



STATE SAFETY PROGRAMME

Version September 2015



Foreword

ICAO Annexes 1, 6, 8, 11, 13 and 14 set out the requirements for States to establish a safety programme, in order to achieve an acceptable level of safety in the operation of aircraft, airworthiness, maintenance of aircraft, the provision of air traffic services and aerodrome operations. As a member of the international aviation community, we have the responsibility for the establishment of an environment conducive to the safe and efficient operations of all aviation activities in the STATE.

It is our long standing pledge and commitment to sustain and improve the aviation safety standards of the STATE and to maintain our position as a leader in the promotion of aviation safety within the region. This document sets out the approach we have adopted for the implementation of a State Safety Programme.

Whilst ICAO currently mandates its requirements for safety programmes and safety management systems (SMS) to be established under Annexes 1, 6, 8, 11, 13 and 14, within the STATE the opportunity will be taken to extend the SMS concepts for continuous safety improvement to all functional areas in anticipation of further changes to ICAO Standards and Recommended Practices and to enhance our safety standards.

We are of the firm belief that only when all stakeholders including the regulators, operators and service providers, understand and commit to the importance of safety individually, will they then promote this safety culture to others. This will enable the development of a safety system that is indigenous to the person, to the organization and overall, to the aviation industry in the STATE.

Safety is our utmost concern. We maintain our commitment to continually improve safety standards and provide a safe and efficient air transport system in the STATE.

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Record of Amendments

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Definitions

Safety is the state in which the risk of harm to persons or property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and risk management.

State safety programme means an integrated set of regulations and activities aimed at improving safety.

Safety Management System is a systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.

Safety performance indicator is a measure used to express the safety performance of an aviation organization or a sector of the industry.

Safety performance targets are determined by considering what safety performance levels are desirable and realistic for individual operators/service providers. A safety performance target comprises one or more safety performance indicators, together with desired outcomes expressed in terms of those indicators.

Note: ICAO Doc.9859 *Safety Management Manual* describes safety performance indicators and safety performance targets within the concept of an “acceptable level of safety”. This concept is used to express safety expectations under a performance-based approach that is designed to complement regulatory compliance.

Safety requirements or initiatives are the steps that need to be taken to achieve the safety performance indicators and safety performance targets. They include the operational procedures, technology, systems and programmes to which measures of reliability, availability, performance and/or accuracy can be specified.

A **hazard** is any situation or condition that has the potential to cause damage or injury.

Risks are the potential adverse consequences of a hazard, and are assessed in terms of their severity and likelihood.

When risks have been assessed, **mitigation** is then needed: either to eradicate the hazard, or to reduce the severity or likelihood of the risks.



Abbreviations

ADG(AES)	Assistant Director- General (Air Traffic Engineering and Standards)
ADG(APS)	Assistant Director- General (Airport Standards)
ADG(AS)	Assistant Director- General (Air Services)
ADG(ATM)	Assistant Director- General (Air Traffic Management)
ADG(FS)	Assistant Director- General (Flight Standards)
ADM	Aerodrome Manual
AID	Accident Investigation Division
AIRPROX	Aircraft Proximity
ALM	Aerodrome Licensing Manual
ALRD	Aerodrome Licensing Requirements Document
ALOS	Acceptable Level of Safety
AN	Airworthiness Notice
ANS	Air Navigation Services
ANSIN	Air Navigation Services Information Notice
AOC	Air Operator's Certificate
AOCRD	Air Operator's Certificate Requirements Document
APSD	Airport Standards Division
APSS	Airport Sub-sections
ASD	Air Services Division
ATC	Air Traffic Control
ATCO	Air Traffic Control Officer
ATM	Air Traffic Management
ATMD	Air Traffic Management Division
AESD	Air Traffic Engineering and Standards Division
ATMSO	Air Traffic Management Standards Office
AWO	Airworthiness Office
CAA	Civil Aviation Authority
DGCA	Civil Aviation Department



CAO	Civil Aviation Ordinance
Cap.	Chapter
C, AS	Chief, Airworthiness Standards
C, ATS	Chief, Air Traffic Management Standards
C, FS	Chief, Flight Standards
CSO(A)	Chief Safety Officer (Airport)
DGCA	Director- General of Civil Aviation
DDGCA	Deputy Director- General of Civil Aviation
FDA	Flight Data Analysis
FOD	Foreign Object Debris
FON	Flight operations Notice
FSAD	Flight Standards and Airworthiness Division
FSO	Flight Standards Office
AIP	STATE Aeronautical Information Publication
AR	STATE Aviation Requirements
IATA	International Air Transport Association
IBIS	ICAO Bird Strike Information System
ICAO	International Civil Aviation Organization
IFSD	In-flight Shut Down
LOSA	Line Operations Safety Audit
MOR	Mandatory Occurrence Reports
SAFA	Safety Assessment of Foreign Aircraft
SARPs	Standards and Recommended Practices
SMS	Safety Management System
sq.m.	square metre
SSP	State Safety Programme
sub. leg.	Subsidiary Legislation



Introduction

ICAO Annexes 1, 6, 8, 11, 13 and 14 set out the requirements for States to establish a State Safety Programme (SSP), in order to achieve an acceptable level of safety (ALOS) in the operation of aircraft, the maintenance of aircraft, the provision of air traffic services and aerodrome operations. As a means to verify satisfactory performance of the SSP and service providers SMS, States are also required to establish the ALOS to be achieved.

In compiling this SSP, efforts have been made to align the format, structure and contents of the Programme as closely as possible with the framework as proposed in Attachment F to ICAO Annex 11². This will not only enable **THE STATE** to meet the associated ICAO Standards due to become effective in **XX XX XXXX**, but at the same time will also facilitate the implementation and maintenance of a State Safety Programme by **THE STATE** in a structured and effective manner.

The basic framework of this Programme consists of four components and eleven elements, outlined as follows:

1. State's Safety Policy and Objectives

- 1.1 Safety Standards
- 1.2 Safety Responsibilities and Accountabilities
- 1.3 Accident and Incident Investigation
- 1.4 Enforcement Policy

2. State's Safety Risk Management

- 2.1 Safety Requirements for Service Providers SMS
- 2.2 Approval of Service Providers Acceptable Levels of Safety

3. State's Safety Assurance

- 3.1 Safety Oversight
- 3.2 Safety Data Collection, Analysis and Exchange
- 3.3 Safety Data Driven Targeting of Oversight on Areas of Greater Concern or Need

4. State's Safety Promotion

- 4.1 Internal Training, Communication and Dissemination of Safety Information
- 4.2 External Training, Communication and Dissemination of Safety Information



² See Appendix A “ICAO Framework for the State’s Safety Programme”

To ensure a better understanding, readers are advised to read this programme in conjunction with the ICAO proposed framework as summarized in Appendix A. A brief description of the ICAO requirements for each component and element is also presented therein.

Wherever appropriate, sub-paragraphs have also been incorporated to supplement or further elaborate on each component and element.

In line with the basic principles of safety management, the ultimate objective of the implementation and maintenance of this State Safety Programme is for the continuous improvement of safety standards.

To this end, this Programmed shall be subject to periodic review and enhancement, in light of experience, to ensure that it remains up-to-date, relevant and appropriate to the aviation industry in **THE STATE**.



1. State's Safety Policy and Objectives

1.1 DGCA Safety Standards

Under the Convention on International Civil Aviation (the Chicago Convention), **THE STATE DGCA** has the responsibility for establishing an environment conducive to safe and efficient aviation activities. To ensure **THE STATE** meets its international obligations in respect of aviation safety regulation, there is in place a comprehensive safety regulatory framework enabling the DGCA to implement ICAO Standards and Recommended Practices (SARPs). This also ensures that **THE STATE** meets the eight Critical Elements³ of a safety oversight system as promulgated by the ICAO.

1.1.1 Safety Regulatory Framework

-see diagram at Appendix C

THE STATE regulatory framework comprises three tiers, covering aspects including flight operations and safety, licensing of operational personnel, airspace and navigation services, aerodrome development and licensing, certification and operation of aircraft and investigation of aircraft accidents and incidents, for which **THE STATE** has responsibility. It gives the DGCA a number of safety regulatory functions relating to the issue of licenses, certificates and approvals. The standards that applicants are expected to meet in order to be granted such a license, certificate or approval are contained in supporting documentation developed by the DGCA.

The three tiers are as follows:

- the primary legislation, including:
 - Civil Aviation POLICY
 - Air Navigation Regulations;
 - Investigation of Accidents Regulations;
 - Dangerous Goods (Safety) Regulations;



³ See Appendix B “Critical Elements of a Safety Oversight System”

- and beneath these, are the supporting operating and aviation requirements guidance documents:

- Aerodrome Licensing Requirements Document
- Aeronautical Information Publication (AIP)
- Air Operator’s Certificates Requirement Document
- Requirements Document : Pilot Licenses and Associated Ratings
- Approved Maintenance Organizations
- Air Navigation Services Safety Requirements,
-etc.

These legislative and regulatory provisions are subject to periodic review by the DGCA, relevant policy bureau and government departments in **the STATE**, so as to ensure that the safety regulatory system in place takes into account the level and complexity of the aviation activities in **the STATE**, and that it continues to provide a solid and sound legal framework for enabling **the STATE** to meet its local and international civil aviation obligations. Furthermore, all legislative amendments are subject to relevant public consultation exercises in accordance with the established legislative procedures.

The STATE has a safety policy of complying with ICAO SARPs wherever possible. To this end, procedures shall be established to ensure that new or amended provisions of the Chicago Convention and its Annexes are incorporated and reflected in the legislation, operating regulations or supporting operating and aviation requirements as appropriate, in a timely and effective manner. Where adoption of ICAO provisions is not practicable, the DGCA shall notify such differences to ICAO in accordance with Article 38 of the Chicago Convention and publish them in the **the STATE** AIP.

1.1.2 Establishment and Organization of the DGCA

Description of the entity managing and implementing the ICAO safety requirements in THE STATE, including the local legislative and regulatory provisions for aviation safety.

Below is the (MODEL) DGCA organization chart:

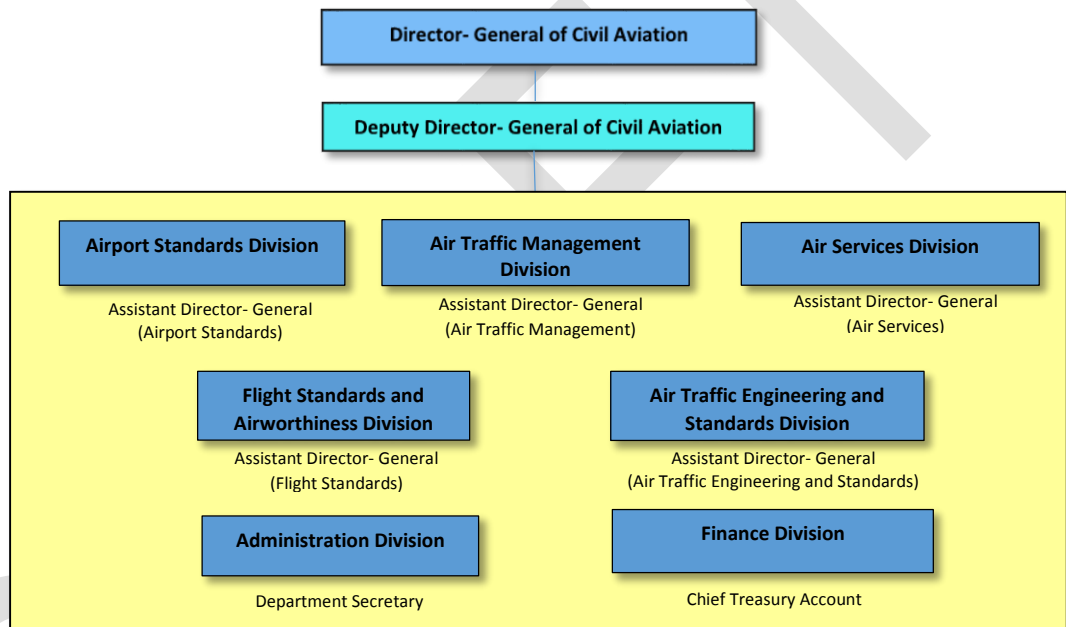


Figure 1. Organization Chart of the DGCA

The Department is headed by the Director- General of Civil Aviation (DGCA), whose deputy is the Deputy Director- General of Civil Aviation (DDGCA). Under the DGCA and DDGCA are (How Many?) divisions⁴. They are:

⁴ In addition to these divisions, the Accidents Investigation Division (AID) operates on a part-time basis to deal with day-to-day administrative matters concerning the investigation of aircraft accidents and incidents in THE STATE. In the event of an accident or serious incident occurring in THE STATE or under the jurisdiction of THE STATE in accordance with ICAO Annex 13, it will mobilize specially trained staff from other Divisions as appropriate to form



an accident or incident investigation team. More details about the establishment and work of the AID are in section 13.

