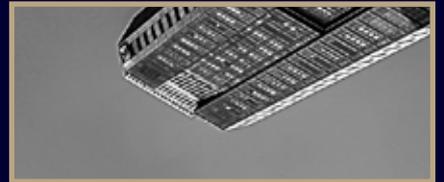
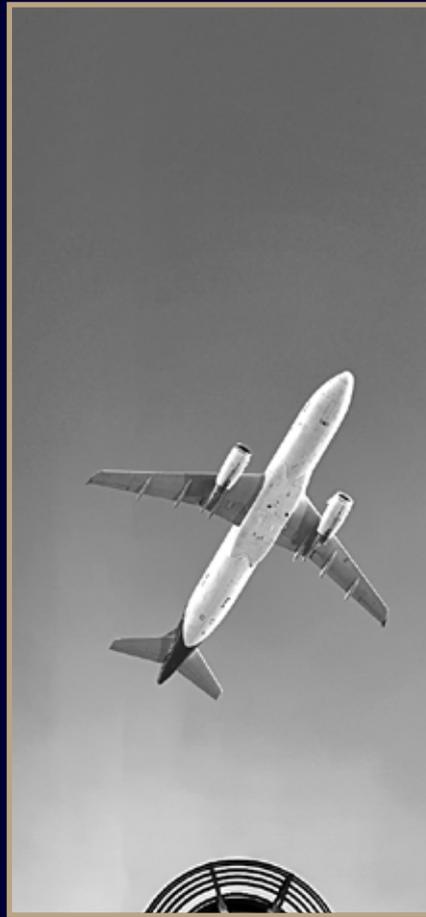
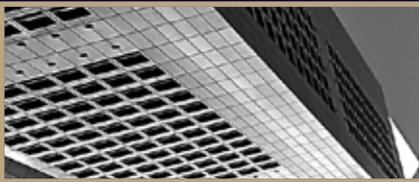


SOUTH AFRICAN



CIVIL AVIATION
AUTHORITY

STATE AVIATION SAFETY PROGRAMME



The State Aviation Safety Programme (SSP) is a living document. If, as a result of development in or due to an amendment to the scope and functions of the applicable legislation and international standards and recommended practices, changes occur that will necessitate revision of this programme, it must be amended.

Official Sign-off

Developed by



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Contents

Official Sign-off	i
Abbreviations	2
Definitions	3
Foreword	5
Chapter 1: Introduction	6
South African Aviation Safety System	7
Chapter 2: Safety Oversight Arrangements	8
2.1 Introduction	8
2.2 Responsibilities of the Civil Aviation Authority	8
2.3 Aircraft Accident and Incident Investigation Division	8
2.4 Responsibilities of air navigation service providers	8
2.5 Service providers	9
2.6 Regulators	9
2.7 Search and Rescue	12
Chapter 3: Safety Policy and Objectives	14
3.1 Safety Legislation Framework – Safety Policy Statement	14
3.2 State Safety Programme Objectives	16
3.3 Safety responsibilities and accountabilities for SSP in the state	19
3.4 Safety responsibilities and accountabilities of SACAA	20
3.5 Enforcement Policy	25
Chapter 4: Safety Risk Management System	26
4.1 Safety requirements for service providers (SMS)	26
4.2 Agreement of service provider’s safety performance (acceptable levels of safety)	27
Chapter 5: Aviation Safety Assurance	28
5.1 Safety Oversight	28
5.2 Safety data collection, analysis and exchange	28
5.3 Safety-driven data targeting oversight on areas of greater concern or need	28
Chapter 6: Aviation Safety Promotion	29
6.1 Internal training	29
6.2 Internal communication and dissemination of safety information	29
6.3 External training, communication and dissemination of safety information	29
Chapter 7: Impact, Resources and Deliverables	30
Chapter 8: Review	30
References	30

Abbreviations

ACSA	Airports Company South Africa
ASP	Aviation Safety Panel
ALoS	Acceptable Level of Safety
AIC	Aeronautical Information Circular
AIID	Accident and Incident Investigation Division
AIP	Aeronautical Information Publication
AMSAR	Aeronautical and Maritime Search and Rescue
AOC	Air Operator Certificate
ASO	Aviation Safety Operation
ATNS	Air Traffic and Navigation Services Company
CAR	Civil Aviation Regulations
CAHRS	Confidential Hazard Reporting System
CARCOM	Civil Aviation Regulations Committee
CATS	Civil Aviation Technical Standards
CDE	Cabin Designated Examiners
CS	Consistency and Standardisation Department
DCA	Director of Civil Aviation
DFE	Designated Flight Examiners
DoT	Department of Transport
ECCAIRS	European Coordination Centre for Accident and Incident Reporting Systems
FAA	Federal Aviation Administration
GASI	General Aviation Safety Initiative
ICASA	Independent Communications Authority of South Africa
ICAO	International Civil Aviation Organization
IIC	Investigator-in-Charge
ILF	Industry Liaison Forum
IMO	International Maritime Organization
IT	Information Technology
KPA	Key Performance Areas
MSP	Master Surveillance Plan
NAC	National Airways Corporation
NASCOM	National Airspace Committee
NASC	National Aviation Security Committee
NASP	National Aviation Security Programme
PEL	Personnel Licensing Department
PMA	Parts Manufacturing Approval
RAASA	Recreation Aviation Administration of South Africa
RCC	Rescue Coordination Centre
RPAS	Remotely Piloted Aircraft System
RSC	Rescue Sub centre
SACAA	South African Civil Aviation Authority
SAMSA	South African Maritime Safety Authority
SAPFA	South African Powered Flying Association
SAR	Search and Rescue
SARPs	Standards and Recommended Practices
SASAR	South African Search and Rescue Organisation
SAWS	South African Weather Service
SMS	Safety Management System
SOLAS	The International Convention for Safety of Life at Sea
SRR	South African Designated Search and Rescue Region
SSP	State Safety Programme
TGM	Technical Guidance Material
TSO	Technical Standard Order

Definitions

When the following terms are used in the Standards and Recommended Practices for Safety Management, they have the following meanings:

Acceptable Level of Safety Performance (ALoSP)

The minimum level of safety performance of civil aviation in a State, as defined in its State safety programme, or of a service provider, as defined in its safety management system, expressed in terms of safety performance targets and safety performance indicators.

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:
 - being in the aircraft, or
 - direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
 - 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:
 - adversely affects the structural strength, performance or flight characteristics of the aircraft, and
 - 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.

Accountable Executive

A single, identifiable person having responsibility for the effective and efficient performance of the State's SSP or of the service provider's SMS.

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.

Change management

A formal process to manage changes within an organization in a systematic manner, so that changes which may impact identified hazards and risk mitigation strategies are accounted for, before the implementation of such changes.

Defences

Specific mitigating actions, preventive controls or recovery measures put in place to prevent the realization of a hazard or its escalation into an undesirable consequence.

Errors

An action or inaction by an operational person that leads to deviations from organizational or the operational person's intentions or expectations.

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 — Some States use the term "rotorcraft" as an alternative to "helicopter".

High-consequence indicators

Safety performance indicators pertaining to the monitoring and measurement of high consequence occurrences, such as accidents or serious incidents. High-consequence indicators are sometimes referred to as reactive indicators.

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.

Note — Some States accept and reference industry codes of practice in the development of regulations to meet the requirements of Annex 19, and make available, for the industry codes of practice, their sources and how they may be obtained.

Lower-consequence indicators

Safety performance indicators pertaining to the monitoring and measurement of lower-consequence occurrences, events or activities such as incidents, non-conformance findings or deviations. Lower-consequence indicators are sometimes referred to as proactive/predictive indicators.

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 management system (SMS)

A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.

Safety performance

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

Safety performance indicator

A data-based parameter used for monitoring and assessing safety performance.

Safety performance target

The planned or intended objective for safety performance indicator(s) over a given period.

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 (SSP)

An integrated set of regulations and activities aimed at improving safety.

Foreword

As from November 2006, contracting States to the Chicago Convention are obliged to implement a State Safety Programme (SSP) in order to achieve an acceptable level of safety in the operation of aircraft and in the provision of services, as introduced through ICAO Standards. The SSP's main objective is to define and achieve an Acceptable Level of Safety (ALoS) within the state. The SSP is defined as a set of regulations and activities aimed at improving safety.

South Africa, as an ICAO Member State, is required to establish the SSP and an ALoS. The SSP requires, amongst others, of every service provider defined in Annexes 1, 6, 8, 11, 13 and 14 to the Chicago Convention to develop a Safety Management System (SMS), and to ensure that ALoS is achieved through proper application of the SMS. The SSP provides the necessary basis for the State and all service providers to acknowledge their safety responsibilities, and gives the necessary framework for service providers to establish their SMS.

Chapter 1: Introduction

- 1.1 Aviation safety is of paramount importance to the sustainability of the civil aviation industry. Aviation activities are growing steadily and the industry is becoming more complex. At the top of the ICAO agenda is the management of aviation safety to ensure growth and sustainability. With air traffic projected to double in the next 15 years, safety risks must be addressed proactively to ensure that this significant expansion is carefully managed and supported through strategic regulation and infrastructure.
- 1.2 In order to meet such safety demands, ICAO introduced an annex dedicated to safety management in order to reinforce the role played by States in managing safety at the state level, stressing the concept of overall safety performance in all domains in coordination with service providers.
- 1.3 The safety management (Annex 19) requires each contracting State to establish a State Safety Programme (SSP) in order to achieve an ALoS in civil aviation. An SSP is a system for the management of aviation safety by each State.
- 1.4 An SSP is an integrated set of regulations and activities aimed at improving safety. It combines elements of both performance-based and prescriptive approaches to the management of aviation safety and is built around the following key components:
 - a) State safety policy and objectives;
 - b) State safety risk management;
 - c) State safety assurance; and
 - d) State safety promotion.
- 1.5 The main long-term objective of the SSP is the overall management and improvement of aviation safety by the State to achieve an ALoS. An SSP sets requirements for the service providers in a State to establish and maintain a safety management system (SMS). States are also responsible for the approval and oversight of service providers' SMS.
- 1.6 In order to facilitate the establishment of the SSP, the Civil Aviation Act, 2009 (Act No. 13 of 2009) had to be amended to make provision for the establishment of the SSP.
- 1.7 Furthermore, the Minister of Transport promulgated Part 140 of the Civil Aviation Regulations, 2011 (CARs), which, together with the supporting Technical Standards (SA CATS), are mandating service providers to establish and maintain SMS.
- 1.8 The SACAA is working closely with the industry to foster safety and just culture to facilitate the implementation of SMS. SMS is implemented by the industry, and the role of the SACAA is to provide an enabling environment for effective implementation. The SACAA therefore monitors and assesses the effectiveness of the SMS.
- 1.9 The Accountable Executive (Director of Civil Aviation) ensures the coordination of all safety management programmes through the SSP in partnership with the Department of Transport.

