



**STATE SAFETY PROGRAMME**

**of**

**THE REPUBLIC OF SAN MARINO**



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## FOREWORD

The CAA's objective is to create a world class safety environment that meets international expectations and promotes best practice in partnership with the industry. That means compliance with ICAO Standards and learning from international safety leaders. International Standards and guidance are always evolving and developing, and so are we.

The State Safety Programme (SSP) is a formal activity required by ICAO Annex 19. It requires States to document how they provide the mechanisms necessary for aviation safety, ranging from the establishment of the CAA and the operating regulations, to the identification of safety hazards and safety promotion. Annex 19 Edition 2 integrates the eight critical elements of oversight with the State Safety Programme, raises Safety Information Protection to the level of full SARPs and introduces new requirements for safety management at the State level.

San Marino is a unique location and we tailor our safety strategy to offer the right support for our community. Our challenge is to meet the safety requirements that apply to larger States, but to shape our services for our particular aviation activity and the needs of our customers. This we achieve by enabling well qualified inspectors with high safety standards to perform inspections in convenient, flexible locations world-wide, benefiting from internationally endorsed approaches to safety tools and promoting a strong safety culture of professional accountability.

The State Safety Programme is issued, as a controlled document, under the authority of the Director General. Any amendments to the existing revision will be enclosed within brackets until a subsequent revision is published.

All CAA personnel and applicable CAA Designated Inspectors must sign the signature sheet as having read the SSP and understand their responsibilities.

**Marco Conti**  
Director General

**11 October 2019**



## REVISION STATUS

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## ABBREVIATIONS

The following abbreviations are used in the Safety Programme and the Implementation Plan.

ADREP	ICAO Accident/Incident Data Report
AIP	Aeronautical Information Publication
ALoSP	Acceptable Level of Safety Performance
ANSV	Agenzia Nazionale per la Sicurezza del Volo
CAA	Civil Aviation Authority (San Marino)
CAP	Civil Aviation Publication
CAR	Civil Aviation Regulation
C of A	Certificate of Airworthiness
CFIT	Controlled Flight into Terrain
EASA	European Aviation Safety Agency
ENAC	Civil Aviation Authority (Italy)
FDM	Flight Data Monitoring
FSIM	Flight Safety Inspector Manual
GAPM	General Administration & Policy Manual
ICAO	International Civil Aviation Organisation
LoC-I	Loss of Control in Flight
MOR	Mandatory Occurrence Report
NCASP	National Civil Aviation Security Programme
PBN	Performance Based Navigation
SAFA	Safety Assessment of Foreign Aircraft
SARPs	ICAO Standards and Recommended Practices
SMS	Safety Management System
SPI	Safety Performance Indicator
SRB	Safety Review Board
SAG	Safety Action Group
SSP	State Safety Programme
STC	Supplemental Type Certificate
TAC	Type Acceptance Certificate



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## CHAPTER 1

### INTRODUCTION

#### 1.1 Background

San Marino is a small independent State located within northern Italy, with a population of approximately 33,000 people. In 2016, ICAO assessed the Authority for Civil Aviation and Maritime Navigation of the Republic of San Marino (known as the Civil Aviation Authority (CAA) for this programme) to have an Effective Implementation score of 92%. San Marino has a growing Aircraft Register (mainly business jets), and a small number of AOC holders and Approved Training Organisations.

Every San Marino AOC holder has a fully manned office there but San Marino registered aircraft may be based all over the world. There is no international Airport and no Air Traffic Services organisation, but there is an airfield with a grass runway for aeroplanes under 2250 kg and helicopters.

San Marino has an established Civil Aviation Authority and regulatory regime (see Appendix 1) developed in accordance with ICAO Standards & Recommended Practices (SARPs).

#### 1.2 State Safety Programme (SSP)

ICAO SARPs for the SSP are contained in Annex 19 - Safety Management. Annex 19 Edition 2 became effective in 2016 and applicable in November 2019.

This SSP has been developed using the ICAO SSP framework and guidance material, including the ICAO SSP gap analysis. It has been scaled appropriately for the size and complexity of the State and its aviation activity. Scalability will also be considered when the SMS of San Marino operators and service providers are evaluated for acceptance by the CAA.

Relevant legislation, policies and procedures are regularly reviewed to ensure they remain current and relevant. The review periods, responsibilities and processes for review are described in the GAPM and changes are implemented in updates on 01 July and 01 January each year.

The foundation of the SSP is the State safety oversight (SSO) system critical elements (CEs) found in Annex 19 Appendix 1. These are included and integrated throughout the SSP.

In accordance with ICAO SARPs, this State Safety Programme addresses four main components:

- (a) Safety Policy and Objectives
- (b) Safety Risk Management
- (c) Safety Assurance
- (d) Safety Promotion



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## CHAPTER 2

### STATE SAFETY POLICY, OBJECTIVES AND RESOURCES

#### 2.1 Introduction

The management of civil aviation safety is one of the major responsibilities of the CAA of the Republic of San Marino. The CAA is committed to complying with all ICAO Standards including those related to SMS and to active implementation of the Safety Policy. It is committed to developing, implementing, maintaining and continuously 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.

All levels of management are accountable for the delivery of the highest level of safety performance within the Republic of San Marino, starting with the Director General for Civil Aviation Authority, who is the Accountable Executive of the SSP.

The Safety Policy is agreed by the Safety Review Board and is periodically reviewed to ensure the CAA's commitment remains relevant and appropriate. It may be reviewed at any time or at a minimum when the SSP is updated.

The CAA has established mechanisms to ensure:

- effective monitoring of the eight critical elements of the safety oversight function (described in the relevant Chapters of this document)
- identification of hazards and the management of safety risks by operators and service providers are consistent with ICAO guidance.
- regulatory safety risk controls are appropriately integrated into the operators and service providers' SMS, that they are being practised as designed, and that they have the intended effect on safety risks.

This is achieved by using effective regulatory controls such as requirements, specific operating regulations and implementation policies, inspections, audits and surveys.

