# THE BAHAMAS STATE SAFETY PROGRAM

FIRST EDITION







# **FOREWORD**

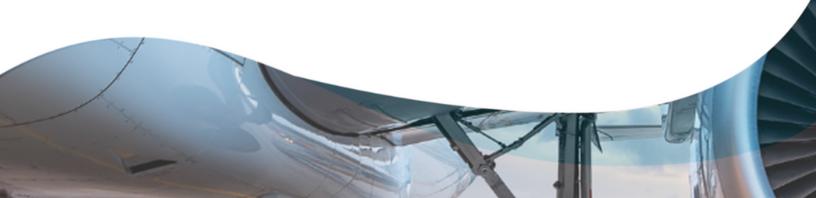
As Director General of Civil Aviation Authority Bahamas I am pleased to present the first edition of the State Safety Programme for The Commonwealth of The Bahamas.



Safety is of paramount importance in aviation. As a Member of the Chicago Convention, The Bahamas has an obligation to oversee and regulate aviation activities within its territory and the operation of Bahamian aircraft worldwide. The Ministry of Tourism Investments and Aviation (MOTIA), the Civil Aviation Authority Bahamas (CAA-B) and the Aircraft Accident and Investigation Authority (AAIA) collectively have the public duty to uphold a safe aviation environment, whilst facilitating the growth and development of the aviation industry in The Bahamas.

A good aviation safety record bolsters confidence in air travel while a safe aviation environment lays the foundation for a vibrant air hub and civil aviation system. The Bahamas has, over the years, strived to establish a sturdy and progressive regulatory safety oversight and accident investigation systems and capacity commensurate with its civil aviation activities.

The Bahamas currently has 33 air operators,126 aircraft on its aircraft registry, a number of which are engaged in international commercial air transport operations, and some 609 licensed aviation personnel. The Lynden Pindling International Airport (LPIA) is a key regional air hub, serving about 629,179 passengers as of 2022, whilst the Bahamas Air Navigation Services provider (BANSA) managed over 37,706 annual aircraft movements in The Bahamas Flight Information Region.



The Bahamas continues to develop the necessary capabilities and build capacity to ensure that our aviation safety risks are adequately and appropriately managed. We have embarked on a safety management approach since 2021, continuously improving our safety oversight regime and the development of a State Safety Programme (SSP), to systematically identify, prioritize and mitigate aviation safety risks.

In our SSP, we have articulated our regulatory philosophy, values, and commitments to achieve our safety objectives. Our SSP also describes our safety frameworks, organizational structures and processes to drive aviation safety. As we continue to mature our SSP, we remain committed to working closely with our stakeholders and partners to evolve our safety management, Safety Oversight and Air Accident and Incident Investigation regimes. Ultimately, we seek to build a safe and robust civil aviation system in The Bahamas underpinned by a strong safety regime, a strong and positive safety culture, and strong safety leadership.

Alexander B. Ferguson

**Director General** 

Civil Aviation Authority Bahamas

January 31st, 2024



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## **SAFETY POLICY**

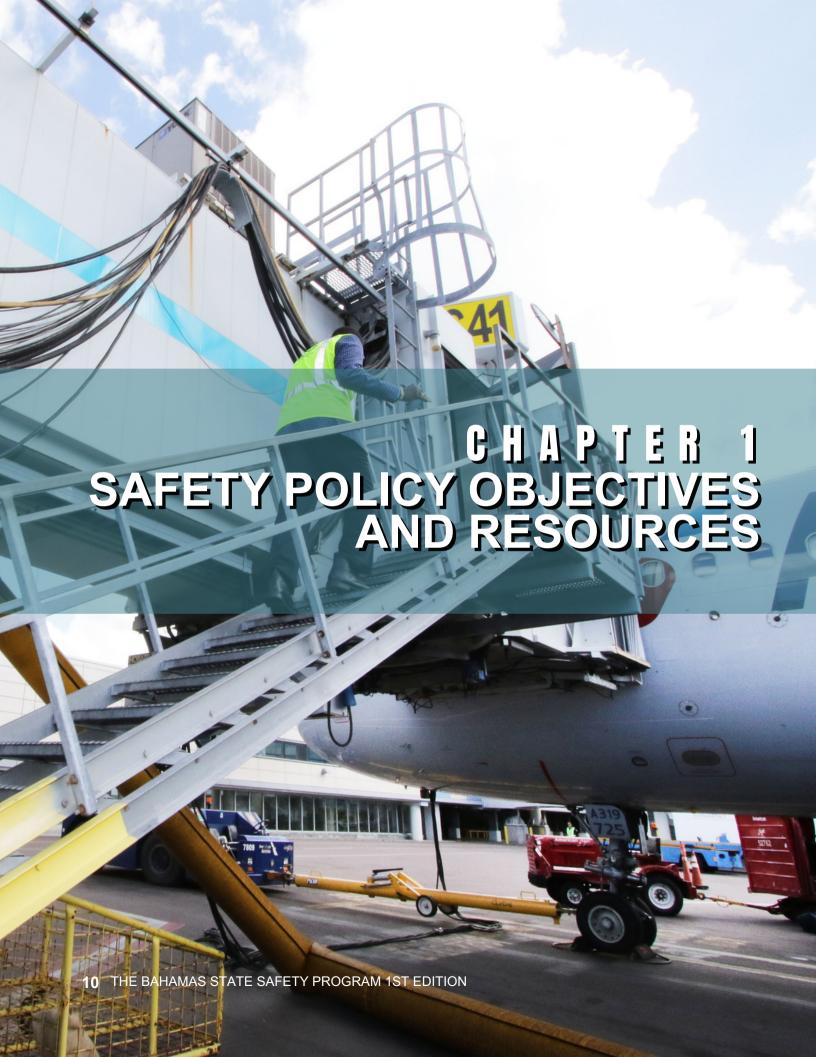
The Bahamas views aviation safety as our highest priority as it has been the overriding consideration in all aviation activities. For that reason, we are committed to continuously striving to improve aviation safety by creating an environment in accordance with ICAO standards and recommended practices and promoting a culture of safety. We want to ensure that our strategies and processes are designed to achieve the highest practicable level of safety performance, ensure the effective implementation and monitoring of the SSP, and meet regulatory requirements using the appropriate allocation of resources to attain this.

