ICAO International Civil Aviation Organization
North American, Central American and Caribbean Office

North American, Central American and Caribbean Regional Aviation Safety Plan

NACC RASP

CONTENTS

ABBREVIATIONS AND ACRONYMS

AGA	Aerodrome and Ground Aids
AIG	Accident and Incident Investigation
ACSA	Central American Aeronautical Safety Agency
ANS	Air Navigation Services
ANSP	Air Navigation Service Provider
ARCs	Additional Risk Categories
ATM	Air Traffic Management
ATS	Air Traffic Services
CAA	Civil Aviation Authority
CARSAMMA	Caribbean and South American Regional Monitoring Agency
CAST	Commercial Aviation Safety Team
CAT	Combined Action Team
CFIT	Controlled Flight Into Terrain
CMA	Continuous Monitoring Approach
CAST	Commercial Aviation Safety Team
DG	General Director (State)
GANP	Global Air Navigation Plan
GASP	Global Aviation Safety Plan
GRIAA	Central American Regional Aviation Accident Investigation Group
GREPECAS	CAR/SAM Regional Planning and Implementation Group
GTE	GREPECAS Scrutiny Working Group
HRC	High Risk Categories of Occurrences
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
LOC-I	Loss of Control - In flight
I STARS	Integrated Safety Trend Reporting and Analysis System
MAC	AIRPROX/TCAS alert/loss of separation/near miss collisions/mid-air collisions
MET	Aeronautical Meteorology
MTOW	Maximum Take-Off Weight
NASP	National Aviation Safety Plan
NACC	North American, Central American and Caribbean
NAM/CAR-RASP	NAM/CAR Regional Aviation Safety Plan
NACC RO	North American, Central American and Caribbean Regional Office
NACC SAP	North American, Central American and Caribbean Systemic Assistance Programme
NCLB	No Country Left Behind
OLF	USOAP On-line Framework
OPS	Aircraft Operations (USOAP Audit Area)
OPS	Operational (Safety)
ORG	Civil Aviation Organization (USOAP Audit Area)
PA-RAST	Pan American – Regional Aviation Safety Team
PQ	Protocol Question
RASG	Regional Aviation Safety Groups

RASG-PA   Regional Aviation Safety Group – Pan America
RASP   Regional Aviation Safety Plan
RAST   Regional Aviation Safety Team
RSA   Runway Safety Advisory
RSOO   Regional Safety Oversight Organization
RST   Runway Safety Team
RVSM   Reduced Vertical Separation Minima or Minimum
SARPs   Standards and Recommended Practices
SEI   Safety Enhancement Initiatives
SeMS   Security Management Systems
SMS   Safety Management System(s)
SPI   Safety Performance Indicator
SSC   Significant Safety Concern
SSO   State Safety Oversight
SSP   State Safety Programme
TCAS   Traffic Collision and Avoidance System
UNK   Unknown or Undetermined
USOAP   Universal Safety Oversight Audit Programme
WG   Working Group

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1.   INTRODUCTION

1.1   OVERVIEW OF THE NACC RASP

1.1.1   The North American, Central American and Caribbean Regional Office (NACC RO) of the International Civil Aviation Organization (ICAO) is committed to enhance aviation safety, to the resourcing of supporting activities and to increasing collaboration at the regional level. The purpose of this ICAO **NACC RASP** is to continually reduce fatalities, and the risk of fatalities, through the development and implementation of a regional aviation safety strategy. This plan represents this strategy. A safe aviation system contributes to the economic development of the North American and Caribbean (NAM/CAR) Regions, the States which comprise them, and their industries. The **NACC RASP** promotes the effective implementation of safety oversight systems of States in NAM/CAR Regions, a risk-based approach to managing safety at the regional level, as well as a coordinated approach to collaboration between States in the region, Regional Safety Oversight Organizations (RSOOs), AIG regional collaborative arrangements, Regional Aviation Accident Investigation Group (GRIAA) and Regional Accident Investigation Organization (RAIOs), international organizations and industry. All stakeholders are encouraged to support and implement this RASP as the regional strategy for the continuous improvement of aviation safety.
Regional Aviation Accident Investigation Group
1.1.2   The **NACC RASP** has been created by the ICAO NACC Regional Office in conjunction with the region stakeholders in coordination with the RASG-PA to promote the effective implementation and sustainability of safety oversight systems of States in the NAM/CAR Regions, following the No Country Left Behind (NCLB) approach and based on the Systemic Assistance Programme (SAP).

1.1.3   The **NACC RASP** is aligned with the *ICAO Global Aviation Safety Plan* (GASP, Doc 10004).The NAM/CAR States shall endeavour to have their national aviation safety plans aligned with the ICAO NACC RASP to the extent applicable.

1.1.4   The present version of **NACC RASP** and its future revisions are approved by the Civil Aviation Authorities (CAAs) of the NAM/CAR Regions. The NACC Regional Office on behalf of the States and International Organizations involved will publish the revised versions of the plan as necessary.

1.2   STRUCTURE OF THE NACC-RASP

1.2.1   This **NACC RASP** presents the regional strategy for enhancing aviation safety for a period of 3 years. It is comprised of six sections. In addition to the introduction, sections include: the purpose of the **NACC RASP**, the ICAO NACC Regional Office strategic approach to managing aviation safety at the regional level, the regional operational safety risks identified for the 2020-2022, other regional safety issues addressed in the **NACC RASP**, and a description of how the implementation of the safety enhancement initiatives (SEIs) listed in the **NACC RASP** will be monitored.

1.2.2   The basic components of the NACC Regional Safety Strategy are summarized as follows:

A. NACC Systemic Assistance Programme (NACC SAP): Universal Safety Oversight Audit Programme (USOAP) goals and priorities. It is the five phase programme to technically support each one of the NACC States
B. Regional NACC State Safety Programme (SSP) Strategy
C. Air Navigation Sustainable Development
D. Aircraft Accident and Incident Investigation (AIG) Strategy
E. Enhancement of Runway Safety
F. Establishment of data gathering system within the region and its corresponding analysis
G. Enhancement of RASG-PA-GREPECAS coordination
H. Promotion/fostering State Data automation and usage

1.3   RESPONSIBILITY FOR THE RASP DEVELOPMENT, IMPLEMENTATION AND MONITORING

1.3.1   The ICAO NACC Regional Office is responsible for the development, implementation and monitoring of the **NACC RASP**, in collaboration with the region's States, the RSOOs (ACSA and CASSOS) and with the aviation industry and in close coordination with RASG-PA. The **NACC RASP** was developed in consultation with States, operators and other stakeholders in the region, and in alignment with the 2019 revision of the GASP.

13.2   The monitoring process is done by the Regional Officer Safety Implementation (RO/SAF) in coordination with the officers of ICAO NACC Regional Office, through the SAP system and other mechanisms under the supervision of the Deputy Regional Director (DRD).

1.4   REGIONAL SAFETY ISSUES, GOALS AND TARGETS

1.4.1   The **NACC RASP** addresses the following regional safety issues:

ORGANIZATIONAL ROAD MAP

1. Lack of sustainable safety oversight system in a number of States of the region (concentrated to support the least compliant member States in the region)
2. Lack of separation related to the functions between the regulator and the service providers in the ANS area which results in a deficient or null surveillance over the ANS service providers
3. Poor progress on the implementation of the SSP in the CAR Region
4. Poor development of the AIG structure on the majority of the States in the region
5. Slow progress in the process of airport certification

OPERATIONAL ROADMAP

1. Loss of Control In-flight (LOC-I)
2. Runway Excursion (RE)
3. Controlled Flight Into Terrain (CFIT)
4. Mid-Air Collision (MAC)

1.4.2   In order to address the issues listed above and enhance safety at the regional level, the Triennial **NACC RASP** contains the following <u>dedicated</u> goals and targets:

- SAFETY OVERSIGHT IMPROVEMENT GOALS AND TARGETS
- SSP GOALS AND TARGETS
- AIG GOALS AND TARGETS
- ANS GOALS AND TARGETS

Area	Goal	Targets
FS	**Assist States in the implementation of policies and provisions to address critical safety issues concerning safety management**	• That at least 3 States in Tier 1 to achieve 10% progress from their SSP action Plan • That at least 2 States in Tier 2 to achieve at least 10% progress from their SSP action plan • Increase 30% of SSP Gap Analysis completed by States as shown in iSTARS • To assist at least 3 States for overseeing and implementing SMS in their industry.
	Monitor member States through USOAP-CMA and assist States in developing tailored plans of action to address risk	• State CAPs assessed 33% • Defined risk-based criteria for NACC SAP • Continuous assessment of State USOAP EI for an improved regional EI average of at least 3%; • For those States who have more than 6 years from a full USOAP Audit, assist at least 2 States in completing their full self-assessment
	Enhancement of safety oversight performance in the NAM/CAR Regions	• Initiate Safety Oversight System (SOS) Project training and activities • Enhanced by 10% Central American Operational Event Analysis Programme (PASOC) data safety exchange among Central American States • Initial version of safety/Experts
AIG	**Improvements on AIG matters: enhance GRIAA and initial development of Caribbean Regional Accident and Incident Investigation Organization (RAIOC)**	• Draft for 20% of procedure related PQs • Draft proposal for Safety Data Collection and Processing Systems (SDCPS) on the portion related to AIG • Implementation model for the RAIOC/Cooperation Mechanism
ANS	**Review of runway safety team performance and implementation of aerodrome safety activities**	• Number of aerodrome certifications • Implementation of new RSTs • Conduction of onsite assistance with RST Go-Team • Follow-up and effectiveness review of RST process implemented • For high-density traffic airports and complex airport layouts, the A-CDM awareness/implementation may increase aerodrome safety.

Area	Goal	Targets
	Ensure the availability of the appropriate air navigation service and aerodrome infrastructure to support safe operations	• Exchange of air navigation and safety data analysis • Enhancement of RASG-PA/GREPECAS coordination on identification and resolution of safety concerns • Number of States that have implemented the basic air navigation and airport infrastructure • Implementation the GTE and CARSAMMA improvement/changes • Implementation/agreement for CARSAMMA and North American Approvals Registry and Monitoring Organization (NAARMO) synergies • Ensure comply of the Target Level of Safety of the RVSM airspace in the CAR Region • Address resolution of identified safety related hotspots in the airspace in the CAR Region

1.5   OPERATIONAL CONTEXT

1.5.1   The NAM/CAR Regions are diverse with 22 States, 19 Territories, 26 CAAs and an operating environment of 44 Flight Information Regions (FIRs). For the list of NAM/CAR Contracting States and Territories, refer to https://www.icao.int/NACC/Pages/nacc-responsibilities.aspx

1.5.2   The aviation safety regulatory landscape varies significantly in terms of capacity and civil aviation development, with USOAP (EI) scores ranging from 5% to over 90%. As at October 2019, Eight (8) out twenty (22) NAM/CAR States had an average EI score below the GASP target of 60%, and the regional average EI score was 63.82%. By August 2019 and based on the analysis of the USOAP activities the critical areas regarding Lack of effective implementation (LEI) are first ANS followed by AGA and AIG, on the other hand the most affected Critical Elements (CE) are CE-6 followed by CE-7 and CE-5.

1.5.3   In 2018, the NAM/CAR Regions had a regional accident rate of 1.6 accidents per million departures based on scheduled commercial operations involving fixed-wing aircraft with a maximum certificated take off mass greater than 5,700 kg.