#### 2.2 Primary Aviation Legislation

The CAA is responsible for ensuring compliance with the Civil Aviation Law and ICAO Standards, under the responsibility of the Director General.

The primary legislation is Civil Aviation Law No. 9 of 16 January 2001 and the Law Reforming Civil Aviation No. 125 of 29 July 2014. The Law Reform Article 20 requires a State Safety Programme.

Primary aviation legislation is essential to create the environment for a well-managed aviation activity within the State. It fulfils many relevant functions, amongst them is the foundation and resourcing of the CAA, its roles and responsibilities and specifically its authority to:



- Establish specific operating Regulations that shall be implemented by the operators and service providers.
- Establish the privileges of Inspectors to inspect compliance with the operating regulations, including access to operators and service providers' premises, personnel and records in order to conduct inspections and the authority to impose Enforcement action if necessary.
- Establish and apply an Enforcement Policy that specifies;
  - o penalties that may be applied as a response to non-compliance with the Regulations;
  - o the conditions and circumstances where Operators and Service Providers with an SMS may deal with safety issues internally, to the satisfaction of the CAA;
  - o the protection of safety information in accordance with Annex 19.

Relevant aviation legislation includes the following examples, on establishment of the CAA, rights of access for purposes of inspection and on sanctions for enforcement:

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#### ***Establishment of the CAA (Art. 1 of the Law Reform)***

1. *The Civil Aviation and Maritime Navigation Authority (CAA MNA SMR) is a public body having legal personality, with regulatory, accounting, organisational and administrative autonomy.*
2. *For the purposes of this Law, the Civil Aviation and Maritime Navigation Authority of the Republic of San Marino (CAA MNA SMR) is also called "Civil Aviation Authority" or "Authority".*

#### ***Right of Access for Inspection (Art. 32 of the Law Reform)***

1. *The Director General or authorised staff shall have the right of access at all times to aircraft, facilities, technical documents and records, without restriction, in order to ensure airworthiness of such aircraft.*
2. *The Director General or authorised staff shall have the right of access at any time and in any place necessary to perform tests or inspections in order to verify compliance of flight operations.*

#### ***Administrative & Criminal Sanctions (Art. 59 of the Law Reform)***

1. *Any person violating the provisions of this Law, as well as the directives or regulations issued pursuant to it, shall be subject to the administrative sanctions defined hereunder.*
  2. *The Director General shall have the power to assess and adjust all administrative sanctions. In determining the severity of these sanctions, he shall take into account the nature, circumstances, extent and seriousness of the violation committed and, with respect to the person who committed the violation, any previous violations and all other facts that should be considered for the purposes of a proper assessment.*
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The CAA has promulgated the national safety legislative framework and specific regulations, in compliance with international and national standards, that define how the CAA will conduct the management of safety in the Republic of San Marino. This includes the participation of aviation organisations in specific activities, and the establishment of the roles, responsibilities and relationships of such organisations. Amendments are processed in accordance with the CAA General Administration & Policy Manual (GAPM).

In developing general rulemaking and specific operational policies, the CAA complies with ICAO SARPs wherever possible. However, in the rare circumstances where the CAA considers it impracticable or inappropriate to transpose ICAO provisions into the CARs, it notifies any differences to ICAO and publishes that difference in the AIP in accordance with Article 38 of the Convention. Any differences affecting operators and organisations are sent to ENAC for incorporation into their AIP.

Under the processes contained in the GAPM, all safety legislation is periodically reviewed at least every six months to ensure that they remain relevant and appropriate to the Republic of San Marino.

### **2.3 Specific Operating Regulations**

The CAA has established a comprehensive set of specific operating regulations as listed in Appendix 1. In formulating these, it has followed the ICAO SARPs and adapted some EASA regulations and guidance material, to ensure that the industry is regulated on the basis of recognised industry best practice. Safety Management Systems are addressed in CAR OPS 1, CAR OPS 2, CAR 145 and CAR LIC.

### **2.4 Enforcement Policy**

Where the specific operating regulations are not met, it may be necessary to take some enforcement action. How this would be approached, and the extent of the enforcement action is described in the GAPM. The CAA is responsible for issue of certificates, licences and approvals for aviation activities. Effective enforcement is achieved through taking proportionate administrative action against the scope of the holder's permission by changes to the certificate, licence or approval. Where the CAA has reasonable grounds to believe that a potential threat to flight safety exists such that it can no longer be satisfied that the holder can maintain a safe operation, formal enforcement action will be taken.

Enforcement policies and procedures are detailed in the GAPM Chapter 16 Enforcement, including paragraph 16.2 Enforcement Policy and paragraph 16.6.5 Enforcement Policy in SMS Environment.

The Enforcement Policy is comprehensive and it establishes, for example:

- the conditions and circumstances under which to deal with safety deviations through established enforcement procedures;
- the conditions and circumstances under which operators and service providers are allowed to deal with, and resolve, events involving certain safety deviations, internally, within the context of the operators and service providers' SMS and to the satisfaction of the CAA; and



- that no information derived from any reporting system 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.

## **2.5 State System and Functions**

### **2.5.1 State Safety Responsibilities and Accountabilities**

The CAA is responsible to the Secretary of State for Transport and the organisation is controlled by the Director General. The Director General is responsible to the Ministry of Transport and reports through the mechanism of the Executive Board, who also set the Objectives for the CAA. The existence and the membership of the Executive Board is stated in the Law Reform, Article 3. The Director General is responsible for developing and approving amendments to primary and secondary aviation legislation in areas covered by the ICAO Annexes.

Within the CAA there are four Sections,

- (a) Flight Operations
- (b) Airworthiness;
- (c) Licensing; and
- (d) Legal

Inspector posts exist within each technical Section and the Inspectors/Officers are responsible to, and assist, the Chief Operating Officer. The responsibilities of the roles and the qualifications and training required are specified in the CAA General Administration & Policy Manual (GAPM), which is regularly reviewed and revised.

The CAA is responsible for safety regulation of the civil aviation industry, for the development of policy and the development of aviation industry publications. The CAA is also responsible for the development of policy on the sustainable use of San Marino airspace and for ensuring the provision of necessary supporting infrastructure for air navigation. The CAA is not responsible for military oversight arrangements or search & rescue provisions.