To achieve these overarching goals, The Bahamas through its Agencies will:

- Implement a data- and performance-based approach or safety regulation and oversight that relies on data and performance, where appropriate;
- Identify safety trends within the aviation sector and implement a risk-centered strategy to address the most critical areas of safety concern or need;
- consistently monitor and assess safety performance within our aviation system by utilizing aggregate State indicators, as well as safety performance metrics from service providers;
- engage and consult with the industry to address safety concerns, and continuously improve aviation safety;
- Promote good safety practices and a positive organizational safety culture within the industry based on sound safety management principles;
- Encourage the gathering, analysis, and sharing of safety information across all relevant industry organizations and service providers with the express intention that the information is to be used for safety management reasons;
- Provide adequate financial and human resources for safety management and oversight;
   and equip staff with the knowledge and experience necessary to effectively carry out
   their safety oversight and management competencies.

The Safety Policy Statement was endorsed by:

Mr. Alexander B. Ferguson, Director General of Civil Aviation Authority Bahamas



#### 1.1 SAFETY POLICY

The Bahamas continues to strive for high standards in aviation safety. We have effective and robust safety oversight and air accident and incident investigation regimes that meet our international safety obligations under the Chicago Convention. We seek to proactively manage our safety risks. We aim to nurture and foster a positive safety culture within our civil aviation system, where each individual and organisation in the aviation ecosystem takes responsibility to uphold a high standard of safety. We will commit the necessary resources and equip our staff to carry out their functions effectively and proficiently. To this end, The Bahamas has established the following Safety Policy and Safety Objectives as part of its State Safety Programme.



#### 1.2 SAFETY OBJECTIVES

The goal of The Bahamas is to achieve the following Safety Objectives:

- Enhance the level of safety of The Bahamas civil aviation operations, and in particular, to maintain zero fatal accidents and serious injuries involving aviation related entities under its safety oversight purview;
- Ensure that The Bahamas aviation safety oversight, and aircraft accident investigative regimes are effective, robust, compliant with ICAO Standards and accepted Practices.
- Ensure that risks/hazards in The Bahamas civil aviation operating environment are proactively identified, assessed and mitigated to a minimum as is reasonably practicable;
- Cultivate a positive safety culture and underpin cooperation among industry stakeholders;
- Pursue, collaborate and, advocate for the enhancement of aviation safety regionally and globally.



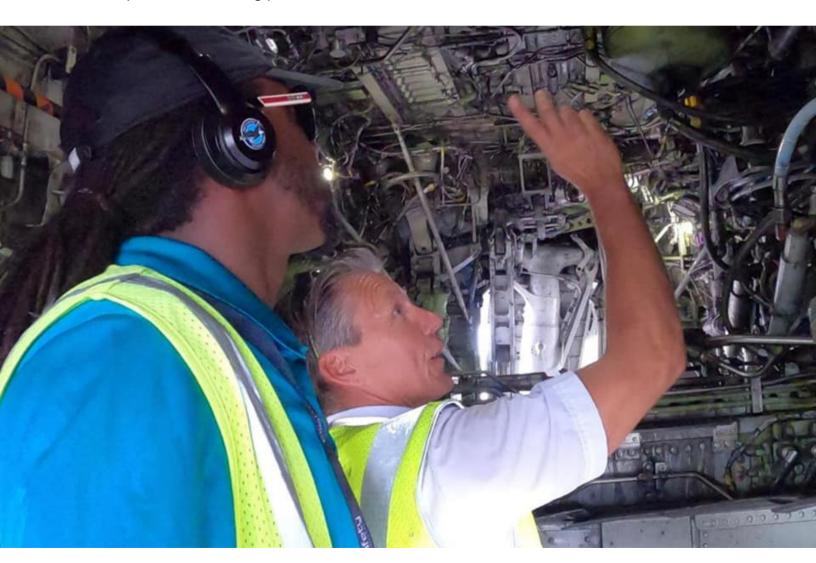
#### 2.1 PRIMARY AVIATION LEGISLATION

The Bahamas has developed and implemented the appropriate national legislation and operating regulations that are consistent with ICAO SARP's (Standards and Recommended Practices). To this end, this legislation and operating regulations implement national safety policies, and appropriate regulatory processes to support the implementation of this State Safety Program.

The Bahamas has a national aviation safety legislative framework supported by the aviation regulations to implement the Chicago Convention and its Annexes.

Please refer to the following links for access to all Acts and Regulations:

- https://caabahamas.com/current-bills-schedule/
- https://www.baaid.org/publication



#### 2.2 CIVIL AVIATION PUBLICATIONS (CAPs)

Guidance material in the form of Civil Aviation Publications (CAP's) provide detailed information on topics such as the policies and regulations issued by CAA-B, guidelines for regulatory processes and administrative instructions. Where appropriate, these CAPs also provide service providers with the acceptable means of compliance (AMC) with the applicable CAR's.

CAA-B may also accept alternative means of compliance, if they can adequately meet the equivalent level of safety required by the regulations.

Refer to the following link for access to all Publications: https://caabahamas.com/documents/

#### 2.3 REVIEW OF LEGISLATION AND REGULATIONS

The Bahamas regularly reviews its aviation safety policies, legislation, regulations, guidance material and procedures, to ensure that they remain effective, relevant, and in compliance with ICAO SARPS (Standards and Recommended Practices).

CAA-B's Regulations Committee (RC) oversees the development and review of operating regulations policies. The rule development process may be triggered as a follow up to the introduction of new or amended ICAO SARPS Standards and changes to policies, industry feedback and new aviation developments. The RC reviews the proposed rules and ensures that the rulemaking process, including industry consultation, is adhered to.

#### 2.4 COMPLIANCE WITH LEGISLATION AND REGULATIONS

Compliance with The Bahamas aviation safety legislation and regulations by organisations and persons is crucial to effective safety management. Through regular reviews and consultations with the industry, CAA-B keeps its safety regulations up to date and relevant.