- *Airport Standards Division (APSD) headed by the Assistant Director- General (Airport Standards) [ADG(APS)];*
- *Air Traffic Management Division (ATMD) headed by the Assistant Director-General (Air Traffic Management) [ADG(ATM)];*
- *Air Services Division (ASD) headed by the Assistant Director- General (Air Services) [ADG(AS)];*
- *Flight Standards and Airworthiness Division (FSAD) headed by the Assistant Director- General (Flight Standards) [ADG(FS)];*
- *Air Traffic Engineering and Standards Division (AESD) headed by the Assistant Director- General (Air Traffic Engineering and Standards) [ADG(AES)];*
- *Administration Division headed by the Departmental Secretary; and*
- *Finance Division headed by the Chief Treasury Accountant.*

Within these divisions are the offices responsible for safety regulatory missions in accordance with ICAO Annex 6 – *Operation of Aircraft*, Annex 8 – *Airworthiness of Aircraft*, Annex 11 – *Air Traffic Services* and Annex 14 – *Aerodromes*⁵. They are:

- *Flight Standards Office (FSO) and Airworthiness Office (AWO) of the FSAD;*
- *Air Traffic Management Standards Office (ATMSO) of the AESD;*
- *Airport Sub-sections (APSS) of the APSD*

Appendix D shows the organizational structure of the civil aviation system in *THE STATE*, and the relationships of the above offices with other organizations and functions within the system.

⁵ Within the DGCA, there are offices responsible for other safety regulatory missions in accordance with ICAO Annexes. They include the Personnel Licensing Office of the FSAD, Dangerous Goods Office and Aviation Security Standards Sub-section. However, for the purposes of this State Safety Programme, details of these offices are not elaborated. Additional information concerning the establishment and work objectives of these offices can be found in the respective Divisional Expositions.



1.1.2.1 Flight Standards Office (FSO)

The FSO is the sole flight standards regulatory agency for all **THE STATE** based airlines and aircraft operators. Headed by the Chief, Flight Standards (C, FS), it is primarily responsible for the implementation of the flight safety oversight regime, the issue of the Air Operator's Certificate (AOC) and the associated operations specifications in **the STATE** in accordance with ICAO Annexes 1, 6 and 8.

An Organization chart of the FSO and a more detailed description of its duties and responsibilities are at Appendix E.

1.1.2.2 Airworthiness Office (AWO)

The AWO is the sole airworthiness regulatory agency in **THE STATE**. The various SARPs stated in ICAO Annex 1, 6, 7, 8, 10, 13 and 16 fall under the jurisdiction of the AWO.

As there is no aviation manufacturing industry in **THE STATE**, the primary responsibilities of the AWO are mainly concerned with the registration of aircraft, continuing airworthiness, approval of maintenance organizations, maintenance certification of operators and the licensing of aircraft maintenance personnel. Headed by the Chief, Airworthiness Standards (C, AS), the AWO comprises five functional groups, namely the Standards, Engineering, AOC, Maintenance, and Training and Licensing groups.

An organization chart of the AWO and a more detailed description of its duties and responsibilities are at Appendix F.

1.1.2.3 Air Traffic Management Standards Office (ATMSO)

The ATMSO is the sole air navigation services (ANS) regulatory agency in **THE STATE**. Albeit operating within the same sphere as the ATMD—the ANS provider in **THE STATE**, the ATMSO is given legal powers under the ANO to fulfill its safety regulatory functions in an autonomous manner with the ATMD operating as the party being regulated.

This enables the separation of the ANS regulatory body and the service provider, and ensures independence of the associated safety oversight functions.



An organization chart of the ATMSO and a more detailed description of its duties and responsibilities are at Appendix G.

1.1.2.4 Airport Sub-sections (APSS)

The APSS is a sub-section of the APSD, which aside from aerodrome standards, is also responsible for the enforcement of the control of obstructions, safe carriage of dangerous goods by air and aviation security. Headed by the Chief Safety Officer (Airport & Safety Regulation), the APSS consists of the Airport (1) Sub-section and Airport (2) Sub-section.

The APSS is responsible for aerodrome licensing and the establishment of an aerodrome safety oversight regime in **THE STATE**. The guidelines stated in ICAO Annex 14 are largely followed in the process of certification of aerodromes.

An organization chart and a more detailed description of its duties and responsibilities are at Appendix H.

To achieve continuous improvements to the overall level of safety, the system and the associated safety standards shall be subject to periodic review to ensure that they remain robust, relevant and appropriate to **the STATE**. In line with DGCA policy, the opportunity will also be taken to extend the concept of the State Safety Programme and safety management to all other processes and functional areas of the aviation industry, in anticipation of further changes to ICAO SARPs and to enhance our safety standards.

Reference to ICAO Annex 13 is covered in more detail in Section 1.3.



1.2 DGCA Safety Responsibilities and Accountabilities

1.2.1 Safety Responsibilities

As the primary regulatory agency of civil aviation in **the STATE**, the safety responsibilities of the DGCA include the following:

- (a) establishing and implementing the rules, regulations and procedures for safety and efficient aviation operations, including
 - personal licensing;
 - certification of aircraft, air operators, and aerodromes;
 - provision of air navigation services; and
 - **aircraft accident and incident investigation;**
- (b) implementing a system for safety oversight of the entire civil aviation system by surveillance, inspections and safety audits, etc.;
- (c) carrying out enforcement actions as necessary;
- (d) monitoring technological developments and best industry practices with a view to improving the overall aviation system performance of **the STATE**;
- (e) maintaining a system of aviation records, including licences and certificates, and reported accidents and incidents.
- (f) conducting analyses of safety trends, including accident/incident data, and service difficulty reports;
- (g) promoting safety through the dissemination of specific safety materials, conducting safety seminars, etc.; and
- (h) working collaboratively with industry to continuously improve aviation safety and address safety issues.

1.2.2 Safety Objectives

Recognizing that the proper discharge of the above safety responsibilities is fundamental to the health of the aviation industry in **THE STATE** and aircraft operations across borders and throughout the world, the DGCA has the obligation to meet the following safety objectives:

- (a) the establishment and implementation of a balanced safety oversight system, taking economic justification and the eight Critical Elements of a safety oversight system into account;



- (b) the adoption of a robust and effective approach to the management of safety, including the implementation of SMS in the functional areas of regulation as well as in operations and service provisions;
- (c) the adoption of a coordinated approach to the formulation, timely and accessible publication and implementation of aviation legislations, requirements, directives and guidance to industry;
- (d) the adoption of a balanced and well-defined approach to the allocation of responsibility, between the regulatory authority and the industry, for civil aviation safety;
- (e) the continued oversight and supervision of the activities of Operators and Service Providers without unduly inhibiting the effective direction, management, operation and control of their own organization;
- (f) the cultivation and maintenance of a harmonious relationship (including communication and consultation) between the regulatory authority and the industry, whilst maintaining effective and clearly separate functional roles. An effective flow of safety information through reporting and communication is encouraged. In this regard, communication includes the promulgation to industry or requirements to be met for the granting of licences, certificates or other approvals, together with associated guidance material;
- (g) the maintenance of a commitment to ensure the provision of the necessary human and financial resources for meeting our international civil aviation obligations and the implementation of an effective safety oversight system and State Safety Programme;

and last but not least,

- (h) through continuous monitoring and regular assessment of the safety levels achieved, ensure the continuous improvement to the overall level of safety in **the STATE**, through a reduction of the overall probability and consequences of unsafe aviation occurrences.

Commitment to the above objectives will ensure **the STATE** continues to maintain the highest safety standards, and best serve the public interest. To promote these objectives, the DGCA has developed clear statements of vision and mission regarding safety as follows:

1.2.3 Vision Statement

“The DGCA is committed to provide a safe and efficient air transport System”



1.2.4 Mission Statement regarding Safety

- Maintaining a safe, orderly and expeditious flow of air traffic.
- Ensuring compliance of established airworthiness and flight operations standards the **STATE** registered aircraft and locally based airlines.
- Ensuring **the STATE** approved aircraft maintenance organizations comply with international standards
- Ensuring **the STATE** licensed personnel including flight crew, aircraft maintenance engineers and air traffic controllers meet international standards
- Ensuring that a high standard of safety in the provision of air traffic management services and systems is established, achieved and maintained
- Developing strategies and implementing proactive measures to minimize safety risks to aviation by ensuring that all operations are conducted in conformity with the respective acceptable levels of safety
- Setting and enforcing aerodrome safety standards.

1.2.5 Safety Accountabilities

Safety accountabilities constitute an important element of the SSP and the SMS of all service providers. Though the primary responsibility for this SSP rests with the DGCA, it is important that the aviation community recognizes and accepts that the management of safety within **THE STATE** is a shared responsibility that requires the participation of all stakeholders, including both management and the operational personnel. Generally speaking, it comprises three tiers:

- (a) As well as being responsible for their actions, individual staff members are also accountable to their supervisors or management personnel for the safe and effective performance of their functions;
- (b) Supervisors and management personnel are accountable for the overall performance of the functional group(s) that report to them; and

Last but not least,

- (c) Management personnel are accountable for the overall performance of their organization, and for ensuring that their subordinates have the necessary resources, facilities, training and experience needed for the safe and effective execution of their assigned duties, in accordance with the



applicable provisions of the Laws of **the STATE** and the Annexes to the Chicago Convention.

Accountability is a two-way process. Only through thorough understanding and effective management of these safety responsibilities and accountabilities by all organizations including management personnel as well as frontline operational personnel can the DGCA continue to manage safety effectively and to carry out its regulatory and safety oversight functions in a balanced, professional and prudent manner. The DGCA should also continue to encourage two-way communication and open discussion of these safety requirements and objectives between frontline personnel, supervisors and management personnel to foster the development of a safety culture.

1.3 Accident and Incident Investigation

Aircraft accident and incident investigations are carried out by the Accidents Investigation Division (**AID/XXXX**) of the DGCA in accordance with ICAO Annex 13. It plays an important role in the prevention of accidents and incidents, thus supporting the management of aviation safety in **THE STATE**. The sole objective of the investigation process is to support the management of safety in **THE STATE**; it is not for the purposes of apportioning of blame or liability.

1.3.1 Accident Investigation Division

The **AID** comprises a Chief Inspector of Accidents, a Deputy Chief Inspector of Accidents and over **XX** Inspectors of Accidents. It operates on a part-time basis to deal with day-to-day administrative matters (including regular review of the need for additional investigators, making arrangements for training of **AID staff**, and ensuring the adequacy of accident response facilities, etc.).

Each year, suitably qualified officers from within the DGCA are selected by the Chief Inspector of Accidents to attend the Aircraft Accident Investigation Course. Upon successful completion of the course, the officers are appointed as an Inspector of Accidents, in addition to their own official capacity as a member of their respective disciplines.

In the event of an accident or serious incident occurring in **THE STATE** or under the jurisdiction of **THE STATE** in accordance with ICAO Annex 13, the **AID** will mobilize an appropriate number and composition of Inspectors of Accidents from the various DGCA divisions to form an accident investigation team.

All inspectors are obliged to carry out the investigation in accordance with ICAO Annex 13 and in a professional and fair manner. Once tasked with the responsibility, they should have unrestricted authority and be entirely independent and free from any interference from other parties throughout the course of the investigation.



An organizational chart of the AID is provided at Appendix 1.

1.3.2 Aircraft Accident and Incident Investigation

The primary legislative instrument for accident and incident investigation is the **THE STATE** Civil Aviation (Investigation of Accidents) Regulations (XXXX). These regulations are supplemented by the “AID Exposition” which is issued to every member of the AID upon their appointment.

In the event of an accident or serious incident occurring in **THE STATE** or under the jurisdiction of **THE STATE** in accordance with ICAO Annex 13, the AID will mobilize specifically trained staff from other Divisions as appropriate to form an accident or incident investigation team.

Based on the circumstances of the accident/incident, the Chief Inspector of Accidents will decide whether an investigation will take place and the form of that investigation.

Accident and incident investigations shall be conducted in accordance with ICAO Annex 13, the legislative requirements in the **XXXX** and the AID Exposition. Amongst other things, the requirements for notification, protection and preservation of evidence, and preparation and publication of the Preliminary and Final Reports must be observed.

At any stage of the investigation, should the AID consider it necessary for any preventive actions or safety recommendations to be affected in the interests of safety, in accordance with ICAO Annex 13, prompt actions should be taken by the Inspectors of Accidents to notify the relevant parties and the investigation authorities of other States. Similarly, if at any time **THE STATE** receives safety recommendations from other State authorities, prompt actions should be taken by the Inspectors of Accidents to ensure that those recommendations would be addressed properly by the DGCA, service providers or industry partners as appropriate, in a timely manner.