South African Aviation Safety System

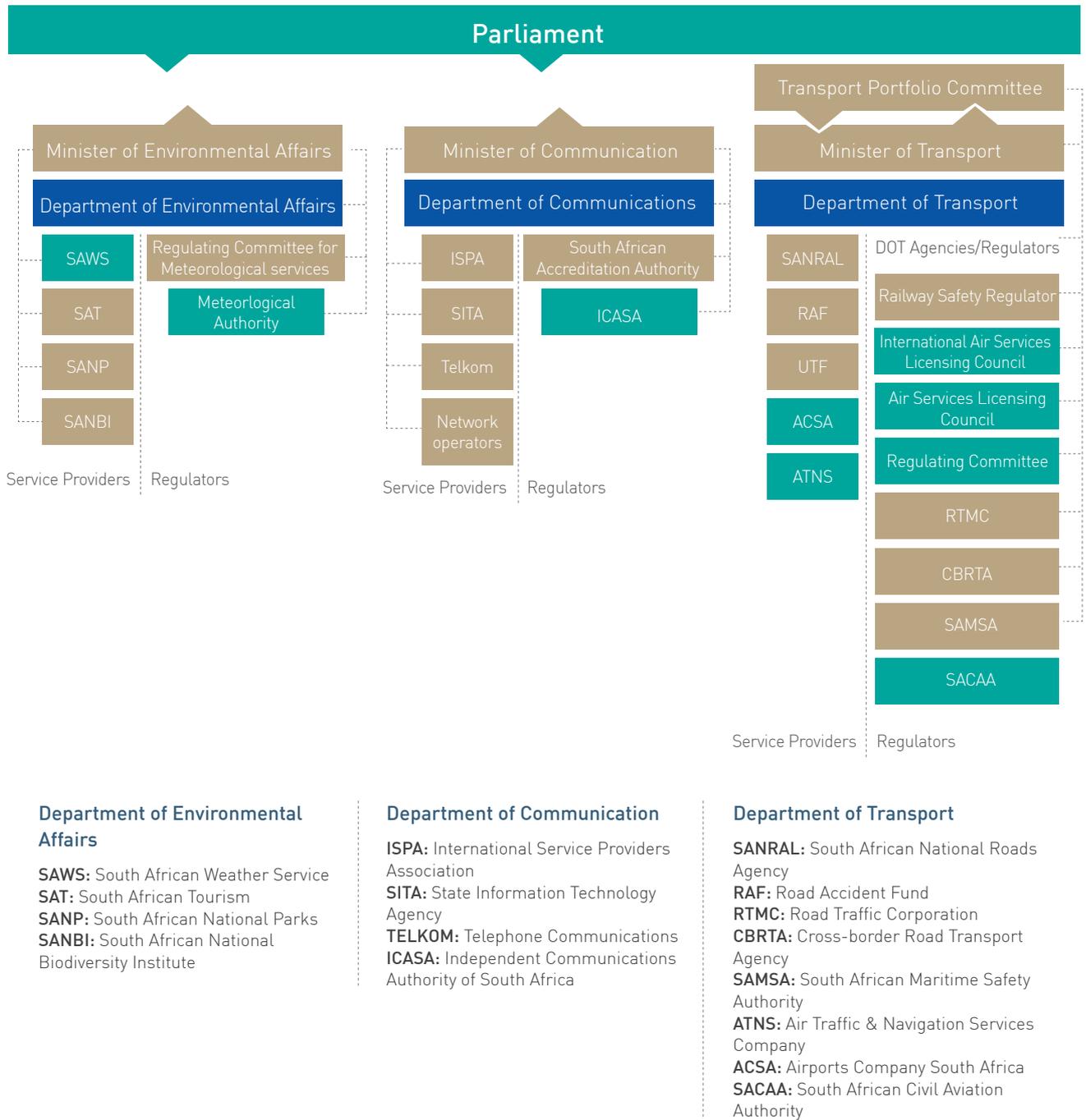


Figure 1

Chapter 2: Safety Oversight Arrangements

2.1 Introduction

- 2.1.1 South Africa, as a signatory to the Chicago Convention (ICAO Doc 7300), has agreed to comply with the provisions of the Convention and to implement the Standards and Recommended Practices (SARPs) contained in Annexes to the Convention.
- 2.1.2 In order to facilitate the implementation of SARPs, South Africa engages in a process of incorporating such SARPs into CARs through the Civil Aviation Regulations Committee (CARCom) process. Industry regulation and the oversight functions are carried out in terms of the CARs and SA CATS.

2.2 Responsibilities of the Civil Aviation Authority

- 2.2.1 In South Africa, the Department of Transport, through its entities such as SACAA, ATNS and ACSA, represents the ultimate aviation body, whose main objective is to ensure regulated, safe, secure and orderly air transportation.
- 2.2.2 In compliance with ICAO requirements, the Civil Aviation Act, 2009 designated the Civil Aviation Authority (CAA) as the State's national regulatory and supervisory authority.
- 2.2.3 The diagram on page 9 depicts the current aviation safety system in place in South Africa, indicating both service providers and regulators of the system in blue. In most instances the organisations displayed in the aviation safety system diagram have been created as separate entities of Government through specific Acts. This was done to enable the South African Government to focus on its core functions, as expected by the public. In some areas, limited service provision or secretarial functions remained with Government departments.

2.3 Aircraft Accident and Incident Investigation Division

- 2.3.1 The Aircraft Accident and Incident Investigation Division (AIID) was established for the sole purpose of investigating aircraft accidents and serious incidents in order to enhance safety and not to apportion blame or liability.
- 2.3.2 The AIID reports functionally to the Minister of Transport through the Deputy Director-General: Civil Aviation in as far as it relates to accident and incident investigation. The SACAA is responsible for managing operational resources to conduct investigations without interference.
- 2.3.3 For the exclusive purposes of accident and incident investigation, the SACAA establishes all necessary processes to enable the executive responsible for aircraft accident and incident investigation to report to the Minister of Transport through a panel appointed for that purpose.
- 2.3.4 The staff, accredited representatives, experts and advisors of the accident and incident investigators serve impartially and independently and exercise, carry out and perform their powers, duties and functions in good faith and without fear, favour, bias or prejudice, subject only to applicable legislation and the Convention.
- 2.3.5 The SACAA does not interfere with the functions of aircraft accident and incident investigators, including the production of accident and incident reports.

2.4 Responsibilities of air navigation service providers

Service providers indicated in the diagram are responsible for managing the aviation service provision in terms of the applicable provisions of annexes; e.g. ACSA has been established to manage nine major airports within South Africa in accordance with the provisions of Annexes 14 and 10, as applicable. Likewise, the SAWS has been established for the provision of meteorological services in terms of Annex 3, the ATNS in terms of Annex 11 and SASAR in terms of Annex 12.

Regulators, on the other hand, are responsible for the oversight of the activities and the safety of the service providers. Regulators have to assess the regulatory compliance of service providers, and upon compliance a certificate, licence, permit or other approval document is issued.

The annexes are administered by the various organisations in the safety systems which are listed below:

2.5 Service providers:

- a) **Department of Transport:** The Department retained responsibility for facilitation (Annex 9), Search and Rescue (Annex 12) and for Accident and Incident Investigation (Annex 13) in terms of a Ministerial Order.
- b) **SAWS:** Established through the South African Weather Service Act, 2001 (Act No. 8 of 2001) and responsible for meteorological service provision in terms of Annex 3.
- c) **ACSA:** Established in terms of the Airports Company Act, 1993 (Act No. 44 of 1993) and responsible for service provision in terms of Annexes 10 and 14.
- d) **ATNS:** Its responsibilities are defined in the Air Traffic and Navigation Services Company Act, 1993 (Act No. 45 of 1993) and include service provision in terms of Annexes 10, 11 and 15.

2.6 Regulators:

- a) **Meteorological Authority:** Established through the South African Weather Service Act, 2001 and responsible for meteorological oversight required in terms of Annex 3.
- b) **International Air Services Council:** Established by the International Air Services Act, 1993 (Act No. 60 of 1993) to regulate the economic licensing of South African operators performing international air operations in terms of Annex 6.
- c) **Regulating Committee:** This committee was established by section 11 of the Airports Company Act, 1993 as an economic and service standard regulator for ACSA and ATNS. This is a national requirement and is not required in terms of any ICAO annex.
- d) **SACAA:** Established by the Civil Aviation Act, 2009 for the safety and security oversight of all provisions contained in Annexes 1, 2, 4, 5, 6, 7, 8, 11, 13, 14, 15, 16, 17, 18 and 19.
- e) **ICASA:** Established by the Independent Communications Authority Act, 2000 (Act No. 13 of 2000) and responsible for issuing licences to communications providers and radio station licences to aircraft in terms of Annex 10.

Where required, the interaction between the role players within the safety system is agreed by means of agreements among the various role players. Coordination between role players at state level is governed by the South African Constitution.