In the event of non-compliance, CAA-B's primary focus, as articulated in its enforcement policy, is to address the root cause of the non-compliance, and bring the individual or organisation back to compliance. Where necessary, CAA-B will take immediate safety actions to address any imminent safety risk.

CAA-B, guided by The Bahamas Safety Policy, is committed to fostering a positive safety culture in the aviation community. CAA-B strives to create an environment of openness, fairness and trust in which organizations and individuals are encouraged to report or share safety-related information, including their own errors.

#### 2.5 ENFORCEMENT POLICY

Accountability is important to ensure integrity of the system, and unacceptable behaviour such as gross negligence and intentional and willful acts to flout our rules will not be tolerated. The state has established an enforcement policy that has been endorsed by the Accountable Executive. When considering whether enforcement action should be taken, CAA-B takes into account:

- Type, counts and duration of contravention;
- Circumstances of the contravention;
- · Adverse effect on aviation safety;
- Aggravating and mitigating considerations;
- Potential efficacy of proposed actions;
- · Totality and parity principles.

Where warranted, CAA-B may take enforcement action, ranging from administrative action to prosecution, on the holder of its certificates, licences or approvals. Visit www.caabahamas.com to view the Enforcement Policy.

#### 2.6 POLICIES & PROCEDURES

Both The CAA-B and AAIA have developed policy and procedural manuals to guide the operations of their respective authorities. CAA-B maintains a comprehensive corporate manual that encompasses all policies and procedures, while AAIA has two manuals — one dedicated to administration and the other to policy. Regular updates are conducted on these manuals to ensure that all staff members stay abreast of the latest industry best practices and regulations

Within the CAA-B, internal policies and procedures have been instituted to address safety oversight, safety management, and various other domains. These encompass functional aspects such as rule development, the issuance of licenses/certificates/approvals, delegation of powers to inspectors and enforcement personnel, surveillance and investigation. Additionally, these policies offer guidance on governance-related issues, including personal conduct, training, capability building matters, and administrative considerations such as the management of State Letters issued by ICAO.

Equally, the AAIA has established policies and procedures for the investigation of aircraft accidents and incidents. Incorporated within are the notification of occurrences, adherence to investigation protocols, issuance of safety recommendations, and the publication of reports. The mandate of the Aircraft Accident Investigation Authority (AAIA) is to investigate aviation occurrences, to identify deficiencies in the aviation system and make recommendations as necessary, so those deficiencies would not lead to future occurrences. CAA-B and the AAIA have collaboratively devised agreed-upon policies and procedures to synchronize their efforts and resources, aiming to enhance the interfaces between the two authorities. This is intended to guarantee clarity of roles in the implementation of the SSP.







#### 3.1 STATE SAFETY AGENCIES

The Bahamas Ministry of Energy & Transport (MOET), The Civil Aviation Authority Bahamas (CAA-B) and The Bahamas Aircraft Accident Investigation Authority (AAIA), are established, appropriately staffed and funded to carry out their respective functions to ensure aviation safety.

#### 3.2 CIVIL AVIATION AUTHORITY BAHAMAS

The Civil Aviation Authority Bahamas (CAA-B) operates as a statutory entity under the Ministry of Tourism, Investments and Aviation (MOTIA), with its roles outlined in the Civil Aviation Authority Bahamas Act 2021. This legislation governs the appointment of the CAA-B Chairman and Board members. The CAA-B is mandated to regulate and enhance safety and security in civil aviation, while also fostering the advancement of civil aviation capabilities, skills, and services in The Bahamas.

The functions and duties of CAA-B are set out in section 4 part II of the CAA-B Act, and include the following:

- To maintain a standard of safety and efficiency in the civil aviation industry that is at least equal to the standard or safety prescribed by the Chicago convention and any other aviation convention, agreement or understanding to which The Bahamas is a party;
- To regulate, in accordance with the Act or any other written law -civil aviation operations in The Bahamas, the operation of Bahamian registered aircraft; and the operation of maintenance organisations in respect of aircraft on The Bahamas register.
- To register, license and certify aerodromes.
- To issue, renew, suspend or revoke certificates. licences, permits. approvals registrations and such other requisite authorizations as necessary under this Act, the civil Aviation Act and any operating regulations;

- To provide an adequate system, supervision and regulatory oversight of air navigation services and air traffic services in the air space of The Bahamas and such other air space as may be subject of a treaty or an agreement between Th Bahamas and any other state or organization;
- To cooperate with the Aircraft Accident Investigation Authority in the carrying out of investigations of any aircraft accident or serious incident occurring in or over The Bahamas or in relation to any Bahamian aircraft;
- To develop, implement and review programmes relating to the safety and security of civil aviation and public health emergency preparedness;
- To develop and implement training programmes to provide technical advice, assistance or training:
- To prepare and issue operating regulations and procedures on aviation safety and security standards in accordance with the Annexes;
- To notify ICAO of any differences to safety-related Annexes and ensure that such significant differences are published in the Aeronautical Information Publication (AIP) of the Bahamas:
- To develop effective oversight and enforcement strategies and programmes and to ensure compliance with operating regulations;
- To conduct regular reviews of civil aviation and security systems in order to monitor the safety performance of the civil aviation industry, identify safety and security-related trends and risk factors, promote the improvements of the safety and security system and conduct regular and timely assessments of safety and security developments;
- To review and ensure the adequacy of aviation security programmes and associated documentation produced by aerodrome operators, air operators, catering operators, regulated agents ground handling service providers and cargo operators;
- To regulate the security operations of aerodrome operators, aircraft operators, regulated agents, ground handling and catering service providers for the purpose of protecting passengers, crew members, users of an aerodrome, aerodrome staff, aerodromes and other aviation facilities, preventing acts of aerial or air piracy and any other unlawful interference against civil aviation; and ensuring that appropriate action is taken when an act of aerial or air piracy or unlawful interference occur or is likely to occur:
- To enhance aviation by the development and dissemination of progressive administrative and technical practices promoting their use by security services, aerodrome administrations, air cargo operators:
- To make recommendations to the Minister in respect of the conclusion of any civil aviation international agreement with other states, governments or international organizations;

- To advise the Minister on matters associated with any action or condition in the aviation sector impacting on the aviation sector which is capable of causing actual or potential threat, harm or damage to persons property;
- Engage in any activity that promotes and develops civil aviation, either alone or in conjunction with other civil aviation authorities, international agencies or organizations;
- Charge fees for the use of any facility or service provided by the Authority.
- Ensure that the environment is protected from any detrimental effect as associated with the operation and use of aerodromes and aircraft as reasonably practicable.