In addition to the above, incidents other than those defined in the **XXXX**, may also be investigated should circumstances so require. Investigation of such incidents may take either of the following forms:

- (a) a written report from the pilot and any other relevant parties amplified where necessary by personal interview;
- (b) a field investigation ⁶ by an Inspector of Accidents, Upon completion of a field investigation, the Inspector of Accidents will submit to the Chief Inspector such information as he considers pertinent to the prevention of future accidents and incidents.



The above summarizes the accident and incident investigation processes in **THE STATE**. Bearing in mind that the objective is for the overall improvement of safety, the establishment of these processes will not only enable **the STATE** to meet its local and international obligations for the investigation of accidents/incidents in accordance with **XXXX** and ICAO Annex 13 respectively, but it also plays an important role in supporting the management of aviation safety in **the STATE**. It is not for the purposed of apportioning of blame or liability.

⁶ “Field investigation” means an investigation carried out to determine the cause(s) of the incident but which is not intended to be the subject of a written report to the Chief Executive.

1.4 Enforcement Policy

1.4.1 Introduction

In line with international practices, a large number of aviation activities in **the STATE** are subject to regulatory control by the DGCA. To name a few, pilots, aircraft maintenance engineers and air traffic controllers must hold a valid licence appropriate to their functions and roles; aircraft must have a Certificate of Airworthiness or permit to fly; aircraft operators must have an Air Operator’s Certificate (AOC) for public transport purposes; and aerodromes used for international operations must be licensed.

All licences, certificates, approvals or permissions are issued in accordance with the relevant legislation, operating regulations, and supporting operating and aviation requirements promulgated by the DGCA.

In the course of their duties, regulatory staff of the DGCA may, from time to time, discover matters which may appear to be safety deviations or violations of the legislation/ regulations by operators, service providers or individuals. In these circumstances of the suspected breach and where appropriate, the enforcement actions to be taken, in accordance with the established procedures and enforcement policy.

The DGCA has powers to vary, suspend or revoke such instruments issued where it is no longer satisfied that the relevant criteria are met.



1.4.2 Enforcement Considerations

Not all cases of infringement constitute an offence and warrant prosecution. Bearing in mind that as safety is of the utmost concern and the aim of investigations is to find the cause of all infringements and make constructive recommendations to prevent their recurrence, prudent judgment and fair actions must be employed by all investigating officers at all times.

The following should be taken into account when considering the appropriate enforcement action to be taken:

- (a) Whether the infringement constitutes breaches of legislation or key operating regulations;
- (b) Whether the infringement has resulted in fatalities, personal injuries or third party property damages;
- (c) Whether or not public safety and/or public interest has been compromised as a result of the infringement;
- (d) Whether gross negligence or willful deviations were involved; and
- (e) The status of implementation of the SMS within the organization involved.

Within the spirit and context of SMS, service providers may be in a better position than the DGCA to deal with and resolve events involving safety deviations and minor violations, more effectively internally. In these circumstances, internal investigations and rectification by the service provider concerned may be allowed subject to the agreement and satisfaction of the DGCA.

Under the Mandatory Occurrence Reporting Scheme, the DGCA states that the primary concern is to secure free and uninhibited reporting. It will not be the policy of the DGCA to institute proceedings in respect of unpremeditated or inadvertent breaches of the law which come to its attention only because they have been reported under the Scheme, except in cases involving dereliction of duty amounting to gross negligence or recklessness.

1.4.3 Enforcement Actions against breaches of legislation/regulations

In the event that gross negligence, willful infringement or deviation from legislation or regulations by any organization, service provider or individual is suspected or evident, the matter must be further investigated, and as appropriate, referred to the Department of Justice – the legal authority in **the STATE** responsible for all prosecution matters. The Department of Justice serves to prosecute trials and appeals on behalf of the DGCA, and to provide legal advice to the DGCA when required during investigation. In the case of minor infringement



and if the infringement is not a repeated offence, a warning may be served in writing, in lieu of legal action. The organization, service provider or individual concerned must then reply to the satisfaction of the DGCA stating the necessary remedial measures to be undertaken within a reasonable timeframe in order to prevent recurrence.

Generally speaking, for organizations, service providers and individuals who fail to meet the required safety standards, enforcement action can be taken against them according to the provisions in the **Air Navigation Order (ANO)** or other legislative or regulatory requirements. In particular, the DGCA has been empowered to exercise the provisions under the **ANO** and he has in turn delegated such powers and duties to designated staff within the FSO, AWO, ATMSO and APSS to exercise the powers or perform the duties on his behalf.

Under the said **Order**, any person, who without reasonable excuse fails to comply with any direction given to him under any provision of the Order, shall be deemed to have contravened that provision. Such contravention is punishable according to penalties listed in **Article XX of the Order**. Should circumstances warrant, it is also possible that their operations be suspended until such time as it is evident that the necessary actions have been taken to remedy deficiencies and resume operations to the safety standard required.

Furthermore, under **Article XX of the said Order**, any certificate or licence issued, granted or having effect under the Order may be provisionally suspended or varied, pending inquiry into or consideration of the case. With sufficient grounds after due inquiry, any such certificate or licence approval may be revoked, suspended or varied.

Whereas certain DGCA requirement documents, such as Flight Operations Notices, **the STATE** Aviation Requirements or Airworthiness Notices (ANs) and other ancillary guidance documents are not law, they are the means by which through compliance, the DGCA can be satisfied that operators and service providers meet the required safety standards. Therefore, non-compliance with these documents may also result in the relevant offices recommending the DGCA to revoke, suspend or vary the certificate or licence issued.



2 State's Safety Risk Management

2.1 Safety Requirements for Service Providers SMS

With reference to ICAO Annexes 1, 6, 8, 11, 13 and 14, Document 9859 – “Safety Management Manual” and **DGCA regulations**, the SMS to be implemented by the aviation service providers shall include the following:

- (a) that it enables the identification of safety hazards and management of associated risks;
- (b) that it ensures that remedial action necessary to maintain an acceptable level of safety is carried out;
- (c) that it provides for continuous monitoring and regular assessment of the safety level achieved; and
- (d) that it aims to make continuous improvement to the overall level of safety.

2.1.1 SMS for the ANS Provider

The specific requirements for the ANS provider to establish and maintain an SMS are stipulated in the **ANR and DGCA – “Air Navigation Services Safety Requirements” Manual**. They include the setting of safety accountabilities and responsibilities hazard identification and risk assessments, in line with the latest international standards and best practices. Furthermore, the ATMD is also required to allocate appropriate resources, particularly human resources, to oversee and ensure the implementation of SMS in the provision of air traffic management (ATM) services. A mechanism shall be established to review their performance in safety management and effectiveness of the SMS on a regular basis, and to effect any changes as necessary.

In accordance with provisions of ICAO Annex 11, the ATMSO is required to set the Safety Performance Targets, which are considered in consultation with the ATMS. The ATMD is required to periodically provide traffic data to determine the Safety Performance Indicators.

The Safety Performance Targets for engineering systems will be set in consultation with the Projects and Technical Support Sections of the AESD for safety-related functions in terms of equipment faults and service availability.

2.1.2 SMS for the Air Operators and Maintenance Organizations



The requirements for air operators and maintenance organizations to establish and maintain an SMS are stipulated in the ANR “Safety Management Systems for Air Operators and Maintenance Organizations”. They include comprehensive guidelines on the following:

- the setting of safety policy on which the system is based;
- the setting of safety objectives, performance targets and indicators;
- the importance of clearly defined lines of safety accountability throughout the organization;
- identification of hazards to aviation safety and the evaluation and management of their associated risks;
- the importance of safety training to ensure their competency to perform their duties;
- the requirements for documentation of all SMS components, procedures and activities;
- the requirements for periodic reviews or audits of the SMS and an emergency response plan, etc.

In accordance with ICAO Annex 6, it is required that all DGCA AOC holders and ANR Part 145 aircraft maintenance organizations should establish and implement an SMS acceptable to the DGCA by XX XX XXXX.

To facilitate the promulgation of this requirement and the concepts of SMS, electronic copies of the DGCA publication are available on DGCA website via the following link:

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

During its acceptance process, the DGCA will adopt a four-phased approach to facilitate implementation:

(a) Phase 1 – Planning SMS Implementation

Phase 1 should provide a blueprint on how the SMS requirements will be met and integrated to the organization’s work activities, and an accountability framework for the implementation of the SMS. This includes requirements to:

- Identify the accountable executive and the safety accountabilities of managers;
- Identify the person (or planning group) within the organization responsible for implementing the SMS.



- Describe the system (Air operator or approved maintenance organization, etc.);
- Conduct a gap analysis of the organization's existing resources compared with the local and international requirements for establishing an SMS;
- Develop an SMS implementation plan that explains how the organization will implement the SMS on the basis of local requirements and international SARPs, the system description and the results of the gap analysis;
- Develop documentation relevant to safety policy and objectives; and
- Develop and establish means for safety communication.

(b) Phase 2 – Reactive Safety Management Processes

Phase 2 should put into practice those elements of the SMS implementation plan that refer to the safety risk management reactive processes:

- hazard identification and risk management using reactive processes; and
- training and documentation relevant to SMS implementation plan components, and safety risk management (reactive processes).

(c) Phase 3 – Predictive and Proactive Safety Management Processes

Phase 3 should put into practice those elements of the SMS implementation plan that refer to the safety risk management predictive and proactive processes:

- hazard identification and risk management using proactive and predictive processes; and
- training and documentation relevant to SMS implementation plan components; and safety risk management (predictive and proactive processes).

(d) Phase 4 – Operational Safety Assurance

Phase 4 should put into practice operational safety assurance:

- development of acceptable level (s) of safety;
- development of safety indicators and targets;
- SMS continuous improvement; and



- training and documentation relevant to operational safety assurance.

Given that the implementation of SMS in air operators and aircraft maintenance organizations is still a relatively new concept, the associated requirements, processes and procedures shall be subject to review and refinements in light of experience. The ultimate objective is to achieve continuous improvement to the overall level of safety.

2.1.3 SMS for the Aerodrome Operators

The requirements for licensed aerodrome operators to establish and maintain an SMS are stipulated in the ANR and the ALRD – “Aerodrome Licensing Requirements Document”. The SMS shall include at least the following:

- The setting of objectives and policies on the process of safety management and how it relates to the operational and maintenance process;
- The organization of the SMS including staffing and assignment of individual and group responsibilities on safety issues;
- Setting of Safety Performance Indicators and Safety Performance Targets prescribed by the ALOS, formulating strategy to meet the safety targets through planning and implementation of Safety Requirements, allocating priority for implementing safety initiatives and providing a framework for controlling the risks to a level as low as reasonably practicable;
- System implementation including facilities, methods and procedures for the effective communication of safety messages and enforcement of safety requirements;
- System for the identification of and control on critical safety areas, hazards and risks, which require a higher level of safety management integrity;
- Measures for continuous safety improvement, system for risk analysis and root cause analysis for accident prevention, collection and analysis of accident/incident data, evaluation of safety components and adoption of change management on such safety components;
- Safety audit and review detailing the systems and programmes used for the quality control on safety;
- System for the documentation of all safety related airport facilities as well as airport operational and maintenance records including information on the design and construction of airfield pavements and lighting. The system should be able to facilitate easy retrieval of records including charts;
- Staff training and competency including review and evaluation on the adequacy of training provided to staff on safety related duties and of the certification system for testing their competency;
- System for the management of contracts in respect of safety issues shall be established and maintained. Tender or proposal invitation documents



shall be reviewed to ensure that safety requirements are adequately defined and documented;

- Promotion and measurement of safety culture including the measurement of safety climate.

All the requirements in Paragraphs 2.1.1 to 2.1.3 above shall be subject to periodic review to ensure that they comply with ICAO Annex 1, 6, 8,11,13 and 14, and that they remain relevant and appropriate to the ANS provider, air operators, aircraft maintenance organizations and aerodrome operators in **the STATE**.

2.2 Approval of Service Providers Acceptance Levels of Safety

ICAO Standards require that the ALOS to be achieved shall be established by the State(s) concerned. Guidance on the establishment of ALOS is contained in the Safety Management Manual (Document 9859) and Attachment E to Annex 11⁷.

2.2.1 Consideration for the establishment of ALOS

In establishing the ALOS, the DGCA shall take into account the following factors. They should also be served as the basic principles for DGCA approval of the respective Safety Performance Targets and Safety Performance Indicators, and acceptance of the associated SMS programme for each individual aviation service provider:

- (a) the size, nature and complexity of the activities concerned;
- (b) the safety hazards and risks related to such activities;
- (c) the resources available to address and manage these safety risks;
- (d) the local and international standards for an SMS as detailed in Paragraph 2.1 above; and
- (e) consultation and agreements with the respective service providers.

There is public expectation that safety levels should progressively improve, within reasonable economic constraints and within a reasonable timescale.