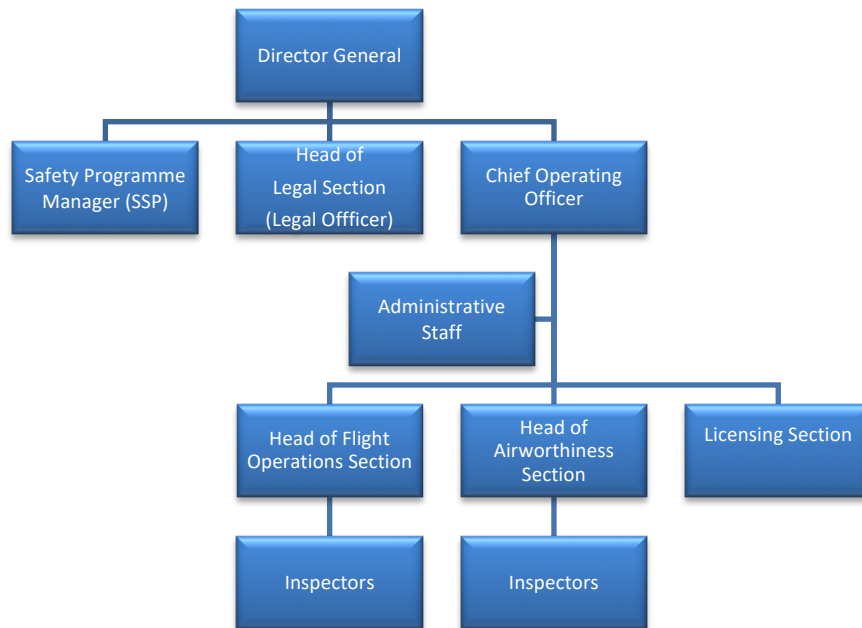
The San Marino Aircraft Registry is a contracted service to the Government and its role is to attract owners/operators to register suitable aircraft in San Marino. It has no safety or regulatory responsibilities and is separate from the CAA, which is wholly responsible for compliance with ICAO Annexes.

The Safety Policy is approved by the Safety Review Board as outlined below. The Safety Policy is disseminated to all CAA personnel and published as part of the SSP document.

The GAPM includes the guidance for personnel performing safety oversight functions on ethics, personal conduct and the avoidance of actual or perceived conflicts of interest in the performance of their official duties.



2.5.2 Organisation Structure of CAA





### 2.5.3 Safety Policy

#### STATE SAFETY POLICY

The Civil Aviation Authority promotes and regulates the safety of aviation in the Republic of San Marino. We are committed to developing and implementing effective strategies, regulatory frameworks and processes to ensure that aviation activities under our oversight achieve the highest practicable level of safety. To this end we will:

1. Implement the Standards of the International Civil Aviation Organisation
2. Provide sufficient and qualified personnel to perform effective safety oversight
3. Provide adequate financial resources for the management of safety
4. Promote safety reporting, safety culture and Safety Management Systems
5. Identify safety priorities using international publications, safety data and audits
6. Use safety priorities and safety data to shape audit focus and SPIs
7. Promote safety priorities and effective actions to service providers

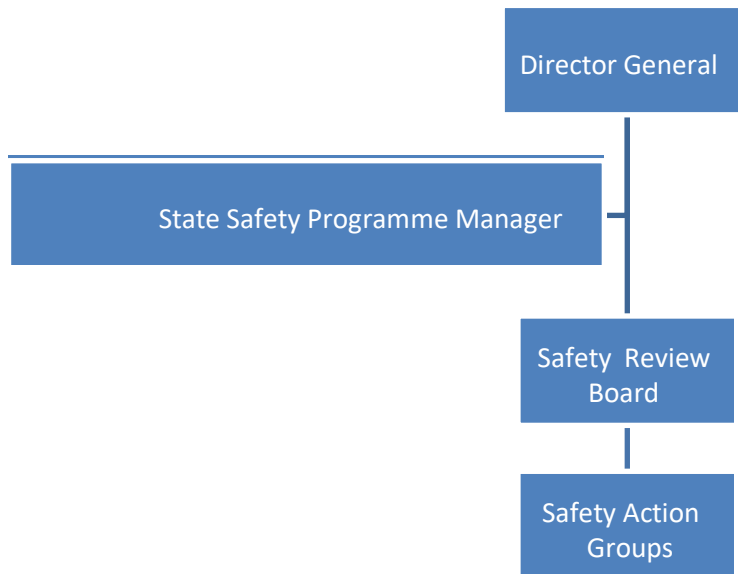
*Marco Conti*  
*Director General*





#### 2.5.4 SSP Implementation

The administration of the SSP implementation is managed as follows;



The CAA uses the General Administration & Policy Manual (GAPM) to describe the requirements and the responsibilities of the CAA. The CAA has identified, defined and documented the requirements, responsibilities and accountabilities regarding the establishment and maintenance of the SSP. This includes the directives to plan, organise, develop, maintain, control and continuously improve the SSP in a manner that meets the CAA's safety objectives.

#### 2.5.5 Director General

Primary responsibility for the San Marino SSP rests with the Director General, who has;

- (a) ultimate responsibility and accountability for the implementation and maintenance of the SSP;
- (b) full authority on human resources issues relating to the CAA;
- (c) full authority on major financial issues related to the CAA and the provision of the necessary resources for the implementation of the SSP;
- (d) final authority over operators and service providers' certificate management aspects; and
- (e) final responsibility for the resolution of all aviation safety issues of the Republic of San Marino.

In this regard, the Director General has;

- (a) Established the SSP Safety Review Board.



- (b) Assigned the time required for each task associated with the implementation of the SSP among the different management levels of the State aviation organisations.
- (c) Introduced all managerial staff to SSP concepts at a level commensurate with their involvement in the SSP.
- (d) Developed and implemented a safety policy.
- (e) Made the provision of necessary resources for the implementation of the SSP.
- (f) Established the necessary means to ensure that the CAA safety policy is understood, implemented and observed at all levels within San Marino aviation organisations.
- (g) Appointed the State Safety Programme Manager.