By virtue of Part II (4) (5) of the CAA-B Act, the Minister for the MOTIA has designated CAA-B as the Statutory organisation responsible for the administration and coordination of the implementation, operation and maintenance of The Bahamas State Safety Programme, with the Director-General of Civil Aviation for CAA-B (DGCA), as the officeholder accountable for discharging this responsibility.

#### 3.3 BAHAMAS AIRCRAFT ACCIDENT INVESTIGATION AUTHORITY

The Bahamas Aircraft Accident Investigation Authority (AAIA), operating under its parent The Bahamas Ministry of Energy & Transport (MOET) is the statutory appointed investigation authority for aircraft accidents and incidents in The Bahamas. Its mission is to promote transport safety through the conduct of independent investigations into aircraft accidents and incidents. It conducts air safety investigations in accordance with Aircraft Accident Investigation Authority Regulations, 2021 Aircraft Accident Investigation Authority Act, 2019 and Annex 13 to the Chicago Convention.

The sole objective of AAIA's investigations is the prevention of aviation accidents and incidents. It is not the purpose of the investigations to apportion blame or liability. AAIA's functions pertaining to aircraft accidents and incidents, which are set out in Part II 6 (1) of the Accident Investigation Authority Act, 2019 include the following:

- Carry out investigations into any accidents or serious incidents that have occurred within The Bahamas:
- Carry out investigations into any accidents or serious incidents outside The Bahamas, that involve a Bahamas-registered aircraft;
- Carry out investigations into incidents from which air safety lessons may be derived;
- Make public all final reports of investigations carried out by the AAIA; and
- Any additional function determined by the inherent nature of its position

#### 3.4 MINISTRY OF TOURISM INVESTMENTS AND AVIATION

The Ministry of Tourism, Investments and Aviation (MOTIA) is the parent ministry of CAA-B. MOTIA's mission is to strengthen The Bahamas transportation connectivity and develop the transport sector's potential to advance the economic competitiveness and quality of life in The Bahamas. Among other responsibilities, the Minister for Tourism Investments and Aviation has been charged under the IV of the Constitution of The Commonwealth of The Bahamas with the responsibility for all matters related civil aviation in The Bahamas.

#### 3.5 NATIONAL AVIATION SAFETY COMMITTEE

At present, the state is actively establishing a National Aviation Safety Committee (NASC) encompassing representation from MOET, CAAB, AAIA, and expertise covering various aviation safety specialties. Upon completion of this initiative, the committee will assume the role of monitoring and managing the State Safety Programme. In the interim, the SSP department is tasked with handling all matters related to SSP.

#### 3.6 HUMAN RESOURCES

CAA-B and the AAIA are adequately staffed to carry out their functions. CAA-B has over 102 staff responsible for safety oversight and safety management activities. The AAIA employs 3 full-time air accident investigators and has access to other relevant technical experts when needed.

CAA-B and the AAIA ensure that their respective staff are equipped with the necessary skills and competencies. CAA-B and AAIA inspectors undergo training at different phases (such as during the early stage of induction when they first join the respective organizations), and specific and recurrent functional and on-the-job training. CAA-B training framework equips relevant CAA-B inspectors with the necessary knowledge, skills and experience to carry out their safety regulation duties effectively. The AAIA investigators are also put through practical training, investigation exercises, and equipped with foundational SMS and SSP knowledge. These SMS and SSP training help investigators to investigate safety management-related aspects of an occurrence. Training is conducted in The Bahamas and at specific training facilities overseas when required.

#### 3.7 FINANCIAL RESOURCES

CAA-B and the AAIA possess the requisite financial resources to fulfill their functions. Adequate financial resource allocation is part of our commitments as contained in our Safety Policy.

CAA-B, as a statutory body, is primarily funded from Bahamas Government subventions through the MOTIA budget, and to a lesser extent is self-funded from its revenue streams. CAA-B's audited annual statements are contained in CAA-B's Annual Reports.

The AAIA receives funding from the Bahamas Government through annual approvals as part of the The Bahamas Ministry of Energy & Transport (MOET) budget via The National Budget.

#### 3.8 QUALIFIED TECHNICAL PERSONNEL

The CAA-B places significant importance on establishing a skilled team of competent technical and para-technical personnel to meet both international and national safety obligations. This objective is achieved through a dual approach; the initial recruitment of skilled personnel and continuous training to meet the necessary requirements. Job profiles for each safety role are established based on ICAO's international requirements, outlining competencies, educational prerequisites, and experience criteria.

Training profiles for each safety role are formulated by adhering to ICAO standards and incorporating industry best practices. These profiles delineate the fundamental qualification prerequisites that every inspector must meet, as well as specialized qualifications tailored to specific roles. Periodically, the CAAB conducts requisite training courses for all inspectors and Aero-Medical Examiners, aligning with their roles and levels of authorization. Independent authorization to perform safety functions is granted only when competency requirements are satisfied.

To enhance more specialized competencies, the CAA-B designates staff to engage in international and regional workshops and seminars. Supervisors, in partnership with the Administration section, conduct annual assessments of the training status and pinpoint additional development requirements for each staff member. The Administration section consolidates assessment results, facilitating essential adjustments in job profiles and/or training profiles as needed.

Through a systematic record-keeping initiative, training records for all staff are archived on our safety management software, complemented by the maintenance of physical records. This dual approach facilitates and guarantees a thorough documentation of each individual's training history.

