

GHANA CIVIL AVIATION (SAFETY MANAGEMENT SYSTEMS) DIRECTIVES



PART 36 – SAFETY MANAGEMENT SYSTEMS

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For ease of reference, the number assigned to each implementing standard corresponds to its associated Directive. For example, IS: 36.2.1 would reflect a standard required in subsection 36.2.1.

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INTRODUCTION

Ghana has established a State Safety Programme (SSP) for the management of safety in the State, in order to achieve an acceptable level of safety performance in civil aviation. The SSP framework includes the following components:

- a) State safety policy and objectives;
- b) State safety risk management;
- c) State safety assurance; and
- d) State safety promotion.

The framework for the implementation and maintenance of SSP is contained in Ghana's SSP Document.

Part 36 sets forth the broad requirements for the establishment of Safety Management Systems (SMS) by Operators and service providers in Ghana in accordance with Amendment 1 of ICAO Annex 19 and national requirements.

The purpose of this Part is to provide guidance on the implementation of SMS. It has been developed to give sufficient understanding of SMS concepts and the development of management policies and processes to implement and maintain an effective SMS. It applies to Air Operator's Certificate (AOC) holders, Approved Maintenance Organisations (AMO), organisations responsible for the type design or manufacture of aircraft, engines or propellers, Air Navigation Service Providers (ANSPs), certified Aerodromes, Approved Training Organisations (ATOs) and Operators and Service Providers of Remotely Piloted Aircraft Systems (RPAS).

Furthermore, this Part prescribes the SMS requirements for General Aviation and Uncertified Aerodrome Operators.

SMS is a systematic and proactive approach for managing safety risks. As with all management systems, SMS includes goal setting, planning and measuring performance. An effective safety management system is woven into the fabric of an organisation which becomes part of its culture.

Safety management goes beyond compliance with prescriptive regulations, to a systematic approach where potential safety risks are identified and managed to an acceptable level. SMS adopts a business-like approach to safety, similar to the way that finances are managed, with safety plans, safety performance indicators and targets and continuous monitoring of the safety performance of the organisation. It enables effective risk-based decision-making processes across the business.

It is important to recognise that SMS is a top-down driven system, which means that the accountable manager of the organisation is responsible for the

implementation and continuing compliance with the SMS. Without the wholehearted support and ownership of the accountable manager the SMS will not be effective. However, safety is a shared responsibility across the whole organisation and needs the involvement of all staff.

There is not a ‘one size fits all’ model for SMS that will cater for all types of organisations. Organisations should tailor their SMS to suit the size, nature and complexity of their operations, and the hazards and associated risks inherent with their activities.

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36.1 GENERAL

36.1.1 APPLICABILITY

This Directive prescribes the requirements applicable to safety management functions related to, or in direct support of the safe operation of aircraft.

36.1.2 DEFINITIONS

For the purposes of this Part, the following definitions shall apply;

Accident. An occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

- (a) a person is fatally or seriously injured as a result of:
 - (i) being in the aircraft, or
 - (ii) direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
 - (iii) direct exposure to jet blast,

except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or

- (b) the aircraft sustains damage or structural failure which:
 - (i) adversely affects the structural strength, performance or flight characteristics of the aircraft, and
 - (ii) would normally require major repair or replacement of the affected component,

except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or

- (c) the aircraft is missing or is completely inaccessible.

Note 1. — For statistical uniformity only, an injury resulting in death

within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.

Note 2. — *An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.*

Note 3. — *The type of unmanned aircraft system to be investigated is addressed in 5.1 of Annex 13.*

Note 4. — *Guidance for the determination of aircraft damage can be found in Attachment F of Annex 13.*

Aeroplane. A power-driven heavier-than-air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.

Aircraft. Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

Authority. The Ghana Civil Aviation Authority.

Hazard. A condition or an object with the potential to cause or contribute to an aircraft incident or accident.

Helicopter. A heavier-than-air aircraft supported in flight chiefly by the reactions of the air on one or more power-driven rotors on substantially vertical axes.

Note. — *Also referred to as “rotorcraft” as an alternative to “helicopter”.*

Incident. An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.

Note. — *The types of incidents which are of interest for safety-related studies include the incidents listed in Annex 13, Attachment C.*

Industry codes of practice. Guidance material developed by an industry body, for a particular sector of the aviation industry to comply with the requirements of the International Civil Aviation Organization's Standards and Recommended Practices, other aviation safety requirements and the best practices deemed appropriate.

Operational personnel. Personnel involved in aviation activities who are in a position to report safety information.

Note. — *Such personnel include but are not limited to flight crews; air traffic controllers; aeronautical station operators; maintenance technicians; personnel of aircraft design and manufacturing organizations; cabin crews; flight dispatchers, apron personnel and ground handling personnel.*

Safety. The state in which risks associated with aviation activities, related to, or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level.