In addition to his primary responsibilities, the Director General has the following ongoing accountabilities specifically in respect to the maintenance of the SSP;

- (a) Provision of adequate staffing;
- (b) Funding for the training of staff on SMS;
- (c) Provision of data system; and
- (d) Funding of safety strategies.

#### **2.5.6 Regional Cooperation**

There exists a documented Protocol of Understanding between the Civil Aviation & Maritime Navigation Authority of the Republic of San Marino and the National Civil Aviation Authority (E.N.A.C.) of the Italian Republic. Under the Technical Cooperation Agreement, Italy and the Civil Aviation Authority of San Marino have agreed to;

- (a) Report the information and data concerning the Civil Aviation Authority of the Republic of San Marino and the air space above its territory in the ENAC Aeronautical Information Publications (A.I.P);
- (b) Mutually undertake to accept and allow aircraft being granted a Certificate of Airworthiness pursuant to ICAO Annex 8 and operated by student pilots from the Republic of San Marino or Italy to enter their respective air space in order to comply with Article 2.3.3.1.2 of Annex 1, which establishes experience requirements for distances not less than 270 KM;
- (c) Grant access to qualified airworthiness and flight operations inspectors of either Authority to the aerodromes located in both States
- (e) Under a separate protocol with the Agenzia Nazionale per la Sicurezza del Volo (ANSV), to undertake accident/incident investigations if specifically requested.



### 2.5.7 Safety Programme Manager

The Safety Programme Manager answers directly to the Director General on the SSP. His/her responsibilities include, but are not necessarily limited to:

- (a) managing the SSP implementation plan on behalf of the Director General;
- (b) monitoring corrective actions and evaluating their results;
- (c) providing periodic reports on the organisation's safety performance;
- (d) maintaining records of SSP implementation through ICAO iSTARs portal and associated SSP documentation;
- (e) planning and organising Safety Review Board meetings including periodic review of the ALoSP and updates on SSP status;
- (f) providing independent advice on safety programme matters;
- (g) monitoring international safety priorities in the aviation industry and their relevance;
- (h) coordinating and communicating (on behalf of the Director General) with other CAA personnel and agencies as necessary on issues relating to the management of safety;
- (i) Drafting SSP documentation for Director General's consideration and signature.

### 2.5.8 Safety Review Board

A Safety Review Board (SRB) was established on 29 March 2013 with the responsibility to plan, organise, develop, maintain control of and continuously improve the SSP in a manner that meets the CAA's safety objectives.

The Safety Review Board evaluates the effectiveness of the San Marino SSP to maintain or continuously improve their overall level of safety performance.

The Safety Review Board is chaired by the Director General or his delegate and consists of;

- (a) CAA
  - (1) Director General as Chairman;
  - (2) Safety Programme Manager;
  - (3) Chief Operating Officer;
  - (4) Head of Flight Operations
  - (5) Head of Airworthiness



- (6) Selected CAA Designates.
- (b) Representatives from San Marino Aircraft Registry;
- (c) Industry or government representatives as required.

The Safety Review Board is the coordinating group of the SSP and deals with high-level issues in relation to policies, resource allocation and organisational performance monitoring, and meets every 4 months, unless exceptional circumstances dictate otherwise. The responsibilities of the Safety Review Board are to monitor and review:

- (a) effectiveness of the SSP and implementation plan;
- (b) the definition and achievement of the Acceptable Level of Safety Performance (ALoSP);
- (c) timely response of necessary safety risk control actions;
- (d) safety performance against the organisation's safety policy and objectives;
- (e) effectiveness of the organisation's safety management processes which support:
  - (1) the declared organisation priority of safety management;
  - (2) the identification of safety priorities, hazards and risks; and
  - (3) promotion of safety across the organisation.
- (f) monitor the effectiveness of the safety supervision of subcontracted operations;
- (g) ensure that appropriate resources are allocated to achieve safety performance beyond that required by regulatory compliance;
- (h) give direction to establish and task a Safety Action Group(s), as required;
- (i) regularly review the Safety Policy and Objectives; and
- (j) propose amendments to the SSP and Implementation Plan.

In addition to the above responsibilities, the Chief Operating Officer has the following ongoing accountabilities specifically in respect to the safety oversight and development of the SSP;

- (a) Continuous Improvement of safety management and safety promotion
- (b) Maintenance and periodic update of regulations, procedures (GAPM & FSIM) and industry guidance (CAP).
- (c) performing/facilitating hazard identification and safety risk analysis;



- (d) Operation of data system;
- (e) Safety oversight commensurate with aviation activities;
- (f) Identification of hazards;
- (g) Agreement of an ALoSP for the State of San Marino;
- (h) Provision of periodic progress reports; and
- (i) Safety promotion aspects.

### 2.5.9 Safety Action Group

Once a direction has been developed by the Safety Review Board, implementation must take place, in a coordinated manner. Safety Action Groups are not a permanent body but may be convened as required for specific implementation tasks within the SSP and will call upon the appropriate personnel that could include;

- (a) CAA appointments; and
- (b) Invited Designates and Registry personnel;
- (c) External consultants for specialist technical contributions as required.

A Safety Action Group deals with implementation issues to satisfy the strategic directives of the Safety Review Board. The responsibilities of a Safety Action Group may include, but are not limited to, tasks such as:

- (a) review operational safety performance within the functional areas of the organisation and ensure that the safety risk management activities are appropriate and carried out commensurate with identification of hazards and assessment of risks;
- (b) review available safety data and identify the implementation of appropriate safety risk control strategies and ensure employee feedback is provided;
- (c) assess the safety impact related to the introduction of changes or new technologies;
- (d) coordinate the implementation of any actions related to safety risk controls and ensure that actions are taken promptly;
- (e) review the effectiveness of the safety risk controls and the achievement of the Acceptable Level of Safety Performance (ALoSP) agreed by the SRB;
- (f) work with the applicable Operators and Service Providers or other parties to resolve safety issues as necessary;
- (g) review the effectiveness of previous safety recommendations; and



- (h) review specific operating regulations and implementation policies periodically to ensure they remain relevant and appropriate to the operators and service providers.