#### 3.9 TECHNICAL GUIDANCE AND PROVISION OF SAFETY-CRITICAL INFORMATION

Inspectors operate within two streams of technical guidance. The first stream encompasses guidance from entities such as ICAO and OEMs from aircraft manufactures. Documents from this stream are managed through the CAAB Library. The second stream consists of procedures crafted by the CAA-B to ensure a standardized approach for inspectors.

The Civil Aviation Authority of The Bahamas (CAA-B) has modernized operations by introducing a cutting-edge online operational management system, targeting increased operational efficiency through the elimination of outdated paper-based methods. This transformation enhances safety and security protocols via instantaneous online reporting and application submittals, while ensuring strict compliance with aviation regulations through in-depth scrutiny, thereby reducing risk substantially.

Correspondingly, employees are empowered to access shared organization resources securely from remote locations using a virtual private network (VPN), ensuring integrity and accessibility of our systems. In addition, the CAA-B provides an array of advisory content on its website https://caabahamas.com, serving as a valuable tool for industry guidance beyond its normative regulatorily publications.

#### 3.10 NATIONAL AVIATION SAFETY PLAN (NASP)

The CAAB is presently in the midst of formulating the National Aviation Safety Plan, which will outline The Bahamas' approach to enhancing safety within the state. Due to our limited data, the NASP will rely on the RASP and GASP as guiding frameworks until our aviation system matures with the accumulation of adequate data.



The Bahamas will take a systematic approach towards managing safety risks in our operating environment. CAA-B will develop and implement mechanisms to identify, assess and mitigate safety risks. A State Safety Risk Management framework is in development which when implemented is intended to integrate all safety risk management activities at the State level.

#### 4.1 STATE SAFETY RISK MANAGEMENT FRAMEWORK

The State Safety Risk Management Framework includes the following: -

- Determination of State-level risks:
- Licensing, Certification, Authorization and Approval Obligations
- Safety performance monitoring (SPM);
- Hazard identification and risk assessment (HIRA);
- Development of safety plans and actions;
- Safety data collection and processing systems (SDCPS).

#### 4.2 DETERMINATION OF STATE-LEVEL RISKS

CAA-B considers a State-level risk to be one that may result in significant harm to the aviation system if not sufficiently mitigated. In its determination of State-level risks, CAA-B will consider regional benchmarking, ICAO's Global Aviation Safety Plan (GASP), developments and research in aviation safety, safety performance, data and trends, including data from safety reporting systems and surveillance activities; outcomes of investigations into safety occurrences; hazard identification and risk mitigation activities; service providers' safety data and analysis.



#### 4.3 LICENSING, CERTIFICATION, AUTHORIZATION & **APPROVAL OBLIGATIONS**

The CAAB has documented processes to ensure that individuals and organizations involved in aviation activities meet the requirements before being granted licenses, certificates, authorizations, or approvals for their aviation roles. The CAB-B conducts audits on organizations, as permitted by regulations, and follows checklists based on regulatory requirements during these audits.

All documentation related to license issuance or renewal is handled with the This confidentiality. documentation includes correspondence, applications, assessments, examination results, medical reports, and other licensing records. These documents are managed and stored following CAAB's record-keeping policies.

Prior to issuing or validating a license, the PEL department must ensure that the applicant conforms to all the ICAO standards of experience, knowledge and proficiency and other requirements, so as to be competent to perform the functions authorized under the privileges granted by the license as specified in ANNEX 1, CAR LIC and CAR MED.

The Certification Department of the Civil Aviation Authority Bahamas is tasked with the responsibility for the Certification of Air Operators Certificate (AOC), Aircraft Maintenance Organizations (AMO), Aviation Training Organizations (ATO), and Designees (OPS and IA), to ensure compliance with relevant local and international procedures.

Procedures for handling licensing, authorizations, and approvals are outlined in each respective department's manuals. These manuals are regularly reviewed for accuracy.



#### 4.4 SAFETY PERFORMANCE MONITORING

CAA-B will monitor and track the safety performance of its aviation activities through a set of safety performance indicators (SPI). The SPIs will be reviewed regularly, and revised as necessary, to ensure their applicability to the current operating environment and to the State safety objectives.

The SPIs are also used to assess whether the risk controls are effective in addressing the safety risks identified. A mix of leading and lagging safety indicators have been chosen so as to provide an objective unbiased view of The Bahamas safety performance.

CAA-B determines the SPIs to be monitored through a continuously improving process and the following considerations:

- Appropriateness to operations in The Bahamas and those approved overseas
- Applicability to State safety objectives;
- Relevance to identified State-level risks:
- Availability of data and reliability of its measurements; and
- Appropriately specific and quantifiable.

(SPT's) Safety targets are set where necessary to maintain safety performance, or to drive improvements in safety performance. Safety triggers are set to alert of adverse safety trends. In setting safety performance targets, CAA-B will take into consideration factors such as the prevailing level of safety risks, the historical performance of the SPI (where data is available), and benchmarking.

The setting of a safety trigger is based on a methodology that takes into account the standard deviation from the monthly moving average over a monitoring period.

The NASC approves and periodically reviews these indicators. The SSP department monitors the performance of these indicators via a Safety Performance Dashboard and initiates appropriate interventions.

Safety performance is also reported to ICAO. Supporting these safety indicators are safety data and information that are collected through the various safety data collection and processing systems.

The State will develop SPIs and SPTs associated with the retained safety objectives. Currently, we are in the process of formulating a procedure to address this issue.

#### 4.5 HAZARD IDENTIFICATION & RISK ASSESSMENT

CAA-B is developing a hazard identification and risk assessment framework to facilitate a more systematic analysis and management of the hazards and safety risks within The Bahamas aviation environment.

#### This framework will include:

- Identification of hazards:
- Recording of the hazards in the State Hazard Register;
- Analysis of the potential consequence(s) of these hazards;
- Determination of the existing safeguards to prevent or mitigate the consequence(s) contributed by the hazards;
- Assessment of new safeguards to prevent or mitigate the consequence(s) contributed by the hazards;
- Determination of the risks associated with the consequence(s); and
- Conduct of a safety risk management (SRM) exercise where required.

