



Advisory Circular

AC SMS-MNL-01

Development of an SMS Manual

Aerodrome & Air Navigation Safety Oversight Office (AANSOO)
Office of the Director General
Civil Aviation Authority of the Philippines
Old MIA Road, Pasay City, 1300

Revision 1.0

June 2014

Advisory Circulars (AC) are intended to provide recommendations and guidance to illustrate a means, but not necessarily the only means, of complying with regulatory requirements, or to explain certain regulatory requirements by providing interpretative and explanatory materials.

CAAP will generally accept that when the provisions of an Advisory Circular have been met, compliance with the relevant regulatory obligations has been satisfied.

Where an AC is referred to in a “Note” within regulatory documentation, the AC remains as guidance material.

ACs should always be read in conjunction with the referenced regulations.

Advisory Circular AC SMS-MNL-01

DEVELOPMENT OF AN SMS MANUAL**General**

Civil Aviation Authority Advisory Circulars contain information about standards, practices, and procedures that the Director-General has found to be an acceptable means of compliance. An advisory circular is not intended to be the only means of compliance with a rule/regulation or requirement, and consideration will be given to other methods of compliance that may be presented to the Director General. When new standards, practices, or procedures are found to be acceptable they will be added to the appropriate Advisory Circular.

Background

Within the context of aviation, safety is “the state in which the possibility of harm to persons or of property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and safety risk management.” While the elimination of aircraft accidents and/or serious incidents remains the ultimate goal, it is recognized that the aviation system cannot be completely free of hazards and associated risks. Human activities or human-built systems cannot be guaranteed to be absolutely free from operational errors and their consequences.

Therefore, safety is a dynamic characteristic of the aviation system, whereby safety risks must be continuously mitigated. It is important to note that the acceptability of safety performance is often influenced by domestic and international norms and culture. As long as safety risks are kept under an appropriate level of control, a system as open and dynamic as aviation can still be managed to maintain the appropriate balance between production and protection – the basic concepts of safety management.

References

This Advisory Circular (AC) should be read in conjunction with:

- Philippine Civil Aviation Regulations (PCARs) Part 2, Personnel Licensing
- PCAR Part 5, Airworthiness
- PCAR Part 6, Approved maintenance Organizations
- PCAR Part 7, Instrument and Equipment
- PCAR Part 8, Operations (Aircraft)
- PCAR Part 13, Aircraft Accident and Incident Investigations
- PCAR for Aerodromes
- PCAR-ANS Part 1 – Aerodrome and ANS Safety Oversight and
- PCAR-ANS Part 11 - Air Traffic Service Providers.

These documents are available on the CAAP website at: www.caap.gov.ph. This AC may also refer to portions of the following:

- Manual of Standards (MOS) for Aerodromes
- ICAO Annex 1, Personnel Licensing
- ICAO Annex 6, Operation of Aircraft
- ICAO Annex 8, Airworthiness of Aircraft
- ICAO Annex 11, Air Traffic Service
- ICAO Annex 13, Aircraft Accident and Incident Investigation
- ICAO Annex 14, Aerodromes
- ICAO Annex 19, Safety Management Systems and State Safety Programme
- ICAO Doc 9859, Safety Management Systems Manual 3rd ed
- ICAO Doc 4444, PANS-ATM
- ICAO Doc 9870, Manual on the Prevention of Runway Incursion

Purpose

The Philippines, as signatory to the International Convention on Civil Aviation, adheres, to the extent practicable, to the ICAO Standards and Recommended Practices. The modern requirements for enhancing safety in civil aviation has brought into the fore the need for contracting States to develop, establish, and implement State Safety Programmes and for service providers to develop, establish, and implement Safety Management Systems.

This AC is intended to provide service providers and operators involved in civil aviation with guidance on the development of a Safety Management Systems manual in accordance with the State Safety Programme (SSP) for Philippine Aviation, relevant PCARs and PCAR-ANS, and ICAO international Standards and Recommended Practices (SARPs) contained in Annex 1 — Personnel Licensing, Annex 6 — Operation of Aircraft, Annex 8 — Airworthiness of Aircraft, Annex 11 — Air Traffic Services, Annex 13 — Aircraft Accident and Incident Investigation, Annex 14 — Aerodromes, Annex 19 — Safety Management, and Doc 9859 – SMS Manual.

