

CIVIL AVIATION AUTHORITY

of Vietnam

Advisory Circular AC-12-004

# ACCEPTABLE FLIGHT SAFETY DOCUMENTS SYSTEM

# SECTION 1 POLICY & GENERAL INFORMATION

# 1.1 PURPOSE

This Advisory Circular (AC) provides guidance to individuals, organizations and other entities regarding the development and submission of an integrated flight safety documents system as required by the Vietnam Aviation Regulations (VARs).

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

Operators yet to establish a flight safety documents system should utilize the information contained in this notice when establishing such a system. Operators with established flight safety documents system should verify that the functionality of their system is in compliance with the concepts outlined in this notice.

Authority inspectors will be conducting a review of respective flight safety documents system to ensure their effectiveness in providing vital safety information to flight crew in a timely manner

# 1.2 STATUS OF THIS ADVISORY CIRCULAR

This revision is [3]2022 replaces [B]2015.

# 1.3 BACKGROUND

- A. There are ICAO Standards that require flight safety documents in the form of operations and maintenance manuals providing policy and procedures to the personnel supporting commercial air transport operations and operators of large and turbine powered aircraft.
- B. The ICAO Standards specify the minimum contents of those documents and provide that the documents may be in volumes to the overall manuals.

The VARs require that these standards are met for the operations and maintenance policy/procedure manuals, including—

- Flight operations manual
- Cabin crew member manual
- Flight Dispatch Manual
- Ground and/or Station Operations Manual
- Flight Operations Training Program Manual
- Aircraft Type-Specific Operating Manuals
- Maintenance Control Manual
- Maintenance Organization Procedures Manual
- Maintenance Training Manual.
- C. The ICAO Standards also require that these documents are developed using the the "flight safety documents" concept which requires that these documents are
  - Easily accessed and searched by the user through table of contenting and indexing

- Where an AC is referred to in a 'Note' below the regulation, the AC remains as guidance material,
- ACs should always be read in conjunction with the referenced regulations.

<sup>•</sup> Advisory Circulars are intended to priovide advice and guidance to illustrate a means, but not necessarily the only means, of complying with the Regulations, or to explain certain regulatory requirements by providing informative, interpretative and explanatory material.

- The contents of the manuals that have policy and procedures shared by more than one technical speciality integrated ("interfaced") to ensure that they are consistent and the procedures do not conflict.
- D. 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.
- E. The International Civil Aviation Organization has adopted a Standard in Annex 6, Operations of Aircraft, Parts I and III, 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.

# **1.4 APPLICABILITY**

This advisory circular is applicable to-

- 1) Commercial air transport operators; and
- 2) Other operators of large and turbojet aircraft.

# **1.5** RELATED REGULATIONS

The following regulations are directly applicable to the guidance contained in this advisory circular—

- VAR Part 10, Operations of Aircraft
- VAR Part 12, AOC Certification and Administration

# **1.6 RELATED PUBLICATIONS**

For further information on this topic, operators and individuals are invited to consult the following publications—

- 1) Civil Aviation Administration of Vietnam (CAAV)
  - AC 12-001, AOC Certification
- 2) International Civil Aviation Organization (ICAO)
  - Annex 6, Schedule I, International Commercial Air Transport – Aeroplanes
  - Document 9376-AN/914, Preparation of an Operations Manual
  - Document 10153 Guidance on the Preparation of an Operations Manual

# **1.7 DEFINITIONS & ACRONYMS**

A. The following definitions are used in this advisory circular—

- Aircraft operating manual. A manual, acceptable to the CAAV, containing normal, abnormal and emergency procedures, checklists, limitations, performance information, details of the aircraft systems and other material relevant to the operation of the aircraft.
- 2) **Flight manual**. A manual, associated with the certificate of airworthiness, containing limitations within which the aircraft is to be considered airworthy, and instructions and information necessary to the flight crew members for the safe operation of the aircraft.

Other operators should consider the guidance of this AC when developing their operations and maintenance manuals.

This advisory circular and copies of these regu-

lations may be obtained from the CAAV Flight

Copies may be obtained from Document Sales

Unit, ICAO, 999 University Street, Montreal,

Safety Standards Department.

Quebec, Canada H3C 5H7.