1.5.4   There is also significant intrinsic diversity among NAM/CAR States/Administrations and industry in terms of operational context, governance/sovereignty, geography and terrain, culture, language, level of development and expertise.

1.5.5   Limited resources – reduced number of staff, budgetary constraints. Natural phenomena frequent threat: Hurricanes, volcanic ash, earthquakes, etc.

1.5.6   Additional operational information

a)   "Aviation is a vital industry in the Latin America-Caribbean region, supporting 7.2 million jobs and providing $156 billion in economic value.
b)   Growth by 6.6 percent growth in Latin America/Caribbean and North America is in the range of 4.2 percent
c)   Latin America and Caribbean airlines carried 249.6 million passengers in 2017, up 5.1% – or 12.1 million more passengers – from the previous year. Revenue-passenger kilometres (RPK) grew 8% and capacity Available seat-kilometre (ASK) increased 6%, bringing up the load factor to 82.6%.
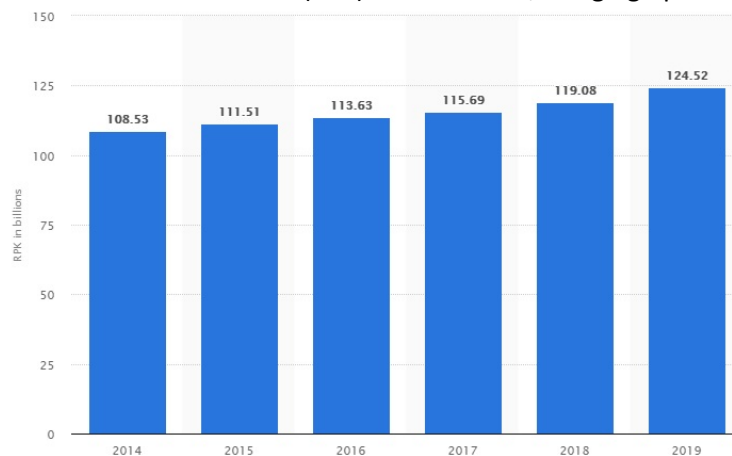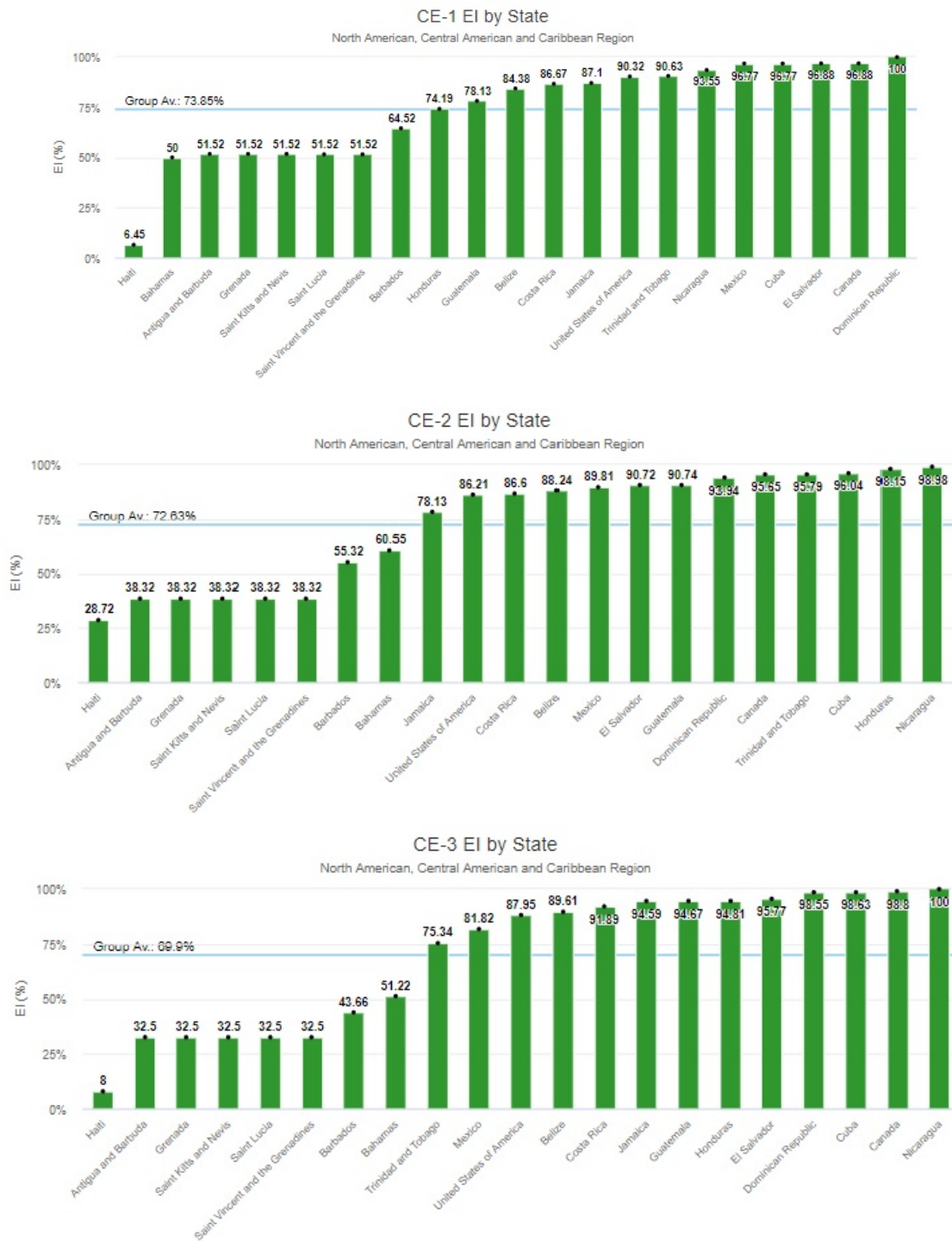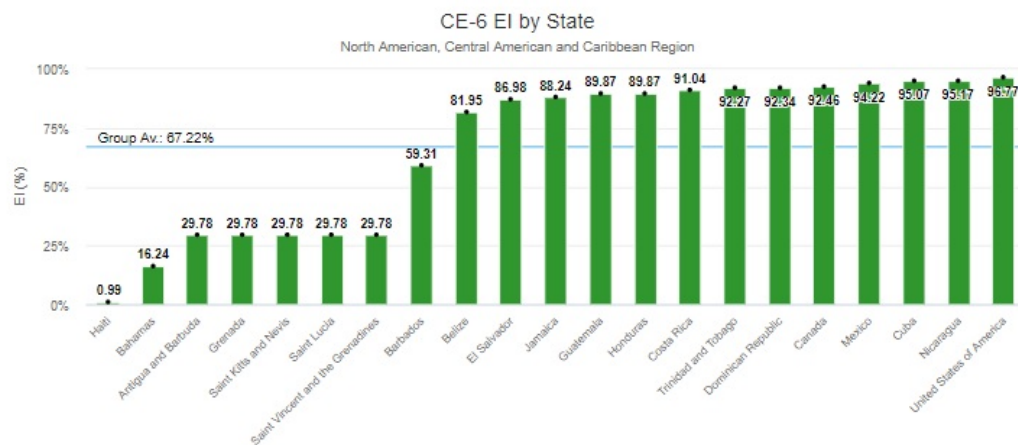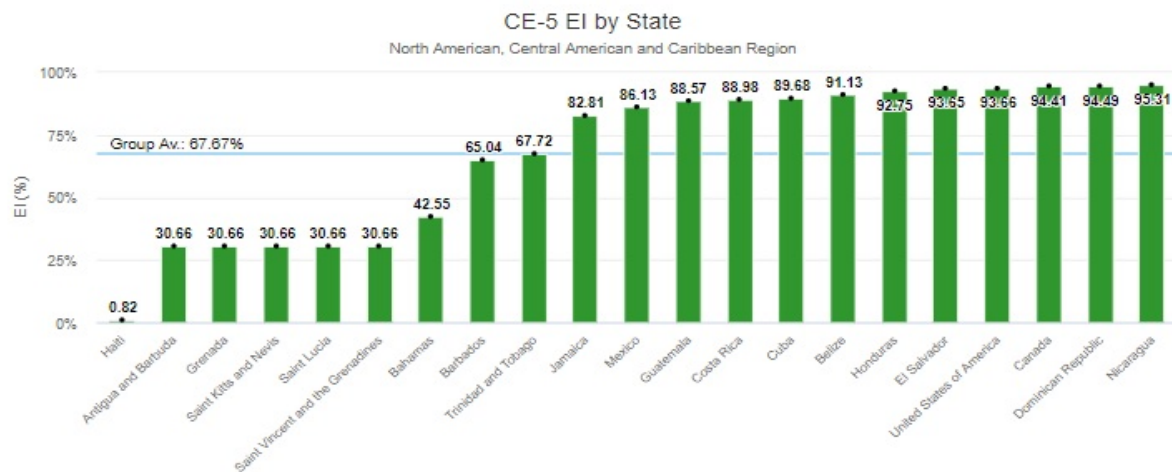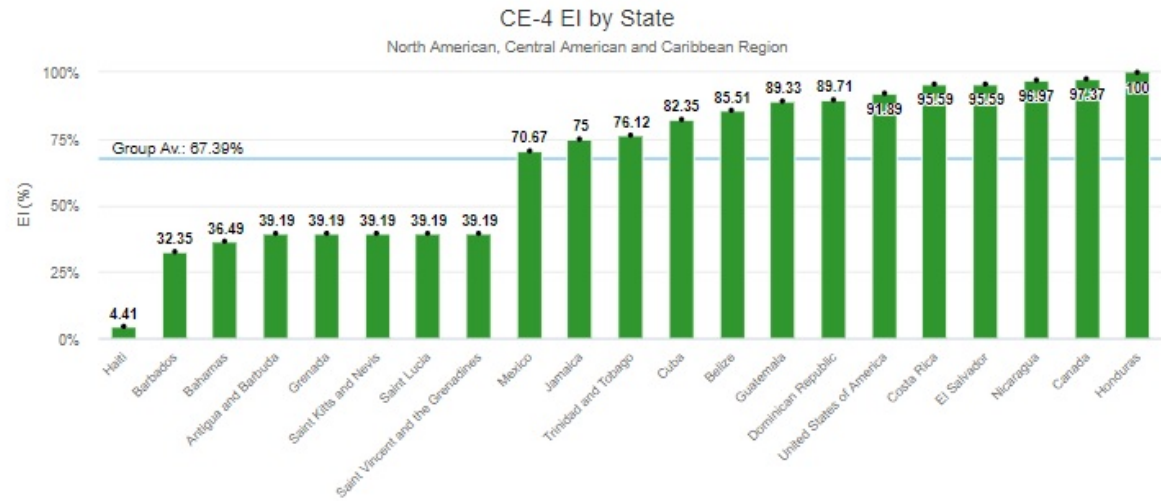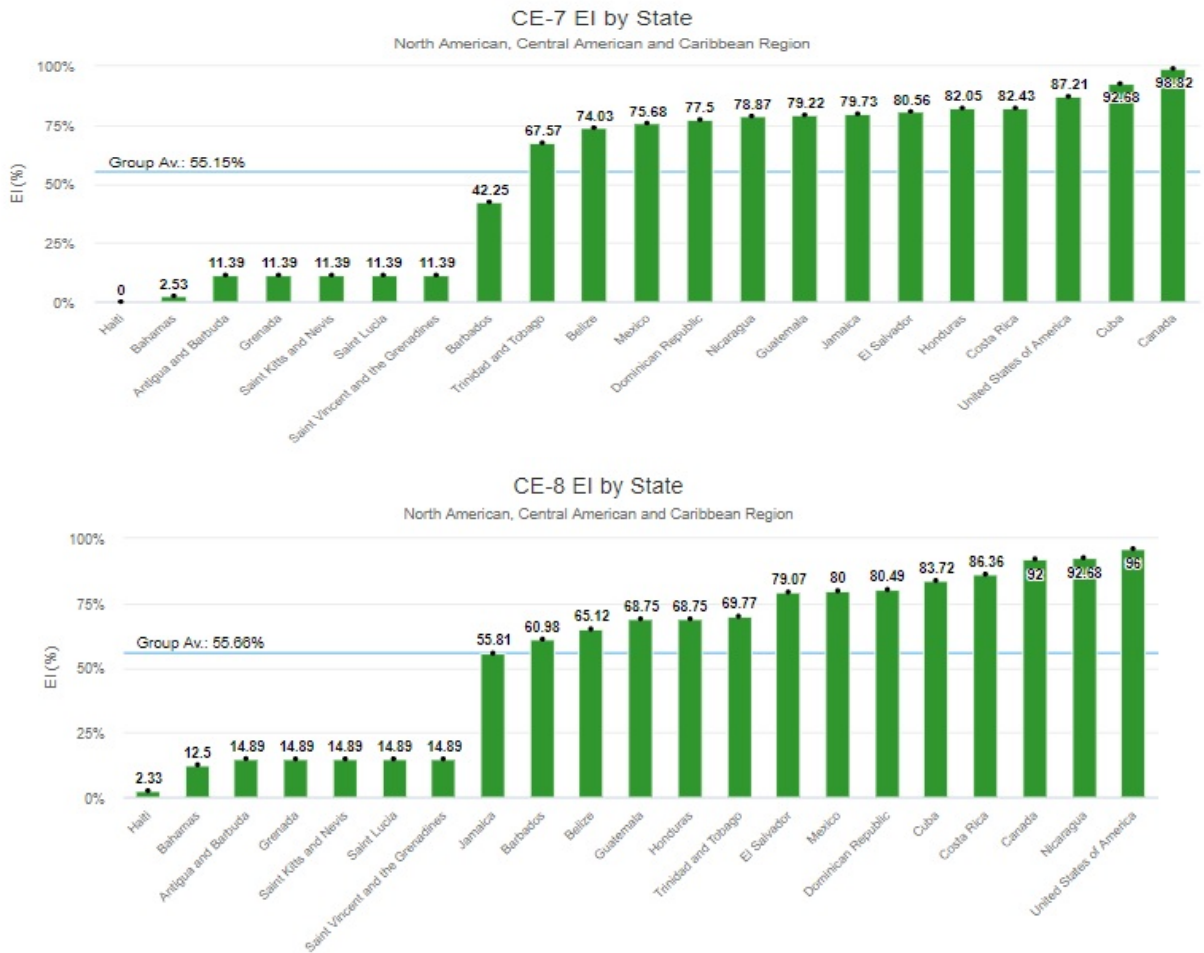