AMSAR Operational, Regulatory and Oversight Structure

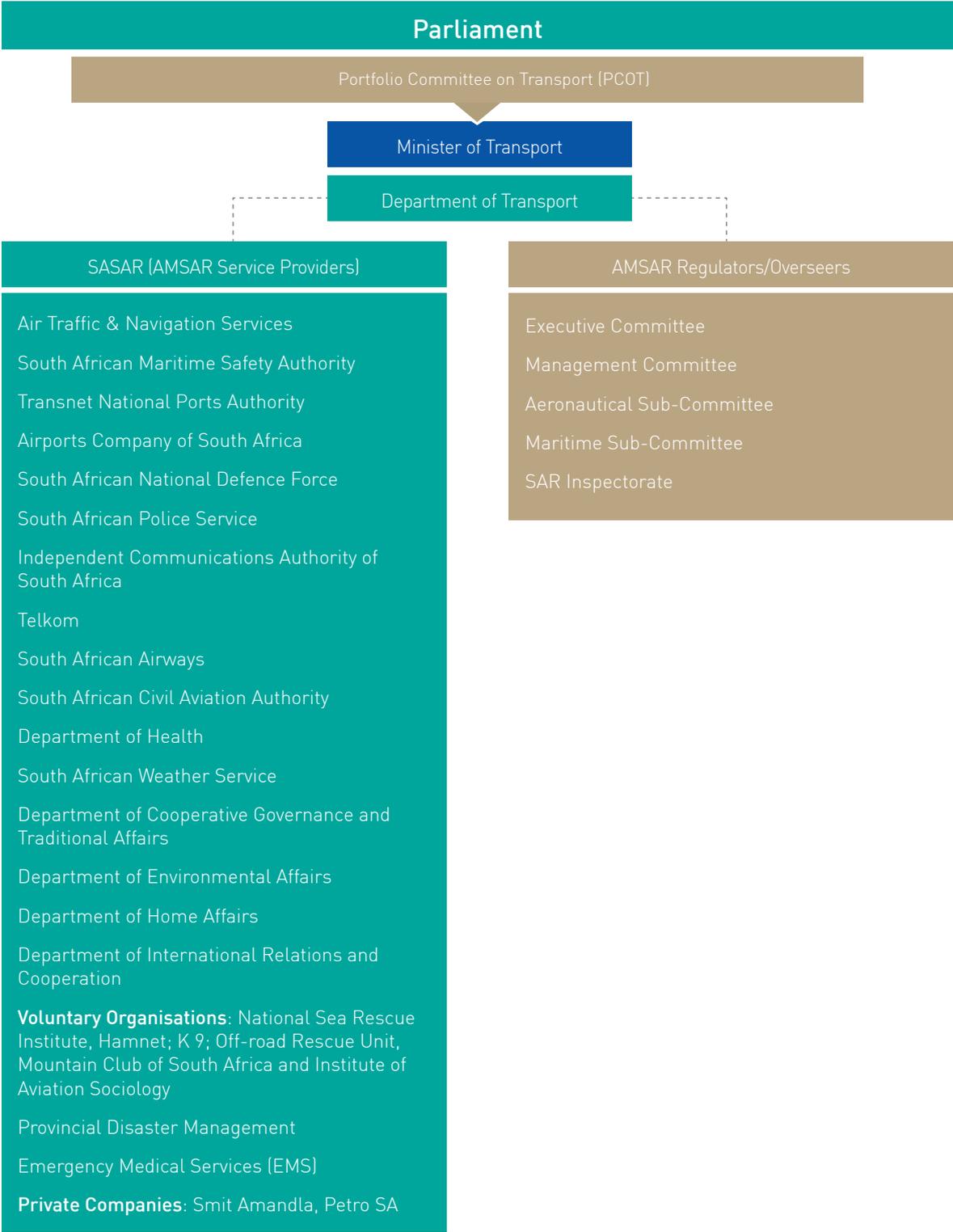


Figure 2

SASAR Structure

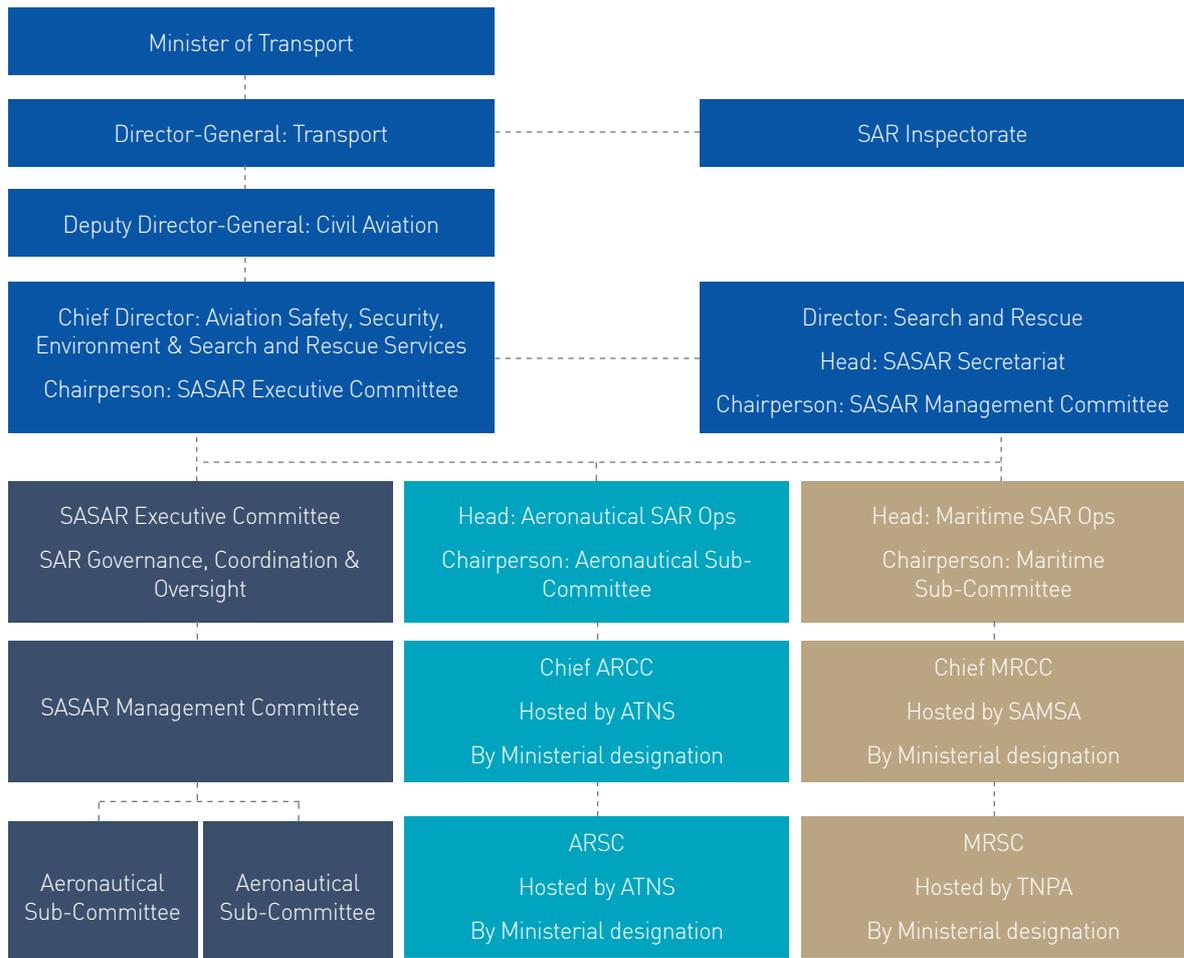


Figure 3

2.7 Search and Rescue

2.7.1 Overview

- 2.7.1.1 International law requires signatory States to establish search and rescue (SAR) systems on a multi-agency, regional or global basis to provide SAR services. As a party to the International Convention for Safety of Life at Sea (SOLAS), the International Convention on Maritime Search and Rescue and the Convention on International Civil Aviation, South Africa undertook to provide aeronautical and maritime search and rescue (AMSAR) coordination and services. The international community therefore expects South Africa to fulfil these commitments. The goal of ICAO and the International Maritime Organisation (IMO) with the global SAR concept is to provide an effective world-wide system, so that wherever people sail or fly, SAR services will be available if required. It is therefore imperative to realise and understand that national AMSAR efforts are an integral part of the world-wide SAR system.
- 2.7.1.2 The Department of Transport is the custodian of aviation and maritime search and rescue (AMSAR) services and therefore responsible for the creation of an enabling environment for the provision of these services. This translates into the Department being the overseer, primary funder, regulator, governor, administrator and coordinator of these services.
- 2.7.1.3 AMSAR services are provided in terms of the South African Maritime and Aeronautical Search and Rescue Act, 2002 (Act No. 44 of 2002). Subordinate legislation in the form of South African Maritime and Aeronautical Search and Rescue Regulations, 2016 has been promulgated with the objective of pursuing South Africa's obligations assumed under appropriate international SAR Conventions and ensuring the implementation of standards and recommended practices (SARPs) by AMSAR service providers.
- 2.7.1.4 South Africa has over the years developed its own national SAR system that is being associated with other countries' SAR systems through bilateral and multilateral agreements. In order to enable an efficient service, South Africa has adopted a multi-agency approach in its implementation of the SAR programme, as evidenced by the number of organisations involved on a voluntary basis in the execution of this mandate.
- 2.7.1.5 The SAR capability in South Africa is in the hands of government institutions, with the assistance of voluntary organisations and private undertakings whose core functions are not search and rescue. For these reasons there was a need to co-ordinate and manage these individual resources in an endeavour to provide South Africa with a world-class aviation and maritime search and rescue capability.
- 2.7.1.6 To this end, the South African Search and Rescue (SASAR) organisation was established in terms of the South African Maritime and Aeronautical Search and Rescue Act, 2002 to execute the search and rescue coordination mandate in the South African-designated search and rescue regions (SRRs) or areas of responsibility.
- 2.7.1.7 A national AMSAR plan, better known as the SASAR Policy Manual, has been developed by the Department and signed by all identified SAR facilities and SAR units (SASAR member organisations) in an endeavour to solicit and sustain commitment to this noble cause as well as to ensure a coordinated approach in the management and implementation of the SAR programme. The plan, inter alia, clearly defines the responsibility of each SAR unit and facility participating in the provision of AMSAR services, personnel training and certification, RCCs and RSCs, SAR planning and implementation processes and phases, designated RCCs and RSCs, communication frequencies etc. In addition to the national SAR plan, agreements have been concluded and are still being pursued with a host of probable SAR facilities and units, including governments and voluntary and private organisations in order to sustain and enhance existing SAR capabilities and resources.
- 2.7.1.8 Regulation 7 of the SAR regulations requires the Department of Transport to designate a person or body of persons to establish a safety oversight and regulatory system. SAR inspectors, drawn from the current pool of the Department's Internal Audit Unit, have been appointed to execute this responsibility over and above their normal and core auditing functions.
- 2.7.1.9 Regulation 8 requires SASAR, as the AMSAR service provider, to develop a safety management system (SMS) that will, as a minimum, identify safety hazards, ensure the implementation of remedial actions necessary to maintain safety performance, provide for continuous monitoring and regular assessments of safety performance and is subject to regular review, which has as its objective the improvement in the overall performance of the SMS.

