

# AIG REGIONAL COOPERATION MECHANISM (AIG) OF SOUTH AMERICA

# FIFTH AIG AUTHORITIES MEETING

(Medellin, Colombia, 03 to 05 October 2018)

**Agenda Item 11:** Use of the ADREP/ECCAIRS system in the State SSP

# **ADREP/ECCAIRS System in the SSP**

(Working paper presented by Argentina – ANAC)

# **Summary**

This working paper presents to the Fifth Meeting the information about the use of the ADREP taxonomy and ECCAIRS platform, commonly used for reactive accident and incident information collection and proactive safety deficiencies information.

- ANNEX 13 "Aircraft Accident and Incident Investigation"
- ANNEX 19 "Safety Management"
- Doc. 9859. "Safety Management System"
- ADREP/ECCAIRS System

#### 1 Introduction

The AIG Regional Cooperation Mechanism (ARCM) originated in the SAM Region based on one of the conclusions of the Declaration of Bogota in 2013. With a clear and well-defined objective, and determination in the pursuing of the goal, in 2018 we find the ARCM as a consolidated group.

The consolidation of the mechanism was based in pillars such as the standardization of processes and methodology of work for aircraft accident investigation, uniform implementation of training, technical assistance to AIG personnel for the implementation of the ADREP/ECCAIRS computer platform, and also the connection of the different servers to the ARCM Safety Data Collection and Processing System (SDCPS).

Although ECCAIRS was originally designed to address AIG issues, its evolution allows the understanding the broad range of occurrences or deficiencies-related aspects that affect or may affect safety, through the implementation of the ICAO ADREP Taxonomy for the classification of the different occurrences.

The PNSO (Safety Notification Programme) computer platform is ADREP/ECCAIRS and is used by the Aviation Authority of Argentina (ANAC). That is the same platform supporting the AIG organizations data.

# 2 Definition of the situation

ICAO Annex 19, Chapter 5, instructs the States in establishing a mandatory incident notification system, as part of the SSP implementation, with the aim of facilitating the collection of information about real or potential safety deficiencies.

- ✓ Annex 19 requires that the SSP implements a safety data collection system.
- ✓ Each State will establish a mandatory incident notification system with the aim of facilitating the collection of information about real or potential safety deficiencies.
- ✓ Each State will establish a voluntary incident notification system to facilitate the collection of information about real or potential safety deficiencies that may not be received by the mandatory incident notification system.

Besides, ICAO Annex 19 instructs the States in establishing a SDCPS, which refers to notification and processing systems, safety databases, outline for information exchange and recorded information, and includes, among others:

- ✓ Data and information related to accident and incident investigations;
- Data and information related to safety investigations conducted by State authorities or aviation services providers;
- ✓ Mandatory safety notification systems;
- ✓ Voluntary safety notification systems, and
- ✓ Auto notification systems, including the automatic data capture systems.

The SDCPS may include information provided by State, industry and public sources and they may be based on reactive and preventive safety information and data collection methods.

The Civil Aviation Authority of the ARGENTINE Republic (ANAC), as part of the SSP implementation, has developed a Safety Notification Programme (PNSO) including the safety voluntary and mandatory notifications.

The PNSO is founded on the ICAO ADREP Taxonomy and, together with the use of ECCAIRS, software that allows the classification of all the events or occurrences (accidents, serious incidents, incidents and occurrences with no evident consequences), they allow the creation of a standardized national database of occurrences that affect or may affect safety.

The PNSO was established in June 2012. Up to date it has captured more than 6500 safety notifications that may be classified as "proactive" information consisting of low impact occurrences that, if they are not duly addressed, they can clearly become precursors of an accident or serious incident.

The PNSO focuses on the proactive information collected from the reports received, particularly those occurrences classified as "Occurrence without consequences". This means that in most of the cases, it captures latent conditions.

The RASG-PA annually issues an "Annual Safety Report" with three sections highlighted:

✓ Reactive Safety Information: This section helps understand the behavior of the Pan American region in relation to safety with the reactive safety database (accidents and incidents) from the ARCM database.

- ✓ Proactive Safety Information: This section includes safety information that may be classified as proactive, and that may show the level of exposition to risks based on the surveillance processes and safety management at the State and/or service provider level.
- ✓ Predictive Safety Information: This section includes safety predictive information including the analysis of the FOQA/FDA events that occurred in the CAR and SAM Region, that may reveal precursors of accidents.

The implementation of a report system based on the ICAO ADREP Taxonomy, together with the use of ECCAIRS, following the ARCM philosophical and initial guidelines, may contribute to the RASG-PA (CAR and SAM Region) in the collection of the following information:

- ✓ Proactive in relation to safety management at the service provider level and
- ✓ Predictive in relation to the capture of latent conditions that may reveal precursors of accidents or serious incidents.

## 3 Conclusions

The implementation of a report system based on the ICAO ADREP Taxonomy, together with the use of ECCAIRS, following the ARCM philosophical and initial guidelines, may contribute to the RASG-PA (CAR and SAM Region) in the collection of the following information:

- a) Proactive in relation to safety management at the service provider level and
- b) Predictive in relation to the capture of latent conditions that may reveal precursors of accidents or serious incidents.

## Benefits

The use of the ICAO ADREP Taxonomy together with ECCAIRS allows:

- a) cohesion, understanding and cooperation among aviation authorities and investigation organizations; and
- b) optimization of resources of the involved organizations, such as training, human resources and materials associated with information technology and data sharing; and
- c) free software and able to be customized to broaden data exploitation; and
- d) an additional system to connect reactive (AIG) and proactive (AAC) data is not necessary.

## 4 Suggested Actions

The Meeting is invited to take note on the information in this WP; and

- a) Discuss about the feasibility and convenience of the proposal with the civil aviation authorities (CAA); and
- b) Work with the CAA of each State for the strengthening of the SSP strengthening, creating a SSP SDCPS with an ECCAIRS platform and ADREP taxonomy allowing the interaction of reactive and proactive information.