinerary	Last departure point	Value list	4L Airport Codes
	Planned destination	Value list	4L Airport Codes
	Flight phase	Value list	Flight Phase Taxonomy
Analysis	Main root cause	Value list	
	Contributing factors	Value list	Hazard Taxonomy

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