

**International Civil Aviation Organization (ICAO)** 

## Regional Aviation Safety Group (Asia & Pacific Regions)

# Asia Pacific Regional Aviation Safety Team

### GUIDANCE FOR AIR OPERATORS IN ESTABLISHING A FLIGHT SAFETY DOCUMENTS SYSTEM

Developed by

CAD Hong Kong

### **Executive Summary**

The findings of the ICAO Universal Safety Oversight Audit Program (USOAP) include, among others, deficiencies in compliance with Standards and Recommended Practices (SARPs) regarding operational documents required by Annex 6. These specific findings refer to deficiencies in operations manuals and maintenance control manuals.

Analysis of accident information revealed that in accident reports involving international commercial air transport aircraft and in incident reports, deficiencies in operational documents were considered contributing factor to the events.

The International Civil Aviation Organization has adopted a Standard in Annex 6, *Operations of Aircraft, Part I*, requiring that an operator establish a flight safety documents system for the use and guidance of operational personnel as part of its accident prevention and flight safety program.

The attached advisory circular (AC) is intended to provide air operators with guidance on the establishment of an effective flight safety document system for the use and guidance of operational personnel.

Version 1 dated 02 September 2015

### Preamble

### Background on Regional Aviation Safety Group – Asia & Pacific (RASG – APAC)

The Regional Aviation Safety Group Asia-Pacific (RASG-APAC) was established in 2011 by the Council of ICAO. The RASG-APAC is tasked with improving aviation safety in the Asia & Pacific regions by developing and implementing a work programme, in line with the ICAO Global Aviation Safety Plan, aimed at identifying and implementing safety initiatives to address known safety hazards and deficiencies in the region.

The Asia Pacific Regional Aviation Safety Team (APRAST), a sub-group of the RASG-APAC, assists the RASG-APAC in its work by recommending safety interventions which will reduce aviation safety risks.

The full commitment and active participation of APAC States/Administrations and the industry partners is fundamental to the success of the RASG-APAC in reducing aviation safety risks and accident rates in the Asia and Pacific regions.

#### Disclaimer

This report makes use of information, including air transport and safety related data and statistics, which is furnished to the RASG/APRAST by third parties. All third party content was obtained from sources believed to be reliable and was accurately reproduced in the report at the time of printing.

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#### Feedback/Enquiries

Should there be any feedback or queries with regard to this report, please address them to:

RASG/APRAST Secretariat ICAO Asia and Pacific Office Email: APAC@icao.int

### **CFIT-7 SAFETY ENHANCEMENT INITIATIVE**

### MODEL ADVISORY CIRCULAR FOR AIR OPERATORS IN ESTABLISHING A FLIGHT SAFETY DOCUMENTS SYSTEM

#### Introduction

1 The purpose of this SEI is to provide air operators with guidance on the establishment of an effective flight safety document system for the use and guidance of operational personnel.

### **Background of Safety Enhancement Initiative (SEI)**

2 The International Civil Aviation Organization has adopted a Standard in Annex *6*, *Operations of Aircraft, Part I,* requiring that an operator establish a flight safety documents system for the use and guidance of operational personnel as part of its accident prevention and flight safety program.

3 The findings of the ICAO Universal Safety Oversight Audit Program (USOAP) include, among others, deficiencies in compliance with Standards and Recommended Practices (SARPs) regarding operational documents required by Annex 6. These specific findings refer to deficiencies in operations manuals and maintenance control manuals.

4 Analysis of accident information revealed that in accident reports involving international commercial air transport aircraft and in incident reports, deficiencies in operational documents were considered contributing factor to the events.

### Applicability to States/ Industry

7 This paper proposes a Model Advisory Circular to provide air operators with guidance on the establishment of an effective flight safety document system for the use and guidance of operational personnel. All air operators should review this guidance material for the implementation and management of an effective flight safety document system.

### **SEI Phases/ Contents**

8 Broadly, the phases for this SEI project are simplified below:

Output 1

Goal: Review COSCAP applicable ACs/ABs and revise/combine as necessary and prepare in draft document(s) to be issued by RASG/APRAST.

