KSA State Safety Program (KSA SSP)

Issue 1 Revision 0

This document is intended for use by the Kingdom of Saudi Arabia's State Safety Program (KSA SSP) stakeholders engaged in its implementation. The document illustrates the KSA SSP philosophy, aviation safety management model and governance. The General Authority of Civil Aviation (GACA) represented by the Safety & Aviation Standards sector is responsible for updating and maintaining this document. The scope of this document is confined to KSA aviation safety management aspects.

Document Approval Table

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FOREWORD

The Saudi civil aviation industry is witnessing phenomenal growth in response to Saudi 2030 vision. As a result, the Saudi civil aviation strategy, led by the General Authority of Civil Aviation (GACA), was developed and approved in line with Saudi Vision 2030 targets and objectives to ultimately provide a safe and sustainable civil aviation system.

The Kingdom of Saudi Arabia (KSA) is a signatory to the Convention on International Civil Aviation (Chicago 1944) and a member of the International Civil Aviation Organization (ICAO) since the year 1962. Chicago 1944 and its Annexes are implemented as part of the Saudi Civil aviation law and in accordance with Article 4 of the law.

KSA State Safety Program (KSA SSP) is a fulfilment of ICAO Annex 19 in which an integrated set of regulations and activities are aimed to support the continued evolution of safety initiatives and managing KSA aviation safety at all levels. KSA SSP assists in the development of the KSA National Aviation Safety Plan (NASP) by allowing the KSA to manage its safety improvement activities in a coherent and proactive manner, measuring its safety performance, monitoring the implementation of the plan's safety enhancement initiatives (SEIs) and addressing any identified deficiencies.

This document describes KSA SSP philosophy and governance by which KSA manages and oversees aviation safety. It also delineates KSA SSP stakeholders' roles and responsibilities. It describes the KSA SSP mechanism to proactively act on emerging and future aviation safety hazards using risk-based surveillance and data-driven reports.

Signature: _____

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INTRODUCTION

[AN19-3.2.2.3], [AN19-3.2.3.3]
KSA State Safety Program is an integrated set of regulations and activities aimed at improving safety. It is a management system used for regulating, oversight and managing KSA aviation safety commensurate with the size and complexity of the Saudi aviation industry.

KSA SSP is implemented based on the provisions contained in Annex 19 to the Convention on International Civil Aviation and the procedures established in the ICAO Safety Management Manual (Doc 9859). The KSA SSP defines the specific safety activities that are to be performed to fulfil KSA's responsibilities concerning the safe and efficient performance of aviation activities.

The General Authority of Civil Aviation (GACA) with its regulatory safety management system, has the overall responsibility of implementing the KSA SSP, while the aviation service providers establish and continuously maintain their own Safety Management Systems (SMS).

KSA SSP is designed to proactively deal with the Saudi aviation industry safety hazards and challenges. It is aligned with the Saudi Vision 2030 aviation objectives and with the Saudi civil aviation strategy. The KSA SSP includes the KSA State Safety Policy Statement (see Appendix A) that describes the commitment to develop and implement effective strategies, regulatory frameworks, and processes to ensure that aviation activities under GACA oversight achieve the highest level of safety performance.

KSA SSP is implemented in a systemic manner. KSA SSP safety policy formulation is established by the high-level National Aviation Safety Committee (NASC), and effectively implemented by the SSP Working Groups - SSP-WGs (Aircraft Operations - OPS, Airworthiness of Aircraft - AIR, Air Navigation Services - ANS, Aerodrome and Ground Aids - AGA). GACA plays the leading role in forming these groups, together with planning, organizing, and coordinating all KSA SSP activities. The abovementioned safety committee and working groups consist of members from various government agencies including military.

The KSA SSP describes the challenges facing KSA aviation safety management system with a view of responding to these challenges and maintaining KSA aviation safety management system as a recognized SSP worldwide.

The KSA SSP is augmented with the Saudi National Aviation Safety Plan (S-SNAP); which establishes how KSA manages its safety improvement activities in a coherent and proactive manner, measuring its safety performance, monitoring the implementation of the planned safety enhancement initiatives (SEIs) and addressing any identified deficiencies.

RECORD OF AMENDMENTS AND CORRIGENDA

The publication of amendments and corrigenda of this document will be announced on a regular basis electronically to KSA SSP stakeholders, service providers, and other relevant government agencies. The latest revision is available on the General Authority of Civil Aviation (GACA) website (https://gaca.gov.sa).

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Edition 1 – Revision 0	15 Mar. 2023		

DEFINITIONS

Acceptable level of safety performance (ALoSP). The level of safety performance agreed by State authorities to be achieved for the civil aviation system in a State, as defined in its State Safety Program, expressed in terms of safety performance targets and safety performance indicators.

Accountable executive. A single, identifiable person responsible for the effective and efficient performance of the service provider's SMS.

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

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

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

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

Operational personnel. Personnel involved in aviation activities who are in a position to report safety information. Note— *Such personnel include, but are not limited to flight crews, air traffic controllers and operators of aeronautical stations.*

Operators. Maintenance technicians, personnel of aircraft design and manufacturing organizations, cabin crews, flight dispatchers, apron personnel and ground handling personnel.

Risk mitigation. The process of incorporating defenses, preventive controls, or recovery measures to lower the severity and/or likelihood of a hazard's projected consequence.

Safety data. A defined set of facts or set of safety values collected from various aviation-related sources, which is used to maintain or improve safety. Note— Such safety data is collected from proactive or reactive safety-related activities, including but not limited to:

    b) Accident or incident investigations,

    c) Safety reporting,

    d) Continuing airworthiness reporting,

    e) Operational performance monitoring,

    f) Inspections, audits, surveys, or

    g) Safety studies and reviews.

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

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

Safety management system (SMS). A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies, and procedures.

Safety objective. A brief, high-level statement of safety achievement or desired outcome to be accomplished by the State Safety Program or service provider's safety management system. Note— Safety objectives are developed from the organization's top safety risks analysis and should be taken into consideration during the subsequent development of safety performance indicators and targets.

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

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

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

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

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

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

Serious Incident. An incident involving circumstances indicating that there was a high probability of an accident and associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down

State Safety Program (SSP). An integrated set of regulations and activities aimed at improving safety.

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

System. An organized, purposeful structure that consists of interrelated and interdependent elements and components, and related policies, procedures and practices created to carry out a specific activity or solve a problem.