As aviation is in a continuous state of change, with advances in technology and a changing business and operational context, safety improvement cannot be delivered without DGCA's continuing efforts in promoting the concepts of SMS and engagement with all dimensions of the The STATE aviation industry.

2.2.2 ALOS for the ANS Provider

Safety Performance Targets are set by the ATMSO as follows:

- (a) the maximum probability of undesirable events, such as collision, loss of separation, etc., per 100,000 flight movements;
- (b) the maximum number of runway incursion incidents per 100,000 flight movements;



- (c) the maximum number of airspace incidents per 100,000 flight movements; and
- (d) performance pledge of the DGCA that the service availability of ATC equipment is better than 99.9%.

The Safety Performance Targets are reviewed as required to ensure that they remain relevant and appropriate.

To determine the Safety Performance Indicators, the ATMD is required to provide the achieved level(s) of safety on a quarterly basis, by reference to the number of ATC occurrences such as loss of separation incidents, runway incursion, etc.

The Technical Support Sections of the AESD is required to provide the achieved level(s) of safety on a monthly basis, by reference to the number of ATC equipment faults and equipment availability.

2.2.3 ALOS for the Air Operators and Maintenance Organizations

The ALOS to be achieved by each individual air operator and maintenance organization are established based on the safety performance indicators and safety performance targets, as well as the safety requirements of each of the air operators and maintenance organizations. Example of ALOS may include the following:

- (a) Number of in-flight incidents per 1,000 flight hours/cycles flown (Safety Performance Indicator) and their expected performance index with a reduction rate through a defined period (Safety Performance Target);
- (b) Number of aircraft defect incidents per 1,000 sectors flown (Safety Performance Indicator) and its expected performance index with a reduction rate through a defined period (Safety Performance Target);
- (c) Number of engine In-flight Shut down (IFSD) per 1,000 engine cycles and its expected performance index with a reduction rate through a defined period (Safety Performance Target);
- (d) Number of operational incidents per 1,000 flight hours / sectors flown (Safety Performance Indicator) and its expected performance index with a reduction rate through a defined period (Safety Performance Target);
- (e) Number of findings per AOC or ANR Part-145 audit (Safety Performance Indicator) and their expected performance index with a reduction rate through a defined period (Safety Performance Target).

For the purpose of achieving ALOS in aircraft operations, air operators are encouraged to integrate the following safety activities into their SMS:

- Hazard and Incident Reporting;
- Flight Data Analysis (FDA) Programme;



- Line Operations Safety Audit (LOSA) Programme; and
- Cabin Safety Programme.

The ALOS established shall be subject to periodic review to ensure that they remain relevant and appropriate to the service provider, and that they are commensurate to the complexity of individual service providers, the specific operational contexts and the availability of resources to address safety risks.

2.2.4 ALOS for the Aerodrome Operators

The APSS has established ALOS with the **Airport Authority of KUWAIT** – the aerodrome operator of **the STATE** International Airport based on the latter's safety performance indicators and safety performance targets, implemented through various safety requirements. Such safety requirements include the implementation of an accident prevention programme, mandatory / voluntary occurrence reporting system, bird strike prevention programme, the maintenance of system reliability, availability and accuracy, etc.

Examples of ALOS shall include, but not be limited to, the following:

- (a) Number of Aircraft Ground Accidents / Incidents per 1 000 Aircraft Movement (Safety Performance Indicator) and its expected performance index with a reduction rate through a defined period (Safety Performance Target);
- (b) Weight of foreign object debris (FOD) in grams per 10,000 sq.m. found in the apron (Safety Performance Indicator) and its index with an expected reduction rate through a defined period (Safety Performance Target);
- (c) Measured runway friction value appropriate to the test equipment (Safety Performance Indicator) and the specified maintenance friction value (Safety Performance Target).
- (d) Availability/Reliability of Airfield Ground lighting, High Mast Lighting, Aircraft Parking Aids and Crash Alarm (Safety Performance Indicator) with the Safety Performance Target primarily not lower than the standard specified by the manufacturers.

Guidelines for the establishment of ALOS are given in Appendix III to the **Aerodrome Licensing Manual (ALM)**.

In line with the concepts of SMS, the ALOS established are subject to periodic review to ensure that they remain relevant and appropriate to the varying level of aerodrome operations.

3 State's Safety Assurance

3.1 Safety Oversight



As detailed in Paragraph 2.3.1.1 of ICAO Document 9734, a State's safety oversight responsibilities under the Chicago Convention and its Annexes include:

- The licensing of operational personnel;
- Certification of aircraft, air operators, and aerodromes;
- The control and supervision of licensed personnel, and approved organizations;
- The provision of air navigation services; and
- Aircraft accident and incident investigation.

For the purposes of this Safety Programme, the STATE's safety oversight responsibilities in accordance with ICAO Annexes 1, 6, 8, 11, 13 and 14, are detailed as follows:

3.1.1 Flight Standards Office

The FSO discharges its regulatory duties through the publication of the AOC Requirement Document – DGCA related ANRs and publications, etc., which sets out all the administrative procedures and requirements to be met by applicants and certificate holders.

The Safety Oversight Programme of the FSO shall include:

- (a) the conduct of station facility, ramp and base inspections;
- (b) the conduct of flight deck and cabin inspections during normal line operations and ensuring flight operations procedures are carried out in accordance with the operator's operations manuals and comply with all relevant legislation;
- (c) the continual review of operator's documentation including operations manuals, training manuals, SMS manuals and all other instructions to operating staff;
- (d) the observation of flight crew and cabin crew training, monitoring standards and ensuring training is carried out in accordance with the operator's training manuals and complies with all relevant legislation;
- (e) the conduct of examination of persons nominated by operators for appointment as authorized examiners or approved persons;
- (f) the conduct and reporting on flight tests for the approval of flight simulators; and
- (g) the investigation and monitoring of mandatory occurrence reports (MORs).

In this connection, procedures for investigative and enforcement actions are contained in DGCA Inspecting Staff manual (Flight Operations)". For minor cases, a letter may be sent to the person concerned seeking further safety information to be provided. Within the spirit and context of SMS, aircraft operators may also



be allowed to deal with, and resolve, events involving safety deviations and minor violations internally, subject to the agreement and satisfaction of the DGCA.

If a serious case is suspected involving breaches against legislative and regulatory requirements, the matter should be referred to the C, FFS for consideration and any further actions to be taken in conjunction with the Department of Justice.

All inspecting staff within the FSO shall be fully qualified Flight Operations Inspectors or Senior Operations Inspectors who possess the appropriate operational/technical experience and qualifications in the type of operations for which they are responsible.

3.1.2 Airworthiness Office

AWO discharges its regulatory duties through the publication of the AOC Requirement Document – **Kuwait DGCA ANR**, etc. which set out the regulatory and administrative procedures and requirements to be met by applicants, air operators and maintenance organizations.

Generally speaking, regulatory safety oversight duties are conducted through a coordinated and integrated approach, combining the traditional inspection and audit methods with the new performance-based concept. This ensured that all air operators and maintenance service providers meet the required airworthiness and maintenance standards, albeit being different in size, nature and complexity, of their respective aviation activities.

Furthermore, in an effort to further enhance the effectiveness of the existing safety oversight programme, a mechanism shall be put in place to ensure that the identification of operational hazards and the management of safety risks by operators and maintenance service providers follow established regulatory controls and the SMS requirements in **DGCA related ANRs**. These mechanisms include inspections, audits and surveys to ensure that regulatory safety risk controls are appropriately integrated into the operators' or service providers' SMS, that they are being practices as designed, and that the regulatory controls have the intended effect on safety risks.

Airworthiness Officers shall be qualified specialists in the functional area for which they are responsible. Regulatory competencies shall accordingly be defined for each role.

Two procedures manual, namely the Administration Procedures Manual and Technical Procedures Manual, have been developed for reference and use by Airworthiness Officers in discharging their duties and in the enforcement of **the STATE** legislation and requirements. These procedures are subject to regular review and refinement from the internal Quality and Standards audits to ensure



that they remain relevant and appropriate to the local operating environment. Furthermore, every Airworthiness Officer shall have the obligation to report via the administration procedure to highlight and suggest any constructive changes or additions that will make the use of the manuals more effective and efficient.

3.1.3 Air Traffic Management Standards Office

The ATMSO shall conduct regular and systematic safety reviews, including audits and inspections, to identify irregularities or weaknesses within the ATM and CNS systems, and to recommend corrective measures to be taken by the ANS provider to achieve operational safety. The reference documents are “ANS Safety Requirements”, “ATM Safety Regulatory Auditor and Inspector Handbook” and “ATMSO Exposition”.

The Safety Oversight Programme of the ATMSO shall include:

- (a) the conduct of regular on-site inspection of ATC operations;
- (b) the conduct of periodic audit on various facets of the ATM operations;
- (c) the conduct of safety trend analysis based upon safety data provided by the ANS provider;
- (d) the conduct of regular coordination meetings with the ANS provider to address safety related issues;
- (e) the setting of the Safety Performance Targets and to require the service provider to provide performance data on their achieved level of safety;
- (f) the oversight of the conduct of safety cases by the ANS provider before implementation of new ATC systems and/or major modifications to existing systems, which are critical to the safety of air traffic operations. The same shall be also apply before an introduction of a safety significant operating procedure;
- (g) the critical review of investigations of ATC incidents conducted by the ATM service provider and to provide safety recommendations as appropriate to ensure that all relevant safety requirements are met;
- (h) the requirement of the ANS provider to develop and maintain a structured SMS in their organization;
- (i) the formulation and documentation of safety regulatory requirements to be achieved by the ANS provider. In this regard, the ATMSO has documented the requirement in DGCA related ANR.

In accordance with the above the ATMSO shall oversee the effective implementation of safety-related SARPs and the associated procedures contained in the relevant ICAO Annexes and ANS safety standards regulations. In cases on non-compliance, the ATMSO will coordinate with the service provider and request corrective actions to be taken to prevent recurrence.



3.1.4 Airport Sub-sections

The APSS shall conduct audits and inspections of the aerodrome operator to ensure compliance with the Aerodrome Manual (ADM), SMS Manual and Emergency Procedures Manual, which are submitted in accordance with the ALRD. The audit procedure and corrective actions are set out in the manual on “Audit Policy and Procedures on Facilities and Services at Aerodrome”.

The Safety Oversight Programme of the APSS shall include:

- (a) the conduct of regular reviews of procedures for aerodrome licensing;
- (b) the conduct of regular reviews of aerodrome licensing requirements for licensing of aerodromes and heliports on matters relating to ICAO Annex 14 Volumes I and II and related aerodrome design, planning and services manuals and practices;
- (c) the development and maintenance of an inspection and audit regime for the construction, installation and maintenance of airside facilities, the safe operation and management of airside activities, the rescue and fire fighting services and safety management system at licensed aerodromes and to carry out such inspections and audit accordingly;
- (d) the monitoring of the progress of follow-up actions by the aerodrome license in relation to the non-conformity items or observations raised during such inspections and audits;
- (e) the monitoring and inspection of heliports to ensure that they are operated and maintained in accordance with their aerodrome manuals and the required safety standards;
- (f) the continual review of the aerodrome manual, airport operations manual, emergency procedures manuals and safety management system manual and their amendments submitted by the aerodrome licensee;
- (g) the assessment and review of investigation reports on ground incidents, deficiencies affecting the performance of facilities or services required for the safety of aircraft operations at a licensed aerodrome and the statistical analysis of incidents, special occurrences and the performance of facilities and services and to recommend remedial actions for improvement;

In addition, to improve aerodrome safety, Committees and Working Groups shall be established, as necessary, between the APSS and the aerodrome operator(s) to discuss operational issues for monitoring and resolving safety issues to enhance safety standards. These meetings include Aerodrome Licensing Review Committee meetings at senior management levels, and other Airfield Operations and Safety Committee, Ramp Operations and Safety Committee, Airfield Maintenance Review Sub-Committee, Airport Safety Management System Review



Sub-committee and Airport Emergency Planning Review Sub-Committee meetings at operational levels.

3.2 Safety Data Collection, Analysis and Exchange

The importance of hazard and incident reporting, safety data collection, analysis and exchange are contained within the concepts of an SMS. Under the Mandatory Occurrence Reporting Scheme established and managed by the DGCA, operators and service providers are required to submit MORs on incidents pursuant to DGCA Regulation and the guidance set out in **DGCA related ANRs** – “The Mandatory Occurrence Reporting Scheme”.

3.2.1 The Mandatory Occurrence Reporting Scheme

Upon receipt of an MOR, the respective regulatory office within the DGCA shall be responsible to record, process and carry out investigation of the incidents involved in accordance with established office and investigative procedures. A database is established within the FSAD to record and facilitate assessment of all MORs, and to monitor trends and the progress of MOR investigations.