- 3) **Flight safety documents system.** A set of interrelated 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.
- 4) **Human Factors principles.** Principles which apply to aeronautical design, certification, training, operations and maintenance and which seek safe interface between the human and other system components by proper consideration to human performance.
- 5) **Human performance**. Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.
- 6) Maintenance organization's procedures manual. A document endorsed by the head of the maintenance organization which details the maintenance organization's structure and management responsibilities, scope of work, description of facilities, maintenance procedures and quality assurance or inspection systems.
- 7) Maintenance program. A document which describes the specific scheduled maintenance tasks and their frequency of completion and related procedures, such as a reliability programme, necessary for the safe operation of those aircraft to which it applies.
- 8) Master minimum equipment list (MMEL). A list established for a particular aircraft type by the organization responsible for the type design with the approval of the State of Design containing items, one or more of which is permitted to be unserviceable at the commencement of a flight. The MMEL may be associated with special operating conditions, limitations or procedures.
- 9) Minimum equipment list (MEL). A list which provides for the operation of aircraft, subject to specified conditions, with particular equipment inoperative, prepared by an operator in conformity with, or more restrictive than, the MMEL established for the aircraft type.
- Safety Management System (SMS). A systematic approach to managing safety, including the necessary organisational structures, accountabilities, policies and procedures
- 11) **Operations manual.** A manual containing procedures, instructions and guidance for use by operational personnel in the execution of their duties.
- 12) **Operator's maintenance control manual**. A document which describes the operator's procedures necessary to ensure that all scheduled and unscheduled maintenance is performed on the operator's aircraft on time and in a controlled and satisfactory manner.
- 13) **Quality Assurance.** All those planned and systematic actions necessary to provide adequate confidence that a system, component, or facility will perform satisfactorily in service.
- B. The following abbreviations and acronyms are used in this advisory circular-
  - 1) AC Advisory Circular
  - 2) AOC Air Operator Certificate
  - AOM1 Aircraft Operating Manual, Part 1
  - 4) AOM2 Aircraft Operating Manual, Part 2
  - 5) AOM3 Aircraft Operating Manual, Part 3
  - CAAV Civil Aviation Authority of Vietnam
  - 7) **CSM** Crew Scheduling Manual

- 8) CCSM Cabin Crew Safety Manual
- 9) FCOM Flight Crew Operating Manual
- 10) FOM Flight Operations Manual
- 11) FOTM Flight Operations Training Manual
- 12) ICAO International Civil Aviation Organization
- 13) MCM Maintenance Control Manual
- 14) MEL Minimum Equipment List
- 15) MOE Maintenance Organization Exposition Manual
- 16) MOPM Maintenance Organization's Procedures Manual
- 17) MTM Maintenance Training Manual
- 18) OMA Operations Manual, Part A
- 19) OMB Operations Manual, Part B
- 20) OMC Operations Manual, Part C
- 21) OMD Operations Manual, Part D
- 22) SARPS ICAO Standards and Recommended Practices
- 23) SOM Station Operations Manual
- 24) SOP Standard Operating Procedures
- 25) VAR Vietnam Aviation Regulations

# SECTION 2 GENERAL CONCEPTS: FLIGHT SAFETY DOCUMENTS SYSTEM

## 2.1 FLIGHT SAFETY DOCUMENTS SYSTEM CONCEPT

- A. 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 the Authority 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.
- B. 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.
- C. 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.
- D. The guidelines in this notice address the major aspects of an operator's flight safety documents system development process, with the aim of ensuring compliance with VAR 12.067. The guidelines are based not only upon scientific research, but also upon current best industry practices,
- E. with an emphasis on a high degree of operational relevance

# 2.2 INTEGRATED SYSTEM

#### 2.2.1 IMPORTANCE OF AN INTEGRATED SYSTEM

- A. The guidelines in this section address the major aspects of an operator's flight safety documents system development process, with the aim of ensuring compliance with the elements of systems safety.
- B. 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.
- C. Development of a flight safety documents system is a complete process, and changes to each document comprising the system may affect the entire system.

#### 2.2.2 DIFFICULTIES IN ACHIEVING AN INTEGRATED SYSTEM

- A. Guidelines applicable to the development of operational documents have been produced by government and industry sources and are available to operators.
- B. Because the availability of this guidance is disjointed across a number of publications, it is difficult to apply the best practices as a whole. Application also varies relative to the individual authors' perceptions of a good product.

As a result, documents within a company system tend to also tend to be disjointed with different authors applying different formats and standards.

C. Most organizations fail to apply guidelines rarely cover the entire process of operational documents development in the flight safety documents.

# 2.2.3 IMPORTANCE OF AN INTEGRATED SYSTEM

- A. It is important for operational documents to be consistent with each other, and consistent with regulations, manufacturer requirements and human factors principles.
- B. It is also necessary to ensure consistency across departments as well as consistency in application.

# 2.3 ORGANIZATION

#### 2.3.1 EASE OF ACCESSING INFORMATION

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.

#### 2.3.2 **GROUPING OF INFORMATION**

- A. Information contained in a flight safety documents system should be grouped according to the importance and use of the information, as follows—
  - Time critical information, e.g., information that can jeopardize the safety of the operation if not immediately available;
  - 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;
- Time critical information should be placed early and prominently in the flight safety documents system.
- Time critical information, time sensitive information, and frequently used information should be placed in cards and quick-reference guides.