Figure 1: Revenue Passenger-Kilometres (RPK)

Figures 2 to 9: NAM/CAR EI by CE
(Graphics from I STARS USOAP Report application as per April 2021)

CE-1 EI by State
North American, Central American and Caribbean Region

CE-2 EI by State
North American, Central American and Caribbean Region

CE-3 EI by State
North American, Central American and Caribbean Region

CE-4 EI by State
North American, Central American and Caribbean Region

Group Av.: 67.39%

Haiti 4.41, Barbados 32.35, Bahamas 36.49, Antigua and Barbuda 39.19, Grenada 39.19, Saint Kitts and Nevis 39.19, Saint Lucia 39.19, Saint Vincent and the Grenadines 39.19, Mexico 70.67, Jamaica 75, Trinidad and Tobago 76.12, Cuba 82.35, Belize 85.51, Guatemala 89.33, Dominican Republic 89.71, United States of America 91.89, Costa Rica 95.59, El Salvador 95.59, Nicaragua 96.97, Canada 97.37, Honduras 100

CE-5 EI by State
North American, Central American and Caribbean Region

Group Av.: 67.67%

Haiti 0.82, Antigua and Barbuda 30.66, Grenada 30.66, Saint Kitts and Nevis 30.66, Saint Lucia 30.66, Saint Vincent and the Grenadines 30.66, Bahamas 42.55, Barbados 65.04, Trinidad and Tobago 67.72, Jamaica 82.81, Mexico 86.13, Guatemala 88.57, Costa Rica 88.98, Cuba 89.68, Belize 91.13, Honduras 92.75, El Salvador 93.65, United States of America 93.66, Canada 94.41, Dominican Republic 94.49, Nicaragua 95.31

CE-6 EI by State
North American, Central American and Caribbean Region

Group Av.: 67.22%

Haiti 0.99, Bahamas 16.24, Antigua and Barbuda 29.78, Grenada 29.78, Saint Kitts and Nevis 29.78, Saint Lucia 29.78, Saint Vincent and the Grenadines 29.78, Barbados 59.31, Belize 81.95, El Salvador 86.98, Jamaica 88.24, Guatemala 89.87, Honduras 89.87, Costa Rica 91.04, Trinidad and Tobago 92.27, Dominican Republic 92.34, Canada 92.46, Mexico 94.22, Cuba 95.07, Nicaragua 95.17, United States of America 95.77

CE-7 EI by State
North American, Central American and Caribbean Region

CE-8 EI by State
North American, Central American and Caribbean Region

2.   PURPOSE OF THE ICAO NACC REGIONAL AVIATION SAFETY PLAN

2.1   The **NACC RASP** is the master planning document containing the strategic direction of ICAO NACC Regional Office for the management of aviation safety for a period of 3 years, 2020 to 2022 in accordance to the GASP. This plan lists regional safety issues, sets regional aviation safety goals and targets, and presents a series of Safety Enhancement Initiatives (SEIs) to address identified safety deficiencies and achieve the regional safety goals and targets.

2.2   The **NACC RASP** addresses safety management from a regional perspective and includes several SEIs to address specific safety risks and recommended SEIs for individual States in the region. It is expected that States in the region adopt these SEIs and include them in their respective national aviation safety plans.

2.3   The **NACC RASP** has been developed using international safety goals and targets and HRCs from the ICAO GASP (www.icao.int/gasp). These are highlighted in the text, where applicable. The SEIs listed in

the **NACC RASP** support the improvement of safety at the individual State level, for States in the region, and contribute to the enhancement of safety at the wider international level.

2.4 The **NACC RASP** is created by the NACC Regional Office in conjunction with the region stakeholders in coordination with the RASG-PA to promote the EI and sustainability of safety oversight systems of States in the NAM/CAR Regions, following the NCLB approach and based on the NACC Programme SAP. The **NACC RASP** provides alignment to the provisions of the GASP philosophy, the regional safety objectives and the National Safety Plan of the states of the region.

2.5 As part of the **NACC RASP**, all stakeholders are committed to support and implement the Programme as the regional strategy for the continuous improvement of aviation safety.

2.6 In this first Edition, the **NACC RASP** encourages the States to implement a risk based approach and describes the regional strategy and roadmap of actions for enhancing aviation safety in the NAM/CAR Regions for the next triennium.

2.7 The ICAO NACC Regional Office is responsible for the overall development, implementation and monitoring of the **NACC RASP**, together with NAM/CAR States, industry partners, International Organisations, RSOOs (ACSA and CASSOS). The **NACC RASP** is to be supported by NASPs developed by States in the NAM/CAR Regions as well as work plans of other stakeholders, such as regional and non-governmental organisations. The Custodians are the lead entities for the general aspects concerning the implementation of the **NACC RASP** and its actions, and are responsible for:

CUSTODIANS	ROLES AND RESPONSIBILITIES
ICAO NACC Regional Office	● developing and implementing a regional aviation safety plan consistent with the GASP and coordinating its implementation at the regional level supporting and monitoring progress towards the achievement of the GASP goals at the regional level, encouraging States to initiate action using the roadmap; ● update and keeping up to date the **NACC RASP** ● identifying safety risks and issues of priority ● providing technical assistance to States ● Serving as the focal point to coordinate regional efforts and programmes related to the GASP aimed at mitigating operational safety risks.
NAM/CAR States	● developing and implementing a national aviation safety plan, taking into account the ICAO **NACC RASP** and the GASP ● To establish their SEI's and SPI, identifying safety risks and issues of priority and provide information regarding their Safety risk based on their SSP System. ● providing technical assistance to other States, where practicable ● participating actively in the activities of the RASG-PA and **NACC RASP**

CUSTODIANS	ROLES AND RESPONSIBILITIES
	● sharing safety information with the RASG-PA and ICAO NACC Regional Office (including the status of national SEIs) ● allocating resources to actively and continuously participate in the regional groups ● providing oversight and approval of the **NACC RASP**
RSOO	● Provide guidance to the member States of the NAM/CAR Regions, provide regional safety risks as identified in their region, provide data analysis service as applicable ● providing technical assistance to Member States ● identifying safety risks and issues of priority ● Supporting the establishment and operation of safety oversight systems and analysing safety information at the regional level.
Industry	● Provide safety information and analysis based on their SMS system, support the NAM/CAR States and the NACC Regional Office ● Engage in SMS implementation to continually identify hazards and address operational safety risks, as well as work collaboratively with ICAO Industry stakeholders should review the roadmap to identify SEIs and actions that support national and regional aviation safety plans
RAIO	● The main objective of the RAIO is to assist member States in meeting their accident and incident investigation obligations and responsibilities under the Chicago Convention, its Annexes and other safety-related procedures and practices ● Strengthening the regional institutional framework for aviation safety and assisting in the development of a harmonized regulatory framework for the region ● Promoting a comprehensive systems approach to the conduct of accident and incident investigation activities, focusing on the effective implementation of relevant SARPs ● Developing an information system to facilitate access to safety-related and safety-critical information within the region, taking into account the provisions contained in Appendix 3 to Annex 19 and the guidance in Chapter 7 of the Safety Management Manual (SMM) on protection of safety data, safety information and related sources

CUSTODIANS	ROLES AND RESPONSIBILITIES
	● Serving as a depository of accident and incident investigation data; and ● Processing and monitoring safety recommendations both issued and received
GREPECAS and its subsidiary bodies	● Implement safety-related initiatives involving air navigation matters ● The Group's objectives are to ensure continuous and coherent development of the CAR/SAM Regional Air Navigation Plan and other relevant documentation in a harmonised manner with adjacent regions, to facilitate the implementation of air navigation systems and services as identified in the CAR/SAM Regional Air Navigation Plan, and to identify and address specific deficiencies in the air navigation field. Safety matters are to be coordinated with the RASG-PA.
RASG-PA and its subsidiary bodies	● Develop an integrated, data-driven strategy and implement a work programme that supports a regional performance framework for the management of safety risk, to reduce the commercial aviation fatality risk in the Pan American Region, and promote States and industry safety initiatives; ● Support, monitor and report implementation by States of the GASP considering the RASPs, and by fostering cooperation between all States and stakeholders.

3.   NACC's STRATEGIC APPROACH TO MANAGING AVIATION SAFETY

3.1   The **NACC RASP** has been created by the ICAO NACC Regional Office in conjunction with the NAM/CAR States, with the collaboration of the Regional Safety Oversight Organizations and in coordination with the RASG-PA. The Programme is approved by the general directors of the CAAs of the region, ensuring the validity of the identified issues and the adequacy of the proposed SEI to mitigate the associated risks.