The ultimate objective of keeping MOR records is to support safety data analysis and exchange, and the management of aviation safety in The STATE. The Scheme is established to prevent recurrence of events that may endanger flight safety. It is not for the purpose of apportioning blame or liability.

3.2.1.1 Flight Standards Office

Based on the guidance set out in **DGCA ANR**, the FSO shall collect, monitor and investigate as appropriate, the MORs that are related to flight operations standards. They are mostly received from The STATE AOC holders and The STATE based aircraft operators.

To this end, the FSO shall liaise and actively exchange safety information with the AOC holders and aircraft operators concerned for follow-up and investigative actions so as to prevent recurrence of the events that may affect flight safety.

3.2.1.2 Airworthiness Office

MORs that are related to aircraft maintenance and engineering shall be collected, monitored and investigated by the AWO, in accordance with DGCA related ANR. The AWO shall liaise and actively exchange safety information with the concerned AOC holders and aircraft maintenance organizations to ensure that effective, thorough and in-time investigations are carried out.



In addition, the AWO shall maintain a mechanism to identify potential safety and operational hazards, and to develop and analyze safety trends from the stored information/data. The DGCA is committed to facilitate exchanges of such safety information with service providers and/or other States as appropriate.

3.2.1.3 Air Traffic Management Standards Office

MORs that are related to ATM matters are collected by the ATMSO through the FSAD, in accordance with DGCA ANR.

The ATMSO establishes regulatory requirements for the storage of safety information and data by the ANS provider, and conduct of ATC incident investigations as illustrated in **DGCA related ANRs – “Guidance for Air Traffic Incident Investigation”**.

With a view to preventing recurrence, the ANS provider is required to establish a system to capture and record useful safety information/data for safety management purposes, including risk management, performance monitoring, hazard detection and trend analysis, and ensure that regular promulgation and dissemination of such information/data so that staff members can learn from past experience, thereby minimizing the risk recurrence.

The data are also used by the ATMSO for safety trend analysis.

3.2.1.4 Airport Sub-sections

MORs that are related to aerodrome operations matters are collected by the APSS through the FSAD, in accordance with DGCA.

Specific aerodrome safety data are to be collected by the APSS from the aerodrome operator and through daily reports submitted by the aerodrome operator. The databases shall be monitored and analyzed, on a regular basis, for specific safety trends, to ensure that the necessary safety measures are implemented in a proactive manner, eg. additional measures to be adopted for a high season of bird strikes. The APSS should also establish close liaison with the aerodrome operator during the course of investigation so as to ensure the exchange of safety information and that proper investigations are conducted by the aerodrome operator and appropriate safety recommendations are made to prevent recurrence of the events.



3.2.2 Voluntary Occurrence Reporting

Aside from the Mandatory Occurrence Reporting Scheme, the DGCA is also committed to promote an open communication culture. In the interests of improving overall safety, operators, service providers or individuals are encouraged to report errors, safety deficiencies, hazards and occurrences to the DGCA and/or the organizations concerned on a voluntary basis. This ensures that the DGCA is made aware of any hazardous or potentially hazardous occurrences and defects so as to enable it to evaluate the safety implication of such occurrences in order to take action, to issue advice or instructions to the relevant parties.

In this connection, the DGCA Form – “Occurrence Report” is available for both mandatory and voluntary occurrence reporting (see THE STATE AIP).

The safety information/data received will be recorded and analyzed in a similar manner to that of the MORs. The proper implementation and maintenance of a non-punitive reporting policy (Just Culture) constitutes an important element of an SMS.

3.2.3 Aircraft Proximity (AIRPROX) Reporting

In accordance with the procedures specified in the AIP, an AIRPROX report should be made whenever a pilot considers that the safety of the aircraft may have been compromised by the proximity of another aircraft during flight within The STATE airspace.

To enable easy and prompt identification of the reported aircraft, an initial report of the AIRPROX incident should first be made by radio to the ATS Unit which the aircraft is in communication at the time. Following the initial report, the report must then be confirmed by either the pilot or operator concerned by the completion of an AIRPROX report.

AIRPROX reports will receive immediate attention of the ATS unit for investigative and follow-up actions to be undertaken. Operators/pilots will be advised of DGCA’s findings.

3.2.4 Collection of Information on Wake Vortex Encounters

In the interests of flight safety and to facilitate the collection and analysis of information on wake vortex encounters by ICAO, a wake vortex reporting scheme was introduced in 2007. Amongst other things, pilots who experience wake vortex encounters within the The STATE Flight Information Region are requested to provide information by completing the ICAO reporting form and submitting it to the ATMSO as soon as practicable. The reports will be reviewed by the ATMSO and forwarded to ICAO for necessary action.



3.2.5 Birdstrike Reporting Scheme

Birds are an ever present hazard to aircraft in flight. Along with the frequent patrols to keep birds away from the vicinity of the **The STATE** International Airport and runways, and the rigorous environmental management control measures being implemented by the Airport Authority to deter birds from the airfield, a Birdstrike Reporting Scheme is established in The STATE to collect and assess birdstrike reports. These statistics are reported to ICAO for inclusion in its worldwide database of ICAO Bird Strike Information System (IBIS).

In the interests of flight safety, ATC will provide prior warning to pilots of bird activity on or in the vicinity of the airfield whenever possible. Pilots can also greatly assist by reporting to ATC when birds are observed near the runway or approach areas, so that following aircraft may be informed in a timely manner.

It is important that pilots immediately notify ATC of any bird strikes. Therefore, a pilot who suspect his aircraft has collided with one or more birds should inform the ATC so that any dead birds, which may attract predatory birds, can be removed from the airfield and an immediate investigation can be initiated whenever possible.

Furthermore, to assist in the assessment of the present bird control measures and improvement needs, pilots, operators, aerodrome personnel and engineers are requested to complete and submit to the Airport Authority a Bird Strike Reporting Form whenever a bird strike is experienced or suspected.

All aircraft are liable to damage from bird strikes, especially in the approach/landing and take-off/climb out phases. The co-operation of all parties concerned, including ATC, pilots, operators and aerodrome personnel and engineers, in reporting bird strikes and providing relevant information is crucial to the ultimate objective of reducing bird hazards at **THE STATE IA** and worldwide airports, and enhancing flight safety.

3.3 Safety Data Driven Targeting of Oversight on Areas of Greater Concern or Need

3.3.1 Safety Oversight

The DGCA adopts a risk management approach in its safety oversight programme so as to focus safety efforts on those hazards posing the greatest risks.

Whereas risk management is defined as the identification, analysis and elimination (and/or mitigation to an acceptable or tolerable level) of those hazards and risks that threaten the viability of any operator or organization, it aims to enable and effect a balanced allocation of resources to address all risks and safety oversight measures, and ensure that viable risk control and mitigation actions are in place.



To this end, processes and procedures have been established within the various offices, including the FSO, AWO, ATMSO and APSS, to identify hazards and assess risks based on their severity and criticality, probability of occurrence using safety information and data available from AOC inspections and audit, the international community, accident and incident investigations, MOR and voluntary occurrence reports, etc.. This enables the DGCA to prioritize inspections, audits and surveys towards those areas of greater safety concern or need.

Furthermore, in deciding on the mitigation measures to be incorporated, the various offices should take into account the availability of resources, and the acceptability and consequences of those risks. Such measures may be incorporated by means of:

- (a) regulations in terms of rules and notices;
- (b) communications with the industry;
- (c) technology; and
- (d) procedures and training

Risk management is a key component of SMNS. It relies heavily on the collection, maintenance and management of safety information and data. It plays an important role in safety management resources allocation, enabling the DGCA to focus on areas of greater safety concerns or needs, and to prioritize regulations, safety oversight efforts, inspections and audits, not only in reactive but also proactive manner.

3.3.2 Safety of Foreign Aircraft

The Conference of the Directors General of Civil Aviation held in 2015 agreed that “It was incumbent upon a State to ensure safety in the airspace within its territory, including the operation of aircraft of foreign operators”. To this end, to ensure that relevant ICAO standards are being complied with by all aircraft operating to and from The STATE, the DGCA has in place a Safety Assessment of Foreign Aircraft (SAFA) Programme to complement ICAO audits by conducting ramp inspections of these aircraft.

In particular, under **DGCA related ANR**, authorized personnel of the CFAD may enter upon and inspect any aircraft for the purposes of establishing the aircraft’s fitness for flight. In certain circumstances, they are also empowered to detain aircraft not considered fit for flight.

The frequency of these inspections shall depend upon the following:

- (a) The record of implementation of ICAO SARPs by the State concerned (if available), e.g. ICAO Universal Safety Oversight Audit results or differences filed in relation to SARPs;



- (b) The international safety record of the operator concerned;
- (c) The results of previous inspections and the overall standard as observed by DGCA;
- (d) The frequency of operations of the aircraft into The STATE; and
- (e) The number of aircraft and the types of aircraft the operator uses;

To keep pace with the continued growth and changes in the aviation industry, it is important that the DGCA prioritizes inspections, audits and surveys towards those areas of greater safety concern or need. It is believed that by adopting the above risk management approach, The STATE will continue to effect a balanced allocation of resources to address all risks and safety measures, and ensure that viable risk control and mitigation actions are in place.

4 Sate’s Safety Promotion

Safety training and promotion is an essential foundation for the development and maintenance of a robust safety culture which fosters the development of an effective and efficient State Safety Programme. It is therefore imperative that relevant personnel be trained and competent to perform their safety duties, and to support the development of a positive organizational culture that promotes awareness, safe practices, encourages safety communications and actively manages safety. More particularly, the level and mode of training should be appropriate to the individual’s functions and involvement in the SMS.

4.1 Internal Training, Communication and Dissemination of Safety Information

Safety and SMS training of various levels and from world-recognized international organizations is to be provided as appropriate to operational and management personnel within the DGCA, to ensure that they are aware of the global development of the aviation industry and competent to perform their respective safety functions and SMS duties. They include, but are not limited to, initial training, recurrent training and specialized training. For SMS in particular, training courses at different levels or modes may include the following:

Courses available	Institute
1. General	
- ICAO Safety Management System Course	ICAO
- Implementing Safety Management System	IATA
- Safety Management Systems for Civil Aviation	IATA



- Safety Management System Course	
- Aviation Safety Management System Course	
- Integrated Safety Management Systems-Achieving World Class Safety Standards Course	
- Safety Management Systems in Aviation	
- Safety Management & Safety Case Training	
- Human Factors Training	
2. Aerodrome -specific	
- Airside Safety Management Course	IATA
- Safety Management System Aerodrome Training	ICAO
3. ANS-specific	
- ATS facility and Safety Management Workshop	
- ATS Safety Management and Investigation Workshop	
- ICAO Workshop for ATS Safety Management Systems Training	ICAO
- ATS Auditor Training	
- Incident Investigation	
- Human Factors/Threat and Error Management	
4. Airline/Flight Operations-specific	
- Safety Management Systems for Airlines	
5. Maintenance-specific	
- Safety Management for Aviation Maintenance	



To enhance the development of SMS and to reinforce its training capacity within The STATE, selected personnel from the FSO and AWO are also trained as ICAO qualified SMS instructors. In turn this will assist in promoting the importance and concepts of SMS within the territory.

In addition to these classroom-type training courses, there is also a need to communicate and promote the SMS processes and activities to other members of the DGCA. The medium for such communication/promotion includes notices. Statements on safety policy and objectives (DGCA vision and mission statements), newsletters (the DGCA link), shared use of safety databases (e.g. the MOR database), internal communications (through the DGCA intranet and Safety Bulletins), induction/orientation programmes, as well as regular internal safety meetings which serve as a forum for the sharing and exchange of regulatory and safety information amongst staff from different functional areas and at different levels, covering aspects including the development of SMS, accident and incident investigations, airline, air navigation, aerodrome operations matters as well as airworthiness and maintenance issues.

4.2 External Training, Communication and Dissemination of Safety Information

As well as providing SMS training courses to DGCA officers, in support of ICAO initiatives for the implementation of a Safety Management System, the DGCA is committed to maintain an active role in organizing and offering SMS training courses and opportunities to industry partners such as the official ICAO SMS Course.

The DGCA frequently organizes local and international safety seminars and conferences. In addition, it is DGCA policy to actively participate in and speak at local and international forums, on aviation safety and SMS in an effort to promote the concepts of SMS and enable the sharing of experience and information amongst organizations and across international borders.

Through discussions and meetings with the industry, and dissemination of safety materials, such as AIP, ANR and publications, the DGCA shall continue to provide education, awareness of safety risks and two-way communication of safety relevant information to support industry and service providers in the development of a positive organizational culture that fosters safe practices, encourages safety communication and actively manages safety with the same attention to detail and results as that of financial management.