In addition to the above responsibilities, the nominated individuals have the following ongoing accountabilities specifically in respect to the safety oversight and development of the SSP;

- (a) Recommend (to the COO) update of regulations, procedures and industry guidance to maintain international best practice
- (b) Capture, storage, development and dissemination of data;
- (c) Ensure occurrence reporting (mandatory and confidential) systems functioning;
- (d) Development of safety awareness initiatives; and
- (e) Provision of periodic progress reports on hazards and assessed safety risks.

## **2.6 Qualified Technical Personnel**

The qualifications and experience required for CAA technical personnel are specified in the GAPM Chapter 2. Technical Personnel refers to those persons performing safety related functions on behalf of the State, such as Personnel Licensing, Flight Operations Inspectors or Airworthiness Inspectors.

The GAPM Chapter 2 explains the procedures for appropriate initial and recurrent training of technical personnel to maintain and enhance their competence at the desired level. Training records are retained as explained in GAPM paragraph 4.4.

CAA Inspectors are enabled to conduct inspections with appropriate tools and transportation as required and funded on the approval of the Director General. This may often entail travel and subsistence to perform Inspections at locations away from San Marino and is an accepted element of the role.

## **2.7 Technical Guidance, Tools and Provision of Safety-Critical Information**

### **2.7.1 Comprehensive Procedures**

The CAA technical personnel are well supported by the General Administration and Procedures Manual (GAPM) and the technical procedures for each area, such as the Flight Safety Inspector Manual (FSIM), which specify how each task must be approached. This enables technical personnel to perform their safety oversight functions effectively and in accordance with established procedures in a standardised manner.

For example, FSIM 15 explains specifically the procedures and criteria for the Acceptance of Safety Management Systems. This explains the procedures for AOCs and ATOs already approved, those renewing their approvals or those making a new application.



### 2.7.2 Guidance to the Aviation Industry

The CAA also provides up-to-date guidance material to support the CAA technical personnel and the aviation industry in the implementation of relevant regulations.

Publications include Civil Aviation Publications (CAPs), Safety Notices and Information Circulars. CAPs include, but are not restricted to:

- CAP 01: Registration of Aircraft
- CAP 02: Airworthiness and Maintenance
- CAP 03: Minimum Equipment List
- CAP 04: Designated Airspace Approval
- CAP 05: All Weather Operations
- CAP 06: Electronic Flight Bag
- CAP 07: Head-up Displays and Enhanced Vision Systems
- CAP 08: Certificate of Airworthiness
- CAP 09: Maintenance Control Manual
- CAP 10: Controller /Pilot Data Link Communications
- CAP 11: Air Operator Certification
- CAP 12: Maintenance Programmes (General Aviation & RPAS)
- CAP 13: Maintenance Programmes (Commercial Air Transport)
- CAP 14: Advanced Pilot Training
- CAP 15: Safety Management System
- CAP 16: Personnel Licensing
- CAP 17: Automatic Dependent Surveillance
- CAP 18: Dangerous Goods
- CAP 19: Authorised Medical Examiners
- CAP 20: Cabin Crew
- CAP 21: Mandatory Occurrence Reporting
- CAP 22: Voluntary Occurrence Reporting
- CAP 23: Maintenance Management Expositions
- CAP 27: Steep Approach Operations
- CAP 28: Performance Based Communications & Surveillance (PBCS)

Safety Notices to provide information on specific safety relevant subjects such as:

- Dangerous Goods Carried by Passengers in Aircraft
- Flight Crew Pre-Flight External Check
- Procedures for Recognition & Reporting of Suspected Communicable Diseases
- Safety of Civil Aircraft Operating in the ACCRA FIR
- Operation Within Libya Including Tripoli FIR
- Ground de-/anti-icing of aeroplanes; Intake/fan-blade icing and effects of fluid residues on flight controls
- Safety precautions regarding the transport by air by passengers of portable electronics devices containing lithium batteries
- Operations in or near conflict zones
- Ebola virus in DRC

## STATE SAFETY PROGRAMME



Information Circulars provide more detailed information on regulations, processes and relationships between requirements to explain specific regulatory issues. Forms are also available to facilitate aviation industry interact with the CAA. These are not listed here but both types of document are available to view on the CAA website at [www.caa-mna.sm](http://www.caa-mna.sm).





## CHAPTER 3

## STATE SAFETY RISK MANAGEMENT

**3.1 Licensing, Certification, Authorisation and Approval Obligations**

San Marino CAA conducts the full range of regulatory functions required for the aviation activities performed in the State. These are supported by documented processes and procedures detailed in the GAPM to ensure that individuals and organisations meet the established requirements before they perform an aviation activity.

There is no International Airport and no Air Traffic service provider, but there are regulations which provide for the possibility that those functions could arise in the future. However, at present there are no approval or surveillance obligations in those areas. The regulatory functions that are carried out by San Marino CAA include, but are not restricted to, the following services:

- Registration of Aircraft
- Airworthiness including
  - Type Acceptance Certificate (TAC)
  - Certificate of Airworthiness (including acceptance of STCs)
  - Permit to Fly (to another location for maintenance)
- Operations including
  - Air Operator Certificate
  - ICAO 83bis Agreements (Aircraft on San Marino Register operating on another State's Air Operating Certificate)
  - Minimum Equipment List
  - Designated Airspace
  - All Weather Operations
  - Electronic Flight Bag
  - Head-up Displays and Enhanced Vision Systems
  - Controller/Pilot Data Link Communications
- Licensing
  - Flight Crew Licensing
  - Licence Validations
  - Approval of Training Organisations

**3.2 Safety Management System Obligations**

Safety management is a crucial element of ensuring continuous safety improvement in the complex, dynamic environment of modern aviation. At its core it aims to:

- identify safety hazards;
- ensure the implementation of remedial action necessary to maintain agreed safety performance;



- provide for continuous monitoring and regular assessment of the safety performance; and
- aim at a continuous improvement of the overall performance of the safety management system.