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ABBREVIATIONS

AIB   Aviation Investigation Bureau – KSA

ACs   Advisory Circulars

ADREP   Accident/Incident Data Reporting

ADS-B   Automatic Dependent Surveillance-Broadcast

AGA   Aerodromes and Ground Aids

AIC   Aeronautical Information Circular

AIG   Accident Investigation Section

AIP   Aeronautical Information Publication

AIR   Airworthiness of Aircraft

AIS   Aeronautical Information Services

ALoSP   Acceptable Level of Safety Performance

AMO   Approved Maintenance Organization

ANS   Air Navigation Services

ARFFS   Aviation Rescue Fire Fighting Service

ATFCM   Air Traffic Flow and Capacity Management

ATO   Approved Training Organization

CAA   Civil Aviation Authority

CMA   Continuous Monitoring Approach

CNS/ATM   Communication, Navigation and Surveillance/Air Traffic Management

EASA   European Aviation Safety Agency

FAA   Federal Aviation Administration (of the United States of America)

GACA   General Authority of Civil Aviation (in KSA)

GACAR   General Authority of Civil Aviation Regulations

GASP   Global Aviation Safety Plan

GNSS   Global Navigation Satellite System

ICAO   International Civil Aviation Organization

ISO   International Standards Organization

KSA   Kingdom of Saudi Arabia

MoU   Memorandum of Understanding

NASC   National Aviation Safety Committee

NASP   National Aviation Safety Plan

NTP   National Transformation Program

PEL   Personal Licensing

R&D   Research and Development

RASP   Regional Aviation Safety Plan

RBS   Risk-based Surveillance

RPAS   Remotely Piloted Aircraft Systems

RSAF   Royal Saudi Airforce

SAFA   Safety Assessment of Foreign Aircraft

SANS   Saudi Air Navigation Services

SARPs   ICAO Standards and Recommended Practices and Procedures

SDCPS   Safety data collection and processing system

SFAC   Saudi Future Airspace Concept

SMS   Safety Management System

SPI   Safety Performance Indicator

SPT   Safety performance targets

SSP   State Safety Program

SSP-WG   SSP Working Groups

USOAP   Universal Safety Oversight Audit Program

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1. CHAPTER 1: STATE SAFETY POLICY, OBJECTIVES, AND RESOURCES

[AN19-3.2]

1.1 KSA State Safety Policy

The Kingdom of Saudi Arabia is committed to develop and implement strategies, regulatory frameworks, and effective processes to ensure that civil aviation activities, under its oversight, reach the highest possible level of safety. The General Authority of Civil Aviation promotes and regulates aviation safety in the Kingdom of Saudi Arabia.

To this end, the Kingdom of Saudi Arabia will:

1) Develop national regulations and requirements in line with the standards, recommended practices, and procedures of the International Civil Aviation Organization (ICAO).
2) Adopt a data- and performance-based approach to aviation safety regulations and oversight activities, as applicable.
3) Identify safety trends in the civil aviation industry and adopt a risk-based approach to address the areas of greatest safety concern or need.
4) Continuously control and measure safety performance within the Kingdom of Saudi Arabia's civil aviation system through collective State safety indicators, and also through the safety performance indicators of service providers.
5) Collaborate and consult with the industry to address safety issues, and continuously improve aviation safety.
6) Encourage good safety practices and a positive institutional safety culture within the industry, based on sound safety management principles.
7) Encourage the collection, analysis, and exchange of safety information among all relevant industry organizations and service providers, with the commitment to using such information for safety management purposes only.
8) Assign sufficient financial and human resources for safety management and oversight; and
9) Provide the personnel with the skills and experience needed to fulfil their safety oversight and management responsibilities in a proficient manner.

The KSA State Safety Policy and objectives are subject to periodic review to ensure relevancy and regulatory compliance.

Signature: _____

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Effective Date: 21 May, 2023

1.2   Primary Aviation Legislation

[AN19-3.2.1]

The KSA Civil Aviation Law, referred to as the primary civil aviation law, uses the term "regulatory authority" to refer to the Kingdom's civil aviation legislative authority. It empowers enacting statutory laws and regulations, approves international treaties, agreements, regulations, concessions, and gives effect to the Chicago Convention and ICAO standards and recommended practices (SARPs) set forth in the Annexes to the Convention.

The KSA Civil Aviation Law is amended by Royal Decrees after first being reviewed by the Kingdom's legislative bodies (the Council of Ministers and the Shura Council). It provides a high-level legal authority for ratifying the Chicago's Convention, its text, protocols, and amendments. The KSA Civil Aviation Law is approved by the Royal Decree No. M/44, 18 Rajab 1426H / 23 August 2005.

1.2.1   KSA Civil Aviation Legislation

[AN19-3.2.1.1]

The General Authority of Civil Aviation (GACA), under the authority of the Board of Directors, is responsible for implementing the KSA Civil Aviation Law and the specific operating regulations. The detailed elements of aviation safety legislative framework are derived from KSA civil aviation law, as follows:

(1) Section 2, Article 3 – KSA Civil Aviation Law – promulgates that the provisions of this Law apply to the Civil aviation activities and operations within the territory of the Kingdom; civil aerodromes, air carriage facilities, ensuring aviation safety and security within the territory of the Kingdom, civil aircraft registered in the Kingdom, State aircraft other than military ones, any aircraft registered in a foreign country and operated or maintained by a Saudi national by virtue of a lease, exchange or any similar agreement, if an agreement between the Kingdom and the aircraft registration country so states.

(2) Section 2, Article (4) – KSA Civil Aviation Law – states, "Provisions of, and annexes to, the Chicago Convention and all other international treaties on civil aviation to which the Kingdom is a party shall be deemed supplements to this Law".

(3) Section 2, Article (5) – KSA Civil Aviation Law - states, "The Authority shall be solely in charge of all civil aviation affairs in the Kingdom, including undertaking all telecommunication services related to aviation safety and air traffic regularity".

(4) Section 2, Chapter 8, Article (107) – KSA Civil Aviation Law - states, "an independent bureau is established under the supervision of the Board of Directors to undertake investigations into accidents and incidents involving civil aircraft within the territory of the Kingdom, Saudi aircraft or aircraft operated by Saudi nationals over the high seas or territories not owned by any country in accordance with conditions and controls set forth in the investigation regulations".

(5) Civil aviation law, policies, and specific operating regulations of the Kingdom of Saudi Arabia are available to public on GACA website: http://www.gaca.gov.sa.

1.3   Specific Operating Regulations
[AN19-3.2.2], [AN19-3.2.2.1], [AN19-3.2.2.2]

GACA specific operating regulations, referred to as the GACA Aviation Safety Regulatory Regime which is driven down from The KSA Civil Aviation Law. The GACA Aviation Safety Regulatory Regime consists of the promulgated GACA Aviation Safety Regulations (GACARs), the GACAR implementation policies, processes, procedures, referred to as the (eBook), and GACA Advisory Circulars (ACs).

GACA's specific operating regulations are based on the standards and recommended practices (SARPs) set forth in the ICAO Annexes to the Convention on International Civil Aviation. Specific operating regulations developed by other ICAO member states' Civil Aviation Authorities (CAAs), such as USA Federal Aviation Administration (FAA), the European Union Aviation Safety Agency (EASA), and others, are additional resources of specific operating regulations in KSA.

Details of the KSA safety regulations, instruments, and other publications are described in Appendix A.

1.4   KSA Aviation System and Functions
[AN19-3.2.3], [AN19-3.2.3.1], [AN19-5.3.7]

KSA aviation industry involves commercial air operators, general aviation, Maintenance Repair and Overhaul, Helicopter operators, international and domestic aerodromes, Heliports, and seaports. KSA aviation safety management is carried out through effectively implementing KSA SSP that is administered by GACA. GACA is the government authority responsible to regulate, manage and oversee KSA's civil aviation activities. GACA's responsibilities include registration of civil aircraft, formulation of airworthiness standards for civil aircraft registered in KSA, issuing certificates of airworthiness, air operator, licensing of pilots, flight engineers, cabin crews, dispatchers, air traffic controllers, authorization of aircraft maintenance mechanics, conducting examinations, certification of aerodromes and Communication, Water aerodromes, Navigation and Surveillance/Air Traffic Management (CNS/ATM) facilities. It is in charge of regulating air transport services operating to/from/within and/or over KSA by domestic and foreign operators, including clearance of scheduled and non-scheduled flights.