Risks are identified from the analysis of occurrence reports, compliance oversight activities, SMS oversight activities and assessment of risk profile, safety performance and effectiveness of safety management of both service providers and safety regulator. The results of these analyses allow the State to react to an immediate safety concern, to effectively plan oversight programs and to identify and target areas of greater safety concern. A comprehensive risk and performance-based oversight system is currently under development. In the meantime, a Risk Matrix is employed for risk assessment.

### 4.6 SAFETY DATA & INFORMATION FROM AIRCRAFT ACCIDENT & INCIDENT INVESTIGATIONS

The AAIA's investigations are independent and separate from judicial or administrative proceedings. Through its investigations, the AAIA analyses the circumstances leading to the occurrences of accidents and serious incidents, identifies safety issues and makes recommendations to address these safety issues. AAIA has incorporated the latest investigative tool, Safety Cube Aviation Risk & Compliance Management software. This is a tool which provides a practical answer to the latest risk management requirements and leverages data to support safety strategy. The captured safety & compliance data is used to identify opportunities for reaching operational excellence, support decision making, and enhance safety. The software also identifies and tracks weaknesses and gaps in the management system and operational processes

CAA-B also conducts investigations of aviation related occurrences. Such investigations aim to expeditiously determine safety gaps to prevent recurrence, to determine whether enforcement action should be taken where there is a contravention of legislation and regulations, and to identify improvement areas in the safety regulations and oversight processes.

CAA-B and service providers may receive safety recommendations from the AAIA arising from an aircraft accident or serious incident investigation. Where these safety recommendations are adopted and implemented by CAA-B or service providers, CAA-B may monitor the implementation of the safety recommendation(s).

#### 4.7 MANDATORY SAFETY REPORTING

The Bahamas Mandatory Occurrence Reporting System (MORS) provides the platform for persons to make reports to CAA-B on safety matters in accordance with SMS 051. In this regard, CAR SMS and Publications specify the mandatory reportable occurrences and events and the processes for reporting.

While potential safety deficiencies or hazards are not required to be reported in a mandatory safety report, CAA-B encourages the reporting of potential safety deficiencies or hazards that could affect aviation safety through the MORS as well.

#### 4.8 VOLUNTARY SAFETY REPORTING

The Bahamas Voluntary Occurrence Reporting System (VORS) aims to enhance aviation safety through the collection of voluntary feedback on aviation hazards and safety deficiencies. The sources of voluntarily provided information are protected by SMS.053 Safety data and safety information protection.

The VORS does not eliminate the requirement for mandatory reporting of aircraft accidents and incidents to the CAA-B, AAIA and BANSA as required under the CAP GEN 3 Mandatory Occurrence reporting.

#### 4.9 OTHER SOURCES OF SAFETY DATA & INFORMATION

Besides collecting data and information through the MORS and VORS CAA-B collects data and information from its surveillance activities, de-identified information provided by the AAIA and other sources. CAA-B will analyze this data and information for the purpose of improving safety. Hazard identification and risk assessment will be carried out for significant events and as required for safety risk management purposes.

#### 4.10 PROTECTION OF SAFETY DATA AND SAFETY INFORMATION

Chapter 5 of CAR SMS provides for the protection of safety information that follow the principles in Annex 19 to the Chicago Convention. These regulations protect the information and its sources, foster trust and information sharing, and motivate the active reporting of safety issues without the threat of penalties.

All records necessary to document and support the SSP activities are maintained in accordance with the record management systems of the CAA-B.

The CAA-B has implemented a range of measures to protect data including password authentication, Microsoft single sign-on, and multifactor authentication. Regular monthly backups are conducted, and access is carefully regulated based on user identity and role. Importantly, data storage takes place offsite, separate from the primary service provider's infrastructure.

#### 4.11 SAFETY OVERSIGHT OF SERVICE PROVIDERS

Under The Bahamas safety oversight system, CAA-B ensures ongoing compliance with regulatory requirements by service providers through surveillance activities such as audits, inspections, and onsite/offsite checks. These activities are carried out on a continuous monitoring basis, which moving forward will use a more data-driven, risk-based approach to place priority on areas of greater safety concern or need.

Non-compliances or deficiencies may be identified during surveillance activities. When identified, the service provider concerned is required to take appropriate corrective actions within a stipulated timeframe. Where safety risk is assessed to be imminent, immediate enforcement actions such as suspension or imposing conditions on activities may be taken.

#### 4.12 SMS IMPLEMENTATION

By virtue of CAR Safety Management System 033 CAA-B requires the following service providers to implement a safety management system (SMS):

- Bahamas air operators conducting international commercial air transportation operations.
- · Approved maintenance organizations.
- Aviation training organizations (ATOs) that are exposed to safety risks during the provision of their services.
- The Bahamas Air Navigation Service Provider (BANSA).
- The Airport Authority (for LPIA and GBIA)
- Organizations responsible for the type design or manufacture of aircraft, engines or propellers.

These Service providers are required to implement an SMS, in compliance with chapter 3 of CAR SMS. The relevant SMS requirements and guidance material can be found in CAR SMS Chapter 3 (033) State Safety Risk Management.

CAA-B will implement a standardized performance-based methodology to evaluate the maturity level of SMS implementation by service providers. CAA-B will collaborate with service providers to continually improve the effectiveness of their SMS through regular engagements and assessments.

#### 4.13 SMS FOR MULTIPLE CERTIFICATE HOLDERS

Organizations holding one or more certificates, such as AOC or ATO, can create a unified SMS to capitalize on a single, integrated system that facilitates improved management of interactions between different domains. The organization must exhibit adherence to the specific requirements for each certificate and prove the adequacy and efficiency of shared processes across all domains.