Safety data. A defined set of facts or set of safety values collected

from various aviation-related sources, which is used to maintain or improve safety.

Note. — *Such safety data is collected from proactive or reactive safety-related activities, including but not limited to:*

- a) *accident or incident investigations;*
- b) *safety reporting;*
- c) *continuing airworthiness reporting;*
- d) *operational performance monitoring;*
- e) *inspections, audits, surveys; or*
- f) *safety studies and reviews.*

Safety information. Safety data processed, organized or analysed in a given context so as to make it useful for safety management purposes.

Safety management system. A systematic approach to managing safety, including the necessary organizational structures, accountability, responsibilities, policies and procedures.

Safety oversight. A function performed by the Authority to ensure that individuals and organizations performing an aviation activity comply with safety-related national laws, Directives and regulations.

Safety performance. The State or a service provider's safety achievement as defined by its safety performance targets and safety performance indicators.

Safety performance indicator. The data-based parameter used for monitoring and assessing safety performance.

Safety performance target. The State or service provider's planned or intended target for a safety performance indicator over a given period that aligns with the safety objectives.

Safety risk. The predicted probability and severity of the consequences or outcomes of a hazard.

Serious injury. An injury which is sustained by a person in an accident and which:

- (a) requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received; or
- (b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or
- (c) involves lacerations which cause severe haemorrhage, nerve, muscle or tendon damage; or
- (d) involves injury to any internal organ; or
- (e) involves second- or third-degree burns, or any burns affecting more than 5 per cent of the body surface; or
- (f) involves verified exposure to infectious substances or injurious radiation.

State of design. The State having jurisdiction over the organization responsible for the type design.

State of manufacture. The State having jurisdiction over the organization responsible for the final assembly of the aircraft.

State of the operator. The State in which the operator’s principal place of business is located or, if there is no such place of business, the operator’s permanent residence.

State Safety Programme. An integrated set of Directives, regulations and activities aimed at improving safety.

Surveillance. The State activities through which the Authority proactively verifies through inspections and audits that aviation licence, certificate, authorization or approval holders continue to meet the established requirements and function at the level of competency and safety required by the Authority.

36.1.3 ABBREVIATIONS

The following abbreviations are used in this Part:

ADREP	Accident/Incident Data Reporting
AIS	Aeronautical Information Services
AMO	Aircraft Maintenance Organisation
ANS	Air Navigation Services
ANSP	Air Navigation Services Provider
AOC	Air Operator Certificate
ATO	Approved Training Organisation
ATS	Air Traffic Services
BAGASOO	Banjul Accord Group Aviation Safety Oversight Organisation
CNS	Communications, Navigation and Surveillance
CVR	Cockpit Voice Recorder
GCAA	Ghana Civil Aviation Authority
GCADs	Ghana Civil Aviation Directives
ICAO	International Civil Aviation Organisation
MET	Meteorological Services
PANS	Procedures for Air Navigation Services
SAR	Search and Rescue
SARPs	Standards and Recommended Practices
SDCPS	Safety Data Collection and Processing System
SMM	Safety Management Manual
SMP	Safety Management Panel
SMS	Safety Management System
SMSM	Safety Management System Manual
SSP	State Safety Programme
WACAF	Western and Central African

36.2 SAFETY MANAGEMENT SYSTEM

36.2.1 GENERAL

- (1) The following service providers shall establish SMS in accordance with the applicable provisions in this Directive in order to exercise the privileges associated with their certificates, permits, licenses, or approvals to provide specific services as indicated:
 - (a) An ATO in accordance with Part 3 of the Flight Standards Directives, that is exposed to safety risks related to aircraft operations during the provision of its services;
 - (b) An AOC holder authorized to conduct commercial air transport in accordance with Parts 8 and 9 of the Flight Standards Directives;
 - (c) An AMO providing services to operators of aeroplanes or helicopters engaged in commercial air transport in accordance with Parts 8 and 9 of the Flight Standards Directives;
 - (d) The Air Traffic Services (ATS) provider in accordance with Part 24 of the Air Navigation Services Directives; and
 - (e) A Certified Aerodrome Operator in accordance with Parts 14 and 32 of the Aerodromes Directives.
- (2) The entities listed in 36.2.1 shall implement a safety management system acceptable to the Authority that, as a minimum, shall:
 - (a) be established in accordance with the framework elements contained in IS: 36.2.1; and
 - (b) be commensurate with the size of the service provider and the complexity of its aviation products or services.
- (3) The Service Provider shall develop a plan to facilitate SMS implementation.
- (4) The safety performance indicators and targets established by the Service Provider shall be acceptable to the Authority.
- (5) The Safety Management System of the Service Provider shall clearly define lines of safety accountability throughout the organisation, including a direct accountability for safety on the part of senior management.