In addition, GACA coordinates at the national level for the flexible use of air space by civil and military air traffic agencies. GACA interacts with ICAO for provisions relating to more air routes for civil use, monitoring aircraft noise, and aircraft engine emissions.

GACA coordinates a range of aviation safety management issues between various KSA SSP stakeholders through standalone memoranda of understanding (MoUs). MoUs aim to ensure roles, responsibilities and communications protocols are clearly articulated between relevant entities to avoid task duplication and roles and responsibilities conflict. Appendix B presents a list of standalone MoUs between KSA SSP stakeholders.

In addition, there is a continuous coordination and cooperation through Civil-Military Cooperation Committee.

Where applicable, MoUs shall cover; purpose, scope, collaborative decision-making, flexible use of airspace, strategic and tactical airspace management, cross-border operations, and operations of state aircraft under due regard.

1.5   KSA Aviation Management Model

[AN19-3.2.3.2]

The overall management of KSA SSP and the delivery of KSA aviation safety strategy is managed by GACA based on the outcome of the KSA SSP National Aviation Safety Committee (NASC). NASC is made up of senior KSA Government key aviation entities. They are responsible for monitoring the safety performance of KSA aviation management/system and ensuring KSA SSP remains effective. Figure 1 below presents KSA aviation safety management model.

Figure 1: KSA Aviation Safety Management Model

1.5.1   National Aviation Safety Committee (NASC)

NASC acts as a forum for senior officials from the key aviation safety entities, including aviation military bodies to discuss, set, and approve KSA SSP aviation safety strategy, policy, and governance. NASC is to support proactive actions on KSA aviation safety risks and its work will be guided by the following principles:

— NASC shall make decisions based on analyzed safety data and information presented by the various working groups.
— NASC shall consider future developments and emerging risks likely to affect KSA aviation industry and the delivery of effective safety management.
— NASC shall discuss and coordinate international engagement to improve KSA aviation safety performance.
— NASC shall consider aviation safety risks to KSA citizens that go beyond where KSA has regulatory oversight responsibility.

NASC is responsible for:
— ensuring effective implementation of KSA SSP through the National Aviation Safety Program (NASP),
— Providing the necessary resources required to ensure safe and efficient implementation of KSA SSP,
— establishing KSA SSP safety policy and approving SSP safety promotion,
— continuous development, implementation, and review of the NASP,
— coordinating activities and responsibilities among NASC members,
— ensuring KSA aviation safety entities fulfil their respective SSP obligations,
— monitoring of overall KSA aviation safety performance, and
— monitoring and achievement of an acceptable level of safety performance (ALoSP) and KSA SSP objectives.

NASC is chaired by the President of the General Authority of Civil Aviation, and meets bi-annually, or whenever deemed necessary by the NASC chairman.

1.5.2   SSP Working Groups (SSP-WG)

Reporting to the NASC is a multitude of permanent and/or ad hoc working groups (SSP-WGs). The permanent KSA SSP-WGs are:
1. Aircraft Operations Group - OPS,
2. Airworthiness of Aircraft Group - AIR,
3. Air Navigation Services Group - ANS,
4. Aerodrome and Ground Aids Group - AGA, and
5. Personal licensing - PEL.

SSP-WGs are made up of:
1. GACA, represented by the Head of the Safety Aviation Standards respective Directorate (Chair),
2. KSA aviation industry members,
3. Subject matter experts, and
4. Others as deemed necessary.

The SSP-WGs facilitate the exchange of aviation safety-related data and analysis between KSA SSP stakeholders and are responsible for:
• Reviewing safety data, trends, and SSP implementation plans,
• Reviewing other SSP and SSP-implementation related sources of information,
• Providing NASC with high level recommendations and mitigation actions to alleviate the risks identified,
• Providing interim (quarterly) and final (six-monthly) reports to NASC.

SSP-WGs meets quarterly and reports to NASC with up-to-date information on SSP implementation progress including proposals for decision-making, resources allocation, safety promotions plan, and conflict resolutions.

1.6   KSA SSP Safety Objectives
[AN19-3.2], [AN19-3.2.3.3]

KSA SSP Working Groups utilize safety data such as quantitative data, qualitative information, safety trends, accidents, and serious incidents, and known deficiencies in KSA aviation safety oversight processes to draft KSA SSP safety objectives. Regional safety objectives are derived from global safety objectives identified in the GASP, RASP, and KSA NASP. This analytical process is carried out in collaboration with KSA aviation service providers. KSA SSP safety objectives are brief, high-level statements of safety achievements or targets to be achieved. KSA SSP safety objectives guide the development of safety performance indicators (SPIs) and safety performance targets (SPTs).

KSA SSP safety objectives are a combination of the following:
- **process-based**, that is, established in terms of safe behaviors expected from operational personnel, or action taken by the organization for safety risk management. For example, KSA will implement an integrated online safety management system platform.
- **result-based**, that is, they can cover actions and trends concerning containment of operational accidents or losses.

This combination provides effective guidance for SPIs and SPTs and the subsequent establishment of KSA SSP acceptable level of safety performance (ALoSP). Safety objectives work together as a package with SPIs and SPTs to enable KSA SSP to monitor and measure KSA aviation safety performance. For example, KSA will decrease the number of runway incursions by 25 percent.

1.7   Qualified Technical Personnel
[AN19-3.2.4]

KSA SSP training requirements are laid out in GACA Aviation Safety Inspectors Training Manual. Aside from accredited aviation safety training institutions, GACA Training and Development Department delivers civil aviation technical, operational and safety training requirements of the Inspectorate workforce. GACA policy includes the requirements for specific qualifications and experience relevant to duties and responsibilities of various inspectors. KSA SSP training program comprises initial, recurrent, and on-job training. GACA has established an induction program for the inspection of recruits, covering generic training on human capital management, audits, systems, and tools, specialized technical training for the regulatory environment, and implementation of SSP and SMS. As the KSA SSP administrator, GACA verifies all stakeholders and individuals involved in KSA SSP implementation are properly trained on SMS and SSP.

1.8   Technical Guidance, Tools, and Provision of Safety-Critical Information
[AN19-3.2.5]

For civil aviation technical guidance, tools, and provisions of safety-critical information, visit GACA website: https://www.gaca.gov.sa. GACA's top priority is to continuously improve aviation safety performance. This is achieved through evidence-based aviation safety reviews/reports with the help of technical guidance and necessary resources. GACA safety principles underline the importance of the commitment of the KSA government and aviation industry to the provision of resources for aviation safety management, and personnel training to ensure effective implementation of KSA SSP.

GACA and AIB make aviation safety-related guidance materials and work aids available and up to date for inspectors, investigators, technical personnel, and KSA aviation industry.

2.   CHAPTER 2: STATE SAFETY RISK MANAGEMENT

[AN19-3.3], [AN19-3.3.5], [AN19-3.3.5.2]

KSA aviation safety risk management (SRM) is a key component of the safety management system that includes hazard identification, risk assessment, risk mitigation, and safety risk acceptance and recording (registers). This function is a shared responsibility between KSA SSP stakeholders and the aviation industry. KSA SSP recognizes the need to make the transition to a systems-based approach to safety oversight, together with risk-based surveillance (RBS). Thus, KSA aviation service providers are heavily involved in the way in which KSA aviation safety management functions are performed. KSA SSP NASP recognizes the importance of the RBS approach. Thus, KSA aviation risk management system considers the following risk categories:

(1) Regulatory risk,

(2) Risk-based surveillance outcomes,

(3) Sector profile risk,

(4) Industry profile risk, and

(5) System profile risk.