#### 4.14 SERVICE PROVIDERS SAFETY PERFORMANCE

Service providers are required to define safety performance measurements as part of their SMS performance monitoring mechanism. These measurements refer to the indicators, alerts and targets used to measure and monitor safety performance over time. Safety performance measurements consider the nature of the operations, the safety objectives of the service providers, the state-level safety risks and operational safety risks faced. The service providers also review their safety performance measurements regularly in consultation with CAA-B safety inspectors to ensure that they remain relevant, are aligned with their safety objectives, and address prevailing hazards and risks.





To ensure that The Bahamas safety processes, and safety risk controls are effective, and in line with its safety objectives, CAA-B will develop appropriate monitoring mechanisms. These mechanisms will provide for safety indicators to monitor safety performance, conduct surveillance activities to ensure service providers meet safety standards, and that they regularly conduct external audits on their safety management systems.

#### 5.1 SAFETY PERFORMANCE MONITORING

Once established CAA-B will regularly review and if necessary, revise safety performance indicators as described in Chapter 4 (Safety Performance Monitoring). These safety performance indicators include accidents, serious incidents, and other occurrences in each sector of The Bahamas aviation operations (namely, air navigation services, aerodrome operations, flight operations); and process indicators on State safety oversight responsibilities including safety oversight, rulemaking and enforcement.

Based on the targets and safety triggers designed for these indicators, CAA-B will develop follow-up actions, including rules amendments, focused surveillance activities, or increased stakeholder engagements, to address safety issues in a timely manner.

#### 5.2 MANAGEMENT OF CHANGE

In the aviation system, change is a constant factor, manifesting as operational or organizational shifts. These changes may introduce hazards that could affect the efficacy of existing safety defenses. As a proactive measure, the CAAB will devise a process to assess the impact of changes at the State level, aiming to identify potential safety repercussions before implementation. This process facilitates the structured planning and execution of proposed changes, allowing for an efficient analysis of their impact on the existing system.

The Management of Change process concentrates on changes that could significantly affect the State's ability to fulfill its legal obligations. No operation occurs in a changed system or operational context until all safety risks are thoroughly evaluated. Organizational and operational changes that typically warrant the implementation of a management of change include:

- Reorganization of the CAAB and reallocation of responsibilities.
- Changes in SSP processes, including alterations in methodologies such as safety assurance processes.
- Alterations in the regulatory environment, encompassing changes in the State's safety policies, programs, and regulations.
- Changes in the operational environment, such as the introduction of new technologies, modifications in infrastructure, equipment and services, and alterations in the airspace.
- Swift changes in the industry's landscape (expanding, contracting, morphing) and their potential impact on the State's oversight and performance monitoring capabilities.

#### 5.3 SURVEILLANCE OBLIGATIONS

Through surveillance activities conducted by the CAAB, information sourced from established SDCPSs, and safety promotion initiatives facilitating sharing and exchange within the State, regulatory safety risk controls are appropriately integrated into a service provider's SMS. The CAAB employs a documented surveillance process (compliance monitoring) to delineate and plan inspections, conduct audits, and continuously monitor activities. This proactive approach ensures that aviation document holders consistently meet established requirements.

The process extends to the surveillance of personnel designated to perform safety oversight functions. For SMS compliance monitoring, the surveillance system incorporates a review of a service provider's hazard identification and safety risk assessment processes to gauge the effectiveness of the SMS. The monitoring program should also involve periodic reviews of the Acceptable Levels of Safety Performance.

#### 5.4 DATA DRIVEN SAFETY OVERSIGHT

CAA-B prioritizes its surveillance activities, so that resources are deployed in areas that require greater focus. To this end, CAA-B has embarked on a more risk-based approach for the planning of surveillance activities. CAA-B will calibrate the scope, depth and/or frequency of its surveillance activities based on each operator's or service provider's risk profile. This risk profiling will take into consideration factors such as the operator's or service provider's safety performance track record, the scope and complexity of work that the organization is involved in, the trends of operational events, and the presence of any significant safety issues.

#### 5.5 QUALITY ASSURANCE ON THE BAHAMAS SAFETY OVERSIGHT SYSTEM

The Bahamas is committed and strives to fulfill its ICAO USOAP CMA obligations. The State Aviation Activity Questionnaire, compliance checklists for the safety-related Annexes, and corrective action plans are now updated regularly in the ICAO USOAP Online Framework.

In addition to the regular conduct of self-assessments, the quality and effectiveness of The Bahamas safety oversight function is monitored through regular audits carried out by appropriately trained Quality Assurance (QA) audit team.



### 6.1 EXTERNAL COMMUNICATION AND DISSEMINATION OF SAFETY INFORMATION

CAA-B intends to hold regular meetings and engagements with its service providers to discuss aviation safety issues as well as exchange information on new developments in our aviation environment. CAA-B has various engagement platforms to keep the aviation industry up to date on developments in safety policies and regulations. The AAIA disseminates safety lessons learnt from investigations which are appropriate to the local aviation industry.

Engagement tools such as webinars, social media, and surveys are used to engage and seek inputs on safety matters such as safety culture. In addition, CAA-B continues to maintain its traditional outreach platform, through publication of "On the fly" newsletter which shares information on aviation safety and the latest developments in The Bahamas aviation sector. Both CAA-B and the AAIA maintain their websites, sharing up-to-date information such as changes to requirements and investigation reports.

#### 6.2 INTERNAL TRAINING

CAA-B places a strong emphasis on delivering comprehensive aviation safety training to its personnel. The safety and oversight policies explicitly outline the requirement for periodic aviation safety training to enhance and update the knowledge of the staff. Special attention is dedicated to cultivating a robust understanding of a uniform safety culture within civil aviation.

In the initial training program, new employees are instructed on assuming personal responsibility for adhering to safety regulations. They also undergo training on the purpose and usage of the State Safety Program and the relevant Safety Management System Manual of the overseeing authority.

Inspectors, as part of their initial program, receive safety management system training based on ICAO requirements and documents. They are also obliged to partake in an internal safety management training course. Post the initial training program, specialized training is conducted as required for specific duties and responsibilities.