3.2   One of the objectives of the ICAO NACC Regional Office is to strengthen the CAAs institutional capacity to ensure sustainability and compliance with the SARPs through the implementation of this plan.

3.3   The **NACC RASP** presents the SEIs that were developed based on the ICAO GASP's organizational challenges (ORG) roadmap and Operational safety risks (OPS) roadmap as well as region-specific issues identified by the evaluation of the results of audits conducted within the NAM/CAR Regions, the SOS evaluation results and the evaluation of the safety data provided by the States, in close coordination with the RASG-PA. This plan is developed and maintained by ICAO NACC Regional Office, in coordination with all stakeholders and is updated at least every year.

3.4   The **NACC RASP** includes the following regional safety goals and targets, for the management of aviation safety, as well as a series of indicators to monitor the progress made towards their achievement. They are tied to the goals, targets and indicators listed in the GASP and may include additional regional safety goals, targets and indicators.

NACC RASP GOALS AND TARGETS		
GOAL	**TARGETS**	**INDICATORS**
Goal 1: Achieve a continuous reduction of operational safety risks	1.1 Maintain a decreasing trend of global accident rate	• Number of accidents • Number of fatal accidents • Fatality rates (overall accident data) • Number of accident/rates per HRC – Controlled flight into terrain (CFIT), Loss of control-inflight (LOC-I), Runway excursion (RE), AIRPROX/TCAS alert/loss of separation/near miss collisions/mid-air collisions (MAC) • Number of serious incident/rates (per HRC – CFIT, LOC-I, RE, MAC) • Reduced Vertical Separation Minima or Minimum (RVSM) events/rates built between the RASG-PA with the CARSAMMA

NACC RASP GOALS AND TARGETS		
GOAL	**TARGETS**	**INDICATORS**
Goal 2: Strengthen States' safety oversight capabilities	2.1 — All States to improve their score for the EI of the CEs of the State's safety oversight system (with focus on priority PQs) as follows: by 2022 – 75 per cent by 2026 – 85 per cent by 2030 – 95 per cent	• Number of States that met the EI score as per the timelines • Percentage of required Corrective Action Plans (CAPs) submitted by States, using the On-line Framework of USOAP (OLF) • Percentage of completed CAPs per State (using OLF) • Overall regional EI score • Overall regional CE4, CE6, CE7, CE8 EI score • Overall regional AIG EI score • Regional average finding per area vs critical element Percentage of States maintaining a safety oversight index greater than 1 in all categories
	2.2 — By 2022, all States to reach a safety oversight index greater than 1, in all categories	• Number of States maintaining a safety oversight index greater than 1 in all categories
Goal 3: Implement effective State safety programmes (SSPs)	3.1 — By 2022, all States to implement the foundation of an SSP	• Percentage of satisfactory SSP foundational Protocol Questions (PQs) • Percentage of required CAPs related to the SSP foundational PQs submitted by States (using OLF) • Percentage of States having established an SSP • Percentage of States fully integrating AIG data into the States SMS
	3.2 — By 2025, all States to implement an effective SSP, as appropriate to their aviation system complexity	• Number of States having implemented an effective SSP • Number of States that have implemented a national aviation safety plan

NACC RASP GOALS AND TARGETS			
GOAL		**TARGETS**	**INDICATORS**
Goal 4: Increase collaboration at the regional level	4.1	By 2022, States that do not expect to meet GASP Goals 2 and 3, to use a regional safety oversight mechanism, another State or other safety oversight organization's ICAO recognized functions in seeking assistance to strengthen their safety oversight capabilities	• Number of States requiring assistance/support • Number of States offering assistance • Number of States that have a National Aviation Safety Plan
	4.2	By 2023, all States to contribute information on safety risks, including SSP safety performance indicators (SPIs), to their respective RASGs	• Number of States that are sharing their SSP SPIs with RASGs • Number of States forwarding information on safety matters to States, RASGs or other stakeholders
	4.3	By the end of 2022, all States with effective safety oversight capabilities and an effective SSP, to actively lead RASGs' safety risk management activities	• Number of States with effective safety oversight capabilities and an effective SSP, leading RASGs' safety risk management activities
Goal 5: Expand the use of industry programmes	5.1	By 2022, all service providers to use globally harmonized SPIs as part of their SMS	• Number of service providers using globally harmonized metrics for their SPIs
	5.2	By 2022, increase the number of service providers participating in the corresponding ICAO-recognized industry assessment programmes	• Number of service providers participating in the corresponding ICAO-recognized industry assessment programmes
Goal 6: Ensure the appropriate infrastructure is available to support safe operations	6.1	By 2022, all States to implement the air navigation and airport core infrastructure	• Number of States having implemented the air navigation and airport core infrastructure elements • Overall regional % of certified aerodromes

NACC RASP GOALS AND TARGETS		
GOAL	**TARGETS**	**INDICATORS**
		• Overall regional % RST implementation

3.5   The SEIs in this plan are implemented through the working arrangements with the RASG-PA, activities conducted the NACC Regional Office in coordination with this Regional Group and all the stakeholders (States, International Organizations and the aviation industry) in the NAM/CAR Regions, as well as the existing safety oversight capabilities and service providers' Safety Management Systems (SMS) at the individual States' level. SEIs derived from the ICAO global aviation safety roadmap were identified to achieve the regional safety goals are presented in the **NACC RASP**. Some of the regional SEIs could be linked to overarching SEIs at the international level and help to enhance safety at a regional and global level. The full list of the SEIs is presented in **Appendix A** to the RASP.

3.6   The **NACC RASP** also addresses emerging issues. Emerging issues include concepts of operations, technologies, public policies, business models or ideas that might impact safety in the future, for which insufficient data exists to complete typical data-driven analysis. It is important that the RASG-PA remain vigilant on emerging issues to identify potential safety risks, collect relevant data and proactively develop mitigations to address them. The **NACC RASP** addresses the following emerging issues, which were identified by RASG-PA/PA-RAST for further analysis

1) Number of hot-spots being directly assessed by Collaborative Safety Teams (CSTs) and their impact on regional data (trends, averages, etc.)
2) New RASG-PA Safety Advisories:
   • CFIT: Obstacle Chart Updates
   • LOC-I: Updated Awareness Guidance material
   • Other Runway Safety Advisory (RSA) topics can arise from CSTs collaboration
3) Integration between PA-RAST and Scrutiny Working Group (GTE) from the CAR/SAM Regional Planning and Implementation Group (GREPECAS).
   • MAC Hot-Spots validation
   • Formal Safety information exchange
4) Continued promotion for CST formal establishment in the NAM/CAR Regions

A.   NACC SYSTEMIC ASSISTANCE PROGRAMME (SAP)

A.1   The ICAO NACC Regional Office strategy, which encompasses main working areas in order to ensure desirable results and SARPs compliance within the NAM/CAR Regions.

A.2   The SAP of the NACC Regional Office seeks to solve the systemic problems of air transport in the region, and its effectiveness must be measured through audits to the States that confirm an improvement in the EI of the SARPs, since this is the main indicator that demonstrates the progressive resolution of systemic problems. It is clear that a high level of compliance (high EI) does not necessarily guarantee the institutional strength of the CAA, but unquestionably having a system that complies with SARPs is essential to achieve this institutional strengthening.

A.3   The strategy outlined in the SAP aims to provide concrete solutions to the problems of the States to develop a sustainable air transport system with all the adequate elements for its correct operation (e.g. regulations, procedures, human resources qualified, infrastructure). However, for its execution to be successful, commitment is a required policy of each State.

A.4   The first stage of this process therefore seeks the political commitment of the States of the NAM/CAR regions, as an essential element to determine which States require (or not) assistance from the ICAO and have (or not) the necessary resources, and thus be able to prioritize assistance. Fortunately, once the SAP was presented and thanks to the support of the President of the Council and the Secretary ICAO General, all States, regardless of their resources, showed their support for the highest political level by understanding the importance and value of having a proper air transport system to international standards.

A.5   Notwithstanding the triennial approach of the plan and understanding the limitations of the auditing sections the desired concept and goal to be reached by the region as agreed by the Director Generals during the Virtual Meeting of Directors Generals of North America of Civil Aviation of Central American and Caribbean (NACC) and South America (SAM) (22 July 2020).

The SAP comprises 5 phases:

1. **Political commitment (completed/Ongoing)**
   - Establish strategy to implement NCLB initiative
   - High level government outreach (ministerial level)
   - Paradigm shift in assistance methodology (more hand-holding), direct engagement at the technical level
   - Root cause approach

2. **Data Gathering and Analysis to a 100% of the States**
   - Analyse all available ICAO data on deficiencies of each NAM/CAR State
   - Notify the State of its deficiencies and compliance status
   - Mutual communication for agreement (technical teleconferences)

3. **Joint State/ICAO Action Plan Development**
   - Multidisciplinary or high level visits some States did not need a visit
   - Develop joint action implementation plan
     - ✓ Who?
     - ✓ What?

     - ✓ When?
   - Agreement of State Action Plan priorities at General and Regional Director level

4. **Implementation and Monitoring to Monthly teleconference NACC & CAA Technical Teams**
   - Quarterly Videoconference Brief to Regional Director & Director General (DG)/Minister
   - Annual implementation progress review
   - Continuous adjustment of action plan based on audit results
   - ICAO seeks engagement of financial institutions

5. **Follow up and Sustainability**
   - Continuity of Phase IV
   - Prioritization of SSP, SMS and SeMS in Action Plans
   - Tracking of Aviation Authorities (AAs) institutional strength
   - Greater emphasis in political will and commitment
   - Set air transport in the political agenda of the States
   - ICAO involvement in high level regional meetings

ICAO NACC REGIONAL OFFICE PROPOSAL TO ESTABLISH A 6 YEARS CYCLE OF SELF ASSESSMENT BY THE STATE WITH NACC ASSISTANCE.