More information on GACA's risk management is found in Appendix C.

2.1   Licensing, Certification, Authorization, and Approval Obligations

[AN19-3.3.1]

Kingdom of Saudi Arabia has established a certification and authorization system for safety-critical activities that legislatively allows GACA to issue licenses, certifications, authorizations, exemptions, and/or approvals to aviation industry personnel (e.g., flight, cabin, maintenance, and ATC crews), aircraft operators, and other service providers including aerodromes, air navigation services and aeronautical information services. The service provider certification system caters for certifying commercial, and non-commercial operators, aerodrome operators; training and aviation sports/clubs' organizations. Certificate holders are responsible for maintaining the safety standards stipulated in the applicable GACARs.

2.2   Obligations of the Safety Management System (SMS)

[AN19-3.3.2.3], [AN19-3.3.2.4], [AN19-3.3.2]

KSA SSP stakeholders are responsible for KSA aviation safety management. GACA has issued the regulatory requirements for SMS implementation to the following civil aviation service providers:

(1) Approved Training Organizations (ATOs): [AN19-3.2.2.1(A)] ATOs are required to implement a safety management system as per GACAR Part 141, training centers certificated as per GACAR Part 142, and flight engineer, cabin crew member and aircraft dispatcher training schools as per GACAR Part 143.

(2) Air Traffic Service (ATS) Providers: [AN19-3.2.2.1(E)] Air traffic service providers approved as per GACAR Part 171 provides are required to develop SMS policies, procedures, and practices necessary to provide the air traffic services.

(3) Air Operators: [AN19-3.2.2.1(B)] GACAR Part 121 and Part 135 require commercial air operators operating transport category aircraft or commuter category aircraft to establish and maintain SMS appropriate to size and complexity of operations. SMS implementation is also mandated for non-commercial operators using turbojets transport category aircraft or commuter category aircraft certificated under Part 125 and aerial work operations under Part 133.

(4) *Aircraft Maintenance organizations (AMOs):* [AN19-3.2.2.1(C)] Aircraft Repair Stations certificated as per GACAR Part 145 are also required to implement SMS acceptable to General Authority of Civil Aviation.

(5) *Aircraft Parts Design and Manufacturing Organizations:* [AN19-3.2.2.1(D)] SMS is implemented in organizations approved as per GACAR Part 21 for aircraft modification, repair, supplemental type certificate (STC) and part manufacturing. The organization involved in aircraft parts design and manufacturing are required to implement SMS in accordance with GACAR Part 5, and acceptable to the GACA.

(6) *Aerodrome operators:* [AN19-3.2.2.1(F)] GACAR Part 139 and Part 138 require that certified aerodromes and heliports must implement SMS consistent with the requirements provided in GACAR Part 5 and acceptable to the GACA. It also requires Rescue and Fire Fighting Services (ARFFS) provider to implement SMS.

(7) *Ground Service Providers:* GACAR Part 151 requires that certified ground service providers must implement SMS consistent with the requirements provided in GACAR Part 5 and acceptable to the GACA.

(8) *Instrument flight procedure design: GA*CAR Part 172 requires a certified flight procedure design organization to implement SMS.

(9) *Aeronautical Communication, Navigation, and Information Services:* Aeronautical telecommunication service and aeronautical information service providers approved under GACAR Part 173, and Part 175 are required to implement SMS.

Service providers' *safety performanc*e is part of SMS oversight in which GACA and service providers must agree on key safety performance indicators. Details of SMS requirements for the service providers are detailed in Appendix D.

2.3   Accident and Incident Investigation

[AN19-3.2.3]

Aviation Investigation Bureau (AIB) is the government body responsible for instituting inquiries into aircraft accidents, incidents and serious incidents and carrying out respective investigations in accordance with ICAO Annex 13 requirements. Reported occurrences and the results of relevant AIB safety investigations are provided to ICAO, as applicable. AIB coordinates and provides necessary data, information and analyses of accidents, serious incidents and incidents related to aircraft operation for KSA SSP/NASP review and update. AIB regulations, accident/incident reporting mechanism and investigations reports are available and may be found at: www.aib.gov.sa.

2.4   Hazard Identification and Safety Risk Assessment

[AN19-3.3.4], [AN19-3.3.4.1], [AN19-3.3.4.2], [AN19-3.3.5.2], [AN19-5.1.2-5.1.3]

KSA SSP encourages a positive reporting policy where reporters are not prosecuted nor punished, except in those cases in which their actions have been deliberate, reckless, or negligent.

GACA and AIB, collect and maintain various records related to accidents, incidents and other safety data as stipulated in KSA SSP standalone MoUs. KSA SSP stakeholders are responsible for sharing aviation safety reports and exchanging relevant aviation safety data. *Mandatory, Voluntary, Confidential and Anonymous reporting system:* Subject to provisions of ICAO Annex (13) to Chicago Convention, article (108) of Civil Aviation Law that promulgates "*all accidents and serious incidents are to be reported to AIB".* Article (109) of KSA Civil Aviation Law requires reporting of foreign aircraft accidents within the territory of KSA. Article (104) of KSA Civil Aviation Law promulgates reporting flying hazards. The methods and procedures for reporting aviation occurrences are described in GACAR Part 4. Aircraft accidents, serious incidents and incidents are collected and analyzed by AIB (GACA collects and analyses data related to incidents and breaches of aviation regulations on the territory of KSA or performed by KSA service providers outside of KSA). AIB shares preliminary and final Aircraft accidents/incidents reports with GACA. More information on Occurrence Reporting can be found on: www.gaca.gov.sa.

Air Navigation Service (e.g., SANS) coordinates with Military communication system to provide periodic data on the global activation of Emergency Locator Transmitters (ELT). SANS collects aviation occurrence reports from KSA service providers, as well as foreign entities (ATC or air operators). SANS shares safety data and reports with GACA.

2.5   Safety Data Collection and Processing System (SDCPS)

[AN19-3.3.4], [AN19-3.3.4.1], [AN19-3.3.4.2], [AN19-5.1.1], [AN19-5.1.5]

KSA SSP has established aviation Safety Data Collection and Processing System (SDCPS) for capturing, storing, aggregating, and allowing for the analysis of safety data and information. This system consists of various databases (GACA and AIB) that centralize the information in KSA aviation safety database (KSA SSP database). Dedicated staff assures and verifies the quality of the information provided and removes all information identifying individuals. Reports related to the same occurrence are compiled in assigned file stored in GACA occurrence database. GACA occurrence taxonomy is based on ICAO's Accident/Incident Data Reporting (ADREP) taxonomy.

2.6   Availability of Data and Information on Aviation Occurrences

[AN19-3.3.4], [AN19-3.3.4.1], [AN19-5.1.4]

AIB performs the final safety data collection and processing for accidents and incidents. The access to the safety data in SDCPS is enabled to GACA and AIB to support their safety responsibilities for the implementation of the SSP.

