



# Advisory Circular

TCAA-AC-GEN020A

February 2020

## ANALYSIS AND SHARING OF SAFETY INFORMATION

### 1.0 PURPOSE

This Advisory circular (AC) provides guidance to service providers and organizations on the importance and benefit of sharing and analysis of safety data.

### 2.0 REFERENCE

- 2.1 The Civil Aviation (Safety Management) Regulations
- 2.2 The Civil Aviation (Aircraft Accident and Incident Investigation) Regulations

### 3.0 INTRODUCTION

Sharing and analysis of aviation safety information has been a subject of increasing interest for the industry and many aviation entities including working groups, committees and organizations has been taking a leading role in promoting the concept of sharing of safety data among service providers and regulators. The accrual benefits resulting from sharing and analysis of safety cannot be overemphasized. This advisory circular provides account of information aimed at enabling the service providers to build confidence in exchange of information, conduct analysis and thereby understand overall health of the industry. Efforts have, also, been directed towards regional and global approaches to sharing of safety information with a view to continuously improve the state of aviation safety.

### 4.0 EXISTING DATA SHARING SCHEMES AND TAXONOMY

There are several data sharing schemes that are implemented globally. However, the most popular ones are the existing data management and sharing schemes recommended under ICAO as part of the Accident Data Reporting System (ADREP) taxonomy. Description of the schemes is as follows:

#### 4.1 Mandatory Occurrence Reporting (MOR)

A principal source of safety information is the mandatory reporting scheme established under the Act and Civil Aviation Regulations. The scheme gathers information on occurrences which endanger or could endanger aviation safety. The information is gathered so that it can be used by those with responsibilities within the safety system to discharge their responsibilities to maintain and improve aviation safety.

The scheme requires 'responsible persons' (including aircraft crew, owners, operators, air traffic controllers, licensed aircraft maintenance engineers, ground crew and airport operators) to notify the Civil Aviation Authority of accidents and safety incidents ('safety occurrences').

Where the duty to report rests with an individual, it can be fulfilled by the individual notifying the operator who employs them. The operator then has a duty to pass the information on to the Authority.

## 4.2 Voluntary Reporting System

In a voluntary reporting system, the reporting person, without any legal or administrative requirement to do so, submits a voluntary incident/accident report. To promote the process of voluntary reporting, the Authority may offer incentives to such reporting scheme. The general rule in voluntary reporting systems is that the reported information should not be used against the reporting person, i.e. such systems must be non-punitive, error-tolerant and just in order to encourage further reporting of safety related information:

## 4.3 European Co-ordination Centre for Aviation Incident Reporting System (ECCAIRS).

The ADREP system operates using a software platform developed by the European Union (EU) - the European Co-ordination Centre for Aviation Incident Reporting System (ECCAIRS). This platform was adopted for ADREP use in 2004. The same software is also made available to States (free of charge) by the EU through ICAO to support the development of their own reporting systems, and to facilitate the electronic transfer of occurrence report information through software compatibility.

In addition to the collection, storage and exchange of occurrence data, ADREP/ECCAIRS also provides users with the capability to exchange analysis tools. As a result, States establishing occurrence reporting systems in accordance with Civil Aviation (Safety Management) Regulation 25 can benefit from analysis tools developed elsewhere.

Several States and international organizations have installed the ECCAIRS software and have reported occurrences in the ECCAIRS format to ICAO. This process has permitted ICAO to have more complete and up-to-date data, and it will continue to benefit the States as there will no longer be a need for them to complete the ICAO ADREP reporting forms manually. In addition, closer cooperation through electronic communications with data providers has improved the classification of occurrences.

The ADREP reporting system is based on the use of a common reporting taxonomy, which is periodically updated in cooperation with Contracting States.

It is recommended that, all Service providers use this taxonomy in their occurrence reporting to achieve national and international harmonization and thereby enable the exchange and aggregation of occurrence information.

## 5.0 **BENEFITS FOR SHARING OF SAFETY INFORMATION**

Among the most important benefits for sharing of safety information is identifying of dominant occurrence types, causative factors and latent conditions surrounding the occurrences. In this way, the services providers or organizations can well establish the basis for learning from the occurrences and allocate adequate resources to ensure that no recurrence of the same event happens. For the Authority, it will be able to establish proper mechanism in ensuring that adequate defences are implemented by and against the service providers to lower down the events to As Low As Reasonably Practicable (ALARP) within the available means and processes whilst focusing on implementation of the Safety Management System (SMS).

## 6.0 **PROCEDURE FOR SHARING OF SAFETY DATA**



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## 6.1 Background

The Service providers should be aware that there should be established platforms, procedures and processes to enable a reliable and confident environment for exchange of safety information without which there will be inadequate conditions for ensuring trust among the sharing partners.

## 6.2 Platforms for Safety Information Sharing

Sharing and analysis of safety information can be facilitated between and among platforms. This includes:

- a) The Authority and Service Provider(s)
- b) Between and among the Service Providers
- c) The Authority and regional aviation organization and
- d) The Authority and international aviation organization(s)

In addition, in this AC more emphasis for implementation is placed on the platforms (a) and (b) above.

## 6.3 Policy Statement

As part of implementation of the Safety Management System (SMS), service providers are encouraged to incorporate aspects of the data sharing and analysis in their Safety Policy. The policy which shall be endorsed by the Accountable Executive should explicitly indicate willingness of an organization on safety information sharing and analysis at organizational and national levels in an endeavor to understand the overall safety within an organization or State.

## 6.4 Facilitating Communication Among Safety Information Sharing Partners

The Authority shall be spearheading the process and continuously facilitate information sharing between the Authority and service providers. In addition, the facilitation shall be covered to ensure that service providers have a secure platform and confidence in exchanging safety information originating from one another. More importantly, the Authority shall implement its mandate to facilitate SAFETY PROMOTION in accordance with the Civil Aviation (Safety Management) Regulations. In this, the Authority should incessantly conduct safety training and communication to promote safety information sharing and analysis.

## 6.5 Establishing Memorandum of Understanding

A Memorandum of Understanding (MoU) shall be entered into between parties involved and shall state explicitly that the aviation safety information shared shall be used exclusively for safety improvement purposes specifically, for the prevention of aviation accidents or incidents and shall not be used outside Safety Management environment or disseminated without consensus between parties involved. Each party shall take all



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necessary measures to ensure that the exchanged safety information is properly stored and protected and is not disclosed to any unauthorized person to have access to such information.

## 7.0 LIMITS FOR SHARING OF SAFETY DATA

In order to ensure that sharing and analysis is achieved and maintained, there should be some limiting conditions that include:

- a. The Authority may use information reported under the mandatory scheme as the basis for informing its need to initiate its own inquiries in the interests of safety. However, the Authority will not rely on the report in taking action unless it is necessary to do so in the demonstrable interests of safety;
- b. The Authority will not recommend the organization for criminal proceedings in matters which come to its attention only because they have been reported under mandatory reporting scheme. The exceptions will be in cases of conduct that should not be tolerated, such as where a person has acted intentionally, knowingly, recklessly or with gross negligence.

A handwritten signature in black ink, appearing to read 'P. Bruneau', is written over a light grey rectangular background.

**Director Safety Regulation**