2.7.2 Responsibilities of the AMSAR regulators and co-ordinators

The diagram in Figure 2 represents the current South African AMSAR regulatory and operational service's regime or establishment. All the organisations reflected in the diagram are members of the SASAR as signatories to the national SAR Plan and the SASAR Constitution and have made their assets and/or services available for AMSAR services. They are separate entities, some of which were created through specific Acts but have been made mandatory members of SASAR through the South African Maritime and Aeronautical Search and Rescue Act, 2002. This was done to ensure cooperative and coordinated efforts and pooling of resources in the provision of AMSAR services.

2.7.3 Department of Transport

The primary responsibility and accountability in search and rescue rest with the government as signatory to the relevant international search and rescue conventions. The Department of Transport is therefore the custodian and champion of search and rescue services in our country. SAR administration rests with the Department, assisted in this regard by the SASAR executive and management committees. The Department therefore has the overall responsibility for planning, establishing, organising, staffing, equipping, managing and overseeing the search and rescue system or programme.

The Directorate: Search and Rescue, within the establishment of the Department, renders administrative and secretariat duties to the SASAR organisation.

2.7.4 SASAR Executive Committee

The Executive Committee is the highest policy and decision-making body of the SASAR organisation and is the authority responsible for search and rescue governance, coordination and oversight. The Executive Committee is chaired by the Head of SASAR, who is a senior official of the Department of Transport with AMSAR as part of his/her portfolio.

2.7.5 SASAR Management Committee

The Management Committee advises the Executive Committee on any matter that may have policy and financial implications and deals with urgent day-to-day administrative matters, which need to be sanctioned by the Executive Committee. It is also presided over by an official of the Department of Transport.

2.7.6 SASAR Aeronautical and Maritime Subcommittees

The Aeronautical and Maritime Subcommittees advise the executive and management committees on technical and operational aspects or issues that impact on AMSAR policy and recommend changes where necessary. The subcommittees are chaired by officials of the ATNS and SAMSA respectively.

2.7.7 AMSAR Inspectorate

The inspectors are responsible for conducting continuous monitoring of compliance with national SAR legislation, regulations, policies, guidelines, prescribed procedures, SARPs as well as directives from the Department and SASAR Executive Committee geared towards meeting national obligations under international aviation and maritime search and rescue conventions, annexes to the conventions and subsequent amendments thereto.

The duties of the AMSAR inspectors are categorised under the following broad key performance areas (KPA's):

- a) Development and implementation of a comprehensive and effective SAR oversight programme that will include the conducting of audits and inspections, identification and recording of risk factors and recommending corrective action and mitigation of risks.
- b) Review of relevant international aviation and maritime SAR instruments and available guides as well as SAR matters of an urgent nature and advise the relevant authorities accordingly.
- c) Implementation of the South African SAR oversight programme by undertaking specific roles within the State SAR programme, including risk evaluation to ensure that an acceptable level of the provision of SAR services is established and maintained.
- d) Monitoring the continued compliance of national regulatory provisions with international SARP's as contemplated in relevant international conventions, annexes and guidelines as amended.
- e) Proposing amendments to national legislation and regulations to ensure compliance with SARP's; filing and publication of differences where there is justification for non-compliance.

Chapter 3: Safety Policy and Objectives

3.1 Safety Legislation Framework – Safety Policy Statement

- 3.1.1 Article 43 of the Convention on International Civil Aviation (the Convention) established the International Civil Aviation Organization (ICAO). The objectives of ICAO are to develop the principles and techniques of international air navigation and to foster planning and development of international air transport so as to ensure its safe and orderly growth in order to meet the needs of the people of the world for the safe, regular, efficient and economical air transportation (Article 44 of the Convention). Therefore, aviation safety has been and remains the highest objective of the ICAO.
- 3.1.2 South Africa, as a signatory to the Convention and in accordance with Article 37 of the Convention, is collaborating with other Member States in securing the highest practical degree of uniformity in regulations, standards, procedures and organisation in relation to aircraft, personnel, airways and auxiliary services in all matters in which such uniformity will facilitate and improve air navigation. The Civil Aviation Act, 2009, defines the roles, duties and responsibilities of the Minister of Transport, the Civil Aviation Authority.
- 3.1.3 The South African legislative system is made up of, at the highest level, the Constitution, followed by primary legislation (Act of Parliament) and secondary legislation (Regulations and Rules). The Minister of Transport promulgates the Civil Aviation Regulations and the Director of Civil Aviation approves Technical Standards to enable the CAA to perform its oversight function and to comply with ICAO SARPS.
- 3.1.4 South Africa currently has the following Acts in place that govern civil aviation:
- a) Air Services Licensing Act, 1990 [Act No. 115 of 1990]
 - b) Air Traffic And Navigation Services Company Act, 1993 [Act No. 45 of 1993]
 - c) Airports Company Act, 1993 [Act No. 44 of 1993]
 - d) Carriage By Air Act, 1946 [Act No. 17 of 1946]
 - e) Civil Aviation Act, 2009 [Act No. 13 of 2009]
 - f) Convention on International Interests In Mobile Equipment Act, 2007 [Act No. 4 of 2007]
 - g) Convention on the International Recognition of Rights in Aircraft Act, 1993 [Act No. 59 of 1993]
 - h) International Air Services Act, 1993 [Act No. 60 of 1993]
 - i) South African Airways Act, 2007 [Act No. 5 of 2007]
 - j) South African Express Act, 2007 [Act No. 34 of 2007]
 - k) South African Maritime And Aeronautical Search And Rescue Act, 2002 [Act No. 44 of 2002]
 - l) National Aviation Security Plan
 - m) South African Civil Aviation Authority Levies Act, 1998 [Act No. 41 of 1998]
- 3.1.5 In addition to CARs and SA CATS, the SACAA from time to time develops other related technical guidance materials to further guide the industry in complying with ICAO SARPs. These may be in a form of TGM, circulars, AIPs, AICs, NOTAMS etc.
- 3.1.6 Of the abovementioned Acts, only the Civil Aviation Act, 2009 impacts the State Safety Programme directly, as it governs the responsibility for safety and security oversight. The Act regulates civil aviation and applies to –
- a) “every aircraft, aerodrome, air navigation facility, aviation facility, operators, passengers or any person boarding an aircraft or entering an aerodrome, air navigation facility or aviation facility and registered owners of aircraft in the Republic;
 - b) every person employed at or in connection with such aerodrome, air navigation facility or aviation facility;
 - c) all foreign registered aircraft and personnel of such aircraft operating in the Republic or over the territorial waters thereof; and
 - d) all South African aircraft and personnel of such aircraft, whether within or outside the Republic.”
- 3.1.7 The Act provides, among others, for –
- a) the establishment of a South African Civil Aviation Authority with safety and security oversight functions;
 - b) the establishment of an independent Aviation Safety Investigation Board in compliance with Annex 13 of the Chicago Convention;
 - c) the incorporation into South African law of certain provisions of the Convention on Offences and certain ‘Other Acts Committed on Board Aircraft’;

- d) the incorporation into South African law of the Convention for the Suppression of Unlawful Seizure of Aircraft and the Convention for the Suppression of Unlawful Acts against the safety of civil aviation;
 - e) additional measures directed at more effective control of the safety and security of aircraft, airports and the like.
- 3.1.8 The following regulations were promulgated in terms of the Civil Aviation Act, 2009:
- a) Civil Aviation Regulations, 2011,
 - b) Airport Slot Coordination Regulations, 2012
- 3.1.9 ICAO Standards introduced in Annex 19 require that each Member State establish a State Safety Programme (SSP). These ICAO SSP requirements came as a consequence of the growing awareness that safety management principles have a direct effect on Civil Aviation Authorities' activities related to the safety management regulations, policy development and oversight. Under an SSP, the safety management regulation element is based on the comprehensive analysis of a State's aviation system; safety policies are developed on the basis of identified safety hazards while safety risk management and safety oversight focus on the areas of higher safety risks and significant safety concerns. This created conditions and means to combine the prescriptive and performance-based approaches to safety management regulation, safety policy development and safety oversight and the establishment of acceptable levels of safety (ALoS) by States.
- 3.1.10 In South Africa, the aviation safety policy and strategy, including conditions for achieving an acceptable level of safety (ALoS), are defined by the Department of Transport on the basis of recommendations by the South African Civil Aviation Authority (Director of Civil Aviation). However, the SACAA as the regulatory body will use the SSP as a management system for the management of safety.

3.1.11 Review of Legislation

3.1.11.1 Amendments of Acts:

3.1.11.2 Any Act that requires review has to undergo a lengthy public consultation process after completion of the drafting of the amendment, which is usually done by a government department in conjunction with technical experts from the particular field governed by the Act. Amendments are scrutinised by the State's legal advisors before submission to Parliament for recommendation to the President of the Republic for approval.

3.1.11.3 Amendment of regulations:

3.1.11.3.1 Regulations are promulgated in terms of an Act. Regulations are drafted by the technical experts from the field governed by the Regulations and have to undergo a public consultation process within the industry that is affected by the regulation. Regulations are approved at Ministerial level. Regulations review can take place more often and it depends upon changes to the Act and/or other source documents.