The CAA has implemented comprehensive safety management requirements for the CAA and operators and service providers, which includes air transport operators, maintenance organisations and training organisations. The regulations mandate that all relevant operators and service providers implement a Safety Management System (SMS) that is structured in accordance with Annex 19 Edition 2 Appendix 2 to contain the following twelve elements divided into four components as follows:

1. Safety policy and objectives
  - 1.1 Management commitment
  - 1.2 Safety accountability and responsibilities
  - 1.3 Appointment of key safety personnel
  - 1.4 Coordination of emergency response planning
  - 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
  - 4.2 Safety communication

Organisations that are required to have SMS include, but are not restricted to:

- commercial operators of aeroplanes or helicopters
- operators of large or turbojet aeroplanes
- aircraft maintenance organisations
- training organisations exposed to flight safety risks

Operators and service providers' SMS must demonstrate compliance with all elements, including relevant International General Aviation operators.



The SMS must be accepted by the CAA including the Safety Performance Indicators and safety performance targets.

Scalability is an important consideration in SMS development. In alignment with the latest version of ICAO Doc 9859 Safety Management Manual, it is recognised that whilst an SMS must embody the full structure shown in Annex 19, the implementation can be scaled to reflect the size and complexity of the operation. In the context of San Marino, the organisations may be very small with a simple operation, perhaps a single aircraft, and so the expectations of the SMS reflect this.

Medical Assessment processes for licence holders shall apply basic safety management principles that as a minimum includes:

- routine analysis of in-flight incapacitation events and medical findings during medical assessments to identify areas of increased medical risk; and
- continuous re-evaluation of the medical assessment process to concentrate on identified areas of increased medical risk.

Collaboration with industry and other National Aviation Authorities will be initiated if safety issues arise that are best served by a joint approach. This will aim to address safety priorities identified by the CAA and to continuously improve aviation safety.

The CAA will take any necessary actions to ensure safety is not compromised and will ensure the high safety standards within San Marino airspace and its supporting infrastructure are maintained, with potential risks identified and appropriate mitigating actions taken. The CAA has established an ALoSP to be achieved, as a means to verify satisfactory performance of the SSP and operators and service providers' SMS. This is the responsibility of the Chief Operating Officer.

The members on the Safety Review Board are accountable for the safety management within the CAA.

The CAA has implemented for the implementation of a SMS

- CAR OPS 1/3.037 in respect to AOC holders;
- CAR OPS 2.120 for General Aviation operators;
- CAR 145.25 for Approved Maintenance Organisations; and
- CAR LIC.1290 for Approved Training Organisations.

There are no other operators or service providers.

A Civil Aviation Publication on Safety Management System (CAP 15) is available on the CAA website to support operators and service providers to implement SMS.



### **3.3 Agreement on the Operators and Service Providers' Safety Performance**

The CAA will work with the individual operators and service providers for agreement with the safety performance requirements of their SMS, their Safety Performance Indicators (SPIs) and Targets. The agreed safety performance of an individual operators' and service providers' SMS must be developed within 12 months of the establishment of the SMS and will be periodically reviewed to ensure it remains relevant and appropriate to the operators and service providers.

Due to the relatively small nature of the aviation industry in San Marino, the CAA will utilise safety performance indicators from worldwide sources such as ENAC and/or EASA and apply these whenever appropriate when determining agreement to an individual operators and service providers' safety performance.

### **3.4 Accident and Incident Investigation**

Accident and incident Investigation is a highly skilled task. It is best performed by experts whose role helps them to maintain and grow their level of expertise and remain current in the practice of Investigation. San Marino is a small State and fortunately accidents and incidents are extremely rare. There have been no fatal accidents in the Republic of San Marino, or with San Marino registered aircraft, in the last 50 years and very few incidents during that period. It would be inefficient to retain a team of skilled investigators with no investigation work to occupy them or refresh their skills, for the unlikely possibility that an accident or incident may occur at some point.

For this reason, San Marino delegates the function of Accident and Incident Investigation to the Italian aircraft accident investigation agency Agenzia Nazionale per la Sicurezza del Volo (ANSV, "National Agency for the Safety of Flight"). This delegation is achieved through a Memorandum of Understanding with ANSV on Matters of Aeronautical Incidents. The sole objective of any accident and incident investigation process is the prevention of accidents and incidents, and not the apportioning of blame or liability.

As a fall back provision, the CAA has developed accident and incident investigation regulations, procedures and guidance material. The process is in accordance with the Accident/Incident Investigation procedures contained in ICAO Annex 13. Such investigations are in support of the management of safety in the Republic of San Marino. Under this process, any CAA official involved in accident investigation maintains their independence with direct responsibility to the Secretary of State for Transport. However, it would be expected that in reality the delegation agreement would be the preferred route and that the Italian ANSV would conduct any investigations on behalf of the CAA under this agreement.

### **3.5 Hazard Identification and Safety Risk Assessment**

San Marino is a very small State with a low volume of aviation activity and a low volume of safety reports submitted. This is likely to remain the case, even with a good safety culture and high reporting rate, simply because the volume of activity remains small. This makes it unwise to base assessment of hazards on safety reports alone as it may not present a fully balanced risk picture.

Some important hazards could be missed and conclusions could be heavily skewed by the small sample size.



Using the scalability of the SSP and the specific circumstances of San Marino, the strategy is a three-tier process to identify hazards:

- (a) Main Safety Risk Priorities are adopted from the global safety priorities published by international organisations such as ICAO, EASA and IATA, since these are based upon the largest possible samples of international data and are relatively consistent between a range of authoritative sources. This will include:
  - (1) Operational risk priorities such as Loss of Control in Flight, Runway Safety and Controlled Flight into Terrain;
  - (2) Underlying factors such as fatigue and appropriate training;
  - (3) Effective Safety Management Systems;

Where appropriate, international guidance on effective actions will be used to formulate action plans.