3) Short time period;

- 4) Frequently used information;
- 5) Reference information, e.g., information that is required for the operation but does not fall under (2) or (3) above; and
- 6) Information that can be grouped based on the phase of operation in which it is used.
- 7) Time critical information should be placed early and prominently in the flight safety documents system.
- B. Time critical information, time sensitive information, and frequently used information should be placed in quick-reference guides.
- C. 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.
- D. A flight safety documents system should maintain consistency in terminology and in the use of standard terms for common items and actions.
- E. 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.
- F. 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.
- G. 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

# 2.4 DESIGN

#### 2.4.1 TERMINOLOGY & MEANING

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

#### 2.4.2 FORMATTING & STYLE

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 standardization includes a consistent location of specific types of information, consistent use of units of measurement and consistent use of codes.

# 2.4.3 FRONT END

- A. Where possible and appropriate, each document should contain a consistent presentation in the front that includes a—
  - 1) A record of revisions;
  - 2) Listing of effective pages;
  - 3) Table of contents, containing the titles of no more than 2 levels of headers
  - 4) Index, of not more than 3 levels indexing, to the important words and phrases within the manual

The table of contents and index shall have separate tables to enable the user to have immediate access to these portions of the document.

- 5) An explanation of the manual purpose, construction, availability, revisions and distribution.
- B. If a system of bulletins is the selected method of providing timely manual updates, the bulletins shall be inserted under a tab immediately following the list of effective pages.

#### 2.4.4 MASTER INDEX

- A. A flight safety documents system should include a master index to locate, in a timely manner, information included in more than one operational document.
- B. The master index should be available as a attachment in the back of each primary user manual.and it should consist of no more than three levels of indexing.

Pages containing abnormal and emergency information must be tabbed for direct access.

#### 2.4.5 CONFORMANCE WITH QUALITY SYSTEM

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

# **2.5 OPERATOR RESPONSIBILITIES**

#### 2.5.1 VALIDATION

- A. The flight safety documents system should be validated before deployment, under realistic conditions.
- B. 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

#### 2.5.2 DEPLOYMENT

- A. 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.
- B. This monitoring should include a formal feedback system for obtaining input from operational personnel.

# 2.5.3 AMENDMENT

### 2.5.3.1 External Source Revisions

- A. The operator's information gathering, review, distribution and revision control system should be adequate to process information and data obtained from all sources relevant to the type of operation conducted, including, but not limited to the—
  - State of the Operator
  - State of Design
  - State of Registry
  - Manufacturers and equipment vendors.
- B. 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.

The operator's system should be capable of responding to this information in a timely manner and in coordination with the Flight Safety Standards Department.

#### 2.5.3.2 Internal Changes

The operator's information gathering, review, distribution and revision control system should be adequate to process information resulting from changes that originate within the operator, including—

- 1) Changes resulting from the installation of new equipment;
- 2) Changes in response to operating experience;
- 3) Changes in response to operating experience;
- 4) Changes in an operator's policies and procedures;
- 5) Changes in an operator certificate; and
- 6) Changes for purposes of maintaining cross fleet standardization.

#### 2.5.4 COMMUNICATING CHANGE INFORMATION

#### 2.5.4.1 Methods For Communication

- A. Operators should have standardized methods for communicating new information to their personnel.
  - The specific methods should be responsive to the degree of communication urgency.

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

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

#### 2.5.4.2 Tracking of Distribution of Change Information

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

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

# SECTION 3 SAFETY OVERSIGHT REVIEW

An operator's flight safety documents system will be reviewed by the Flight Safety Standards Department—

- 1) On a regular basis (at least once a year);
- 2) After major events (mergers, acquisitions, rapid growth, downsizing, etc.);
- 3) After technology changes (introduction of new equipment); and
- 4) After changes in aviation regulations.

End of Advisory Circular text

# Appendix 1 Application of Sample Documents to the Flight Safety Documents System Concept

# TIME CRITICAL INFORMATION TIME SENSITIVE INFORMATION Abnormal/Emergency Checklists Performance Manuals, Weather Reports NOTAMs Flight Safety Circulars ADs, Service Bulletins Information Circulars FREQUENTLY USED INFORMATION Operations Manual Parts A, B, C and D Cabin Crew Manual Flight Dispatch Manual **REFERENCE INFORMATION** Aeronautical Information Publication (AIP) Legislations (e.g., Civil Aviation Acts, Authority Act etc.) Implementing Regulations/Technical Standards Aircraft Flight Manuals Pilot Operating Handbooks INFORMATION THAT CAN BE GROUPED BASED ON THE PHASE OF OPERATION IN WHICH IT IS USED Standard Operating Procedures

End of Appendix