3.1.11.3.2 Civil Aviation Regulations have a review mechanism incorporated in the Act and regulations and are reviewed from time to time as a result of developments and/or amendments to the ICAO SARPs. Regulation amendments are done through a consultative process, depending on the nature and complexity of the proposed amendment. In most cases, amended regulations come into force 30 days after publication in the Government Gazette.

3.1.11.3.3 In terms of the Civil Aviation Act, the Director may initiate the promulgation of emergency regulations in cases where it is in the interest of aviation safety. However, within 90 days' promulgation of such a regulation, CARCom may propose the repeal, amendment or change of such regulations.

3.1.11.4 Amendment of technical standards:

3.1.11.4.1 Technical standards contain additional details to facilitate easy implementation of regulations and standards. They undergo the same consultative process as regulations, but they are approved by the Director.

3.2 State Safety Programme Objectives

3.2.1 The objective of the SSP is to implement the necessary legislation, regulations and guidance to enable the State to:

- a) achieve the acceptable level of safety performance;
- b) lower and reduce the number of accidents and fatalities;
- c) reduce social costs of accidents (injury, death, damage to property and loss of valuation);
- d) reduce airside or in-flight security incidents that may compromise safety.

Through this, the SACAA will lead the development and implementation of strategies, regulatory framework and processes to ensure that civil aviation entities conform to the highest possible level of safety. The following approaches will be adopted:

- i) Risk-based oversight;
- ii) Voluntary compliance;
- iii) Aviation safety and security;
- iv) Effective SSP and SMS implementation; and
- v) Predictive reporting.

Safety Policy Statement

The management of civil aviation safety is one of the major responsibilities of the SACAA as defined in the Civil Aviation Act, 2009. The SACAA is committed to developing, implementing, maintaining and constantly improving strategies and processes to ensure that all aviation activities that take place under its oversight will achieve the highest level of safety performance, while meeting both national and international standards. The Director of Civil Aviation, as the appointed Accountable Executive, should ensure the delivery of the highest level of safety performance within the South African civil aviation sector.

The South African Civil Aviation Authority is committed to:

- a) Develop and implement strategies and processes to ensure that all involved in civil aviation activities and operations achieve acceptable levels of safety performance;
- b) Recommend the development and promulgation of a legislative framework and regulations for the management of safety in line with international safety requirements and standards;
- c) Develop technical standards and other guiding documents for the management of safety in line with international safety requirements and standards;
- d) Allocate properly trained personnel and adequate resources to allow them to perform their duties;
- e) Conduct data-driven, risk-based and prioritised oversight activities, both performance-based and compliance-based;
- f) Promote and educate the aviation industry on safety management concepts and principles and oversee the implementation and operation of SMS by service providers;
- g) Promote the adoption of a positive safety culture among service providers;
- h) Establish a mechanism for the monitoring and measurement of SSP performance through safety indicators and their respective targets and alert level settings;
- i) Support the management of safety through promotion of voluntary and confidential reporting systems at the service provider as well as state level; and
- j) Ensure that no information derived from any reporting established under the SSP or the SMS will be used as the basis for enforcement action, except in the case of gross negligence or wilful deviation.



Poppy Khoza
Director of Civil Aviation

SACAA Management Structure

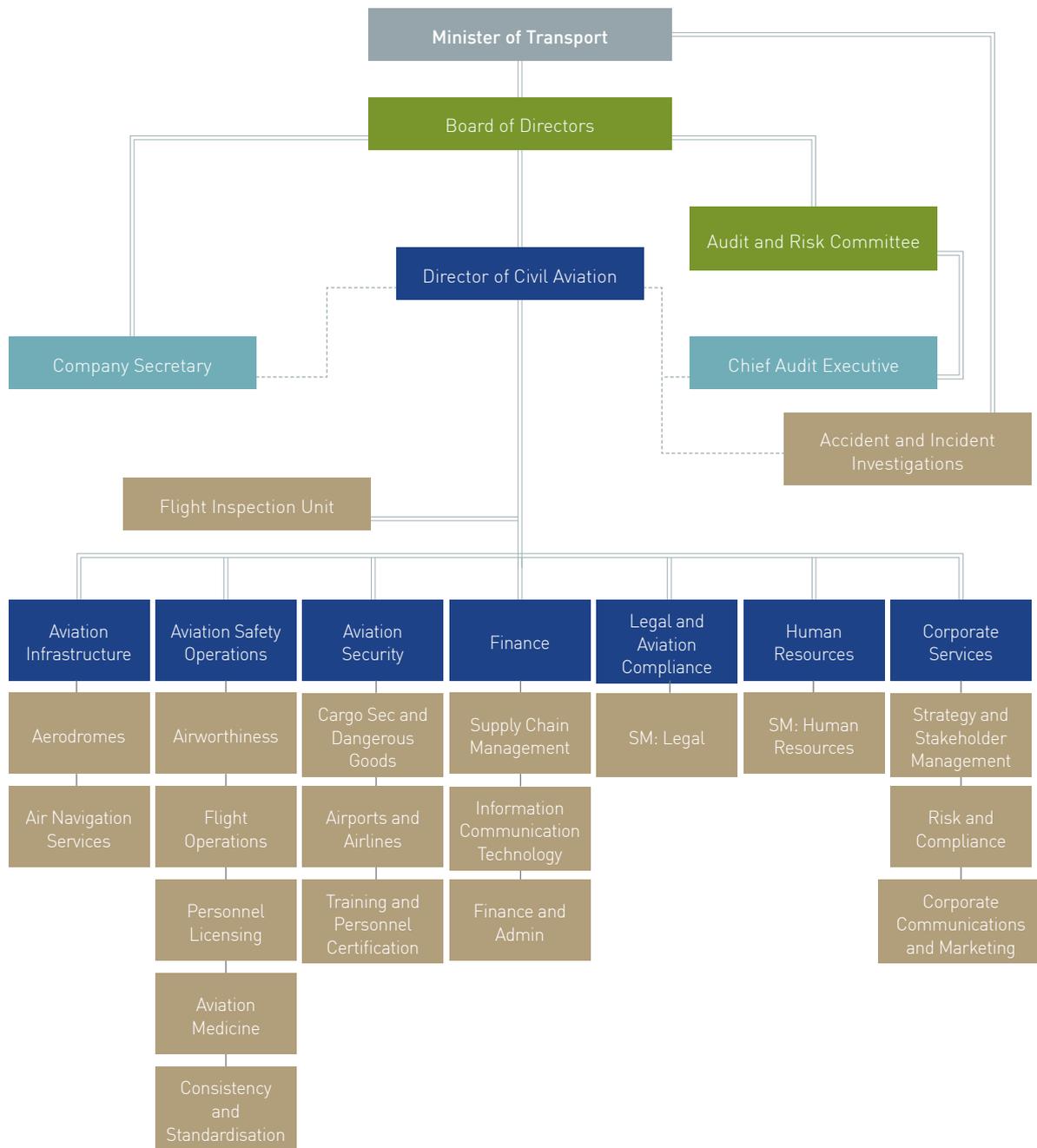


Figure 4

3.3 Safety responsibilities and accountabilities for SSP in the state

- 3.3.1 The regulator (SACAA) is responsible and accountable for the safety oversight of civil aviation activities. To that effect, the Minister of Transport – being cognizant of the requirements, responsibilities and accountabilities regarding the establishment, implementation and maintenance of the SSP for South Africa – has delegated the function of the development, implementation and maintenance of the SSP to the Director of Civil Aviation.
- 3.3.2 In terms of the State Safety Programme, the Director is accountable for the following functions:
- a) Development of safety standards determined through strategic, industry consultative and business processes;
 - b) Endorsement of notification to SACAA staff, consultants/contractors and industry service providers informing them of SACAA's Safety Policies, this Safety Programme and safety standards;
 - c) Allocation of appropriate resources to develop, maintain, support and review the State Safety Programme;
 - d) Establishment of a reporting chain and mechanism for safety issues;
 - e) Encouragement of SACAA staff, consultants, contractors and industry service providers to participate in the development and implementation of the Safety Programme and SMS within the industry;
 - f) Alignment of SACAA's other operational policies with the State Safety Programme;
 - g) Development of general rulemaking and specific operational policies that build upon safety management principles, based on a comprehensive analysis of the SACAA aviation system;
 - h) Consultation with the aviation industry on issues regarding regulatory development;
 - i) Supporting the management of safety through an effective safety reporting and communication system;
 - j) Effective interaction with service providers on the resolution of safety concerns;
 - k) Ensuring that sufficient resources are allocated within the safety oversight authority and personnel have the proper skills and are trained for discharging their responsibilities;
 - l) Conducting oversight activities supported by analyses and prioritised resource allocation based on safety risks;
 - m) Complying with, and wherever possible, exceeding international safety requirements and standards;
 - n) Promotion and education of the aviation industry on safety management concepts and principles;
 - o) Overseeing the implementation of SMS within the aviation industry;
 - p) Ensuring that all activities under oversight are performed and achieved with the highest safety standards;
 - q) Establishment of systems for the protection of safety data collection and processing systems (SDCPS), where people are encouraged to provide essential safety-related information on hazards and thereby ensuring a continuous flow and exchange of safety management data between SACAA and service providers;
 - r) Establishment and measurement of safety performance against safety performance indicators and safety performance targets; and
 - s) Development of an enforcement policy that ensures that no information derived from any SDPCS established under the SSP or SMS will be used as the basis for enforcement action, unless gross negligence or wilful deviation is detected as per Part 185 of the Civil Aviation Regulations.
- 3.3.3 To support delivery on the above-mentioned responsibilities, the Director appoints SMS technical officers under the direct supervision of the Manager: Quality Control and Accident/Incident Investigation and Review within the Consistency and Standardisation Department.
- 3.3.4 To further develop and facilitate the implementation and maintenance of the SSP, the Director should establish a State Safety Programme Implementation Committee. The main function of this committee is to facilitate and manage the implementation of the SSP. The SSP Committee consists of representatives from all operational divisions of the SACAA and the Department of Transport.
- 3.3.5 SACAA's approach is to integrate the management of the SSP into the current processes of SACAA. The current scope of existing SACAA safety committees will be reviewed and expanded to incorporate appropriate SP activities.
- 3.3.6 Each safety committee's scope, jurisdiction and management will be defined in its terms of reference. Currently the following committees exist within the system:

a) GASI:

The General Aviation Safety Initiative was established with a view to investigating possible solutions to the problem of aviation accidents in general aviation. The aim was to stimulate unconventional thinking on solutions to this problem through brainstorming by specialists with much experience in this field.