Implementing Standard: See IS: 36.2.1 for additional requirements on SMS framework elements.

36.3 GENERAL AVIATION, RPAS AND UNCERTIFIED AERODROME OPERATORS

- (1) The following Service Providers shall implement an SMS commensurate with the size and complexity of operations and in a manner acceptable to the Authority:
 - (a) General Aviation Operators when conducting any of the following operations:

- (i) An Aeroplane with a maximum certificated take-off mass exceeding 5,700 kg;
 - (ii) An Aeroplane equipped with one or more turbojet engines; or
 - (iii) An Aeroplane with a seating configuration of more than 9 passenger seats.
- (b) Uncertified Aerodrome Operators; and
 - (c) RPAS Service Providers.
- (2) The SMS shall as a minimum include:
- (a) The establishment of safety accountabilities;
 - (b) A process to identify actual and potential safety hazards and assess the associated risks;
 - (c) A process to develop and implement remedial action necessary to maintain an acceptable level of safety; and
 - (d) Provision for continuous monitoring and regular assessment of the appropriateness and effectiveness of safety management activities.

36.4 PROTECTION OF SAFETY DATA, SAFETY INFORMATION AND RELATED SOURCES

- (1) The Authority shall ensure protection of safety data captured by, and safety information derived from, voluntary safety reporting systems and related sources in accordance with IS: 36.4.

Implementing Standard: See IS: 36.4 for principles on protection of safety data, safety information and related sources.

- (2) Subject to paragraph (1), the Authority shall not make available or use safety data or safety information collected, stored or analysed for purposes other than maintaining or improving safety, unless the Authority determines, in accordance with IS: 36.4, that a principle of exception applies.
- (3) Notwithstanding paragraph (2), the Authority shall not be prevented from using safety data or safety information to take any preventive, corrective or remedial action that is necessary to maintain or improve aviation safety.

Note. — Sources include individuals and organizations.

Note 2.— Guidance related to both mandatory and voluntary safety reporting systems is contained in the Safety Management Manual (SMM) (Doc 9859).

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**GHANA CIVIL AVIATION
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DIRECTIVES**



PART 36 – IMPLEMENTING STANDARDS

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For ease of reference, the number assigned to each implementing standard corresponds to its directive. For Example, IS: 36.2.1 would reflect a standard required in subscription 36.2.1.

IS: 36.2.1 SAFETY MANAGEMENT SYSTEM FRAMEWORK AND ELEMENTS

- (1) The following specifies the framework for the implementation and maintenance of a safety management system (SMS) by service providers listed in 36.2.1(1).

(a) **Safety Policy and Objectives:**

(i) Management commitment and responsibility.

- (A) The service provider shall define the organisation's safety policy which shall be:

1. in accordance with international and national requirements, and
2. signed by the accountable executive of the organisation.

- (B) The safety policy shall:

1. reflect organisational commitments regarding safety;
2. include a clear statement about the provision of the necessary resources for the implementation of the safety policy;
3. be communicated with visible endorsement throughout the organisation;
4. include the safety reporting procedures;
5. clearly indicate types of operational behaviours that are unacceptable;
6. include the conditions under which disciplinary action would not apply; and
7. be periodically reviewed to ensure it remains relevant and appropriate to the organisation.

(ii) Safety accountabilities

- (A) The service provider shall identify, with respect to the safety performance of the SMS:

1. the accountable executive who, irrespective of other functions, shall have ultimate responsibility and accountability, on behalf of the AOC holder, ATO, AMO, ANSP, certified aerodrome operator and RPAS Operator or Service Provider for the implementation and maintenance of the SMS;
2. the accountabilities of all members of the management, irrespective of other functions, and
3. the employees.

- (B) The service provider shall:

1. document safety responsibilities, accountabilities and authorities;
2. communicate these throughout the organization; and
3. include a definition of the levels of management authority to make decisions regarding safety risk tolerability.

(iii) Appointment of key safety personnel

- (A) The service provider shall identify a safety manager to be the responsible individual and focal point for the implementation and maintenance of an effective SMS.

(iv) Coordination of emergency response planning

- (A) The service provider shall ensure that an emergency response plan that provides for the orderly and efficient transition from normal to emergency operations and the return to normal operations is properly coordinated with the emergency response plans of those organisations it must interface with during the provision of such services.

(v) SMS documentation

- (A) The service provider shall develop and maintain:
1. an SMS implementation plan:
 - (a) endorsed by senior management of the Service Provider, and
 - (b) that defines the Service Provider’s approach to the management of safety in a manner that meets the Service Provider’s safety objectives.
 2. SMS documentation describing:
 - (a) the safety policy and objectives;
 - (b) the SMS requirements;
 - (c) the SMS processes and procedures;
 - (d) the accountabilities, responsibilities and authorities for processes and procedures and the SMS outputs.
 3. a safety management system manual (SMSM) to communicate its approach to the management of safety throughout the Service Provider.