Expert training for oversight functions is provided through courses by national oversight authorities, ICAO, and various external institutions. To ensure ongoing improvement of expertise, all employees are required to attend refresher training courses specific to their job function. The content of these courses is defined by applicable management and procedure manuals, typically incorporating elements of the initial training and information about new developments in the relevant areas. The planning and coordination of all training activities are carried out collaboratively between the relevant departments and the Training and Development department.





#### The Bahamas Legislation

Civil Aviation Authority Bahamas Act, 2021

Civil Aviation Act. 2021

Aircraft Accident and Investigation Authority Act, 2021

#### The Bahamas Civil Aviation Operating Regulations

**CAR SMS** Safety Management System Regulations

**CAR DEF Definitions & Measurements** CAR DG **Dangerous Goods Regulations CAR ENV Environmental Regulations** CAR AIR 1 Airworthiness Regulations CAR AIR 2 **Continuing Airworthiness CAR 21** Certification of Aircraft

**CAR 145 Approved Maintenance Organizations** 

**CAR AIS** Aeronautical Information Services Regulations

**CAR ATS** Air Traffic Services

**CAR CNS** Communications, Navigation and Surveillance **CAR IFPD** Instrument Flight Procedure Design Services

**CAR MAP Aeronautical Charts** 

**CAR MET** Meteorological Regulations **CAR SAR** Search and Rescue Regulations

CAR AGA 1 Aerodromes CAR AGA 2 Heliports

CAR AGA 3 Aerodrome Licensing & Operation

**CAR LIC** Licensing Regulations **CAR MED** Aeromedical Regulations CAR FAL **Facilitation Regulations CAR SEC** Security Regulations CAR OPS 0 Rules Of The Air

CAR OPS 1 Commercial Air Transportation (Aeroplanes) **CAR OPS 2A** General Aviation Operations (Aeroplane) **CAR OPS 2H** General Aviation Operations (Helicopter) **CAR OPS 3** Commercial Air Transportation (Helicopter)

**CAR OPS 4** Remotely Piloted Aircraft System (Rpas) Operations

**CAR OPS 5 Aerial Work Regulations** 

# **APPENDIX B**

#### The Bahamas Civil Aviation Publications

GEN-00 GEN-01 GEN-02 GEN-03 GEN-04	LEP Revision Status SMS Registration of Aircraft Mandatory Occurrence Report Voluntary Reporting
CAP-AGA-01	Certification of Aerodromes
CAP-AGA-02	Aerodrome Licensing and Operation
CAP-AGA-03	Rescue and Fire Fighting Services
CAP-AGA-04	Wildlife Hazard Management.pdf
CAP-AGA-05	Friction Testing of Runway Pavement Surfaces
CAP-AGA-06	Aeronautical Studies
CAP-AGA-07	Aerodrome Manual
CAP-AGA-08	Obstacles Charts and Shielding Principles
CAP-AGA-09	Low Visibility Operations
CAP-AGA-10	Calculating Declared Distances
CAP-AGA-11	Surface Movement Guidance and Control Systems
CAP-AGA-12	Aerodrome Inspection Programme and Condition Reporting
CAP-AGA-13	Use of Pavement with ACN Higher than PCN
CAP-AGA-14	Changes to Physical Characteristics Of
CAP-AGA-15	Amendment to the Aerodrome Certificate
CAP-AGA-16	Human Factors Principles
CAP-AGA-17	Operational Works
CAP-AGA-18	Disable Aircraft Removal
CAR-AGA-19	Aerodrome Secondary Power Supply and Electrical Outage And Inspections
CAP-AGA-20	Frangibility Circular
CAP-AGA-21	Aerodrome Lighting Intensity

## APPENDIX B

#### The Bahamas Civil Aviation Publications

AIR-01	Certificate of Airworthiness			
AIR-02	Airworthiness and Maintenance			

MCM-GA AIR-03

AIR-04 Maintenance Programmes GA RPAS

Maintenance Programmes Ct AIR-05

AIR-06 **CAME User Guide** 

AIR-07 Maintenance Organisation Exposition User Guide Master

**OPS-01** AOC **OPS-02** MEL

**OPS-03 Designated Airspace** 

**OPS-04 AWO OPS-05 EFB OPS-06 HUD-EVS** 

**OPS-07 CPDLC** 

**OPS-08** Automatic Dependent Surveillance

**OPS-09 Dangerous Goods** 

**OPS-10** Cabin Crew

**OPS-11** RPA Certification 150kg or Less **OPS-12** RPA Certification Greater than 150kg

**OPS-13 Steep Approaches** 

**OPS-14** Performance-Based Communications Surveillance PBCS

**PEL-02** Aero Medical

**PEL-03 ATO** 

ANS-01 **ATC Licensing** 

ANS-02 **LATSI** 

ANS-03 Handling Aircraft Emergencies

ANS-04 **ATC Training** 

ANS-05 Contingency Planning for ANS

**ANS-06** Certification of ANSP

**SEC-01 Aviation Security** 

**SEC-02** Facilitation

## **APPENDIX C**

#### **Abbreviations**

AAIA Air Accident and Investigation Authority
ALARP As Low as Reasonably Practicable
ALOSP Acceptable Leve of Safety Performance

AMC Acceptable Means of Compliance

AOC Air Operators Certificate
CAA-B Civil Aviation Bahamas
CAP Civil Aviation Publication
CAR Civil Aviation Regulation

CMA Continuous Monitoring Approach
 CPA Corrective Preventative Action
 GASP Global Aviation Safety Plan
 IA Inspection Authorization

ICAO International Civil Aviation Organization

**KPI** Key Performance Indicator

MOET Ministry of Energy and Transport

MORS Mandatory Occurrence Reporting System
MOTIA Ministry of Tourism, Investments and Aviation

NASC National Aviation Safety Committee

NASP National Aviation Safety Plan
RASP Regional Aviation Safety Plan

RC Regulations Committee

SARPS Standards and Recommended Practices

SMS Safety Management Systems

**SP** Safety Performance

SPI Safety Performance Indicator
SPT's Safety Performance Targets
SRM Safety Risk Management

USOAP Universal Safety Oversight Audit ProgrammeVORS Voluntary Occurrence Reporting System