- (b) Customisation for the known characteristics of San Marino operations, to consider factors with potential hazards such as climate and physical geography (mountainous terrain), the risk profile of the aircraft fleet composition (small operator business jets and helicopters) and relevant recommendations from accident investigation reports.
- (c) Specific and localised factors will be identified from safety reports received from operators and service providers, audit reports and concerns raised by Inspectors. These issues may require direct action by CAA, possibly in co-operation with other parties such as the NAA at a particular location identified.

### **3.6 Safety Risk Assessment**

Having identified the hazards, it is within the role of the SRB to assess the risks and to consider what additional actions may be needed. These are documented by the SRB.

### **3.7 Safety Data Collection, Analysis and Exchange**

The CAA has established mechanisms to ensure the capture and storage of data on hazards and safety risks. Because of the low volume of data, in the past this has mainly been addressed at the level of individual events which are categorised and graded and then progressed to the relevant Inspectors for the consideration of their safety implications.

More recently a data management system has been implemented to manage the data, facilitate analysis and consider the data in conjunction with audit reports and SAFA results in order to identify any trends or 'hotspots' for action or dissemination.



### **3.8 Management of Safety Risks**

The CAA draws upon worldwide and CAA data to identify safety priorities and trends applicable to San Marino aviation, in order to focus on the most significant safety issues. The resulting safety improvement initiatives are captured in the Implementation Plan, which is used as a means of monitoring progress and effectiveness.

Where there is a specific safety issue that has emerged from this information, from Inspector oversight activities or from safety reports, it will be assessed to determine the risk level, the likely causes and underlying factors, the opportunities for improvement and the appropriate intervention.

### **3.9 Resolution of Safety Issues**

The documented procedure for the resolution of safety issues in a timely manner, up to and including enforcement measures, is detailed in the GAPM Appendix 2-2.



## CHAPTER 4

### STATE SAFETY ASSURANCE

#### 4.1 General

Safety assurance exists to confirm that the situation that should exist does, in reality, exist as expected. It consists of a series of activities to measure, assess and confirm the situation that supports flight safety is maintained as it should be. These fall into three broad categories:

- Surveillance of operators and service providers' activities to ensure they comply with international safety standards;
- Reports and other measures of operational safety performance; and
- Achievement of actions and projects to fully implement the SSP.

#### 4.2 Surveillance Obligations

Surveillance audits are conducted in accordance with the Flight Safety Inspector Manual (FSIM) describing processes for Inspectors.

The CAA conducts surveillance activities by scheduled audits and visits by Inspectors who are qualified to conduct such inspections in their field, such as Flight Operations and Airworthiness.

The method to determine the number of Inspectors is described in the GAPM.

Surveillance is conducted in accordance with the CAA procedures in the Flight Safety Inspector Manual (FSIM) including standardisation and co-ordination of audit practices as described in FSIM 22 - Auditing. The schedule of audits is planned by each individual Inspector in accordance with the GAPM. These are adjusted to areas of greater need or concern identified by the safety priorities of San Marino, the Inspectors expert knowledge and specific factors such as the type of aircraft and operation.

The CAA regulates the safety of aviation by approving and overseeing the organisations and individuals involved in aviation that fall within its remit. The CAA will continue to use and develop a performance-based approach to ensure that aviation complies with the Republic's legislation and requirements and that the CAA safety resources are used efficiently.

Auditing is an integral part of safety assurance and in that respect the CAA has established a vigorous auditing schedule.

With the recent introduction of SMS for operations, engineering and training, the CAA will assist operators/organisations to establish a fully functioning SMS and conduct audits on the progress made by those operators and service providers in the creation of SMS Manual, identification of hazards, assessment of risks and safety improvement.



#### **4.3 Safety-Data-Driven Targeting of Oversight of Areas of Greater Concern or Need**

Procedures established in the GAPM for audit scheduling promote inspectors to prioritize audits and surveys towards those areas of greater safety concern or need.

#### **4.4 State Safety Performance**

The Acceptable Level of Safety Performance (ALoSP) is structured to reflect both operational safety events (especially those related to the safety risk priorities), and the achievement of actions to implement and continuously improve an effective SSP.

The initial ALoSP is shown in Appendix 2. This will be populated and monitored by the SRB. The ALoSP must be compatible with the introduction of the new data management system and this alignment will be reviewed after one year to assess the effectiveness of the ALoSP and update it as necessary.

The SRB evaluates the effectiveness of actions taken to manage safety risks and resolve safety issues. This is partly achieved by monitoring the progress against the ALoSP targets. The SRB also evaluates the effectiveness of the SM SSP to maintain and continuously improve the overall level of safety performance in San Marino.





CHAPTER 5

STATE SAFETY PROMOTION

**5.1 General**

Through the CAA website, internal personnel and the external aviation community are encouraged to focus on the safety priority risk areas. The website promotes awareness of the relevant tools, guidance and training that has been produced by the international community and the guidance provided in the CAPs.

A Safety Conference is planned for the second quarter of 2020 in order to actively promote the safety priorities to Service Providers and encourage the sharing of experiences internationally as well as learning from experts.

In addition, a positive safety culture is promoted by implementation of safety information protection and through the personal attitudes demonstrated by SMCAA representatives in the field. Safety data and information are shared and exchanged with other relevant parties if the appropriate situation arises.

The CAA promotes awareness of safety and SMS through internal training and internal/external workshops and seminars. These are identified on the Implementation Plan.