Application/Applicability

In the context of safety management, the term “service provider” or “product and service provider” refers to any organization providing aviation products and/or services. The term thus encompasses approved training organizations that are exposed to safety risks during the provision of their services, aircraft operators, approved maintenance organizations, organizations responsible for type design and/or manufacture of aircraft, air traffic service providers and certified aerodromes.

Status of this AC

ACs are numbered to reflect the regulatory basis, the serial number of the circular issued for that regulation and the revision status for that AC. In this case, the regulatory bases are Philippine Civil Aviation Regulations PCAR Part 2 - Personnel Licensing, PCAR Part 5 -

Airworthiness, PCAR Part 6 - Approved Maintenance Organizations, PCAR Part 7 - Instrument and Equipment, PCAR Part 8 - Operations (Aircraft), PCAR Part 13 - Aircraft Accident and Incident Investigations, PCAR for Aerodromes, PCARS-ANS Part 1 - Aerodrome and ANS Safety Oversight and PCAR-ANS Part 11 - Air Traffic Services. This is the first issue of AC SMS-MNL-01. It remains current until re-issued, withdrawn or superseded.

Change Notice

This is the initial issue.

Copies of this AC

The Regulatory Standards Division of AANSOO makes ACs available to the public through the Internet. These ACs may be found through the CAAP home page (www.caap.gov.ph). A printed copy of this and other ACs can also be ordered from the Aerodrome and Air Navigation Safety Oversight Office (AANSOO), Civil Aviation Authority of the Philippines, MIA Road, Pasay City 1301, Telefax: (632) 8799-118 / 357.



LT GEN WILLIAM K HOTCHKISS III AFP (Ret)
Director General
Civil Aviation Authority of the Philippines

Date: _____

Table of Contents

	Page No.
1. General	1
2. Format of the SMS Manual	1
3. Contents of the SMS Manual	2
3.1 Sections	2
3.2 Information to be Included in the Manual	2
3.2.1 Document Control	2
3.2.2 SMS regulatory requirements	3
3.2.3 Scope and integration of the safety management system	3
3.2.4. Safety policy	4
3.2.5. Safety objectives	5
3.2.6. Roles and responsibilities	5
3.2.7. Safety reporting	6
3.2.8. Hazard identification and risk assessment	7
3.2.9. Safety performance monitoring and measurement	7
3.2.10. Safety-related investigations and remedial actions	8
3.2.11. Safety training and communication	9
3.2.12. Continuous improvement and SMS audit	9
3.2.13. SMS records management	10
3.2.14. Management of change	10
3.2.15. Emergency/contingency response plan	11

Advisory Circular AC SMS-MNL-01

DEVELOPMENT OF AN SMS MANUAL

1. General

1.1 This AC serves to guide organizations in their compilation of a Safety Management Systems manual (or document) to define their SMS framework and its associated elements. The manual can be a stand-alone SMS manual or be integrated as a consolidated SMS section/chapter within an appropriate approved manual of the organization.

1.2 Using the suggested format and content items in this document and adapting them as appropriate is one way in which an organization can develop its own SMS manual. The actual content items will depend on the specific SMS framework and elements of the organization. The description under each element will be commensurate with the scope and complexity of the organization's SMS processes.

1.3 The manual will serve to communicate the organization's SMS framework internally as well as with relevant external organizations. The manual may be subject to endorsement or approval by the CAAP (regulatory) as evidence of the acceptance of the SMS.

Note.— A distinction is to be made between the SMS manual and its operational supporting records and documents. The latter refers to historical and current records and documents generated during implementation and operation of the various SMS processes. These are documentary evidence of the ongoing SMS activities of the organization.

2. FORMAT OF THE SMS MANUAL

2.1 The SMS manual may be formatted in the following manner:

- a) section heading;
- b) objective;
- c) criteria;
- d) cross-reference documents.