2.7   Safety Data and Information Analysis Coordination

[AN19-5.2]

KSA SSP-WGs coordinates safety data and information analysis coordination. Based on the analysis of safety information, this group will propose to KSA SSP NASC aviation priorities, objectives, targets, indicators, goals, and alert levels. The exchange and analysis of safety data will help maintain sound relationships among KSA SSP stakeholders and the industry.

2.8   Safety Data and Safety Information Protection
[AN19-5.3.1 – 5.3.4]

KSA accord protection to safety data captured by, and safety information derived from both, voluntary and mandatory safety reporting systems and related sources in accordance with GACAR PART 193 – Protection of Submitted Safety Data and Safety Information. KSA does not make available or use safety data or safety information collected, stored or analyzed in accordance with this paragraph for purposes other than maintaining or improving safety, unless the competent authority determines, in accordance with GACAR Part 193, that a principle of exception applies.

3. CHAPTER 3: KSA AVIATION SAFETY ASSURANCE AND OVERSIGHT

[AN19-3.4.1.1], [AN19-3.4.1.2]

KSA SSP safety assurance is a shared responsibility by all KSA SSP stakeholders. Aviation safety oversight is based on SMS approach that relies on regulatory compliance and performance-based monitoring. KSA aviation safety assurance is accomplished through oversight activities on service providers and internal review of its regulatory and administrative processes.

GACA conducts performance-based surveillance (oversight) as per documented surveillance processes in which it defines and plans inspections, audits, and monitoring activities on a continuous basis, to proactively assure that aviation license, certificate, authorization, and approval holders continue to meet the established requirements. KSA oversight activities are performed using different methods (e.g., scheduled, and unscheduled audits) based on analyzed safety data to determine the prevalence of certain types of occurrences in different types of aviation operations, and proactively monitor and mitigate emerging hazards. KSA aviation oversight allows for prioritization of oversight activities based on known information and focuses on assessing how effective is a certificate holder in managing safety risks in its implemented systems.

KSA aviation safety data is collected through a process of compliance oversight and safety performance indicators (SPIs) monitoring. Moreover, KSA SSP takes into account the safety assessment of foreign aircraft (SAFA) as part of the annual oversight plan. KSA aviation safety oversight program is reviewed and updated periodically. KSA SSP follows GACA's detailed procedures of safety oversight as described in the eBook Volume 12 found at: https://www.gaca.gov.sa

3.1 State Safety Performance

[AN19-3.4.1.3], [AN19-3.2.2.2], [AN19-3.4.2.1], [AN19-3.4.2.2]

Through analysis of safety data and information, areas of emerging risks can be highlighted, and the information is used to make decisions regarding appropriate safety mitigations and the subsequent assessment of effectiveness of those mitigation actions. The analysis outcomes are conveyed by SSP-WGs to aviation industry through GACA Safety & Aviation Standards Sector.
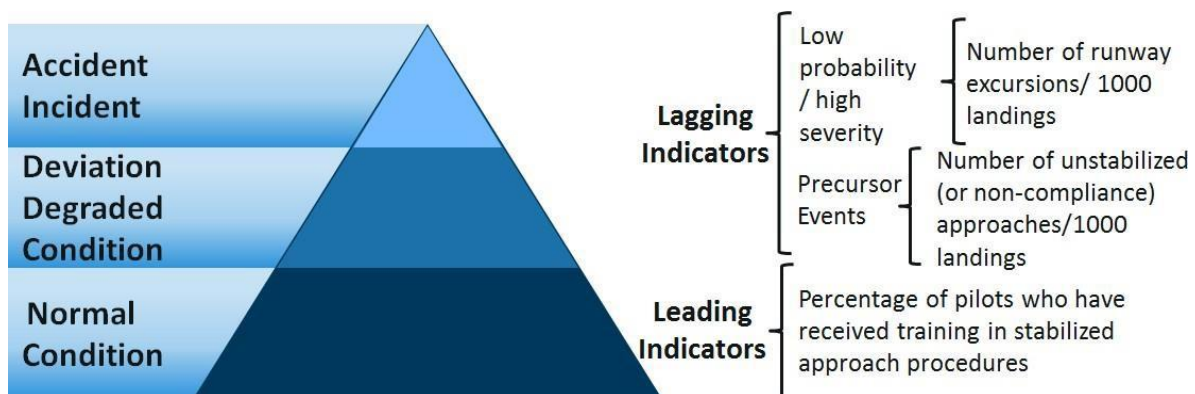
Figure 2: Risk-based Regulatory Management System

A number of high-level safety performance (Tier1) indicators have been identified as markers for monitoring KSA's aviation safety performance. These *reactive lagging indicators* consist of measures of adverse safety outcomes (accidents and serious incidents) according to operational sector and relative to the level of activity within that sector (exposure). Recognizing the limited ability of these

(Tier 1) indicators to aid in the proactive identification of emerging risks, GACA has expanded the set of indicators as service provider indicator (Tier 2) and GACA indicators (Tier 3). KSA SSP has adopted the following ICAO-tiered approach for developing aviation safety performance indicators:

KSA SSP-WGs are responsible for analyzing the data collected from various sources, AIB and GACA surveillance, monthly performance reports, and occurrence reports determines the indicators for tracking the performance. This approach allows GACA to capture the role of, and relationship between, the activities of the certification/authorization holder and the GACA in contributing to adverse safety outcomes. It also provides greater insight into the nature of those conditions that underlie potential adverse safety outcomes.

Safety Performance Indicators (Tier 1, 2 and 3) are being developed to align with the key risk areas for GACA and the different sectors of the aviation industry.

Lagging indicators (Tier 1) are used for monitoring aviation safety performance as the KSA-level outcome. Within the framework, KSA identifies high probability/low severity indicators (Tier 2), known as "precursor events" as leading indicators and regulatory gaps as (Tier 3) indicators. The regulatory indicators are determined by GACA regulatory management system and the ICAO CMA audit findings on regulatory gaps.

Lagging indicators (Tier 1) of KSA are measurements of adverse safety results, according to the operating sector and the level of activity (exposure) in that sector. The lagging indicators are the state-level reactive indicator.

KSA National Aviation Safety Plan (NASP) is determined based on the industry risk profile and system safety profile derived from the periodical review of industry indicators after analyzing the safety information and identifying the most critical trends of the aviation system.

3.2   Acceptable Level of Safety Performance (ALoSP)
[AN19-3.4.2.3]

ALoSP is KSA aviation's minimum level of safety performance in terms of safety performance targets and safety performance indicators – (ICAO Doc 9859, or as revised). Safety performance is expressed by SPIs and their corresponding alert and target values. GACA monitors the aviation industry's SPI trends to identify any unusual changes in safety performance. The target and alert settings take into consideration recent and historical performance (preceding year) for a given indicator.

Past performance is used to predict future performance using trend analyses to track safety performance over time. Where deficiencies have been found and corrected, the effectiveness of the corrective actions is ensured.

ALoSP is the aggregate level of safety performance achieved and expressed in terms of safety performance targets and safety performance indicators.

In order to determine and update KSA SSP ALoSP, the effectiveness of the following four components is taken into account:

— SSP implementation by KSA,

— SSP implementation by KSA aviation service providers,

— KSA aviation safety risk management and the associated safety performance indicators

(including SSP oversight and facilitation by GACA), and

— KSA implementation of the standards and recommended practices (SARPs) of the
   Annexes to the Convention on International Civil Aviation.