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## APPENDIX 1

## SAN MARINO CIVIL AVIATION REGULATIONS

REGULATION	REVISION
<b>CAR DEF</b> Definitions	14
<b>CAR DG</b> Dangerous Goods	01
<b>CAR SEC</b> Security Regulations	02
<b>CAR ACC</b> Aircraft Accident & Incident Investigation Regulations	02
<b>CAR AGA I</b> Aerodromes	03
<b>CAR AGA II</b> Heliports	02
<b>CAR ATS</b> Air Traffic Services	02
<b>OPERATIONS</b>	<b>Revision</b>
<b>CAR OPS 0</b> Rules of the Air	04
<b>CAR OPS 1</b> Commercial Air Transportation (Aeroplanes)	10
<b>CAR OPS 2</b> General Aviation	14
<b>CAR OPS 3</b> Commercial Air Transportation (Helicopters)	07
<b>CAR OPS 4</b> Remotely Piloted Aircraft Systems	02
<b>AIRWORTHINESS</b>	<b>Revision</b>
<b>CAR GEN</b> General Airworthiness & Registration Regulations	13
<b>CAR AIR</b> Continuing Airworthiness (General Aviation Operations)	07
<b>CAR 145</b> Approved Maintenance Organisations	08



<b>CAR 21</b> Certification of Aircraft	12
<b>SM-CAR AM 3</b> Requirements for Microlight Aircraft	02
<b>PERSONNEL LICENCING</b>	<b>Revision</b>
<b>CAR LIC</b> Licensing Regulations	06
<b>CAR MED</b> Aeromedical Regulations	04

## APPENDIX 2

## ACCEPTABLE LEVEL OF SAFETY PERFORMANCE

The initial ALoSP below will be monitored and reviewed after one year to assess effectiveness in the context of Centrik implementation.

## Level 1: Essentials

Factor 5yr	Current	Attention	Tolerable	Target	RAG
Fatal Accidents		>0	0	0	
Non Fatal Accidents		>0	0	0	
Serious Incidents		>0	0	0	
Serious Technical Failures		>0	0	0	
Active safety oversight prog		Major issues/ no plan	Minor issues with plan	Fully functioning	

## Level 2: SSP Implementation

Factor	Current	Attention	Tolerable	Target	RAG
%ICAO Standards Met		<90%	90% or above	100%	
Inspectors/staff with safety role		<90% staffed & qualified	>90% staffed & qualified	100% staffed & qualified	
SMS trained Inspectors		SMS oversight not in plan	SMS oversight in Training Plan	Trained in SMS oversight	
Audit of Priority Safety Issues		Missed plan/ Major Findings	Most as plan Minor Findings	As plan Few Findings	
External Audit Findings Closed		Closure Actions not on Track	Closure Actions on Track	All Findings Closed	
Commercial SP SMS Effective		Not all have SMS Operating	All have SMS Operating	All have SMS Effective	
%ICAO EI		<80%	>80%	95%	


**Level 3 Safety Performance (Priorities LoC-I Loss of Control and Runway Safety Related)**

SPI (per year)	Current	Attention	Tolerable	Target	RAG status
Stall / low airspeed		>1	1	0	
Flight control issue		>1	1	0	
Upset/ severe weather		>1	1	0	
Un-stabilised approach		>1	1	0	
Abnormal landing		>1	1	0	
Runway Excursion		>1	1	0	
Runway Incursion		>1	1	0	

**Level 4 Safety Performance Priorities (CFIT, MAC, Fire/Cabin, LoC-I ground handling related)**

SPI (per year)	Current	Attention	Tolerable	Target	RAG status
TAWS hard warning		>1	1	0	
Gross Nav Error		>1	1	0	
Below MSA		>1	1	0	
TCAS RA		>1	1	0	
Aircraft Fire		>1	1	0	
Depressurisation in flight		>1	1	0	
Serious Loading error		>1	1	0	



## APPENDIX 3

## IMPLEMENTATION PLAN

SSP Gap Analysis Number	Precis of Gap Analysis Item	Action	Target date	Status
2.2-01	Has [State] accepted service provider's SPIs	FSIM 15/ CAP 15 to be amended	01/01/2020	On track
2.2-02	Are the accepted SPIs appropriate to the operational context	FSIM 15 & GAPM to be amended	01/01/2020	On track
2.3-01	Assigned task of analysing safety data from SDCPS to appropriately trained personnel	Additional training for Inspectors	31/03/2020	On track
2.3-02	Process for assessment of safety risks	FSIM 15 to be amended	01/01/2020	On track
2.3-03	Process for mitigation of safety risks	FSIM 15 to be amended	01/01/2020	On track
3.1-03	Procedures for review of service providers' SPIs	FSIM 15 to be amended	01/01/2020	On track
3.2-01	Process for Safety Data Collection and processing	FSIM 15 to be amended	01/01/2020	On track
3.2-03	Process to analyse the safety data	FSIM 15 to be amended	01/01/2020	On track
3.2-04	Acceptable level of safety performance (ALoSP) established	Approved within SSP	31/10/2020	On track
3.2-06	Process for monitoring SSP SPIs and follow up actions	FSIM 15 to be amended	01/01/2020	On track
3.3-02	Prioritization of inspections using internal/ external safety or quality data	FSIM 15 to be amended	01/01/2020	On track
4.1-02	SSP training plan for the personnel involved in the implementation of the SSP	FSIM 15 to be amended	01/01/2020	On track
4.1-06	Identified the competencies required for implementation and operation of the SSP	FSIM 15 to be amended	01/01/2020	On track
4.1-07	Updated job descriptions to include safety management competencies /SSP activities	FSIM 15 & GAPM to be amended	01/01/2020	On track

## STATE SAFETY PROGRAMME



4.2-02	State participation in regional and global aviation safety information sharing and facilitate participation of service providers	Hold safety conference. Develop strategy	01/05/2020	On track
4.2-05	Safety promotion channels and media to promote a positive safety culture	Hold safety conference. Develop strategy	01/05/2020	On track
4.2-06	Does the State assess the effectiveness of its safety promotion channels	Develop strategy	01/06/2020	On track
Support	CAA Training in SSP and new procedures and processes in FSIM 15, CAP 15 & GAPM	Create and deliver training	01/04/2020	On track
Support	Inspector Training in SMS Oversight skills	Create and deliver training	01/04/2020	On track
Support	SSP Training for all staff, appropriate to role and including promotion of risk awareness	Create and deliver training	01/02/2020	On track
Support	Review and update SRB TORs	Review & update	01/01/2020	On track
Support	Populate ALoSP current and status columns	Research & complete	01/01/2020	On track
Support	Conduct Internal Audit of Annex 19 by Inspector independent from process	Research & complete	01/08/2020	On track