2.2 Below each numbered section heading is a description of the objective for that section, followed by its criteria and cross-reference documents. The objective is what the organization intends to achieve by doing what is described in that section. The criteria define the scope of what should be considered when writing that section. The cross-

reference documents link the information to other relevant manuals or SOPs of the organization which contain details of the element or process as applicable.

3. CONTENTS OF THE MANUAL

3.1 **Sections.** The contents of the manual should include the following sections:

- 1) Document control;
- 2) SMS regulatory requirements;
- 3) Scope and integration of the safety management system;
- 4) Safety policy;
- 5) Safety objectives;
- 6) Safety accountabilities and key personnel;
- 7) Safety reporting and remedial actions;
- 8) Hazard identification and risk assessment;
- 9) Safety performance monitoring and measurement;
- 10) Safety-related investigations and remedial actions;
- 11) Safety training and communication;
- 12) Continuous improvement and SMS audit;
- 13) SMS records management;
- 14) Management of change; and
- 15) Emergency/contingency response plan.

3.2 **Information to be Included in the Manual.** Below is an example of the type of information that could be included in each section using the prescribed format.

3.2.1 Document control

Objective

This part describes how the manual(s) will be kept up to date and how the organization will ensure that all personnel involved in safety-related duties have the most current version.

Criteria

- a) Hard copy or controlled electronic media and distribution list.
- b) The correlation between the SMS manual and other existing manuals such as the maintenance control manual (MCM) or the operations manual.
- c) The process for periodic review of the manual and its related forms/documents to ensure their continuing suitability, adequacy and effectiveness.
- d) The manual's administration, approval and regulatory acceptance process.

Cross-reference documents

- a) Quality manual, engineering manual, etc.

3.2.2. SMS regulatory requirements***Objective***

This part addresses current SMS regulations and guidance material for necessary reference and awareness by all concerned.

Criteria

- a) Spell out the current SMS regulations/standards. Include the compliance timeframe and advisory material references as applicable.
- b) Where appropriate, elaborate on or explain the significance and implications of the regulations to the organization.
- c) Establish a correlation with other safety-related requirements or standards where appropriate.

Cross-reference documents

- a) SMS regulation/requirement references, SMS guidance document references, etc.

3.2.3. Scope and integration of the safety management system***Objective***

This part describes the scope and extent of the organization's aviation-related operations and facilities within which the SMS will apply. The scope of the processes, equipment and operations deemed eligible for the organization's hazard identification and risk management (HIRM) programme should also be addressed.

Criteria

- a) Spell out the nature of the organization's aviation business and its position or role within the industry as a whole.
- b) Identify the major areas, departments, workshops and facilities of the organization within which the SMS will apply.
- c) Identify the major processes, operations and equipment which are deemed eligible for the organization's HIRM programme, especially those which are

pertinent to aviation safety. If the scope of the HIRM-eligible processes, operations and equipment is too detailed or extensive, it may be controlled under a supplementary document as appropriate.

- d) Where the SMS is expected to be operated or administered across a group of interlinked organizations or contractors, define and document such integration and associated accountabilities as applicable.
- e) Where there are other related control/management systems within the organization, such as QMS, OSHE and SeMS, identify their relevant integration (where applicable) within the aviation SMS.

Cross-reference documents

- a) Quality manual, engineering manual, etc.

3.2.4. Safety policy

Objective

This part describes the organization's intentions, management principles and commitment to improving aviation safety in terms of the product or service provider. A safety policy should be a short description similar to a mission statement.

Criteria

- a) The safety policy should be appropriate to the size and complexity of the organization.
- b) The safety policy states the organization's intentions, management principles and commitment to continuous improvement in aviation safety.
- c) The safety policy is approved and signed by the accountable executive.
- d) The safety policy is promoted by the accountable executive and all other managers.
- e) The safety policy is reviewed periodically.
- f) Personnel at all levels are involved in the establishment and maintenance of the safety management system.
- g) The safety policy is communicated to all employees with the intent that they are made aware of their individual safety obligations.

Cross-reference documents

- a) OSHE safety policy, etc.

3.2.5. Safety objectives

Objective

This part describes the safety objectives of the organization. The safety objectives should be a short statement that describes in broad terms what the organization hopes to achieve.