(b) Safety Risk Management:***(i) Hazard identification.***

- (A) The service provider shall develop and maintain a formal process that ensures that hazards in operations are identified.
- (B) The service provider shall base its hazard identification on a combination of reactive, proactive and predictive methods of safety data collection.

(ii) Safety risk assessment and mitigation.

- (A) The service provider shall develop and maintain a formal process that ensures analysis, assessment and control of the safety risks in training operations.

(c) Safety Assurance:***(i) Safety performance monitoring and measurement.***

- (A) The service provider shall develop and maintain the means to:
 - 1. verify the safety performance of the organisation, and
 - 2. validate the effectiveness of safety risk controls.
- (B) The service provider shall verify the safety performance of the organisation in reference to the safety performance indicators and safety performance targets of the SMS.

(ii) The management of change

- (A) The service provider shall develop and maintain a formal process to:
 - 1. identify changes within the Service Provider which may affect established processes and services;
 - 2. describe the arrangements to ensure safety performance before implementing changes, and
 - 3. eliminate or modify safety risk controls that are no longer needed or effective due to changes in the operational environment.

(iii) Continuous improvement of the SMS

- (A) The service provider shall develop and maintain a formal process to:
 - 1. identify the causes of substandard performance of the SMS;
 - 2. determine the implications of substandard performance of the SMS in operations; and

3. eliminate or mitigate such causes.

(d) **Safety Promotion:**

(i) Training and education

- (A) The service provider shall develop and maintain a safety training programme that:
1. ensures that all personnel are trained and competent to perform the SMS duties; and
 2. is appropriate to each individual's involvement in the SMS.

(ii) Safety communication.

- (A) The service provider shall develop and maintain formal means for safety communication that:
1. ensures all personnel are fully aware of the SMS;
 2. conveys safety-critical information;
 3. explains why particular safety actions are taken; and
 4. explains why safety procedures are introduced or changed.

IS: 36.4 PROTECTION OF SAFETY DATA, SAFETY INFORMATION AND RELATED SOURCES

Note 1.— The protection of safety data, safety information and related sources is essential to ensure their continued availability, since the use of safety data and safety information for purposes other than maintaining or improving safety may inhibit the future availability of such data and information, with a significant adverse effect on safety.

Note 2.— The objective is to ensure the continued availability of safety data and safety information by restricting their use for purposes other than maintaining or improving aviation safety.

1. PRINCIPLES OF PROTECTION

- (a) The Service Provider shall ensure that safety data or safety information is not used for:
- (i) disciplinary, civil, administrative and criminal proceedings against employees, operational personnel or organizations;
 - (ii) disclosure to the public; or
 - (iii) any purposes other than maintaining or improving safety;
 - (iv) unless a principle of exception applies.

- (b) The Service Provider shall accord protection to safety data, safety information and related sources by ensuring that:
- (i) the protection is specified based on the nature of safety data and safety information;
 - (ii) a formal procedure to provide protection to safety data, safety information and related sources is established;
 - (iii) safety data and safety information will not be used in a way different from the purposes for which they were collected, unless a principle of exception applies; and
 - (iv) to the extent that a principle of exception applies, the use of safety data and safety information in disciplinary, civil, administrative and criminal proceedings will be carried out only under authoritative safeguards.

Note 1. — The formal procedure may include that any person seeking disclosure of safety data or safety information will provide the justification for its release.

Note 2. — Authoritative safeguards include legal limitations or restrictions such as protective orders, closed proceedings, in-camera review, and de-identification of data for the use or disclosure of safety information in judicial or administrative proceedings.

2. PRINCIPLES OF EXCEPTION

Exceptions to the protection of safety data, safety information and related sources shall only be granted when the competent authority:

- (a) determines that there are facts and circumstances reasonably indicating that the occurrence may have been caused by an act or omission considered, in accordance with national laws, to be conduct constituting gross negligence, willful misconduct or criminal activity;
- (b) after reviewing the safety data or safety information, determines that its release is necessary for the proper administration of justice, and that the benefits of its release outweigh the adverse domestic and international impact such release is likely to have on the future collection and availability of safety data and safety information; or
- (c) after reviewing the safety data or safety information, determines that its release is necessary for maintaining or improving safety, and that the benefits of its release outweigh the adverse domestic and international impact such release is likely to have on the future collection and availability of safety data and safety information.

Note 1. — In administering the decision, the competent authority takes into account the consent of the source of the safety data and safety information.

Note 2. — Different competent authorities may be designated for different circumstances. The competent authority could include, but is not limited to, judicial authorities or those

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otherwise entrusted with aviation responsibilities designated in accordance with national law.

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