A.6   Based on the experience gained from working with the States on providing technical assistance for the development of their safety oversight system, as envisaged in the GASP, and seeking to ensure that we have an active continuous monitoring of their performance and compliance as part of the USOAP CMA workframe, and noting that;

1. States often go more than 10 years between full USOAP audits that looks at all areas of the States aviation system
2. Most states have various changes of governments and its aviation leadership and authorities within a ten-year time span
3. Within a ten-year time frame ICAO updates SARPS and Annex requirements regularly however compliance and implementation can remain unaddressed for extended period of time between audits
4. While ICVM Audits are somewhat more timely they normally only look at those items that were identified as non- compliant during the audit
5. A large majority of States effective levels of implementations normally go down when a full audit is conducted, in part due to the issues noted above

SAFETY OVERSIGHT INDEX

A.12   The NACC SAP uses the i-STARS safety oversight index application information of each State, as part of the analysis to identify and prioritize States for the deployment of support missions in the region. This index is an indicator of its safety oversight capabilities. Every audited State has a safety oversight index. It is a number greater than zero where the number one represents a level at which the safety oversight capabilities of a State would indicate the minimum expected capabilities considering the number of departures, as a proxy to the size of that State's aviation system

A.13   The safety oversight index is broken down into three functional categories, as follows:

a) operations – this category groups EI scores for USOAP audit areas related to Personnel licensing and training (PEL), Aircraft operations (OPS) and Airworthiness of aircraft (AIR);
b) air navigation – this category groups EI scores for USOAP audit areas related to aerodromes and ground aids (AGA) and air navigation services (ANS); and
c) support functions – this category groups EI scores for USOAP audit areas related to primary aviation Legislation and civil aviation regulations (LEG), Civil aviation organization (ORG) and Aircraft accident and incident investigation (AIG).
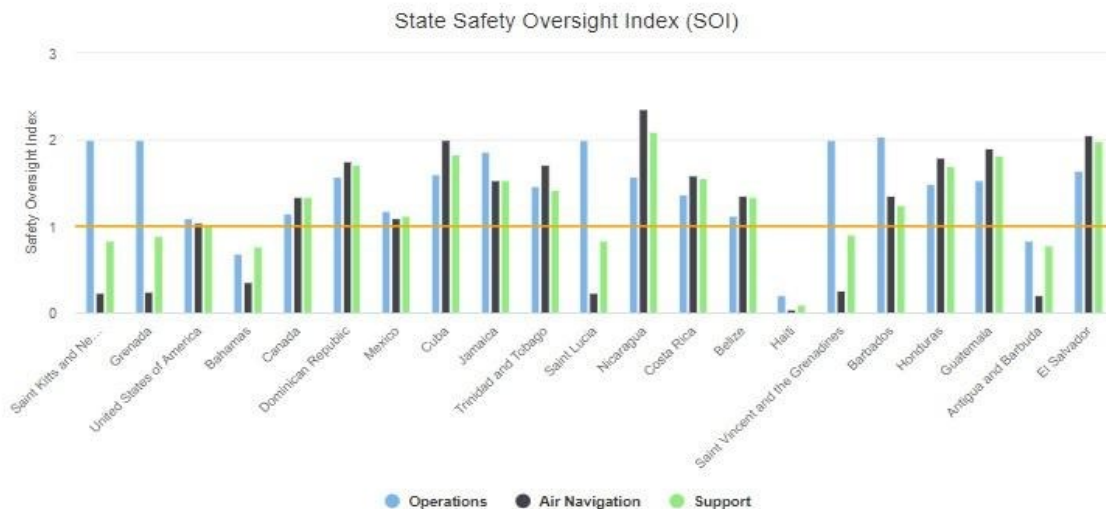

Figure 10: State Safety Oversight Index (SOI) as per April 2021

NACC SAP SUPPORTING PROJECTS

A.14   The NACC SAP is also supported by other means of implementation as the case of Regional Projects. The following Projects are environed for the NACC SAP implementation:

SAFETY OVERSIGHT SYSTEM IMPROVEMENT PROJECT (SOS)

A.15   The proposal of the ICAO NACC Regional Office though this project is to develop and improve the capacity of our States, in the EI of ICAO SARPs, in a sustainable and repeatable manner. This will be done by measuring the EI of ICAO SARPs on site, in those States that have not received USOAP audits in the past 7 years, establishing the current status of the authorities. To achieve this, Groups of Experts headed by the ICAO NACC Regional Office Safety Implementation Officers will be created.

A.16   Specialists from the Central American Aeronautical Safety Agency (ACSA) and experts from the States (that comply with the established profile) and specialists from the "Champion States" will compose the groups of Experts.

A.17   The Groups of Experts will receive training in the auditing methodologies of IASA FAA, IATA, USOAP and EASA, in order to offer the States a very high level of evaluation, after which a work programme and assistance to the States will be structured and periodically monitored by the ICAO NACC Regional Office. The support tasks will be carried out jointly with ACSA personnel assisting the States during the agreed period in the programme to ensure the establishment of a robust and sustainable safety surveillance system.

A.18   Once the on-site evaluation is completed, the preparation of the work programme will be coordinated with the State, establishing the personnel responsible for correcting possible non-conformities as a counterpart to the assistance group that will accompany the process. The monitoring of the process may be carried out on a bimonthly/quarterly basis as agreed between the parties; the monitoring is the responsibility of the ICAO NACC Regional Office Safety Implementation Officers, in close communication with the assistance group. The results of the monitoring will be submitted to the Director General of the assessed authority and to the Regional Director of the ICAO NACC Regional Office, at the end of the work programme, verification on site of the compliance achieved will be carried out.

A.19   As an additional advantage of the project, the use of experts provided by the States of the NAM/CAR Regions themselves will constitute a seedbed for technical personnel to gain experience and a high level of knowledge in ICAO provisions, which will allow raising the technical level in the NAM/CAR Regions and at the same time expand the States capacity to be able to self-evaluate and cooperate with each other.

EXPECTED OUTCOME

A.20   Through the implementation of this strategy the ICAO NACC Regional Office expects States to:

1. have an updated/real perspective of their own EI status;,
2. gain the knowledge and skills to stablish a sustainable safety oversight system; and
3. have the capacity to shear that knowledge with other states within the region in order to standardize the sustainability of the Safety Oversight Systems.

DESCRIPTION OF THE GROUP OF EXPERTS

A.21   The group of experts will be led by the ICAO NACC Regional Office Flight Safety officers and made up of experts from ACSA and the States. More than one group of experts may be established depending on the number of staff that states can provide and their compliance with established experience and knowledge requirements. Once the group is formed, it will have to carry out on-site evaluations on compliance with the ICAO provisions of the NAM/CAR States. Subsequently, they will follow up and advice on the solution of the nonconformities found according to a Work Plan, which must be agreed between the NACC Regional Office and the State after the evaluation.

REGULATORY HARMONIZATION PROJECT

A.22   The ICAO NACC Regional Office has established a regional project to support a phased harmonization of the main regulations used in the aviation safety oversight by States of the Caribbean, Central America and Mexico. The harmonization will allow the establishment of mechanisms to ensure both the legitimate adoption of harmonized regulations by interested States as applicable, and its acceptance, as a base for the development of their own customized versions. The project also emphasizes the necessary and timely amendments to such regulations, to keep them up-to-date.

A.23   The implementation of this harmonization project will lead to the development of a mechanism for updating legislation and regulations, and may lead to the creation of a system to recognize and delegate authority to inspectors to assist other States in implementing their safety oversight obligations.

A.24   An additional benefit brought about by the harmonization of regulations is the potential to facilitate relationships between states and the use of harmonized regulations by the industry which will facilitate the international operations, based on the recognition that the regulations adopted or customized would be in conformity with international requirements and will be extremely similar in the NAM/CAR Regions.

A.25   The project is supported "Champion States", international organizations (ALTA, EASA, CASSOS, COCESNA, etc.) and industry (Airbus, Boeing, etc.), and fully funded by donors.

B.   NAM/CAR REGIONAL SSP IMPLEMENTATION STRATEGY

B.1   During the Eighth Meeting of the North American, Central American and Caribbean Directors of Civil Aviation (NACC/DCA/8), the Secretariat presented the ICAO NAM/CAR Regional SSP Implementation Strategy for 2018-2023, following CONCLUSION NACC/DCA/07/6 NACC SSP IMPLEMENTATION STRATEGY.

B.2   The objective of the Strategy is to assist member States to comply with the requirements for the implementation of SSPs by States and SMS by service providers as established in the GASP.

B.3   The main benefits are:

    a) Enhancement of the effectiveness of safety oversight by member States
    b) Increase NAM/CAR Regions level of implementation on the Annex 19 SARPs
    c) Prepare States for the USOAP CMA SSP assessments
    d) Increase level of implementation of SSP and SMS in member States
    e) Reduce fatality risk in the CAR Region

B.4   The metrics used to verify the progress on the implementation are the SSP foundation and the SSP GAP analysis.

Figure 11: SSP Foundation as per April 2021

Step 3: ICAO NACC Regional Office coordinates with the champion State the technical support to solve the weaknesses found during the evaluation.

Step 4: ICAO NACC Regional Office coordinate the establishment of an ad-hoc work plan for the affected States and its subsequent follow up.

C.   AIR NAVIGATION OPERATIONAL IMPROVEMENT STRATEGY

C.1   The ICAO NACC Regional Office in support to the aviation development in the 22 States and 19 Territories (belonging to France, Netherlands and United Kingdom) has developed the ICAO NACC Strategic Plan for the Regional Air Navigation Development.

C.2   Within the regional coverage area in which the ICAO NACC Regional Office is responsible, there are sub regions with different implementation levels and with different air navigation development levels. These differences in the implementation levels are noticeable in North America, Central America and the Caribbean (Central and Eastern Caribbean).

C.3   In this regard, important challenges are faced to reach automation goals, homogeneity and development in the region focused on common goals for the States' development and their aviation systems.

C.4   The ICAO NACC Regional Office identifies as a strategy the involvement of all the stakeholders in the regional development of the States, defining commons goals, aligned with the activities of ICAO and of the International Organizations, and other States, inviting them to have common work agendas and involving the aviation industry to reach goals faster.

C.5   According with the Global Air Navigation Plan (GANP), 6th Edition, the ICAO NACC Regional Office summarizes the development of air navigation strategy taking into account four planning levels and the regional objectives that have been formulated:
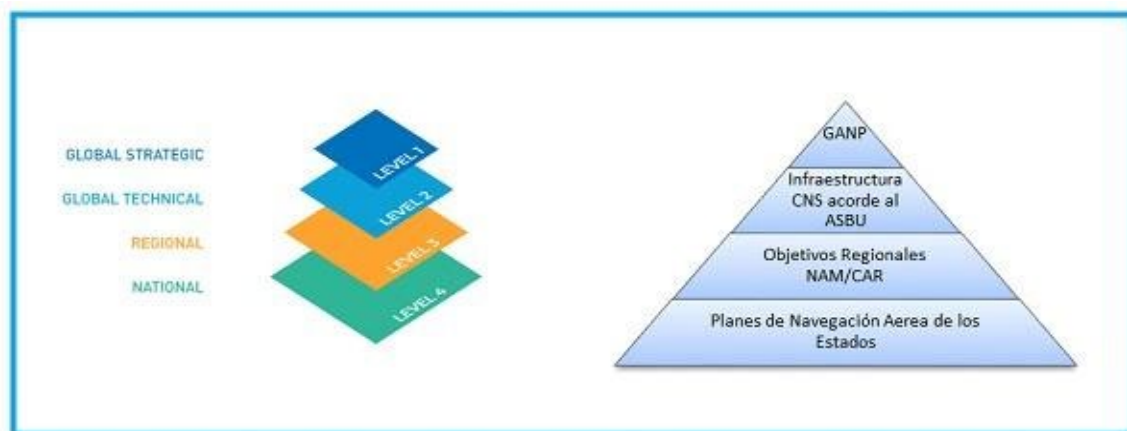
Figure 13: NAM/CAR Regional Planning Process

C.6   The ICAO NACC Regional Office implements the air navigation (GANP), safety (GASP) and security (Global Aviation Security Plan (GASeP)) requirements and the interaction between them.