Output 2

Goal 2: Issue a generic AC(s)

### Output 3

Goal: Issuance of the AC by states in Asia Pacific

### Output 4

Goal: Air operators develop effective flight safety document systems for the use and guidance of operational personnel.

#### Output 5

Goal: CAA confirms air operators have implemented effective flight safety document systems in accordance with ICAO SARPs requirements for the use and guidance of operational personnel.

#### Action/ Comments by RASG

9 The meeting is requested to approve the CFIT-7 SEI Model AC on establishment of an effective flight safety document system for the use and guidance of operational personnel.

Image

[RASG-APAC]

Model Advisory Circular

### GUIDANCE FOR AIR OPERATORS IN ESTABLISHING A FLIGHT SAFETY DOCUMENTS SYSTEM

NOTE

This Model Advisory Circular has been prepared under the authority of the Regional Aviation Safety Group – Asia and Pacific Regions (RASG-APAC)

This Model Advisory Circular has been developed to address [state the safety issue(s)] with a view to reduce the risk of an aviation accident.

National civil aviation administrations should consider this Model Advisory Circular when developing safety-related regulations, information and guidance for their own aviation industry.

A Model Advisory Circular may provide information and guidance purposes. It may describe an example of an acceptable means, but not the only means, of demonstrating compliance with internationally-recognized standards and recommended practices.

A Model Advisory Circular does not create, amend or permit deviations from internationally-recognized standards and recommended practices.

An Advisory Circular issued by a National civil aviation administration should be consistent with its national regulatory framework, regulations and standards.

### **RASG Model Advisory Circular Control Information**

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### 1.0 INTRODUCTION

This Advisory Circular (AC) is provided for information and guidance purposes. It may describe an example of an acceptable means, but not the only means, of demonstrating compliance with regulations and standards. This AC on its own does not change, create, amend or permit deviations from regulatory requirements, nor does it establish minimum standards. This AC is issued in accordance with [applicable national regulatory framework.]

This AC may use mandatory terms such as "must", "shall" and "is/are required" so as to convey the intent of the regulatory requirements where applicable. The term "should" is to be understood to mean that the proposed method of compliance is strongly recommended, unless an alternative method of safety protection is implemented that would meet or exceed the intent of the recommendation.

1.1 Purpose

This advisory circular (AC) is issued to provide air operators with guidance on the establishment of an effective flight safety document system for the use and guidance of operational personnel.

### 1.2 Applicability

The scope of this AC is to provide guidance on the development and organization of a flight safety document system.

#### 1.3 Description of Changes

Not applicable.

#### 2.0 **REFERENCES**

2.1 Reference Documents

The following reference material may be consulted for information purposes:

- 1. Developing Operating Documents A Manual of Guidelines; NASA/FAA Operating documents Project
- 2. CAP 676 Guidelines for the Design and Presentation of Emergency and Abnormal Checklists; UK CAA
- 3. CAP 708 Guidance on the Design, Presentation and Use of Electronic Checklists
- 4. United Kingdom Overseas Territories Aviation Circular OTAC 119-9 Flight Safety Documents System Issue 1 24 September 2012

2.2 Cancelled Documents

Not applicable.

2.3 Definitions

The following definitions are reproduced for ease of reference:

**Flight safety documents system** means a set of inter-related documentation established by the operator, compiling and organizing information necessary for flight and ground operations, and comprising, as minimum, the operations manual and the operator's maintenance control manual.

**Quality assurance** means all those planned and systematic actions necessary to provide adequate confidence that a system, component, or facility will perform satisfactorily in service.

**Safety management system (SMS)** means a systematic approach to managing safety, including the necessary organisational structures, accountabilities, policies and procedures.

### 3.0 BACKGROUND

- 1. The findings of the ICAO Universal Safety Oversight Audit Program (USOAP) include, among others, deficiencies in compliance with Standards and Recommended Practices (SARPs) regarding operational documents required by Annex 6. These specific findings refer to deficiencies in operations manuals and maintenance control manuals.
- 2. Analysis of accident information revealed that in accident reports involving international commercial air transport aircraft and in incident reports, deficiencies in operational documents were considered contributing factor to the events.
- 3. The International Civil Aviation Organization has adopted a Standard in *Annex 6, Operations of Aircraft, Part I,* requiring that an operator establish a flight safety documents system for the use and guidance of operational personnel as part of its accident prevention and flight safety program.