KSA SSP reviews each of these elements through its KSA SSP-WG and the outcome of reviews
are brought to the KSA SSP NASC agenda.

3.3 Universal Safety Oversight Audit Program (USOAP) Continuous Monitoring Approach (CMA)

KSA SSP applies a national systemic and coordinated approach to aviation safety management. KSA
implements the eight critical elements of safety oversight. ICAO USOAP CMA audits verify the status
of implementation of the elements and functions, on a compliance/noncompliance basis. The results
of the latest ICAO USOAP CMA activity conducted in 2014 support this approach.

ICAO USOAP has now evolved into a continuous monitoring approach (CMA) and verification of
compliance with the requirements, which is made on an on-going basis in accordance with the USOAP
CMA online framework (OLF). Activities under the CMA includes interventions on the basis of current
organizational, sectoral, and country safety risk profile.

4.   **CHAPTER 4: STATE SAFETY PROMOTION**

[AN19-3.5]

KSA aviation safety promotion is the responsibility of the KSA SSP NASC. The annual safety communication plan describes the continuous process of communication and maintains formal leverage for:

(1) boosting aviation safety culture across the entire KSA aviation industry,

(2) facilitating the sharing of safety information among service providers.

(3) assuring proper expertise, education, training, processes, and instruments are made accessible to carry out any activity associated with SSP or SMS.

(4) communicating safety critical information in a timely manner.

(5) communicating the rationale behind undertaking specific safety measures, or industry change requirements.

4.1   **Internal Communication and Dissemination of Safety Information**

[AN19-3.5.1]

Along with accredited aviation training institutions, mandatory and recommended SSP and SMS training is provided by GACA. GACA training is supplemented by educational and promotional products. KSA SSP NASC discusses accident and incident investigations, safety recommendations, SSP strategies, and information related to safety performance, organizational safety risk profiles, SMS requirements and safety accountability, lessons learned from incidents and accidents, KSA aviation safety management best practices and concepts. NASC communicates the outcome of the above to KSA SSP-WG, which in turn will extend safety information to the KSA aviation industry.

4.2   **External Communication and Dissemination of Safety Information**

[AN19-3.5.2], [AN19-5.3.5], [AN19-5.3.6], [AN19-5.4.1], [AN19-5.4.2]

If safety matters identified during the analysis of the safety reports contained in GACA's SDCPS, are considered to be of interest to other States, such information shall be forwarded to them as soon as possible. Prior to sharing such information, the level of protection and conditions on which safety information will be shared is assured in accordance with GACAR Part 193.

GACA conducts a series of safety educational and promotional activities to raise the aware of KSA aviation community on the existing and emerging safety matters. GACA prepares a series of educational and promotional materials for the industry and the public and has an active group of aviation safety advisors to provide assistance and advice to the industry. More information on the safety education and promotion activities of GACA is published at the website: http://www.gaca.gov.sa.

KSA SSP stakeholders' information sharing, and dissemination mechanisms are found in the respective standalone MoUs.

5.   CHAPTER 5: AVIATION CHALLENGES, PRIORITIES, AND OBJECTIVES,

5.1   Challenges in KSA Aviation Market

The KSA aviation market will continue to have exponential growth for the next 10 years. This is further supported by the Saudi vision 2030 in which new air carriers will enter the aviation industry, leading to an increase of flights/year to 2.7 million flights, 250 destinations, and 330 million passengers will be transported in and out of KSA by 2030. To ensure effective implementation, KSA SSP is aligned with KSA Civil Aviation law and supported by GACARs, initiatives and policy directions outlined in the Saudi Airspace Concept (SFAC) - National Transformation Program (NTP), Airspace Optimization, CNS/ATM 15 years Master Plan, and local and regional Air Traffic Flow and Capacity Management (ATFCM).

5.2   Operational Complexity

The complexity of KSA's aviation industry will continue due to its rapid growth and expansion (e.g., different aircraft types, more international, national, and regional air operators, more offshore helicopters, more aviation sport activities, more recreational activities, more remotely piloted aircraft systems (RPAS) systems, more airports built (sea & land).

5.3   Infrastructure / Technology

Continued growth forecast, particularly at KSA's major airports, increases demand on a range of airports, air traffic, and aviation rescue and firefighting infrastructure and services. More information on this program is available at SANS website: https://sans.com.sa/home. KSA adopts satellite-based technologies to enhance the accuracy and reliability of surveillance across the country using Automatic Dependent Surveillance-Broadcast (ADS-B), while navigation is increasingly based on the Global Navigation Satellite System (GNSS). In addition, GACA is rebuilding its regulatory framework to further support KSA SSP's effective implementation and future aviation regulatory demands, the increased use of performance-based rules, and the greater use of risk-based surveillance concepts in safety oversight approaches.

5.4   Workforce Capabilities

Increased adoption of new aircraft, satellite-based navigation systems and other new technologies require adequate qualified and experienced personnel to be recruited to safely and effectively operate these systems and equipment. Training and education of a skilled workforce are key factors in ensuring KSA SSP's effective implementation. Thus, KSA SSP stakeholders shall amend relevant training programs and recruitment plans, as necessary, to ensure new skills and knowledge are acquired.

5.5   General Aviation (GA) Operations Using Light Aircraft (5 700 kg or less)

Aircraft operations of General Aviation and Training Flight Schools with aircraft weighing 5,700 kg or less constitute challenges to KSA SSP due to the different aviation environments they operate within. Notwithstanding other types of operations, GACA provides guidance to GA and Training operations to facilitate regulatory and performance compliance to ensure associated hazards continue to be

proactively addressed. Another challenge is the ageing of GA aircraft. Although the current rate of renewal of GA aircraft fleet is relatively low, older aircraft will continue to pose challenges to airworthiness assurance and ongoing equipment to support new air traffic services.

GACA provides educational and awareness programs to highlight risks associated with aging and provide guidance to facilitate industry compliance with maintenance requirements.

5.6   Future Challenges

Details of Future Challenges are found in the KSA National Aviation Safety Plan (KSA NASP).

Appendix A: Safety Regulations, Instruments, and other Publications
[AN19-3.2.2], [AN19-3.2.2.1]

KSA Civil Aviation Law is further supported with binding specific operating regulations including:

(a)   GACA regulations (GACARs) cover the regulations for Air Navigation, Flight Operations, Airworthiness, Safety Regulations, Airspace and Aerodrome/Ground Handling Regulations. These regulations are issued and revised by GACA under the responsibility of H.E the President of GACA,

(b)   Aviation Safety and Investigation Regulation – AIB Regulation. This regulation is issued and revised by KSA AIB under the responsibility of the AIB Director General,

(c)   Procedures Handbook (eBook)—which comprises detailed supporting procedures, forms, guidelines, and specifications to the relevant GACA Regulations, for uniform application, determined to be necessary for the safety of air navigation. The eBook forms a guidance document for Inspectorate and industry personnel,

(d)   Advisory Circulars (ACs)—which are intended to provide recommendations and guidance to illustrate a means (but not necessarily the only means) of complying with the GACA regulations. ACs explain certain regulatory requirements by providing interpretive and explanatory material; and,

(d) GACA Safety Bulletins —which are made to inform the aviation industry and public, in a systematic way, of essential information not considered mandatory. The information contained in a safety bulletin is for information only and is issued by GACA to disseminate information as quickly and as clearly as possible.