Members of the committee represent various bodies and disciplines in the field of general aviation, such as SAPFA, RAASA and NAC. Discussions and solutions are generated from subjects such as single resource management to aspects relating to general and recreational aviation. Results have already been achieved in terms of training standards and safety awareness.

b) ILF:

The Industry Liaison forum is a forum where the SACAA engages with the industry on different issues relating to aviation, e.g. regulations, safety and security issues, new developments that will involve the industry and feedback from the authority on its operations. The forum consists of different associations and organisations representing the aviation industry.

c) NASCOM:

The National Airspace Committee (NASCOM) has been established in terms of Regulation 11.05.1 of the Civil Aviation Regulations, 2011 to provide a forum where the regulators and organisations which provide services in the national airspace as well as the users of such airspace can consider the usage of such airspace. NASCOM must ensure that such airspace adequately protects any flight procedures designed for such airspace.

d) CARCom:

The Civil Aviation Regulations Committee (CARCom) has been established in terms of section 157(1) of the Civil Aviation Act, 2009. The members of CARCom are constituted in terms of section 157 (2) (a) – (c) of the Civil Aviation Act, 2009. CARCom acts as an advisory body in respect of the introduction, amendment or withdrawal of regulations and technical standards (Section 157 (1) (a) to (d)), as well as to “any matter relating to civil aviation, including any matter referred to it by the Director.”

e) SSP/SMS Implementation Committee:

SACAA has been designated as the placeholder organisation for the administration, coordination and implementation of the SSP. The SSP/SMS Implementation Committee serves as a platform for coordination amongst multiple organisations for matters pertaining to the planning and implementation of the SSP and SMS. The Committee is established by the SSP Accountable Executive.

3.4 Safety Responsibilities and Accountabilities of SACAA

3.4.1 Director of Civil Aviation

The Director is accountable for the management of the Civil Aviation Authority and has the following responsibilities in terms of Section 87 of the Civil Aviation Act, 2009.

- a) Carrying out the functions as contained in section 73;
- b) Taking any decision in exercising the powers of the Civil Aviation Authority;
- c) Performing any function and exercising any power assigned to the Director in terms of the agreement referred to in section 94;
- d) Compiling an annual report concerning the activities of the Civil Aviation Authority;
- e) Appointment of staff of the Civil Aviation Authority;
- f) Organisation and control of the staff;
- g) Formation and development of an efficient administration;
- h) Establishment and maintenance of a register of inspectors, authorised officers and authorised persons;
- i) Maintenance of discipline; and
- j) Effective deployment and utilisation of staff to achieve maximum operational results.

The Director is thus ultimately accountable for the delegated functions in terms of the Civil Aviation Act, 2009 but in turn delegates functional responsibility to his/her executive and senior management team through individual job profiles and performance contracts that are aligned to the SACAA Strategic Plan and requisite performance agreement with the Minister of Transport. The following high-level safety functions, as contained in the organisation structure, are applicable in this regard:

3.4.2 Corporate Services

The DCA office is accountable for organisational deliverables, which include:

- a) Strategy Development and Stakeholder Management
- b) Corporate Communications and Marketing
- c) Risk and Compliance; and
- d) Corporate Security.

3.4.2.1 Strategy and Stakeholder Management:

This department is responsible for facilitating the development of the SACAA Strategy and Annual Performance Plan as required by the PFMA. It also monitors company performance and its organisational deliverables. The department is also responsible for managing the relationship of the Regulator with the civil aviation industry.

Furthermore, the Department is responsible for the management of State Letters within SACAA and is the official point of liaison with the Department of Transport with respect to ICAO and other international matters.

The department is also responsible for:

- a) **Client Services:** SACAA walk-in customers are served by the Client Service staff members, who receive applications, collect payment; review application forms for completeness and then pass them on to the respective departments or sections within SACAA for evaluation or assessment and consideration for approval. Once approval has been granted, the client service staff issues the licence or certificate to the client. Client Services also manages SACAA's reception and switchboard functions.
- b) **Aviation Development:** this section is responsible for organising industry workshops on any safety-related matter, safety promotions with the flying community and career awareness to learners of high-school-going age.
- c) **Stakeholder Management:** this section facilitates the development and implementation of a robust stakeholder management plan.

3.4.2.2 Corporate Communications & Marketing:

Corporate Communications and Marketing is responsible for internal and external communication, Corporate Social Investment (CSI), intranet and website management and for corporate branding and events management. The department is also responsible for managing the media, especially in the case of a crisis involving civil aviation operators.

3.4.2.3 Risk and Compliance:

The Risk and Compliance department is responsible for the following functions:

- a) **Risk Management:** The section is responsible for the assessment of strategic and operational risk from various divisions and departments and the monitoring of the mitigation of these identified risks.
- b) **Quality Assurance:** The SACAA Integrated Management System is managed by the Quality Assurance Section. The system is ISO certified and complies with all document control requirements. It includes all approved documentation within SACAA, namely strategies, programmes, structures, policies, high-level procedures, manuals of procedure, technical guidance material, forms and checklists, master surveillance programmes as well as standard letter and other templates. Quality Assurance staff conducts audits on all SACAA departments to ensure conformance to the abovementioned documents.
- c) **Occupational Health and Safety:** The section is responsible for managing SACAA's compliance with the Occupational Health and Safety Act, the maintenance of the ISO system.
- d) **Projects:** This office is responsible for managing company-wide projects that cut across departments and divisions. It also monitors company performance and its organisational deliverables
- e) **Client Services:** SACAA walk-in customers are served by the Client Service staff members, who receive applications, collect payment, review application forms for completeness and then pass them on to the respective departments or sections within SACAA for evaluation or assessment and consideration for approval. Once approval has been granted, the client service staff issues the licence or certificate to the client. Client Services also manages SACAA's reception and switchboard functions.
- f) **Corporate Security:** is responsible for the security of the SACAA assets, information and people.

3.4.3 Legal and Aviation Compliance

The Legal and Aviation Compliance Division is responsible for the following main functions:

3.4.3.1 ICAO Compliance:

The section manages the implementation and maintenance of ICAO's new Continuous Monitoring Approach within South Africa and SACAA. This includes the continuous monitoring of SACAA's compliance with ICAO Annex and PQ requirements and the conducting of internal audits to verify the 'effective implementation' of SARPs, as well as the provision of advice to other departments. The section is also responsible for the management of State Letters within SACAA and is the official point of liaison with the Department of Transport with respect to ICAO and international matters. The section manages ICAO events hosted by South Africa, ICAO audits and other audits of South Africa against the eight critical elements of a safety oversight system.

3.4.3.2 Regulation Development:

The Regulation Development Unit is responsible for, among others, the following duties:

- a) Performs a secretarial function, supporting the Civil Aviation Regulations Committee (CARCom) established in terms of section 157 of the Civil Aviation Act, 2009. It is responsible for processing of proposals for the introduction and amendment of regulations and technical standards to be tabled before CARCom for scrutiny and discussion. The Regulation Development Unit is also responsible for administrative duties for CARCom and its five subcommittees.
- b) Attendance of meetings of workgroups established by CARCom and provision of technical legal support;
- c) Proposing amendments to legislation affecting civil aviation; and
- d) Preparation of regulations for submission to the Minister of Transport for promulgation and of technical standards for submission to the DCA for issuing.

3.4.3.3 Research Development and Knowledge Management:

The section manages the provision of an up-to-date Technical Document Management service which includes amongst others ICAO publications, manufacturers' publications, operator manuals, aerodrome manuals and other documentation. The section ensures the establishment of a comprehensive reference library and monitors the maintenance of the Technical Library database to benefit all users.

3.4.3.4 Enforcement:

The Enforcement Unit is responsible for, among others, investigating cases where there is possible contravention of civil aviation legislation. Should the investigation reveal non-compliance, and depending on the severity of the non-compliance, the enforcement specialists will take the necessary enforcement action, which may include issuing of a warning letter, suspension of a licence, approval, certificate or authorisation, imposition of an administrative fine and reporting a criminal case to the South African Police Service.

3.4.5 Aviation Safety Operation Division (ASO)

3.4.5.1 ASO comprises the following departments:

- a) Airworthiness;
- b) Flight operations;
- c) Personnel licensing;
- d) Aviation medicine; and
- e) Consistency and standardisation.

3.4.5.2 Aircraft Inspections and Registration Section

This section is responsible for the following functions:

- a) Monitoring of continued airworthiness of aircraft;
- b) Issuance of certificates of airworthiness (C of A's);
- c) The renewal of aircraft C of A's;
- d) Aircraft inspection;
- e) Issuance of special flight permits;
- f) Issuance of authority to fly not performed by RAASA;
- g) Ramp inspection of privately owned aircraft;
- h) Registration and change of ownership of aircraft;
- i) Registration and mortgage of aircraft or parts; and
- j) Aircraft registrations.

3.4.5.3 Airworthiness Engineering Section

The Airworthiness Engineering Section is responsible for the following functions:

- a) Type Acceptance and Certification of aircraft and components;
- b) Processing of applications for issuing, renewal and amendment of Manufacturing Organisations and Design Organisations Approvals;
- c) Continuous surveillance of Manufacturing Organizations and Design Organizations;
- d) Certification of the Remotely Piloted Aircraft Systems (RPAS);
- e) Type approval of aircraft and components;
- f) Approval of modifications;
- g) Approval of Major Repairs;
- h) ZA-PMA Authorisation;
- i) ZA-TSO Authorisation;
- j) Issuance of experimental CoA and special Flight Permits;
- k) Issuance of Noise Certificates;
- l) Issuance of build numbers; and
- m) Conformance Inspections.