Appendix A- Framework for the State's Safety Programme

(Extract from ICAO State Letter ref: AN 12/51-07/74 – New Attachment F to Annex 11)

Introduction

This attachment introduces a framework for the implementation and maintenance of a State's safety programme by a State. The framework consists of four components and eleven elements, outlined hereunder. A brief description of each element is presented.

1. State's Safety Policy and Objectives
 - 1.1 DGCA Safety Standards
 - 1.2 DGCA Safety Responsibilities and Accountabilities
 - 1.3 Accident and Incident Investigation
 - 1.4 Enforcement Policy
2. State's Safety Risk Management
 - 2.1 Safety Requirements for Service Providers SMS
 - 2.2 Approval of Service Providers Acceptable Levels of Safety
3. State's Safety Assurance
 - 3.1 Safety Oversight
 - 3.2 Safety Data Collection, analysis and Exchange
 - 3.3 Safety Data Driven Targeting of Oversight on Areas of Greater Concern or Need
4. State's Safety Promotion
 - 4.1 Internal Training, Communication and Dissemination of Safety Information
 - 4.2 External Training, Communication and Dissemination of Safety Information

Note. - Within the context of this attachment the term "service provider" refers to any organization providing aviation services. The term includes approved training organizations, aircraft operators, maintenance organizations, organizations responsible for type design and/or assembly of aircraft, air traffic services providers and certified aerodrome operators, as applicable.



1. State's Safety Policy and Objectives

1.1 CAA Safety Standards

The State has promulgated a national legislative framework and specific regulations to ensure compliance with international and national standards, and that define how the Civil Aviation Authority (CAA) will oversee the management of safety in the State. This includes the CAA's participation in specific activities related to the management of safety in the State, and the establishment of the roles, responsibilities, and relationships of organizations in the system. The safety standards are periodically reviewed to ensure they remain relevant and appropriate to the State.

1.2 CAA Safety responsibilities and accountabilities

The State has identified and defined the CAA's requirements, responsibilities and accountabilities regarding the establishment and maintenance of the State's safety programme. This includes the directives to plan, organize, develop, control and continuously improve the State's safety programme in a manner that meets the State's safety needs. It also includes a clear statement about the provision of the necessary human and financial resources for the implementation of the State's safety programme.

1.3 Accident and incident investigation

The State has established an independent accident and incident investigation process, the sole objective of which is to support the management of safety in the State and not the apportioning of blame or liability.

1.4 Enforcement policy

The State has promulgated an enforcement policy that allows service providers to deal with, and resolve, events involving safety deviations and minor violations internally, within the context of the service provider safety management system (SMS), to the satisfaction of the authority. The enforcement policy includes provisions for the CAA to deal with events involving gross negligence and willful deviations through established enforcement procedures.

2. State's Safety risk management

2.1 Safety requirements for service providers SMS

The CAA has established the controls which govern how service providers will identify operational hazards and manage safety risks. This includes the requirements, specific operating regulations and implementation policies for service providers' SMS. The



requirements and specific operating regulations are periodically reviewed to ensure they remain relevant and appropriate to the service providers.

2.2 Approval of service providers acceptable levels of safety

The CAA has agreed on, and approved, acceptable levels of safety with individual service providers. These acceptable levels of safety are commensurate to the complexity of individual service provider's specific operational contexts and the availability of individual service provider's resources to address safety risks. The agreed acceptable levels of safety are expressed by multiple safety performance indicators and safety performance targets, never by a single one, as well as by safety requirements. The agreed acceptable levels of safety are periodically reviewed to ensure they remain relevant and appropriate to the service providers.

3 State's safety assurance

3.1 Safety oversight

The CAA has established mechanisms to ensure that the identification of operational hazards and the management of safety risks by service providers follow established regulatory controls (requirements, specific operating regulations and implementation policies). These mechanisms include inspections, audits and surveys to ensure that regulatory safety risk controls are appropriately integrated into the service providers' SMS, that they are being practiced as designed, and that the regulatory controls have the intended effect on safety risks.

3.2 Safety data collection, analysis and exchange

The CAA has established mechanisms to ensure the capture and storage of data on operational hazards and safety risks at an aggregate State's level. The CAA has also established mechanisms to develop information from the stored data, and to actively exchange safety information with service providers and/or other States as appropriate.

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

The CAA has established procedures to prioritize inspections, audits and surveys towards those areas of greater safety concern or need, as identified by the analysis of data on operational hazards and safety risk areas.

4 State's safety promotion

4.1 Internal training, communication and dissemination of safety information

The CAA provides training, awareness, and two-way communication of safety relevant information to support, within the CAA, the development of a positive organizational



culture that fosters the development of an effective and efficient State's safety programme.

4.2 External training, communication and dissemination of safety information

The CAA provides education, awareness of safety risks and two-way communication of safety relevant information to support among services providers the development of a positive organizational culture that fosters safe practices, encourages safety communications and actively manages safety with the same attention to results as financial management.

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Appendix B- Critical Elements of a Safety Oversight System

(Extract from ICAO Document 9734 – Safety Oversight Manual Part A)

ICAO has identified and defined the following critical elements of a State’s safety oversight system:

CE-1 Primary aviation legislation

The provision of a comprehensive and effective aviation law consistent with the environment and complexity of the State’s aviation activity and compliant with the requirements contained in the Convention on International Civil Aviation.

CE-2 Specific operating regulations

The provision of adequate regulations to address, at a minimum, national requirements emanating from the primary aviation legislation and providing for standardized operational procedures, equipment and infrastructures (including safety management and training systems), in conformance with the Standards and Recommended Practices (SARPs) contained in the Annexes to the Convention on International Civil Aviation.

Note.- The term “regulations” is used in a generic sense to include but is not limited to instructions, rules, edicts, directives, sets of laws, requirements, policies, and orders.

CE-3 State civil aviation system and safety oversight functions

The establishment of a Civil Aviation Authority (CAA) and/or other relevant authorities or government agencies, headed by a Chief Executive Officer, supported by the appropriate and adequate technical and non-technical staff and provided with adequate financial resources. The State authority must have stated safety regulatory functions, objectives and safety policies.

Note – The term “State civil aviation system” is used in a generic sense to include all authorities with aviation safety oversight responsibility which may be established by the State as separate entities, such as: CAA, Airport Authorities, Air Traffic Service Authorities, Accident Investigation Authority, and Meteorological Authority.

CE-4 Technical personnel qualification and training

The establishment of minimum knowledge and experience requirements for the technical personnel performing safety oversight functions, and the provision of appropriate training to maintain and enhance their competence at the desired level. The training should include initial and recurrent (periodic) training.



CE-5 Technical guidance, tools and the provision of safety –critical information

The provision of technical guidance (including processes and procedures), tools (including facilities and equipment) and safety- critical information, as applicable, to the technical personnel to enable them to perform their safety oversight functions in accordance with established requirements and in a standardized manner. In addition, this includes the provision of technical guidance by the oversight authority to the aviation industry on the implementation of applicable regulations and instructions.

CE-6 Licensing, certification, authorization and approval obligations

The implementation of processes and procedures to ensure that personnel and organizations performing an aviation activity meet the established requirements before they are allowed to exercise the privileges of a licence, certificate, authorization and/or approval to conduct the relevant aviation activity.

CE-7 Surveillance obligations

The implementation of processes, such as inspections and audits, to proactively ensure that aviation licence, certificate, authorization and/or approval holders continue to meet the established requirements and function at the level of competency and safety required by the State to undertake an aviation related activity for which they have been licensed, certified, authorized and/or approved to perform. This includes the surveillance of designated personnel who perform safety oversight functions on behalf of the CAA.

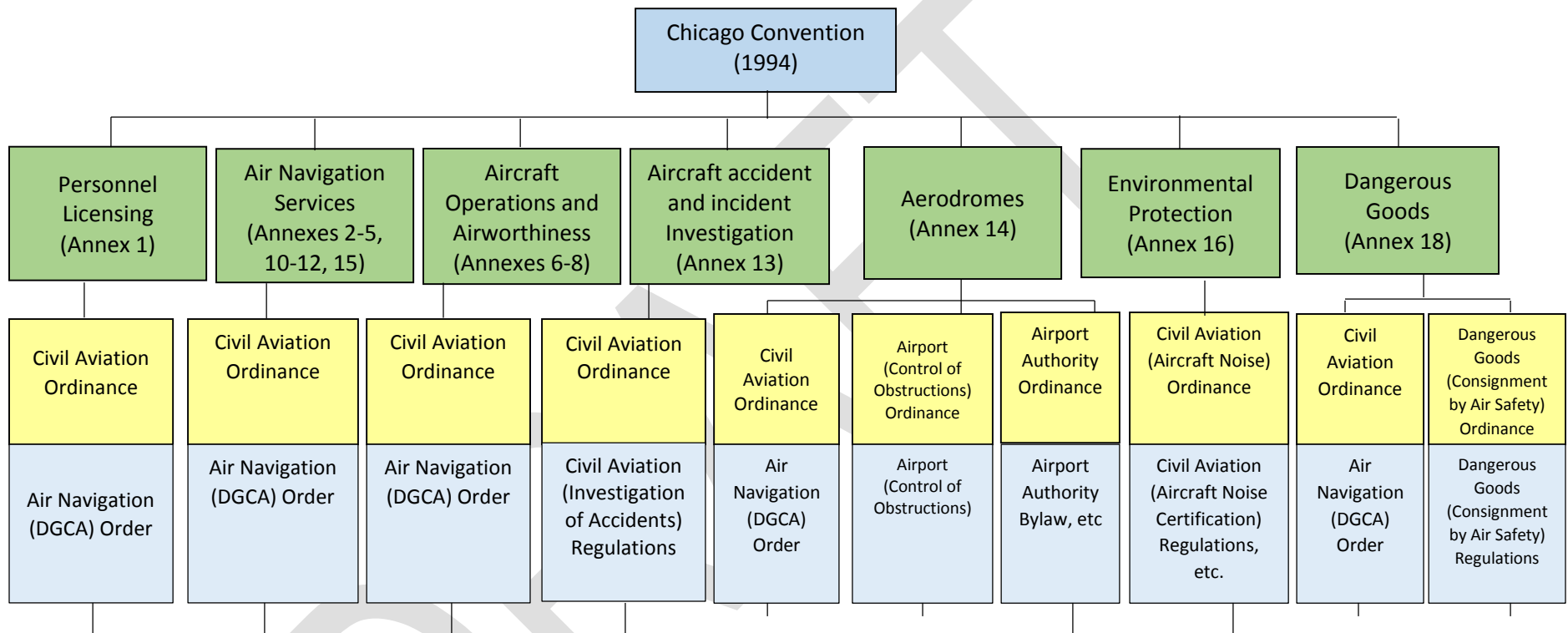
CE-8 Resolution of safety concerns

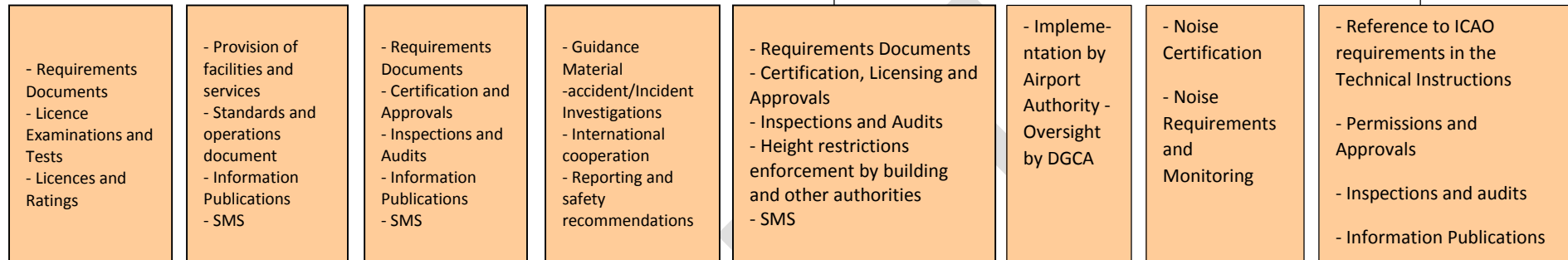
The implementation of processes and procedures to resolve identified deficiencies impacting aviation safety, which may have residing in the aviation system and have been detected by the regulatory authority or other appropriate bodies.

Note – This would include the ability to analyse safety deficiencies, forward recommendations, support the resolution of identified deficiencies, as well as take enforcement action when appropriate.