C.7   In this regard, the Regional Office will support the States in the establishment of the aforementioned requirements in their national air navigation plans, with reference to the Regional requirements and the respective monitoring mechanisms, assuring that the regional aviation system complies with the necessary interoperability, integrated in a regional level and with the other ICAO regions and with a common goal towards the future.
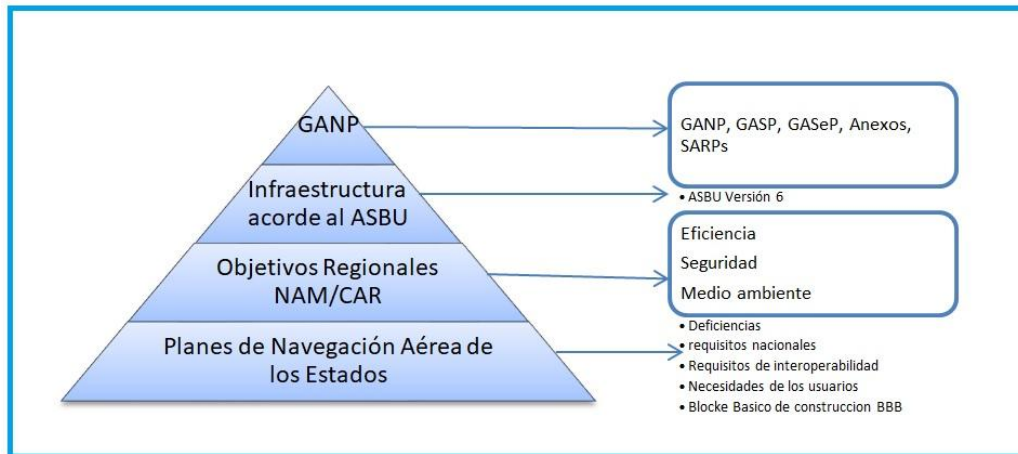
Figure 14: ANS implementation structure and ICAO Requirements correlation.

D.   IMPLEMENTATION OF RUNWAY SAFETY TEAMS (RSTs)

D.1   Runway safety is a key priority for aerodrome operators, aircraft operators, and Air Traffic Services (ATS). The prevention of both Runway Incursions (RIs) and Runway Excursions (REs) should be an important part of their programmes and activities for improving runway safety. Improving runway safety on an aerodrome is a collaborative process, with the primary objective being to develop a Runway Safety Action Plan that identifies and addresses safety issues through effective hazard identification and risk mitigation.

D.2   Gathering, monitoring and analysing data on runway safety performance greatly contributes to understanding and proactively managing the risks related to the operations of a runway. The RST shall identify runway related hazards, including aerodrome design, markings, signs and lights, as well as relevant aerodrome operations and procedures.

D.3   Within the context of the runway safety team, measures shall be taken to mitigate any hazards identified in accordance with the above paragraph and, as appropriate, reduce the safety risk of issues related to runway safety, including but not limited to the following:

a) runway incursion;
b) runway excursion;
c) runway confusion; and
d) suspension or closure of runway operations

D.4   The RST shall identify hazards and develop mitigation strategies and procedures to maintain runway safety during abnormal operations, including the suspension of runway operations. These strategies and procedures shall be implemented under the responsibility of the aerodrome operator.

D.5   Procedures to collect, monitor, analyse and protect safety data and safety information shall be established to understand and improve runway safety performance. Information that could enhance runway safety, including identified hot spots and specific local procedures shall be communicated to the relevant users.

D.6   The latest edition of the ICAO Global Aviation Safety Plan highlights top 5 high risk categories in terms of aviation safety: Runway Excursions, Runway Incursions, Controlled Flight Into Terrain (C-FIT), Loss of Control In-flight (LOC-I), Mid-Air Collision (MAC).

D.7   Runway excursions and runway incursions are two of the five high-risk areas. If grouped together, Runway safety (RS) would be considered the highest risk category. According to statistics 72 out of 135 accidents in 2019 for commercial operations including scheduled and non-scheduled involving aircraft with MTOW over 5700kg.

D.8   Accidents related to RS remain the highest percentage of all accidents for commercial operations including scheduled and non-scheduled in 2019.

D.9   RS related events accounted for 53% of all accidents, 43% of fatal accidents, 21% of fatalities and 72% of accidents with aircraft substantially damaged or destroyed.

D.10   In this regard, the NAM/CAR Regions is targeting their assistance to States for their implementation of RST and review of RST, performance and implementation of Aerodrome safety activities, with specific targets such as:

a) Implementation of new RSTs
b) Conduction of onsite assistance with RST Go-Team
c) Follow-up and effectiveness review of RST process implemented
    d) For high-density traffic airports and complex airport layouts, the Airport Collaborative Decision Making (A-CDM) awareness/implementation may increase aerodrome safety.

E.   STATE AIG ENHANCEMENT AND AIG REGIONAL COLLABORATION

E.1   The strategy has been designed in a two phases approach:

Phase 1 –   Building national capacity. Consists in the provision of tailored assistance to individual States in order to improve and maintain a minimum level of efficiency in the activities related to accident and incident investigation. The assistance provided here will support the NACC SAP for the States considered.

Phase 2 –   Building regional cooperation. The strategy will assist States in the establishment of mechanisms of cooperation in the AIG domain.

E.2   The low level of implementation in AIG reflects a complex scenario, especially in the Caribbean, thus the strategy proposed may require several years to be effectively carried out, probably surpassing the period established in this Plan. In addition, the strategy is aimed at volunteer States and requires, as a minimum point of start:

- Continuous commitment from the State
- At least 1 permanent full time investigator as a counterpart

    Note: The assignment of 1 full time investigator refers to the counterpart required by the State to plan and implement the strategy in coordination with the NACC RO, and does not preclude the State to have other staff (including other investigators) to fulfil its obligations in the field of AIG.

E.3   **Phase 1** is structured as follows:

Step 1: Off-site familiarization and gap analysis
- Identification of the State's civil aviation system size and complexity
- Identification of legal framework
- Preliminary assessment of relevant documentation (e.g. regulations, procedures, policies, etc.)
- Identification of areas to improve/develop

Step 2: On-site assistance mission
- Identification of available infrastructure and resources
- Establishment of priorities
- Initial assistance in the correction of main issues
- Guidance on the development of a Corrective Action Plan (CAP)

Step 3: Development of the CAP
- State to develop CAP according to priorities agreed on STEP 2
- Use of Teleconference to support/guide State on the development
- States approval of the CAP

Step 4: Implementation of the corrective actions
- Use of Teleconference to support implementation
- Mid-term follow up on site mission (depending on the complexity of CAP)

Step 5: On site verification
- On site final verification mission (to support validation mission request)
- Amendment of CAP if necessary, with subsequent follow up and new verification

E.4   **Phase 2** is structured as follows:

Step 1: Studying the concepts of Mechanisms of Cooperation (MoC) and Regional Accident Investigation Organization (RAIO)
- Presentation and discussions on the concept of MoC
- Presentation and discussions on the concept and models of RAIO
- The regional scenario (GRIAA and Caribbean) and the potential benefits of the MoC
- Identification of potential members for Caribbean MoC

Step 2: Building the Terms of Reference
- Establishing the main elements of the cooperation for Caribbean MoC
- Drafting the Terms of Reference for Caribbean MoC
- Revision of the Terms of Reference for GRIAA (if deemed necessary by GRIAA)
- Submission to States

Step 3: Development of work plans
- Work plan for consolidation/improvement of GRIAA
- Work plan for establishment of the Caribbean MoC

Step 4: Implementation of the work plans
- Use of teleconferences to support implementation
- Assistance/follow up on site missions (as necessary)

F.   SAFETY DATA GATHERING, EXCHANGE AND ANALYSIS (UNDER DEVELOPMENT)

F.1   As per Annex 19, Chapter 5, States are required to establish SDCPS in order to capture, store, aggregate and enable the analysis of safety data and safety information to support safety performance management activities. The Safety Management Manual (SMM) Chapter 5 contains SDCPS guidance for States and service providers.

F.2   Mandatory and voluntary reporting systems as part of the SDCPS, should be established by the State, as well other reactive and proactive methods of safety data and safety information collection to ensure availability and effective use of data for analysis.

F.3   Safety data is fundamental for data-driven decision-making. Therefore, collaboration with aviation stakeholders including regional aviation safety groups, service providers who as per Annex shall implement an SMS, regulatory bodies, is essential to support the efforts to improve safety at various levels.

F.4   Interaction between the SSP and the service providers' SMS, as well as the sharing and exchange of safety data and safety information are highly integrated and, therefore, require a significant level of coordination and cooperation among all stakeholders.

F.5   Additional safety data and safety information sources that States could consult during the planning and implementation of their safety plans include: ICAO iSTARS-3 and SIMS, RASG-PA data sources, IATA data sources, AIG Regional Cooperation Mechanism (ARCM) data sources, and their own data sources (SDCPS safety and accident/incident data reporting system (ADREP)/European Coordination Centre for Accident and Incident Reporting Systems (ECCAIRS) platforms).

F.6   The RASG-PA will facilitate the exchange of best practices, cooperation, and collaboration by applying a top-down approach to supplement the bottom-up planning and implementation approach of the NAM/CAR States and Regions.

<div align="center">**SAFETY-RELATED INFORMATION**</div>

F.7   The ICAO NACC Regional Office fosters the establishment of a Regional framework for data gathering and analysis, for the CAR region with the collaboration of "Champion States" like Canada and United States, RSOOs, the industry and international organizations.

F.8   One of the GASP targets calls for all States to contribute information on safety risks, including SSP SPIs, to their respective RASGs. The intent behind this target is to expand the RASGs' safety risk management capabilities by promoting the sharing of safety-related information.

<div align="center">**CENTRAL AMERICAN OPERATIONAL EVENT ANALYSIS PROGRAMME
(PASOC BY ITS INITIALS IN SPANISH)**</div>

F.9   ACSA has created the PASOC, which is fully aligned with the provisions of ICAO Annex 19.

F.10   The programme collects, processes, analyses and attends to voluntary reports related to operational safety that are sent by the Central American States, in order to reduce the rate of accidents and incidents in regional aviation.

F.11   The data is used to:

- Identify deficiencies and events in order for them to be addressed through the competent authorities.

- Strengthen operational trends exposing the possible causes, and/or consequences that may affect the operational safety of the NAM/CAR Regions and proposing recommendations or mitigation measures.
- Strengthen the human factors area so that the human-machine interaction is not weakened

G.   RASG-PA/GREPECAS

G.1   As stated in the RASG-PA Strategic Plan 2018-2020, the RASG-PA is aligned with the GASP and promotes actions towards the goals set forth by the NACC NCLB Nassau Declaration and Declaration to Promote Connectivity through the Development and Sustainability of Air Transport in the Pan-American Region - Vision 2020-2035 (Fortaleza, Brazil), and GASP targets, highlighting:

- Declaration of intent for the International Civil Aviation Organization (ICAO) Regional Office for the North America, Central America and Caribbean (NACC) Regional No Country Left Behind (NCLB) Strategy between the Civil Aviation Authorities of North America (NAM) Central America and Caribbean (CAR) and the ICAO NACC Regional Office, signed in Nassau, Bahamas, May 2016
- Cooperation in the promotion and development of civil aviation, in support to the ICAO NACC Regional NCLB Strategy in order to assist States increasing their EI of ICAO SARPs.

G.2   In this regard, RASG-PA will facilitate the exchange of best practices, cooperation, and collaboration by applying a top-down approach to supplement the bottom-up planning and implementation approach of the NAM/CAR Regions. It is expected that the RASG-PA activities will ensure that the ICAO NACC Regional Office safety priorities are taken in consideration. Likewise, RASG-PA should be aligned with the NACC Strategic Plan compliance to facilitate the drafting and publication of the safety reports of the NAM/CAR Regions.

COORDINATION BETWEEN GREPECAS AND RASG-PA

G.3   For the successful implementation and monitoring of the NACC RASP, the effective participation and involvement of all the States, territories, industry partners, RASG-PA, RSOOs (ACSA, CASSOS), AIG Collaboration mechanism (GRIAA, Caribbean) and Regional Groups like GREPECAS and its contributory bodies., AN implementation Groups NAM/CAR Air Navigation Implementation Working Group (ANI/WG) , North American, Central American and Caribbean Working Group (NACC/WG), Eastern Caribbean Civil Aviation Technical Group (E/CAR/CATG), etc. are essential.