(e) Forms and Miscellaneous Documents—which provide guidance, customized information in a designated subject area, or show a method for complying with related Civil Aviation Regulations. This document contains details of Bilateral Safety Agreements and Working Arrangements Documents and Government Orders Documents related to aviation safety.

More about aviation safety regulations and associated guidance materials including KSA SSP policy, objectives and goals are found at: https://gaca.gov.sa.

Appendix B: List of Standalone MoUs between KSA SSP Stakeholders

MoU	Objective
GACA - AIB	Describes KSA SSP protocols of cooperation and aviation safety data sharing and protection while maintaining independence and capacity to exercise specific roles and responsibilities.
GACA - ATS	Describes KSA SSP roles and responsibilities, risk management and mitigation, aviation safety data sharing and protection, interactions, and obligations, to maximize aviation safety outcomes.
GACA / CST	Describes KSA SSP roles and responsibilities, risk management and mitigation, aviation safety data sharing and protection, interactions, obligations, and SAR operations.
GACA-Join Centre for Research & Development of Air Transport Safety	Describes KSA SSP roles and responsibilities, risk management and mitigation, aviation safety data sharing and protection, interactions, obligations, R&D activities, aviation safety studies, analysis and proposals for current and future improvements based on observed trends and emerging aviation hazards. MoU specifies also, common training and educational activities.
GACA – Military Aviation	Describes KSA SSP roles and responsibilities, risk management and mitigation, aviation safety data sharing and protection, interactions, and obligations. Promotion of aviation safety and airworthiness between GACA and Military aviation and provides a high-level basis for cooperation and harmonization. It describes how civil and military regulatory system outcomes are used to improve safety, efficiency, consistency, and airspace capacity utilization.
AIB - ATS	Describes KSA SSP roles and responsibilities, risk management and mitigation, aviation safety data sharing and protection, interactions, and obligations, in relation to aviation safety.
SANS – Military Aviation	Describes KSA SSP roles and responsibilities, risk management and mitigation, aviation safety data sharing and protection, interactions, and obligations. Harmonization of ATM and services associated with the provision of civil and military ATS and aviation support systems including Rescue and Fire Fighting Services (ARFFS) and SAR.
Military Aviation – AIB	Describes KSA SSP roles and responsibilities, risk management and mitigation, aviation safety data sharing and protection, interactions, and obligations. Provides a framework to support cooperation between Military aviation and AIB including SAR.
GACA - MoS	Describes KSA SSP roles and responsibilities, risk management and mitigation, aviation safety data sharing and protection, interactions, and obligations. Provides a high-level basis for cooperation and harmonization between GACA and MoS.

ATS –Meteorology	Describes KSA SSP roles and responsibilities, risk management and mitigation, aviation safety data sharing and protection, interactions, and obligations. Describes arrangements by which meteorological information is provided to ATS and the industry, and mechanisms to maintain effective cooperation between ATS and the Ministry of Meteorology.
AIB – Ministry of Justice	Describes advance enforcement arrangements between AIB and Ministry of Justice. Protection of safety data for these arrangements are described in GACAR Part 193.

Appendix C: KSA Aviation Safety Risk Management
[AN19-3.3], [AN19-3.3.5], [AN19-3.4.1.2]

(a)   Consistent with the increased international emphasis on a state safety risk management program, and as highlighted in ICAO Annex 19 (Safety Management) and ICAO Doc 9859 (Safety Management Manual), GACA applies ISO 31000 Risk Management principles and guidelines to effectively identify, evaluate, control (where GACA has risk ownership) and monitor aviation safety risks.

(b)   The management of aviation safety risk is undertaken through a multi-layered process that can identify and manage risks at various levels of the aviation industry. The system is comprised of the following levels of risk management layers:

A. Regulatory Risk Management System

   (a)   Regulatory risk is the risk of a change in regulations and civil aviation law that might affect an industry or a specific business. Such changes in regulations can make significant impacts on the framework of the industry through changes in competition and cost structure, which ultimately affect the safety parameters. The risk associated with regulatory changes is analyzed and managed systematically.

   (b)   The strategies are developed based on addressing known or likely safety risks that cannot be addressed adequately by non-regulatory means. Each proposed change in regulation must be assessed against the contribution it will make to aviation safety. GACA is specific that the regulations must not impose unnecessary costs or unnecessarily hinder high levels of participation in aviation and its capacity for growth. Accordingly, GACA analyses and incorporates change management for every major change it initiates.

B. Sector Safety Risk Profiling

   (a)   GACA emphasizes the approach for identifying, understanding, and managing risks across all wide sectors like "commercial aviation, general aviation, air navigation services and ground services". The sectoral approach adapted by the GACA helps the service providers identify and manage risks inherent in the sector and also provides insight into risks that may exist elsewhere in the system.

   (b)   Sector risk profiling is a proactive approach to identifying the risks that exist within the sector at a defined point in time. It is a data-driven process for identifying current and emerging risks. The process output is a collection of risks that is the aggregate of known and predicted risks impacting the sector operations as a consequence of factors within the operating environment, supporting infrastructure/services and deviations associated with the growth and change in the sector.

   (c)   Risk profiling outputs data collected through monthly statistical and performance reports (GACAR Part 4) and supplement by GACA's oversight and decision-making through proactive risk identification and risk management processes to ensure the sector risks are maintained within acceptable limits.

C. **Surveillance Outcomes Risk Management (2023-2024)**

   (a)   Risk-based surveillance seeks to assess the certification and authorization holder's management system and its ability to identify and keep operational risks to an acceptable level of safety performance, while at the same time ensuring compliance with aviation legislation is maintained.

   (b)   Risk-based surveillance is a structured process used by GACA in its oversight of certification and authorization holders to prioritize surveillance activities based on authorization holders' risk profiles. It focuses on the effectiveness of an authorization holder's management of its risks and enables targeted surveillance of high-risk areas of certification and authorization holder's systems.

D. **Industry Risk Profiling (2023-2025)**

   (a)   The industry risk profiling process links to KSA SSP and the GACA safety governance system by providing an aviation industry review of the impact of the risks on the industry.

   (b)   GACA's role in regulating safety requires the identification of potential risks within the industry. Aggregating safety-related information gathered from multiple sectors provides an industry-level understanding of the risks and enables the development of a baseline measurement for safety performance.

   (c)   The risk profiling process at an industry level draw on the body of knowledge, which includes updated strategic studies that reflect how the industry and economy are evolving and system and sector risks identified.

   (d)   The current risks and the emerging risks identified at an industry level are compared and prioritized based on their relevance and impact on system safety. The industry risk profile involves high-level analysis taking a strategic approach to the risk. Aggregating the risks enables the development of safety performance measures at the industry level.

E. **System Risk Profiling (2023-2025)**

   (a)   The system risk profile consists of the systemic safety risk that exists within the entire aviation community. A systematic approach to process improvement requires proactively searching for opportunities to improve the process at every step, not simply identifying deficiencies after an accident or incident.

   (b)   The system risk profile provides a high-level risk management summary categorizing significant aviation system safety risk and contributes to developing KSA NASP and safety performance indicators.

F. **KSA National Aviation Safety Plan (KSA NASP) (2023-2025)**

   (a)   KSA National Aviation Safety Plan (NASP) is the documented output of an aggregated safety risk analysis conducted in GACA's safety risk management processes. The plan provides a risk picture of the aviation safety system in KSA from a GACA perspective.