Appendix C- Safety Regulatory Framework

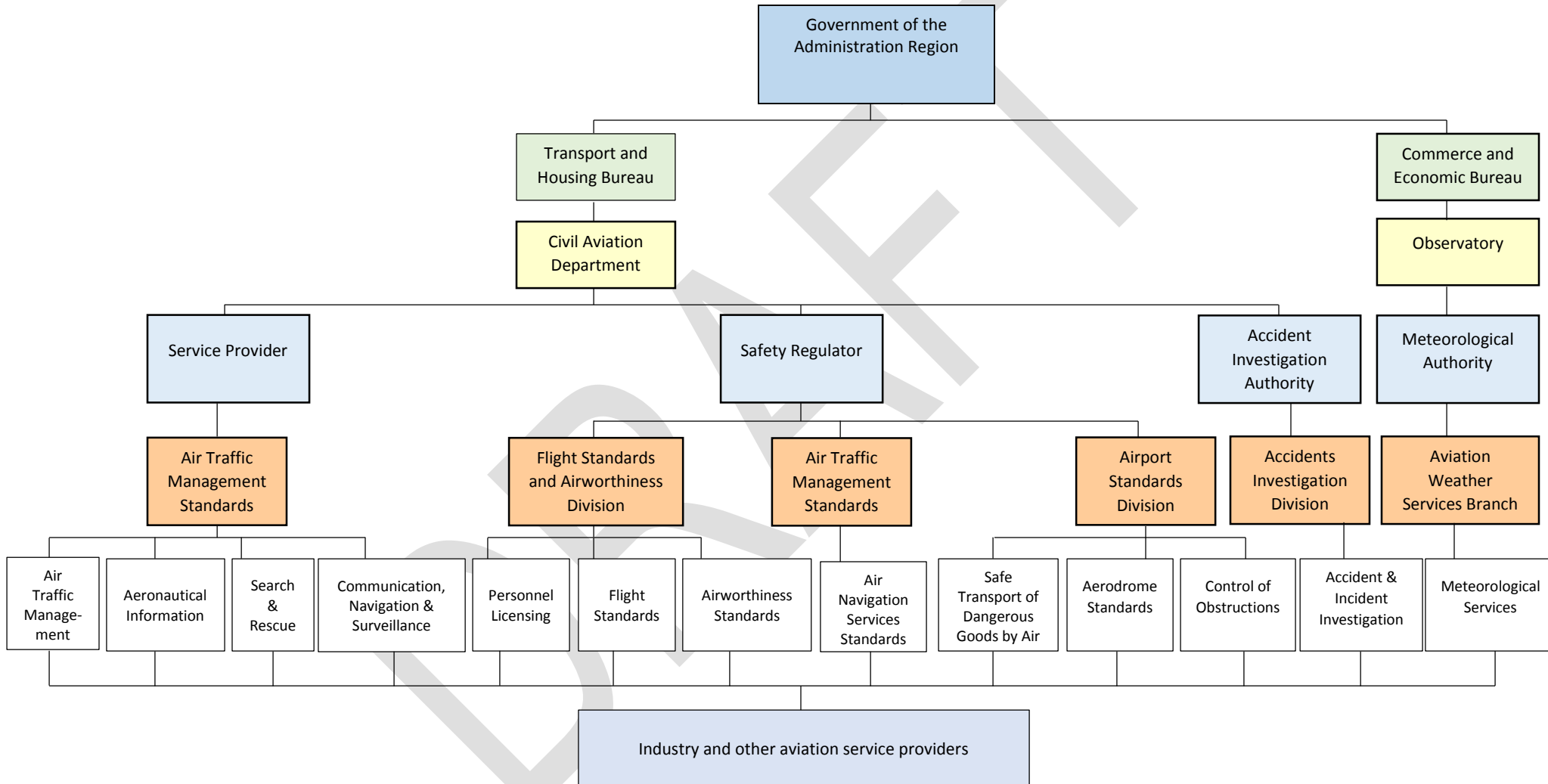




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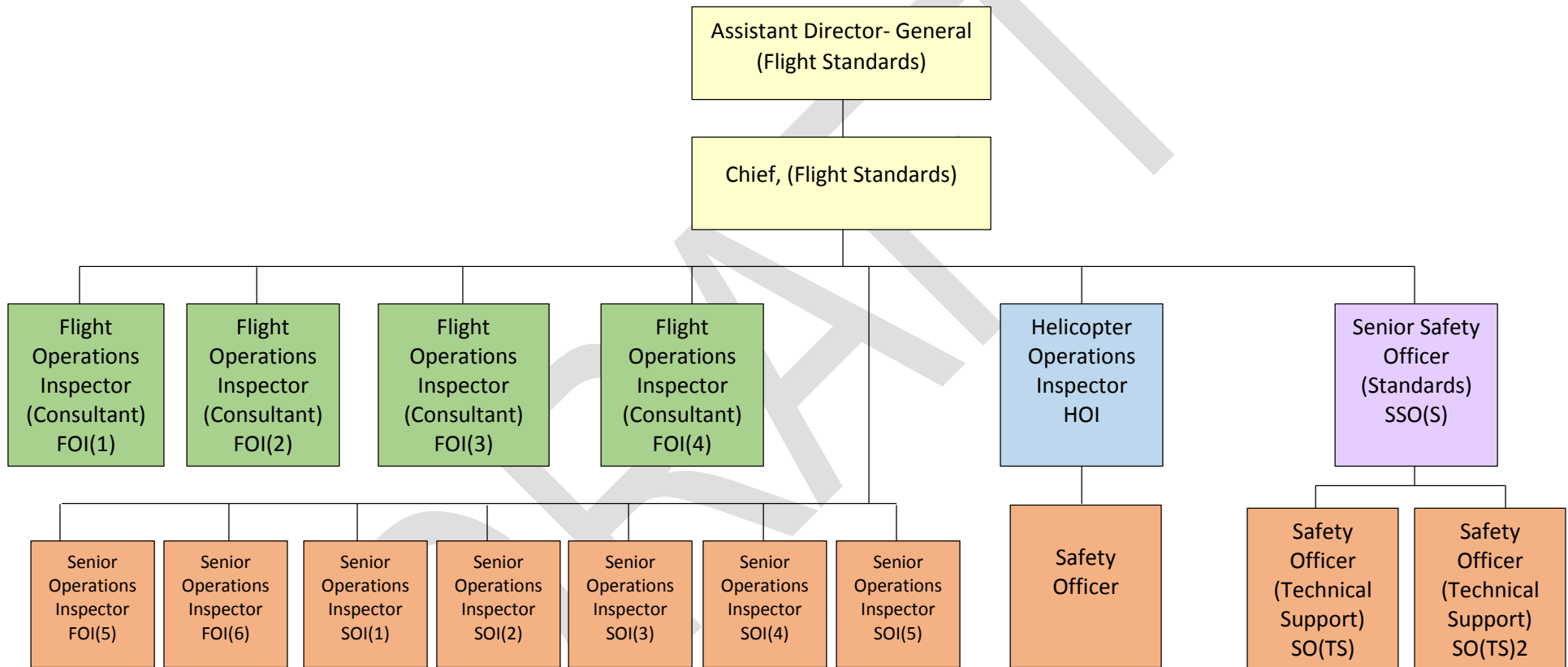
Appendix D- the STATE Civil Aviation System





Appendix E- Flight Standards Office

• **Organizational Chart of the Flight Standards Office (FSO)**





- **Functions of the FSO**

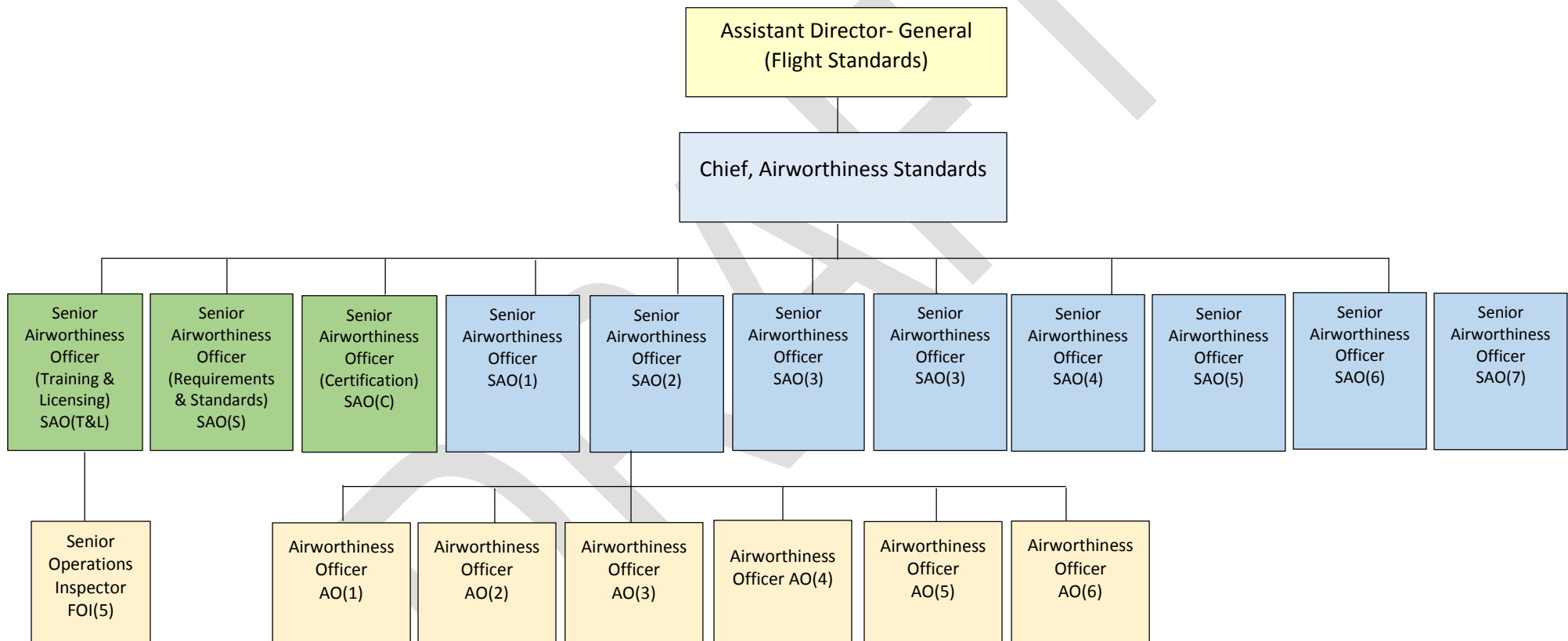
The FSO is assigned the following tasks and responsibilities:-

- (a) Making recommendations to the DGCA regarding the issue and renewal of an AOC, and the associated operations specifications, and to provide an assessment of the operator's competence to continue to exercise the privileges of the certificate;
- (b) Making recommendations to the DGCA concerning and special conditions that may, in the light of investigation, need to be imposed;
- (c) Advising the DGCA and the operator of any deficiencies that require rectification;
- (d) Making recommendations to the DGCA concerning appropriate enforcement actions;
(Remarks: Upon issue of an AOC, the above functions are to be achieved by means of inspection and surveillance, including:
 - (i) the conduct of routine station facility, ramp and base inspections, and any other form of inspection or check as necessary;
 - (ii) the conduct of routine flight deck and cabin inspections during normal line operations and ensuring flight operations procedures are carried out in accordance with the operator's operations manuals and comply with all relevant legislation;
 - (iii) the continual review of operator's documentation including operations manuals, training manuals, SMS manuals and all other instructions to operating staff;
 - (iv) the observation of flight crew training, monitoring standards and ensuring training is carried out in accordance with the operator's training manuals and complies with all relevant legislation.)
- (e) The examination of persons nominated by operators for appointment as authorized examiner or approved persons, and the issue of Letters of Authority or Letters of Approval;
- (f) Conducting and reporting on flight tests for the approval of flight simulators;
- (g) Provide technical advice on aircraft operations as required to other Divisions or Government Departments, including that required of foreign operators operating into **the STATE** International Airport;
- (h) Vetting and approval of aerodrome operating minima for operators; and
- (i) Investigation and monitoring of mandatory occurrence reports.