Criteria

- a) The safety objectives have been established.
- b) The safety objectives are expressed as a top-level statement describing the organization's commitment to achieving safety.
- c) There is a formal process to develop a coherent set of safety objectives.
- d) The safety objectives are publicized and distributed.
- e) Resources have been allocated for achieving the objectives.
- f) The safety objectives are linked to safety indicators to facilitate monitoring and measurement where appropriate.

Cross-reference documents

- a) Safety performance indicators document, etc.

3.2.6. Roles and responsibilities

Objective

Describe the safety authorities, responsibilities and accountabilities for personnel involved in the SMS.

Criteria

- a) The accountable executive is responsible for ensuring that the safety management system is properly implemented and is performing to requirements in all areas of the organization.
- b) An appropriate safety manager (office), safety committee or safety action groups have been appointed as appropriate.

- c) Safety authorities, responsibilities and accountabilities of personnel at all levels of the organization are defined and documented.
- d) All personnel understand their authorities, responsibilities and accountabilities with regard to all safety management processes, decisions and actions.
- e) An SMS organizational accountabilities diagram is available.

Cross-reference documents

- a) Company exposition manual, SOP manual, administration manual, etc.

3.2.7. Safety reporting

Objective

A reporting system should include both reactive (accident/incident reports, etc.) and proactive/ predictive (hazard reports). Describe the respective reporting systems. Factors to consider include: report format, confidentiality, addressees, investigation/evaluation procedures, corrective/ preventive actions and report dissemination.

Criteria

- a) The organization has a procedure that provides for the capture of internal occurrences including accidents, incidents and other occurrences relevant to SMS.
- b) A distinction is to be made between mandatory reports (accidents, serious incidents, major defects, etc.), which are required to be notified to the CAAP (regulatory), and other routine occurrence reports, which remain within the organization.
- c) There is also a voluntary and confidential hazard/occurrence reporting system, incorporating appropriate identity/data protection as applicable.
- d) The respective reporting processes are simple, accessible and commensurate with the size of the organization.
- e) High-consequence reports and associated recommendations are addressed to and reviewed by the appropriate level of management.
- f) Reports are collected in an appropriate database to facilitate the necessary analysis.

Cross-reference documents
-----**3.2.8. Hazard identification and risk assessment*****Objective***

Describe the hazard identification system and how such data are collated. Describe the process for the categorization of hazards/risks and their subsequent prioritization for a documented safety assessment. Describe how the safety assessment process is conducted and how preventive action plans are implemented.

Criteria

- a) Identified hazards are evaluated, prioritized and processed for risk assessment as appropriate.
- b) There is a structured process for risk assessment involving the evaluation of severity, likelihood, tolerability and preventive controls.
- c) Hazard identification and risk assessment procedures focus on aviation safety as their fundamental context.
- d) The risk assessment process utilizes worksheets, forms or software appropriate to the complexity of the organization and operations involved.
- e) Completed safety assessments are approved by the appropriate level of management.
- f) There is a process for evaluating the effectiveness of the corrective, preventive and recovery measures that have been developed.
- g) There is a process for periodic review of completed safety assessments and documenting their outcomes.

Cross-reference documents
-----**3.2.9. Safety performance monitoring and measurement*****Objective***

This part describes the safety performance monitoring and measurement component of the SMS. This includes the organization's SMS safety performance indicators (SPIs).

Criteria

- a) The formal process to develop and maintain a set of safety performance indicators and their associated performance targets.
- b) Correlation established between the SPIs and the organization's safety objectives where applicable and the process of regulatory acceptance of the SPIs where required.
- c) The process of monitoring the performance of these SPIs including remedial action procedure whenever unacceptable or abnormal trends are triggered.
- d) Any other supplementary SMS or safety performance monitoring and measurement criteria or process.

Cross-reference documents

-----**3.2.10. Safety-related investigations and remedial actions*****Objective***

Describe how accidents/incidents/occurrences are investigated and processed within the organization, including their correlation with the organization's SMS hazard identification and risk management system.