3.4.5.4 Approved Aircraft Maintenance Organisations (AMO)

The AMO Section is responsible for the following functions:

- a) Processing of applications for issuance, renewal or amendment of AMO Approval;
- b) Continuous Surveillance of AMOs locally and internationally; and
- c) Maintenance Away from Base Approval.

3.4.5.5 Flight Operations Department

The Flight Operations Department is responsible for the safety oversight of all flight operations through certification, surveillance and monitoring the resolution of safety concerns relating to air operator certificates (AOCs) and continued airworthiness of aircraft. The department is divided into the following sections:

- a) General Aviation Section;
- b) High and Low Capacity AOC Holders Section; and
- c) Aerial Work Section.

3.4.5.6 The primary duties of the Flight Operations Department are the following:

- a) Conduct pre-assessments for prospective AOC holders;
- b) Conduct initial certification audits, renewal audits, follow-up audits and ad-hoc audits for AOC holders;
- c) Conduct route checks, ramp checks and base inspections;
- d) Evaluate and approve operations manuals and manuals of procedures and maintenance control manuals and subsequent amendments thereof;
- e) Evaluate and process exemptions and special approvals relating to AOCs;
- f) Evaluate applications for addition of aircraft on AOCs ;
- g) Investigate complaints relating to AOCs;
- h) C of A amendment inspections;
- i) Aircraft ramp inspections; and
- j) RPAS (ROC).

3.4.5.7 Personnel Licensing Department

The Personnel Licensing Department (PEL) is a department within the Aviation Safety Operations Division (ASO). PEL reports to the Executive ASO and is responsible for the oversight of ICAO Annex 1 requirements. PEL responsibilities include the following functions:

- a) Maintenance of flight regulations in terms of ICAO Annex 1;
- b) Processing of applications for issuing new, renewal, amendment and continued surveillance of aviation training organisations' approvals (ATOs);
- c) Continuous surveillance of ATO's;
- d) Set ground training syllabi and practical training standards;
- e) Develop assessment criteria for practical assessments (Skills Testing);
- f) Develop examination questions for theoretical knowledge testing;
- g) Conduct annual oversight over the proficiency of Designated Flight Examiners (DFEs) and Cabin Designated Examiners Crew (CDEs);
- h) Process applications for designation of DFEs, CDEs and Radio Telephony Examiners;
- i) Conduct enforcement actions as required;
- j) Provide assistance to the ASO Flight Operations Department as required;

- k) Provide assistance to Part 141 Operations as required;
- l) Serve on industry liaison and regulatory workgroups;
- m) Provide expert opinion to Occurrence Investigations on request;
- n) Provide assistance to Client Services with respect to licensing;
- o) Conduct Standards workshops with respect to Flight Instructors, DFEs, CDEs as well as Flight Instructor Examiners and Cabin Safety Instructors;
- p) Process Exemptions from ICAO Annex 1 related Regulations;
- q) Licensing: The Licensing section is responsible for technical administrative functions pertaining to licensing, which include issuing, validation, and revalidation of licences and ratings to pilots, flight engineers and cabin crew members, after it has been duly evaluated for compliance against the regulations and standards. Licensing staff works closely with inspectors of Aviation Personnel Standards, Flight Operations and Aviation Medicine; and
- r) Examinations: Examination staff is responsible for overseeing SACAA examinations required towards the licences and ratings of pilots (except private and national pilot examinations), flight engineers, cabin crew, and aircraft maintenance engineers.

3.4.5.8 Aviation Medicine:

Aviation Medicine is responsible for the following functions:

- a) Medical Certification Processes: The oversight of civilian medical certification processes as prescribed in Part 67 of Civil Aviation Regulations, 2011. This includes the designation of Aviation Medical Examiners and monitoring of the performance of Designated Aviation Medical Examiners (DAME's). The department participates in the training of DAMEs in order to ensure that the medical standards for aviation personnel (pilots, air traffic controllers and cabin crew) meet ICAO requirements;
- b) Ensuring that accredited medical conclusions are reached through the Aeromedical Committee;
- c) Aviation Pandemic Preparedness Plan: Development of Aviation Pandemic Preparedness Plan. The aim of the Aviation Pandemic Preparedness Plan is to mitigate the risk of a pandemic to the travelling public as well as to the general population. The overall aim is to ensure availability, continuity and sustainability of critical air transport services.
- d) Air Ambulances: The department participates in the endorsement and oversight of Part 138 (Air Ambulance) operators. The department participates in the development and implementation of regulations and technical standards required for oversight of Part 138 operations.
- e) Part 64 First Aid Training Oversight: Developing curriculum for Part 64 First Aid Operations as well as designation and monitoring of the performance of Examiners and Instructors conducting First Aid.

3.4.5.9 Consistency and Standardisation

- a) Regulations development;
- b) Quality control and accident/incident investigation review;
- c) International missions; and
- d) SSP and SMS strategic development and implementation.

3.4.6 Aviation Infrastructure Division

3.4.6.1 Aerodromes and Facilities:

Responsible for the oversight and licensing of airports and the approval of helistops. The department's main focus is on the following areas:

- a) Civil Infrastructure;
- b) Aerodrome Electrical;
- c) Rescue and Fire-fighting services;
- d) Aerodrome Quality;
- e) Apron Safety; and
- f) Registration of unlicensed aerodromes on the basis of voluntary applications.

3.6.4.2 Air Navigation Services:

Responsible for the –

- a) Oversight and licensing of air traffic service units and air traffic service personnel;
- b) Process applications for issuing and amendment of approval of air traffic training organisation facilities;
- c) Oversight and certification of flight procedure design organisations (Part 173) & aeronautical cartography service providers (Part 177);
- d) Approval of the installation of obstacles that may constitute a hazard to aviation in terms of CAR Part 139.01.30;
- e) Validation of instrument flight procedures and charts;
- f) Evaluation of obstacles that may be a hazard to aviation;

- g) Auditing of CNS equipment installations and facilities;
- h) Collection, verification and dissemination of aeronautical information; and
- i) Designation of airspace and related service provision.

3.4.7 Finance Division

3.4.7.1 Finance

The Finance department is responsible for managing financial services for SACAA. It manages, among others, the revenue model, income collection and budgeting processes.

3.4.7.2 Supply Chain Management

This department is responsible for supply chain management, which includes the following functions:

- a) Supply chain policy development and implementation;
- b) Facilities management: Building repairs and maintenance, canteen services, cellphones and OHS compliance. Also manages the capital expenditure budget on furniture and fittings;
- c) Procurement of goods and services: Demand, acquisition, control and disposal of assets;
- d) Sourcing of all goods and services from reputable registered service providers and ensuring that turn-around time is managed for service delivery by suppliers;
- e) Travel management: All SACAA staff travel is arranged and managed;
- f) Insurance of all SACAA assets and personnel on duty;
- g) Fleet and logistics management;
- h) Control of physical asset management; and
- i) Contract management.

3.4.7.3 Information Technology:

The department is responsible for the following functions:

- a) Partnering with the divisions to align ICT with the business plans and objectives;
- b) Delivering a high success rate of ICT projects;
- c) Managing and protecting ICT assets and environment by instituting policies and procedures in alignment with IT governance standards;
- d) Enabling the organisations through the use of information technology;
- e) Obtaining maximum uptime of critical business systems; and
- f) Records management: Records Management is required to manage, maintain and implement the SACAA file plan, to manage filing and records throughout SACAA; and to archive and dispose of records in terms of its policy and procedures.

3.4.8 Human Resource Division

This division is the custodian of SACAA's human capital. Its main responsibilities are to ensure that appropriate skills are attracted, maintained, retained, appropriately rewarded and developed for the proper execution of SACAA's mandate.

3.4.9 Accident and Incident Investigations

The Accident and Incident Investigations division is responsible for the following functions:

- a) Accident and incident investigations: Investigations of aircraft accidents and serious incidents that occur within the Republic of South Africa. The division is also responsible for appointing an accredited representative/expert/adviser in cases where an RSA-registered aircraft is involved in an accident or incident in another State, as required in ICAO Annex 13;
- b) Safety information and analysis: The safety data from reported accidents, incidents and hazards is recorded, analysed and researched in this office. ICAO Annex 13 requires States to have a data base and be able to analyse and share both data and analysis thereof; and
- c) Quality and Editing: This office reviews and edits all reports from the department, ensuring correctness of the data therein.

3.5 Enforcement Policy

The SACAA has a well-established enforcement policy that will be expanded to describe the conditions and circumstances under which service providers are allowed to deal with and resolve events involving certain safety deviations internally, within the context of their safety management system (SMS).

The enforcement policy defines the conditions and circumstances under which safety deviations and violations are dealt with through established enforcement procedures.

Chapter 4: Safety Risk Management System

4.1 Safety requirements for service providers (SMS)

4.1.1 The SACAA has established the controls which govern how service providers should identify hazards and manage safety risks in accordance with ICAO Annex 19 and ICAO Doc 9859. The requirement for service providers to implement SMS has been promulgated through CAR and associated technical standards. CAR Part 140 and associated technical standards mandate every service provider to establish SMS, which must include procedures and responsibilities; and must establish and maintain an ALoS. The procedures, responsibilities and ALoS must be documented in the SMS Manual, which should be submitted to the SACAA for approval.

4.1.2 These requirements are periodically reviewed to ensure they remain relevant and appropriate to the service providers.

As per ICAO Annex 19, South Africa requires the following to implement SMS:

- a) Approved ATO in accordance with Annex 1 that are exposed to safety risks related to aircraft operations during the provision of their services;
- b) Operators of aircraft authorised to conduct international commercial air transport in accordance with Annex 6, Part I or Part III, section II;
- c) Approved AMO providing services to operators of aircraft engaged in international commercial air transport in accordance with Annex 6, Part I or Part III, Section II;
- d) Organisations responsible for the type design or manufacture of aircraft in accordance with Annex 8;
- e) Air traffic service providers in accordance with Annex 11;
- f) Operators of certified aerodromes in accordance with Annex 14; and
- g) International general aviation operators of large or turbojet aeroplanes in accordance with Annex 6, Part II, Section 3.