G.4   Under this participation, the effective coordination with GREPECAS and RASG-PA matters is key for the regional collaboration and assurance of States/industry participation. GREPECAS comprises all States in the CAR/SAM Regions, who are service providers in the CAR/SAM Regions, appropriate International Organizations, the industry, in particular airspace users, professional associations and organizations (such as Airports Council International, Civil Air Navigation Services Organisation, International Federation of Air Line Pilots' Associations, International Federation of Air Traffic Controllers' Associations, International Air Transport Association, etc.) and other Partners, who could provide support to enhance air navigation services in the CAR/SAM Regions. GREPECAS' objectives are to ensure continuous and coherent development of the CAR/SAM Regional Air Navigation Plan (ANP) and other relevant documentation in a harmonised manner with adjacent regions, to facilitate the implementation

of air navigation systems and services as identified in the CAR/SAM Regional ANP. Similar coordination with United States and Canada is considered to include the North America portion of this RASP plan.

G.5   Under this implementation, GREPECAS is to facilitate the implementation of air navigation systems and services as identified in the CAR/SAM ANP, giving due priority to air safety; and coordinate safety issues with Regional Air Safety Groups (RASGs). GREPECAS will build on the work already done by States, ICAO Regional Offices and existing regional and sub-regional organizations to support the development, maintenance and implementation of an air navigation plan for the CAR/SAM Regions.

G.6   For the implementation of the RASP activities and outcomes, the effective collaboration with GREPECAS through coordinated processes to sustain the collection and sharing of regional Air Traffic Management (ATM) data and the sharing and resolution of safety issues. This, in turn, will support the implementation of Aviation System Block Upgrade (ASBUs) and ensure that their implementation accounts for and properly manages existing and emerging risks, e.g. Approaches with Vertical Guidance (APV) to mitigate risks associated with CFIT and REs.

G.7   Prior to the endorsement of the **NACC RASP** by all States and RASG-PA, adequate consultation of the proposed contents and amendments took place, including especially where ATM issues are involved, other non-safety-centric regional entities such as GREPECAS and its Subgroups. All this process was done through the ICAO NACC Regional Office in this respect.

4.   REGIONAL OPERATIONAL SAFETY RISKS

4.1   The **NACC RASP** includes SEIs that address regional operational safety risks, derived from lessons learned from operational occurrences and from a data-driven approach. These SEIs include actions such as: policy development, targeted safety activities, safety data analysis, safety risk assessments, and safety promotion.

4.2   RASG-PA publishes an Annual Safety Report, which includes the summary of accidents and serious incidents that occurred in the NAM/CAR Regions and those for aircraft registered in States located in the NAM/CAR Regions involved in commercial air transport and aircraft involved in general aviation, available on the RASG-PA website https://www.icao.int/RASGPA/Pages/ASR.aspx.

4.3   The following four High Risk Categories (HRCs) of occurrences in the NAM/CAR Regions context were considered of the utmost priority because of the number of fatalities and risk of fatalities associated with such events. They were identified based on analysis from mandatory and voluntary reporting systems, accident and incident investigation reports, safety oversight activities conducted by States in the region over the past 10 years as well as on the basis of regional analysis conducted by RASG-PA and the

RSOOs within our Regions and on the operational safety risks described in the GASP. These HRCs are in line with those listed in the 2020-2022 edition of the GASP:

1. Loss of Control In-flight (LOC-I)
2. Runway Excursion (RE)
3. Controlled Flight Into Terrain (CFIT)
4. Mid-Air Collision (MAC)

4.4   In addition to the regional operational safety risks listed above, the following additional categories of Additional safety Risks (ARCS) have been identified and will be monitored by the RASG-PA:

1. Post Go-Around Outcomes (LOC-I)
2. Aircraft Misconfigurations (LOC-I, RE)
3. Surface Misalignments (NAV, RI)

4.5   The aviation occurrence categories from the CAST/ICAO Common Taxonomy Team (CICTT) were used to assess risk categories in the process of determining national operational safety risks. The CICTT Taxonomy   can   be   found   on   the   ICAO   website   at: https://www.icao.int/safety/airnavigation/AIG/Pages/Taxonomy.aspx

4.6   In order to address the regional operational safety risks listed above, the RASG-PA identified the contributing factors leading to HRCs, the ICAO NACC Regional Office will follow up the information provided by the RASG PA and any other information critical to safety decisions, in order to take appropriate actions. The information related to contributing factors can be found on the Annual Safety Report de RASG-PA.

5.   OTHER REGIONAL SAFETY ISSUES

5.1   In addition to the regional operational safety risks listed in the **NACC RASP**, the ICAO NACC Regional Office has identified other regional safety issues and initiatives selected for the RASP. These are prioritized in the **NACC RASP** since they are aimed at enhancing and strengthening the management of aviation safety at the regional level.

5.2   The eight Critical Elements (CEs) of a safety oversight system are defined by ICAO. The ICAO NACC Regional Office is committed to the effective implementation of these eight CEs among all States in the region, as part of its overall safety oversight responsibilities, which emphasize the NAM/CAR Regions commitment to safety in respect of its aviation activities. The eight CEs are presented in Figure 15.

Figure 15. Critical elements of a State's safety oversight system

5.3   Certain deficiencies in a specific CE of a safety oversight system are common to the majority of States in the region and considered a top concern. These deficiencies are addressed as a safety issue in the RASP because of their impact on the ability of States to fulfil their safety oversight responsibilities, which impacts the region as a whole.

5.4   The latest ICAO activities, which aim to measure the effective implementation of the eight CEs of States' individual safety oversight system, as part of the ICAO USOAP, have resulted in the following scores, compiled as an average for the NAM/CAR Regions as a whole:

Overall Effective Implementation (EI) score for NACC
66.20%

EI score by Critical Element (CE) for NACC							
CE-1	**CE-2**	**CE-3**	**CE-4**	**CE-5**	**CE-6**	**CE-7**	**CE-8**
74.04%	72.62%	69.89%	67.36%	67.66%	67.22%	55.14%	55.65%
EI score by audit area for NACC							
LEG	**ORG**	**PEL**	**OPS**	**AIR**	**AIG**	**ANS**	**AGA**
76.22%	77.04%	80.02%	78.78%	80.02%	63.34%	55.05%	59.14%

5.5   The Safety Oversight Index (SOI) of a State is an ICAO indicator of its safety oversight capabilities. Every State audited by ICAO has a safety oversight index. It is a number greater than zero where the number one represents a level at which the safety oversight capabilities of a State would indicate the minimum expected capabilities considering the number of departures as an indication of the size of that State's aviation system. The calculations conducted by ICAO of each State's individual SOI have resulted in the following scores, compiled for the NAM/CAR Regions as a whole:

Overall SOI score for	Score in the area of Operations	Score in the area of Air Navigation	Score in the area of Support Functions
1.27	1.52	1.11	1.17

5.6   **Appendix B** contains other safety issues in the NAM/CAR context which were identified based on analysis from USOAP data, accident and incident investigation reports, safety oversight activities over the past 5 years from States in the region, their SSP, as well as on the basis of regional analysis conducted by RAGS-PA, RSOOs and the results of international audits. It is currently under development.

6.   MONITORING IMPLEMENTATION

6.1   The ICAO NACC Regional Office will continuously monitor the implementation of the SEIs listed in the **NACC RASP** and measure safety performance of the regional civil aviation system, to ensure the intended results are achieved, using the mechanisms presented in the appendix to this plan. The implementation monitoring will be conducted through the different systems already stablished by the NACC Regional Office, i.e: SAP, SSP strategy, RST, etc.

6.2   In addition to the above, the Management and the Regional Officer, safety implementation will review the **NACC RASP** every 2 years or earlier, if required, to keep the identified operational safety risks, safety issues and selected SEIs updated and relevant. The ICAO NACC Regional Office will periodically review the safety performance of the initiatives listed in the **NACC RASP** to ensure the achievement of

regional safety goals and targets. If required, The ICAO NACC Regional Office will seek the support of the RSOOs to ensure the timely implementation of SEIs to address safety deficiencies and mitigate risks. Through close monitoring of the SEIs, the ICAO NACC Regional Office will make adjustments to the RASP and its initiatives, if needed, and update the RASP accordingly.

6.3   In addition, the ICAO NACC Regional Office in cooperation with RASG-PA will use the indicators listed in Section 3 of this plan to measure safety performance of the civil aviation system and monitor each regional safety target. A periodic annual safety report will be published to provide stakeholders with relevant up-to-date information on the progress made in achieving the regional safety goals and targets, as well as the implementation status of the SEIs.

6.4   In the event that the regional safety goals and targets are not met, the causes will be addressed and presented to stakeholders. If The ICAO NACC Regional Office identifies critical safety risks, reasonable measures will be taken to mitigate them as soon as practicable, possibly leading to an earlier revision of the **NACC RASP**.

6.5   The ICAO NACC Regional Office adopted a standardized approach to facilitate reporting of information from individual States and other stakeholders at the regional level, and improving the provision of information to the RASG-PA. This allows the region to receive information and assess safety risks using common methodologies. Please note that the Regional Office is working with the States.

6.6   Any questions regarding the **NACC RASP** and its initiatives, and further requests for information may be addressed to the following:

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REGIONAL OFFICER, FLIGHT SAFETY IMPLEMENTATION
ICAO NACC REGIONAL OFFICE
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OPERATIONAL ROAD MAP

	Regional Goal I: Reduction in Operational Risks Targets						
	T1*: Maintain a decreasing trend of fatal accidents per million departures [from 2018 to 2021]						
GASP SEI	Action	Action Custodian	Timeline	Stakeholders	Metrics	Source/ Fulfils	Monitoring Activity
Loss of Control In-flight (LOC-I)	Implement the following LOC-I safety actions: a) Promote upset prevention and recovery training in all full flight simulator type conversion and recurrent training programmes b) Promote more time devoted to training for the pilot monitoring role 2. Validate the effectiveness of the SEIs in the region using data provided by States and industry (apply safety management methodologies 3. Identify additional contributing factors, for example: a) Distraction b) Adverse weather c) Complacency d) Inadequate SOPs for effective flight management e) Insufficient height above terrain for recovery f) Lack of awareness of or competence in procedures for recovery from unusual aircraft attitudes g) Inappropriate flight control inputs in response to a sudden awareness of an abnormal bank angle 4. Develop and promote further SEIs to mitigate the risk of the identified contributing factors, if any, for LOC-I, for example: a) Organize safety seminars or workshops b) Facilitate regional technical assistance projects 5. Conduct continuous evaluations of the performance of the SEIs	RASG-PA/ NACC RO	2022	STATES, RSOO, INDUSTRY	SAP CE 2, 6 AND 7	GASP	RASG-PA/NACC RO

| | | | | Regional Goal I: Reduction in Operational Risks Targets | | | |
| | | | | **T1*: Maintain a decreasing trend of fatal accidents per million departures [from 2018 to 2021]** | | | |
GASP SEI	**Action**	**Action Custodian**	**Timeline**	**Stakeholders**	**Metrics**	**Source/ Fulfils**	**Monitoring Activity**
Runway Excursion (RE)	1. Implement the following RE safety actions: a) Promote the establishment and implementation of a State runway safety programme and runway safety teams b) Promote the establishment of policy and training on rejected landings, go arounds, crosswind and tailwind landings (up to the maximum manufacturer demonstrated winds) c) Promote equipage of runway overrun awareness and alerting systems on aircraft d) Promote effective and timely reporting of meteorological and aerodrome conditions (e.g. runway surface condition in accordance to the ICAO global reporting format in Annex 14, Volume I, braking action and revised declared distances) e) Promote the certification of aerodromes in accordance with ICAO Annex 14, Volume I as well as Doc 9981, PANS-Aerodrome f) Promote the installation of arresting systems if RESA requirements cannot be met g) Promote the establishment of procedures to systematically reduce the rate of unstabilized approaches to runways 2. Validate the effectiveness of the SEIs in the region using data provided by States and industry (apply safety management methodologies) 3. Identify additional contributing factors, for example: a) Ineffective SOPs b) Failure to adhere to the appropriate SOPs c) Long/floated/bounced/firm/off-centre/crabbed landing d) Inadequate approach procedures design e) Inadequate regulatory oversight 4. Develop and implement further SEIs to mitigate the risk of the identified contributing factors, if	RASG-PA/ NACC RO	2022	STATES, RSOO, INDUSTRY	SAP CE 2, 6 AND 7	GASP	RASG-PA/NACC RO