Criteria

- a) Procedures to ensure that reported accidents and incidents are investigated internally.
- b) Dissemination of completed investigation reports internally as well as to the CAAP (regulatory) as applicable.
- c) A process for ensuring that corrective actions taken or recommended are carried out and for evaluating their outcomes/effectiveness.
- d) Procedure on disciplinary inquiry and actions associated with investigation report outcomes.
- e) Clearly defined conditions under which punitive disciplinary action would be considered (e.g. illegal activity, recklessness, gross negligence or willful misconduct).

-
- f) A process to ensure that investigations include identification of active failures as well as contributing factors and hazards.
 - g) Investigation procedure and format provides for findings on contributing factors or hazards to be processed for follow-up action by the organization's hazard identification and risk management system where appropriate.

Cross-reference documents

3.2.11. Safety training and communication

Objective

Describe the type of SMS and other safety-related training that staff receive and the process for assuring the effectiveness of the training. Describe how such training procedures are documented. Describe the safety communication processes/channels within the organization.

Criteria

- a) The training syllabus, eligibility and requirements are documented.
- b) There is a validation process that measures the effectiveness of training.
- c) The training includes initial, recurrent and update training, where applicable.
- d) The organization's SMS training is part of the organization's overall training programme.
- e) SMS awareness is incorporated into the employment or indoctrination programme.
- f) The safety communication processes/channels within the organization.

Cross-reference documents

3.2.12. Continuous improvement and SMS audit

Objective

Describe the process for the continuous review and improvement of the SMS.

Criteria

-
- a) The process for regular internal audit/review of the organization's SMS to ensure its continuing suitability, adequacy and effectiveness.
 - b) Describe any other programmes contributing to continuous improvement of the organization's SMS and safety performance, e.g. safety surveys, ISO systems.

Cross-reference documents

3.2.13. SMS records management

Objective

This part describes the method of storing all SMS-related records and documents.

Criteria

- a) The organization has an SMS records or archiving system that ensures the retention of all records generated in conjunction with the implementation and operation of the SMS.
- b) Records to be kept include hazard reports, risk assessment reports, safety action group/safety meeting notes, safety performance indicator charts, SMS audit reports and SMS training records.
- c) Records should be traceable for all elements of the SMS and be accessible for routine administration of the SMS as well as internal and external audits purposes.

Cross-reference documents

3.2.14. Management of change

Objective

Describe the organization's process for managing changes that may have an impact on safety risks and how such processes are integrated with the SMS.

Criteria

- a) Procedures to ensure that substantial organizational or operational changes take into consideration any impact which they may have on existing safety risks.

-
- b) Procedures to ensure that appropriate safety assessment is performed prior to introduction of new equipment or processes which have safety risk implications.
 - c) Procedures for review of existing safety assessments whenever there are changes to the associated process or equipment.

Cross-reference documents

- a) Company SOP relating to management of change, etc.

3.2.15. Emergency/contingency response plan

Objective

This part describes the organization's intentions regarding, and commitment to dealing with, emergency situations and their corresponding recovery controls. Outline the roles and responsibilities of key personnel. The emergency response plan can be a separate document or it can be part of the SMS manual.

Criteria (as applicable to the organization)

- a) The organization has an emergency plan that outlines the roles and responsibilities in the event of a major incident, crisis or accident.
- b) There is a notification process that includes an emergency call list and an internal mobilization process.
- c) The organization has arrangements with other agencies for aid and the provision of emergency services as applicable.
- d) The organization has procedures for emergency mode operations where applicable.
- e) There is a procedure for overseeing the welfare of all affected individuals and for notifying next of kin.
- f) The organization has established procedures for handling the media and insurance-related issues.
- g) There are defined accident investigation responsibilities within the organization.
- h) The requirement for preservation of evidence, securing the affected area, and mandatory/ governmental reporting is clearly stated.
- i) There is emergency preparedness and response training for affected personnel.

- j) A disabled aircraft or equipment evacuation plan has been developed by the organization in consultation with aircraft/equipment owners, aerodrome operators or other agencies as applicable.
- k) A procedure exists for recording activities during an emergency response.

Cross-reference documents

- a) Airport Emergency Plan Manual, ERP manual, etc.
-