In addition to ICAO requirements, after careful assessment of the local aviation industry, South Africa has extended SMS applicability, although on a lesser scale, to the following entities:

- a) A holder of an aerodrome licence issued in terms of CAR Part 139 (category 3 and below);
- b) A holder of an AMO approval issued in terms of CAR Part 145 that provides services to holders of AOCs issued in terms of CAR Parts 93 and 128;
- c) A holder of an AOC issued in terms of CAR Parts 93 and 128;
- d) A holder of a procedure and design approval issued in terms of CAR Part 173;
- e) A holder of an electronic organisation approval issued in terms of Part 171; and
- f) An organisation handling or conveying dangerous goods by air in terms of CAR Part 92.

An operator's SMS framework comprises the following four components and twelve elements as minimum requirements for implementation:

1. Safety policy and objectives
 - 1.1 Management commitment and responsibility;
 - 1.2 Safety accountabilities;
 - 1.3 Appointment of key safety personnel;
 - 1.4 Coordination of emergency response planning; and
 - 1.5 SMS documentation.
2. Safety risk management
 - 2.1 Hazard identification;
 - 2.2 Safety risk assessment and mitigation.
3. Safety assurance
 - 3.1 Safety performance monitoring and measurement;
 - 3.2 The management of change;
 - 3.3 Continuous improvement of the SMS.

- 4. Safety promotion
- 4.1 Training and education; and
- 4.2 Safety communication.

SMS requirements are documented in CAR Part 140 and SA-CATS 140. Applicable technical guidance material to support implementation of SMS is published and reviewed periodically.

4.2 Agreement of service provider's safety performance (acceptable levels of safety)

- 4.2.1 In terms of the SMS requirements stipulated in CARs and SA-CATS, each service provider shall establish, maintain and adhere to an SMS that is commensurate with the size, nature and complexity of the operations it is authorised to conduct under its operations and with the hazards and safety risks related to these operations. These requirements address the need for service providers to determine their safety performance indicators and targets and for the SACAA's acceptance of these indicators and targets.
- 4.2.2 The SACAA has provided guidance to service providers on the process for the establishment of their ALoS performance indicators and targets. All service providers are required to submit their safety targets to the relevant SACAA department for approval. The inspectors are expected to assist the industry to set targets that are acceptable and to explain how their oversight of the achievement of their targets would be conducted.
- 4.2.3 The achievement of these targets will be overseen by inspectors through normal oversight processes. Annual oversight of the SMS and the safety performance targets will be conducted in accordance with Master Surveillance Plans.
- 4.2.4 The SACAA inspectors will maintain an open communication channel with service providers. Contraventions will be dealt with in accordance with the current safety oversight and enforcement policies and practices. The SACAA inspector responsible for the oversight of the service provider has the opportunity to engage in dialogue with the operator with the objective to agree on proposed corrective measures and an action plan that adequately addresses the identified deficiencies.
- 4.2.5 The SACAA is responsible for determining a national target (acceptable level) for safety that will be communicated and published to all stakeholders. Stakeholders will be expected to contribute to the achievement of this target by aligning their own targets to this target.
- 4.2.6 Feedback about achievement of targets will be collected, processed and analysed and provided on an annual basis for use within the SACAA.

Chapter 5: Aviation Safety Assurance

5.1 Safety Oversight

- 5.1.1 The objectives of SACAA's safety oversight function are achieved through administrative controls (certification, inspections, audits and investigations) which are carried out regularly by SACAA in accordance with its safety oversight and enforcement policies.
- 5.1.2 SACAA has established a mechanism to ensure effective monitoring of the implementation of the eight critical elements of a safety oversight system. In order to monitor its effective implementation, a Consistency and Standardisation (CS) Department was formed. However, the critical elements of safety oversight do not, in themselves, constitute safety risk controls.
- 5.1.3 South Africa has promulgated regulations as safety risk controls through the current consultative process of regulation development (including technical standards), which is done using the principles of safety risk management. The effectiveness and efficiency of regulations as safety risk controls are monitored through SACAA's Master Surveillance Plan (MSP) audits (which will shortly include compliance audits) and through its process of parallel findings, which forms an integral part of its safety oversight processes.
- 5.1.4 The SMS requirements set in the regulations prescribe the development of acceptable levels of safety performance indicators and targets by each service provider, and these requirements form part of the certificate approval requirements for all organisations within the industry. Monitoring of the effective implementation of the regulatory requirements is performed during surveillance activities that take place in accordance with master surveillance plans.
- 5.1.5 SACAA technical inspectors are responsible for auditing the successful and effective implementation of the SMS by the industry participants and oversee SMSs through scheduled audits. During audits, both compliance with the regulations and achievement of safety performance as defined in the SMS are verified. The latter is achieved through the monitoring of the ability of the industry to achieve its agreed safety targets.
- 5.1.6 Inspectors will not only verify compliance with legal requirements, which now include SMS, but will now review and assess the certificate holder's ability to achieve their agreed safety targets. Safety performance indicators and targets will be proposed by the certificate holder and have to be accepted by the SACAA.
- 5.1.7 SACAA's level of implementation and effectiveness of the ICAO requirements and its SP will be audited at least annually.

5.2 Safety data collection, analysis and exchange

- 5.2.1 According to Annex 19 to the Convention, "a State shall establish a mandatory incident reporting system to facilitate the collection of information on actual or potential safety deficiencies". Annex 19 further recommends that "a State should establish a voluntary incident reporting system to facilitate the collection of information that may not be captured by a mandatory incident reporting system."
- 5.2.2 In compliance with these SARPs, South Africa has promulgated CAR Part 140, which stipulates requirements for the safety data collection, analysis and exchange by both the SACAA and the industry.
- 5.2.3 The SACAA has further established procedures for the capture and storage of accident and incident data and is using ECCAIRS for this purpose. Mandatory and voluntary reports will be received and validated before being captured on the system, after which they will be analysed and feedback to SACAA management will be prepared concerning safety matters. Industry will be informed of safety matters through the SACAA website and during industry liaison meetings as well as through the publication of a safety magazine (Safety Link).
- 5.2.4 SACAA intends to implement a reporting system to include reports on hazards. Currently a confidential hazard reporting system (CAHRS) is in place for the receipt, validation and actioning of reported hazards.

5.3 Safety-driven data targeting oversight on areas of greater concern or need

- 5.3.1 Regulatory oversight is conducted through inspections, audits and investigations to ensure that the industry meets the appropriate standards. Staff members are specialists in the functional areas which they regulate and regulatory competencies are defined for each role.
- 5.3.2 SACAA's Safety and Security Oversight Policy requires SACAA to plan the depth and frequency of all surveillance inspections and audits based on the following criteria:
 - a) the size and complexity of the approval holder; and
 - b) the risk profile of the approval holder.
- 5.3.3 Risk profiles are currently based on a combination of non-compliance information collected from the approval holders and risk profile of service providers. In future it is envisaged that the safety data from the central reporting system will provide additional information for targeted oversight.

Chapter 6: Aviation Safety Promotion

6.1 Internal training

- 6.1.1 The CS Department ensures that SACAA staff and contractors receive induction, on-going training as well as regular briefings on the SACAA Safety Policy, the SACAA SP, Safety and Security Oversight Policy and Enforcement Policy in order to ensure that all:
- a) understand how the SSP and SMS operate;
 - b) understand the SSP and SMS requirements and how to oversee/meet them,
 - c) understand the safety policy;
 - d) are aware of the role they play in the SSP and the industry SMS;
 - e) understand that the aim of the SSP and SMS is to improve safety – not to apportion blame;
 - f) service providers are able to implement the safety risk management procedures and are able to use the reporting system; and
 - g) are able to participate pro-actively in the safety initiatives, committees and forums.

The CS Department maintains training records by means of the SACAA training records system.

Training is provided as follows:

- a) Induction training for all staff;
- b) Initial training for those directly involved with SSP and SMS implementation and management;
- c) Refresher training when new requirements are implemented; and
- d) Management training to ensure managers understand the SSP and SMS, how they impact on them and what is expected from the staff reporting to them.

6.2 Internal communication and dissemination of safety information

- 6.2.1 Safety information collected through the established mandatory and confidential (voluntary) incident and hazard reporting systems will be communicated to the respective SACAA staff responsible for safety oversight of service providers.

6.3 External training, communication and dissemination of safety information

- 6.3.1 The SACAA provides education and awareness training on the SMS concepts and the South African legislative requirements for SMS to the Industry. The SACAA has further developed guidance material for explaining acceptable means of compliance in the published regulatory requirements. Intensive industry workshops will be conducted as and when required, particularly after amendment of the requirements.
- 6.3.2 The SACAA website is used to share information about safety and any new requirements or updates regarding the SMS with the industry.
- 6.3.3 As part of the education process, industry participants and contractors are made aware that they will not be penalised for submitting a report and that their confidentiality will be protected if so requested.
- 6.3.4 The SACAA shares feedback from investigations and lessons learnt with the industry through its website and via the Safety Link and the Safety Information Bulletin.

Chapter 7: Impact, Resources and Deliverables

The SSP, although mostly compliant with the requirements of ICAO, has the following impact on current SACAA deliverables:

- a) There is a need for the establishment of a national database of hazards to enable the collection of national safety information. This database must have reporting, collection, analysis and feedback functionality. The feedback from the analysis of safety information will be used for trend analysis and to assist the technical departments to focus their oversight on the areas of greatest concern.
- b) The SACAA is expected to provide both internal and external training on the SSP and the concepts of safety management as required by ICAO.
- c) New national safety indicators and targets for South Africa need to be established in accordance with the safety management approach.

Chapter 8: Review

This safety programme will be reviewed annually or when such need arises.

References

ICAO Annex 19, first edition
ICAO Doc 9859, third edition
Civil Aviation Act
Civil Aviation Regulations.

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