### 4.0 FLIGHT SAFETY DOCUMENT SYSTEM

1. It should be understood that the development of a flight safety documents system is a complete process, and that changes to each document comprising the system may affect the entire system. Guidelines applicable to the development of operational documents have been produced by CAA and are available to air operators. Nevertheless, it may be difficult for operators to make the best use of these guidelines, since they are distributed across a number of publications.

- 2. Furthermore, guidelines applicable to operational documents development tend to focus on a single aspect of documents design, for example, formatting and typography. Guidelines rarely cover the entire process of operational documents development.
- 3. It is important for operational documents to be consistent with each other, and consistent with regulations, manufacturer requirements and Human Factors principles. It is also necessary to ensure consistency across departments as well as consistency in application. Hence the emphasis should be placed on an integrated approach, based on the notion of the operational documents as a complete system.
- 4. The guidelines in this AC address the major aspects of an operator's flight safety documents system development process, with the aim of ensuring compliance with CAR XXX (insert regulation number). The guidelines are based not only upon scientific research, but also upon current best industry practices, with an emphasis on a high degree of operational relevance.

### 5. ORGANIZATION

- 1 A flight safety documents system should be organized according to criteria which ensure easy access to information required for flight and ground operations contained in the various operational documents comprising the system and which facilitate management of the distribution and revision of operational documents.
- 2 Information contained in a flight safety documents system should be grouped according to the importance and use of the information, as follows:
  - a. Time critical information, e.g., information that can jeopardize the safety of the operation if not immediately available;
  - b. Time sensitive information, e.g., information that can affect the level of safety or delay the operation if not available in a short time period;
  - c. Frequently used information;
  - d. Reference information, e.g., information that is required for the operation but does not fall under b) or c) above; and
  - e. Information that can be grouped based on the phase of operation in which it is used.
- 3 Time critical information should be placed early and prominently in the flight safety documents system.
- 4 Time critical information, time sensitive information, and frequently used information should be placed in quick-reference guides.
- 5 The flight safety documents system should be validated before deployment, under realistic conditions. Validation should involve the critical aspects of the information use, in order to verify its effectiveness. Interactions among all groups that can occur during operations should also be included in the validation process.
- 6 A flight safety documents system should maintain consistency in terminology and in the use of standard terms for common items and actions.

- 7 Operational documents should include a glossary of terms, acronyms and their standard definition, updated on a regular basis to ensure access to the most recent terminology. All significant terms, acronyms and abbreviations included in the flight documents system should be defined.
- 8 A flight safety documents system should ensure standardization across document types, including writing style, terminology, use of graphics and symbols, and formatting across documents. This includes a consistent location of specific types of information, consistent use of units of measurement and consistent use of codes.
- 9 A flight safety document system needs to include a verification mechanism to ensure that, whenever a section of a document is amended, all other documents likely to be affected are identified and that consequential amendments are duly coordinated and agreed to by the responsible departments before the amendment is processed.



The principles of the Flight Safety Documentation System apply to the following documents as an example:

### 6. APPLICABILITY

1 Air operators who have yet to establish a flight safety document system should utilize the information contained in this AC in establishing such a system. Air operators who have established such a system should verify that the functionality of their system is in compliance with the concepts outlined in this AC. CAA inspectors will be conducting a review of the flight safety document system to ensure that it is effective in providing vital safety information to flight crew in a timely manner.

Signed by: (Appropriate CAA Official)

### 7.0 INFORMATION MANAGEMENT

(1) Not applicable.

### 8.0 DOCUMENT HISTORY

(1) Not applicable (for original issue) or a listing of the titles of previous issues / dates

### 9.0 CONTACT OFFICE

Issued under the authority of:

Name and Title of the person with authority to issue this AC on behalf of the National Civil Aviation Administration. Typically, this would be the Director General

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[National Civil Aviation Administration

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Suggestions for amendment to this document are invited, and should be submitted to:

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