Appendix F- Airworthiness Standards Office

Organizational Chart of the Airworthiness Office (AWO)





- **Functions of the AWO**

The AWO is assigned the following tasks and responsibilities:-

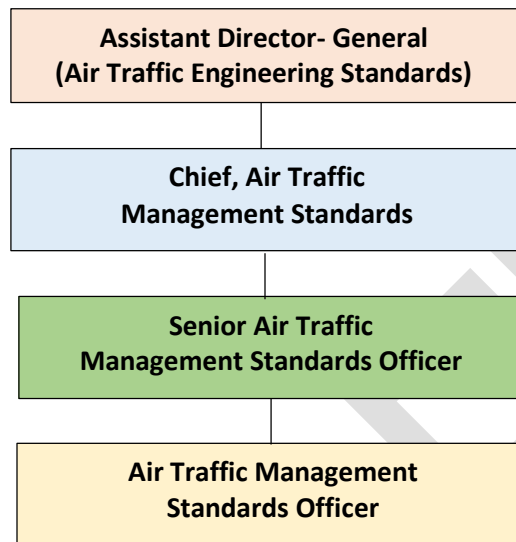
- (a) Processing applications for registration of aircraft; registering and de-registering aircraft, issuing Certificates of Registration and maintaining an aircraft register;
- (b) Processing applications for aircraft type certifications;
- (c) Processing applications for the issue of Certificates of Airworthiness, renewals of such Certificates and validations of foreign Certificates of Airworthiness;
- (d) Survey of aircraft for issue, renewal and validation of Certificates of Airworthiness and the subsequent execution of such documents as appropriate;
- (e) Periodic survey of the airworthiness condition and records of aircraft on the The STATE register to assess the adequacy of their maintenance and to assess the competence and diligence of the persons who perform the maintenance;
- (f) Investigation of major defects discovered in aircraft, through the aircraft survey programme or mandatory occurrence reporting scheme, and determination of corrective action to be taken where airworthiness may be affected; analysis of defect experience to detect and correct any trends and to reveal areas in need of airworthiness improvement;
- (g) Issue of directives concerning the maintenance, overhaul and repair standards to be met by aircraft and aircraft components and equipment, and procedures to be followed by the aviation industry to comply with **the STATE** legislation and requirements;
- (h) Organisation and conduct of examinations of applicants who apply for the grant or extension of aircraft maintenance personnel's licence, assessment of results, and making recommendations to the Personnel Licensing Office for those applications;
- (i) Making recommendations for the application for renewal of aircraft maintenance personnel's licences;
- (j) Examination of SARPs contained in ICAO Annexes related to continuing airworthiness and determination of their applicability for adoption to the The STATE legislation and requirements;
- (k) Examination of the world-recognised airworthiness standards related to continuing airworthiness and determination of the need for adoption of critical features of those foreign standards to the **the STATE** legislation and requirements;
- (l) Survey of the maintenance support arrangements, including organization, facilities, training provisions and quality control procedures of applicants for issue and renewal of AOC;



- (m) Conducting periodic surveillance of the facilities, procedures and work of holders of AOC, making appropriate directions and recommendations and approving amendments to the operator's AOC and its maintenance and quality control manuals;
- (n) Survey of the facilities and procedures of applicants for issue and renewal of approval to conduct activities bearing on the airworthiness of aircraft; making such issue or renewal and maintaining records of same;
- (o) Assessment of the qualifications of persons for designation as approved persons, to perform certain airworthiness functions. Monitoring of the activities of these persons from time to time;
- (p) Assessment and approval of the installation of aircraft components and equipment in aircraft;
- (q) Development of aircraft and component reliability programmes and approval of maintenance systems for aircraft, aircraft components and equipment;
- (r) Giving of advice and recommendations to other DGCA Divisions and other Government Departments on technical matters relating to aviation techniques and aeronautical engineering;
- (s) Provision of staff to participate in the investigation of aircraft accidents and serious incidents as and when required;
- (t) Issue, renewal, continuation and variation of aircraft maintenance training organisations;
- (u) Preparation and distribution to the aviation industry of advisory material concerning airworthiness practices and procedures where such advise does not warrant mandatory action but may still make a significant contribution to flight safety;
- (v) Preparation and recommendation of regulatory changes and amendments to the The STATE legislation and requirements from time to time concerning all matters of airworthiness within the scope of the functions and responsibilities;
- (w) Conferring at international level on matters relating to the regulation of airworthiness;
- (x) Identification and resolution of regulatory problems associated with continuing airworthiness; establishing general and technical policies and procedures on which future airworthiness requirements can be based; formulation of changes in airworthiness policies and requirements which have a severe economic impact on the aviation industry;
- (y) Investigation of possible violations of the The STATE legislation and requirements in regard to airworthiness and initiation of legal or other corrective action where necessary; and
- (z) Issue, renewal and variation of design organization approvals and certificates.

Appendix G- Air Traffic Management Standards Office

- **Organizational Chart of the Air Management Standards Office (ATMSO)**



- **Functions of the ATMSO**

The ATMSO is assigned the following tasks and responsibilities:-

- (a) making recommendations to the DGCA regarding the safety policies and regulatory requirements related to ATM operations and air navigation services with regard to the The STATE air navigation legislation, ICAO Convention and Annexes;
- (b) overseeing the effective implementation of safety-related SARPs and the associated procedures contained in the Annexes to the Convention on International Civil Aviation and related ICAO documents by the ANS provider;
- (c) overseeing the safety of ATM operations and training through a continuous surveillance programme;
- (d) investigating and/or scrutinizing the investigation of ATC incidents as appropriate and keeping track of follow-up actions to address safety recommendations;
- (e) overseeing the development and implementation of the SMS by the ANS provider;
- (f) overseeing the training and standards of air traffic control officers (ATCOs), and ensuring that training is carried out in accordance with all relevant legislation and competency requirements;
- (g) administering the approval of ATCOs through a personnel licensing mechanism and ensuring the effectiveness of the ATMD competency assurance programme;

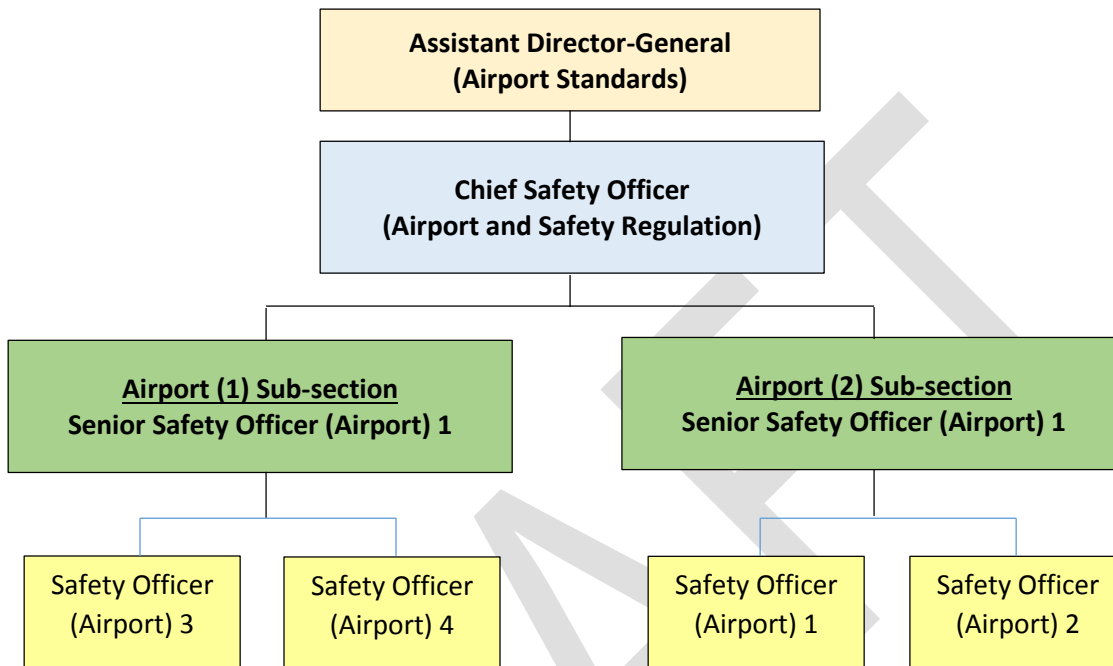


-
- (h) administering the training and approval of ATC approved examiners; and
 - (i) liaising with other aviation regulatory authorities, government agencies, international / local organisations and ICAO to review safety issues, and formulating and implementing ANS safety regulations.

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Appendix H- Airport Sub-sections

- **Organizational Chart of the Airport Sub-sections (APSS)**



- **Functions of the APSS**

The APSS are assigned the following tasks and responsibilities:-

- (a) to regularly review procedures for aerodrome licensing and to implement their applications in Airport Sub-sections;
- (b) to regularly review aerodrome licensing requirements for licensing of aerodromes and heliports on matter relating to ICAO Annex 14 Volumes I and II and related aerodrome design, planning and services manuals and practices and to update the Aerodrome Licensing Requirements Documental Emergency Procedures accordingly;
- (c) to develop and maintain an inspection and audit regime for the construction, installation and maintenance of airside facilities, the safe operation and management of airside activities, the rescue and fire fighting services and safety management system at licensed aerodromes and to carry out such inspections and audit accordingly;

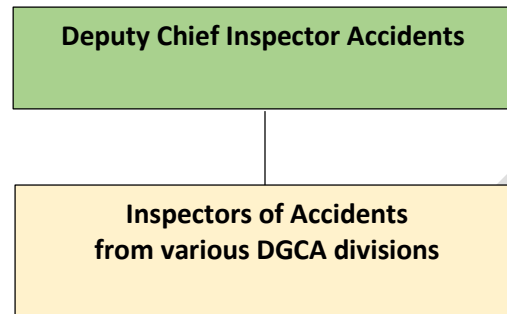


- (d) to monitor the progress of follow- up actions by the aerodrome license in relation to the non-conformity items or observations raised during such inspections and audits;
- (e) to assess and recommend on the grant of an aerodrome licence in respect of the adequacy of the licensee in the construction, installation and maintenance of airside facilities, the adequacy of the organization and staffing of the licensee, airside operating procedures, bird control programmes, rescue and fire fighting services and safety management system;
- (f) to monitor and inspect heliports to ensure that they are operated and maintained in accordance with their aerodrome manuals and the required safety standards;
- (g) to assess and review the aerodrome manual, airport operations manual, emergency procedures manuals and safety management system manual and their amendments submitted by the aerodrome licensee;
- (h) to endorse on-aerodrome developments proposals for new civil constructions and electrical and mechanical facilities at licensed aerodromes;
- (i) to assess and vet investigation reports on ground incidents, deficiencies affecting the performance of facilities or services required for the safety of aircraft operations at an licensed aerodrome and the statistical analysis of incidences, special occurrences and the performance of facilities and services and to recommend remedial actions for improvement;
- (j) to ascertain that the aerodrome license meets the requirements in **Article XX of the ANR (THE STATE)** in respect of the installation and delivery of aviation fuel at licensed aerodromes;
- (k) to actively participate in the regular meetings of the Aerodrome Licence Review Committee.



Appendix I- Accidents Investigation Division

- **Organizational Chart of the Accidents Investigation Division**



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Appendix J- Acceptable Level of Safety

(Extract from Attachment E to ICAO Annex 11- Air Traffic Services)

ICAO has defined ALOS as follows:

1. Introduction

- 1.1 The introduction of the concept of acceptable level of safety responds to the need to complement the prevailing approach to the management of safety based upon regulatory compliance, with a performance based approach that aims for continuous improvement to the overall level of safety.
- 1.2 Acceptable level of safety expresses the safety goals of an oversight authority, an operator, or a services provider. From the perspective of the relationship between oversight authorities and operators/services providers, it provides the minimum safety objective(s) acceptable to the oversight authority to be achieved by the operators/services providers while conducting their core business functions. It is a reference against which the oversight authority can measure safety performance.
- 1.3 Establishing acceptable level(s) of safety for the safety programme does not replace legal, regulatory, or other established requirements, nor does it relieve States from their obligations regarding the Convention on International Civil Aviation and its related provisions.
- 1.4 Establishing acceptable level(s) of safety for the safety management system does not relieve operators/services providers from their obligations under relevant national regulations and the Convention on International Civil Aviation.

2 Scope

- 2.1 Within each State, different acceptable levels of safety may be established between the oversight authority and individual operators/services providers.
- 2.2 Easy agreed established level of safety should be commensurate with the complexity of individual operator/service providers operational contexts, and the level to which safety deficiencies can be tolerated and realistically addressed.

3 Implementation

- 3.1 The concept of acceptable level of safety is expressed in terms of safety performance indicators and safety performance targets, and implemented through safety requirements.



- 3.2 The relationship between acceptable level of safety, safety performance indicators, safety performance targets and safety requirements is as follows: acceptable level of safety is the overarching concept; safety performance indicators are the measures or metrics to determine if the acceptable level of safety has been achieved, safety performance targets are the quantified objectives pertinent to the acceptable level of safety, and safety requirements are the tools or means required to achieve the safety performance targets.
- 3.3 The safety performance indicators of an acceptable level of safety should be uncomplicated and linked to major components of a State safety programme, or an operator/services provider safety management system (SMS). They are generally expressed in numerical terms.
- 3.4 The safety performance targets of an acceptable level of safety should be determined after weighing what is desirable and what is realistic for individual operator/services providers. Safety performance targets should be measurable, acceptable to the parties involved, and consistent with the acceptable level of safety.
- 3.5 The safety requirements to achieve the safety performance targets of an acceptable level of safety should be expressed in terms of operational procedures, technology and systems, programmes, contingency arrangements and so forth, to which measures of reliability, availability and/or accuracy may be added.
- 3.6 An acceptable level of safety should be expressed by several safety performance indicators and translated into several safety performance targets, rather than by single ones.