(b)   The plan aligns with KSA Vision 2030 "To create a safe and secure aviation environment in accordance with the most rigorous international safety standards and build a modern aviation infrastructure and system that offer consistently safe and state-of-the-art service air transport sector".

(c)   It is further emphasized conducting regular reviews of the system of civil aviation safety in order to monitor the safety performance of the aviation industry, identify safety- related trends and risk factors and to promote the development and improvement of the system'.

Appendix D: Requirements for the Service Provider's SMS

The table below presents the information on SMS requirements for service providers that are obliged to implement an SMS.

Service providers	Regulations and website
Civil aviation training centers (CATCs) are exposed to safety risks related to the operation of aircraft during the provision of their services	Information in (GACAR 5 Para 5.1 (C and D)) can be found on the GACA regulation website.
Aircraft operators authorized to conduct commercial air transport activities	Information in (GACAR 5 Para 5.1 (A)) can be found on the GACA regulation website.
Helicopter operators authorized to conduct commercial air transport activities	Information in (GACAR 5 Para 5.1 (A)) can be found on the GACA regulation website.
Approved maintenance organizations (AMOs) serving aircraft or helicopter operators engaged in commercial air transport	Information in (GACAR 5 Para 5.1 (E & F)) can be found on the GACA regulation website.
Aircraft, engine, propeller type design or manufacturing organizations serving aircraft or helicopter operators engaged in commercial air transport	Information in (GACAR 5 Para 5.1) can be found on the GACA regulation website.
Air traffic service (ATS) providers	Information in (GACAR 5 Para 5.1 (H)) can be found on the GACA regulation website.
Certified aerodrome operators	Information in (GACAR 5 Para 5.1 (B)) can be found on the GACA regulation website.
Certified Ground Service Providers	Information in (GACAR 5 Para 5.1 (B)) can be found on the GACA regulation website.

Data Reporting and Analysis

GACA reporting system	Information on (GACAR 4) can be found on the GACA regulation website
AIB safety occurrences database	Information on (AIB regulation) can be found on the AIB regulation website

Appendix E: Aviation Safety Enforcement Policy

[AN19-3.2.1.2]

This enforcement policy is promulgated under the statutory authority of the General Authority of Civil Aviation of the Kingdom of Saudi Arabia.

A. PURPOSE

The Kingdom of Saudi Arabia's aviation safety enforcement policy is aimed at promoting compliance with aviation safety regulations and requirements through enforcement functions in an equitable manner. The implementation of safety management systems (SMS) requires GACA to have an equitable and discretionary enforcement approach in order to support the KSA State Safety Program's Safety Management framework. GACA enforcement policies and procedures allow service providers to deal with, and resolve certain events involving safety deviations, internally, within the context of the service provider's SMS and to the satisfaction of the authority. Intentional contraventions of Civil Aviation Law and the GACARs will be investigated and will be subject to conventional enforcement action where appropriate. The enforcement framework considers and distinguishes between premeditated violations and unintentional errors or deviations.

The KSA aviation safety enforcement policy statement and associated enforcement procedures apply to all GACA regulated entities including those under GACARs 21 and 43 and companion regulations for Airworthiness, GACAR 91 and companion regulations for Flight operations, GACAR 139 and companion regulations for Aerodromes and ground handling, GACARs 61, 64, 65 66 and 67 for personal licensing and GACARs 141, 142, 143, 144 and 147 for Training, GACAR 170 and companion regulations for Air navigation services derived from ICAO Annex 1 — *Personnel licensing;* Annex 6 — *Operation of Aircraft*, Part I — *International commercial air transport — Aeroplanes* and Part III — *International operations, — Helicopters;* Annex 8 — *Airworthiness;* Annex 11 — *Air traffic services,* and Annex 14 — *Aerodromes*, Volume I — *Aerodrome design and operations*).

B. POLICY

All KSA SSP applicable service providers will establish, maintain, and adhere to an SMS that is commensurate with the size, nature and complexity of the operations authorized to be conducted under their approval/certificate. To maintain this enforcement policy that supports the implementation of SMS, the GACA inspectors will maintain an open communication channel with service providers.

When a service provider operating under an SMS unintentionally contravenes the KSA Civil Aviation Law safety-related clauses and the relevant GACARs, specific review procedures will be used. These procedures will allow the GACA inspector responsible, for service providers' safety oversight, the opportunity to engage in dialogue with the SMS- approved organization. The objective of this dialogue is to agree on proposed corrective measures and an action plan that adequately addresses the deficiencies that led to the contravention and to afford the service

provider a reasonable time to implement them. This approach aims to nurture and sustain effective safety reporting, whereby service providers' employees can report safety deficiencies and hazards without fear of punitive action. A service provider can, therefore, without apportioning blame and without fear of enforcement action, analyze the event and the organizational or individual factors that may have led to it, in order to incorporate remedial measures that will best help prevent a recurrence. Notwithstanding the previous protection statements, immunity from punitive action may be denied if:

- There is evidence of intentional violation of the GACAR or a deliberate effort to conceal noncompliance; or
- The regulated person has, in the past 5 years, had the same or closely related violations.

GACA shall, through the inspector responsible for the oversight of the service provider, evaluate the corrective measures proposed by the service provider or the systems currently in place to address the event underlying the contravention. If the corrective measures proposed (including any internal disciplinary actions) are considered satisfactory and likely to prevent recurrence and foster future compliance, the review of the violation should be concluded with no further punitive enforcement action by the regulator. In cases where either the corrective measures or the systems in place are considered inappropriate, GACA shall continue to interact with the service provider to find a satisfactory resolution that would prevent enforcement action. However, in cases where the service provider refuses to address the event and provide effective corrective measures, GACA shall consider taking enforcement action or other administrative action deemed appropriate. GACA has a range of enforcement procedures in order to effectively address breaches of aviation under the KSA Civil Aviation Law in light of different circumstances. These procedures may result in a variety of actions, such as counselling; remedial training; or variation, suspension or cancellation of authorizations or certification. Enforcement decisions shall not be influenced by personal conflict; personal gain; considerations such as gender, race, religion, political views, or affiliation; or personal, political, or financial power of those involved.

C. **PROPORTIONALITY OF RESPONSES**

Compliance decisions must be proportional to the identified breaches and the resulting safety risks they underlie, based on three principles:

a) GACA shall act against those who consistently and deliberately operate outside civil aviation regulations,

b) GACA shall seek to educate and promote training or supervision of those who show commitment to resolving safety deficiencies, and

c) GACA shall give due and equitable consideration to distinguish premeditated violations from unintentional errors or deviations.

D. NATURAL JUSTICE AND ACCOUNTABILITY

Enforcement decisions must be fair and follow due process, transparent to those involved, take into account the circumstances of the case and the actions/attitudes of the service provider or individual when considering action, consistent actions/decisions for like/similar circumstances; and subject to appropriate internal and external review.

E. EXCEPTIONS

None. The KSA aviation safety enforcement policy is an overarching policy and does not negate any existing enforcement policies, but those policies complement it.

Signature: _____

H.E. Abdulaziz bin Abdullah Alduailej

President, General Authority of Civil Aviation
KSA SSP Accountable Executive
Kingdom of Saudi Arabia
Effective Date: 21 May, 2023