

## AERONAUTICAL CIRCULAR CIVIL AVIATION AUTHORITY – MACAO, CHINA

**SUBJECT:** *Flight Safety Documents System*

**EFFECTIVE DATE:**

15 August 2005

**CANCELLATION:**

Nil

**GENERAL:**

The President of Civil Aviation Authority – Macao, China, in exercise of his power under Paragraph 89 of the Air Navigation Regulation of Macao (ANRM) and Article 35 of the Statutes of Civil Aviation Authority, approved by the Decree-Law 10/91/M, established this AC.

### 1 Introduction

This AC introduces the concept of an operator's flight safety documents system and its primary purpose is to give guidance on the development and organization of a flight safety documents system.

The notion underlying this concept is that the development of operational documents is a complete process, and changes to each of the documents comprising the system may affect the entire system. Hence the emphasis on an integrated approach, based on the notion of the operational documents being a system.

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

**2 Applicability**

This AC applies to all Macao Air Operator Certificate holders. The operator shall establish a flight safety documents system, for the use and guidance of operational personnel.

**3 Guidance to establish a flight safety documents system**

The guidance on the development and organization of a flight safety documents system is laid down on the appendix 1 to this AC.

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## FLIGHT SAFETY DOCUMENTS SYSTEM

### **1. Introduction**

- 1.1 The following material provides guidance on the organization and development of an operator's flight safety documents system. It should be understood that the development of a flight safety documents system is a complete process, and changes to each document comprising the system may affect the entire system. Guidelines applicable to the development of operational documents have been produced by government and industry sources and are available to 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.
- 1.2 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. 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 on the integrated approach, based on the notion of the operational documents as a complete system.
- 1.3 The guidelines in this appendix address the major aspects of an operator's flight safety documents system development process, with the aim of ensuring an operator establish this system for the use and guidance of operational personnel. 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.

### **2. Organization**

- 2.1 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.

2.2 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.

2.3 Time critical information should be placed early and prominently in the flight safety documents system.

2.4 Time critical information, time sensitive information, and frequently used information should be placed in cards and quick-reference guides.

### **3. Validation**

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.

### **4. Design**

4.1 A flight safety documents system should maintain consistency in terminology and in the use of standard terms for common items and actions.

4.2 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.

4.3 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.

4.4 A flight safety documents system should include a master index to locate, in a timely manner, information included in more than one operational document.

Note: The master index must be placed in the front of each document and consistent of no more than three levels of indexing. Pages containing abnormal and emergency information must be tabbed for direct access.

4.5 A flight safety documents system should comply with the requirements of the operator's quality system, if applicable.

## **5. Deployment**

Operators should monitor deployment of the flight safety documents system, to ensure appropriate and realistic use of the documents, based on the characteristics of the operational environment and in a way which is both operationally relevant and beneficial to operational personnel. This monitoring should include a formal feedback system for obtaining input from operational personnel.

## **6. Amendment**

6.1 Operators should develop an information gathering, review, distribution and revision control system to process information and data obtained from all sources relevant to the type of operation conducted, including, but not limited to, the State of operator, State of design, State of Registry, manufacturers and equipment vendors.

Note: Manufacturers provide information for the operation of specific aircraft that emphasizes the aircraft systems and procedures under conditions that may not fully match the requirements of operators. Operators should ensure that sure information meets their specific needs and those of AACM.

6.2 Operators should develop an information gathering, review and distribution system to process information resulting from changes that originate within the operator, including:

- a) Changes resulting from the installation of new equipment;
- b) Changes in response to operating experience;

- c) Changes in an operator's policies and procedures;
- d) Changes in an operator certificate; and
- e) Changes for purposes of maintaining cross fleet standardization.

Note: Operator should ensure that crew coordination philosophy, policies and procedures are specific to their operation.

6.3 A flight safety documents system should be reviewed:

- a) On a regular basis (at least once a year);
- b) After major events (mergers, acquisitions, rapid growth, downsizing, etc.);
- c) After technology changes (introduction of new equipment); and
- d) After changes in safety regulations.

6.4 Operators should develop methods of communicating new information. The specific methods should be responsive to the degree of communication urgency.

Note: As frequent changes diminish the importance of new or modified procedures, it is desirable to minimize changes to the flight safety documents system.

6.5 New information should be reviewed and validated considering its effects on the entire flight safety documents system.

6.6 The method of communicating new information should be complemented by a tracking system to ensure currency by operational personnel. The tracking system should include a procedure to verify that operational personnel have the most recent updates.