	Regional Goal I: Reduction in Operational Risks Targets						
	T1*: Maintain a decreasing trend of fatal accidents per million departures [from 2018 to 2021]						
GASP SEI	**Action**	**Action Custodian**	**Timeline**	**Stakeholders**	**Metrics**	**Source/ Fulfils**	**Monitoring Activity**
	any, for RE 5. Conduct continuous evaluation of the performance of the SEIs						

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Regional Goal I: Reduction in Operational Risks Targets **T1*: Maintain a decreasing trend of fatal accidents per million departures [from 2018 to 2021]**							
GASP SEI	**Action**	**Action Custodian**	**Timeline**	**Stakeholders**	**Metrics**	**Source/ Fulfils**	**Monitoring Activity**
Controlled Flight Into Terrain (CFIT)	1. Implement the following CFIT safety actions: a) Support the adoption of TAWS in accordance with Annex 6 b) Promote the wider use of TAWS beyond the requirements of Annex 6 c) Promote the adherence to TAWS warning procedures d) Promote greater awareness of approach risks e) Promote the implementation of CDFA f) Promote the implementation of MSAW systems g) Promote the timeliness of updates and accuracy of eTOD h) Promote the use of global positioning system (GPS)-derived position data to update TAWS 2. Validate the effectiveness of the SEIs presented in this roadmap in the region using data provided by States and industry (apply safety management methodologies) 3. Identify additional contributing factors, for example: a) Flight in adverse environmental conditions b) Approach design and documentation c) Phraseology used (standard vs non-standard) d) Pilot fatigue and disorientation 4. Develop and implement further SEIs to mitigate the risk of the identified contributing factors, if any, for CFIT 5. Conduct continuous evaluation of the performance of the SEIs	RASG-PA/ NACC RO	2022	STATES, RSOO, INDUSTRY	SAP CE 6 AND 7	GASP	RASG-PA/NACC RO

	Regional Goal I: Reduction in Operational Risks Targets						
	T1*: Maintain a decreasing trend of fatal accidents per million departures [from 2018 to 2021]						
GASP SEI	**Action**	**Action Custodian**	**Timeline**	**Stakeholders**	**Metrics**	**Source/ Fulfils**	**Monitoring Activity**
Mid-Air Collision (MAC)	1. Implement the following MAC safety actions: a) Promote guidance and regulations to ensure aircraft are equipped with ACAS, in accordance with Annex 6 b) Promote adherence to ACAS warning procedures c) Promote the improvement of ATC systems, procedures and tools to enhance conflict management. d) Promote the improvement of communications systems and procedures, such as controller-pilot datalink. 2. Validate the effectiveness of the SEIs in the region using data provided by States and industry (apply safety management methodologies) 3. Identify additional regional contributing factors, for example: a) Traffic conditions - traffic density, complexity, mixture of aircraft types and capabilities, etc. b) ATC performance related to workload, competence, teamwork, procedures, commitment, etc., as well as the influence of ANSPs' safety management. c) Flight crew training and corporate culture related to workload, competence, teamwork, procedures, commitment etc., and the influence of aircraft operator's safety management d) ATC systems - flight data processing, communication, STCA, etc., as well as the interaction related to the human operator and the aircraft systems, and the procurement policy of the ANSP e) Aircraft equipment - autopilots, transponders and ACAS, but also aircraft performance (e.g. rate-of-climb) and their physical size f) Navigation infrastructure - both coverage and quality	RASG-PA/ NACC RO	2022	STATES, RSOO, INDUSTRY	SAP CE 2, 6 AND 7	GASP	RASG-PA/NACC RO

	Regional Goal I: Reduction in Operational Risks Targets						
	T1*: Maintain a decreasing trend of fatal accidents per million departures [from 2018 to 2021]						
GASP SEI	**Action**	**Action Custodian**	**Timeline**	**Stakeholders**	**Metrics**	**Source/ Fulfils**	**Monitoring Activity**
	g) Surveillance -both coverage and quality h) Flight plan processing - efficiency and reliability of flight plan submission, approval and distribution i) Airspace - complexity of airspace design, route layout, extent of controlled or uncontrolled airspace, proximity of military operational or training areas, etc. j) Flight in adverse environmental conditions that may influence conflict management and collision avoidance 4. Develop and implement further SEIs to mitigate the risk of the identified contributing factors, if any, for MAC 5. Conduct continuous evaluation of the performance of SEIs						

	Regional Goal I: Reduction in Operational Risks Targets						
	T1*: Maintain a decreasing trend of fatal accidents per million departures [from 2018 to 2021]						
GASP SEI	**Action**	**Action Custodian**	**Timeline**	**Stakeholders**	**Metrics**	**Source/ Fulfils**	**Monitoring Activity**
Mitigate contributing factors to RI accidents and incidents	1. Implement the following RI safety actions: a) Promote the establishment and implementation of a State runway safety programme and runway safety teams b) Promote the establishment of policy, procedures and training that supports situational awareness for controllers, pilots and airside vehicle drivers c) Promote the effective use of suitable technologies to assist the improvement of situational awareness, such as improved resolution AMM, EFB, EVS and HUD, A-SMGCS, stop bars and ARIWS d) Promote the certification of aerodromes in accordance with ICAO Annex 14, Volume I as well as Doc 9981, PANS-Aerodrome e) Promote the use of standard phraseologies in accordance with applicable State regulations and ICAO provisions (e.g. Doc 9432, Manual of Radiotelephony) f) Promote the identification and publication in the AIP of hot spots at aerodromes g) Promote suitable strategies to remove hazards or mitigate risks associated with identified hot spots 2. Validate the effectiveness of the SEIs in the region using data provided by States and industry (apply safety management methodologies) 3. Identify additional contributing factors, for example: a) Operations in low visibility conditions b) Complex or inadequate aerodrome design c) Complexity of traffic (multiple simultaneous line-ups) d) Conditional clearances e) Simultaneous use of intersecting runways f) Late issue of or late changes to departure	RASG-PA/ NACC RO	2022	STATES, RSOO, INDUSTRY	SAP CE 2, 6 AND 7	GASP	RASG-PA/NACC RO

	Regional Goal I: Reduction in Operational Risks Targets						
	T1*: Maintain a decreasing trend of fatal accidents per million departures [from 2018 to 2021]						
GASP SEI	**Action**	**Action Custodian**	**Timeline**	**Stakeholders**	**Metrics**	**Source/ Fulfils**	**Monitoring Activity**
	clearances g) Phraseology use (e.g. non-standard vs. standard, call-sign confusion) h. Concurrent use of more than one language for ATC communications i) English language competence despite the introduction by ICAO of a system of validating competence in aviation English j) Inadequate manoeuvering area driver training and assessment programme 4. Develop and implement further SEIs to mitigate the risk of the identified contributing factors, if any, for RI 5. Conduct continuous evaluations of the performance of the SEIs						

		Regional Goal I: Reduction in Operational Risks						
		Targets						
		2.1 Component 1 — State safety oversight system						
		2.1.1 Phase 1 — Establishment of a safety oversight framework (CE-1 to CE-5)						
GASP SEI	**Action**	**Action Custodian**	**Timeline**	**Stakeholders**	**Metrics**	**Source/ Fulfils**	**Monitoring Activity**
SEI-1 — Consistent implementation of ICAO SARPs at the regional level	1A — Work together with States at the regional level to assist States with low EI and/or significant safety concerns: – Coordinate assistance to States that have taken temporary measures to address potential SSCs. 1B — Increase the level of compliance with ICAO SARPs and the EI of CEs within the region (CE-1 to CE-5). 1C — Develop harmonized regulations, technical guidance, and tools for promulgation by States, and develop a process for the provision of safety-critical information in the region, consistent with ICAO SARPs (CE-2 and CE-5) 1E — Work regionally through RASG, RSOO and ICAO Regional Office to enhance safety in a sustainable manner	RO/SAF	2022	NACC SAP/FS WG/NCMC WG/	NACC SAP/SOS PROJECT/	GASP	NACC SAP
SEI-2— Establishment of an independent regional accident and incident investigation process, consistent with Annex 13— Aircraft Accident and Incident Invest.	2A — Establish a RAIO, if necessary (see SEI-1B) (CE-3) 2B — Identify champion States, via the RASGs, to assist in building the accident and incident investigation capabilities of States which require assistance (CE-3 to CE-4) 2C — Provide resources for accident and incident investigation (including, but not limited to, personnel and technical support) to perform those functions which cannot be performed by the State acting on its own (see SEI-1A) (CE-3 and CE-4)	NACC/AIG	2022	NACC/AIG, RAIO, RSOO	NACC SAP	GASP	NACC/AIG

	Regional Goal I: Reduction in Operational Risks						
	Targets						
	2.1 Component 1 — State safety oversight system						
	2.1.1 Phase 1 — Establishment of a safety oversight framework (CE-1 to CE-5)						
GASP SEI	**Action**	**Action Custodian**	**Timeline**	**Stakeholders**	**Metrics**	**Source/ Fulfils**	**Monitoring Activity**
SEI-4 — Strategic collaboration with key aviation stakeholders to enhance safety in a coordinated manner	4C — Provide assistance via States, regions and industry to States for the development of national regulations (CE-2) 4D — Establish a process via RSOO for a mentoring/collaboration system, including providing State/industry assistance as well as sharing of best practices and internal follow-up actions (CE-3) 4G — While working to improve safety oversight, work with RASG and/or RSOO to address high-risk categories of occurrences (see OPS roadmap)	RO/SAF	2022	NACC RO/SAF WG/NCMC WG/	SAP/SOS PROJECT/	GASP	NACC RO/SAF WG
SEI-5 — Provision of the regional safety information to ICAO by asking States to complete, submit and update all relevant documents and records	5A — Assess if States in the region have provided the information in 5B to 5E to ICAO 5B — Solicit States in the region to complete and submit their USOAP corrective action plan 5C — Solicit States in the region to complete and submit their self-assessment checklist based on USOAP CMA PQs 5D — Solicit States in the region to complete and submit their SAAQ 5E — Solicit States in the region to complete and submit their CCs on the EFOD system 5F — Make use of the RASGs, regional organizations or other regional fora to collect and share safety information, in order to assess the level of implementation of ICAO SARPs at the regional level	RO/SAF	2022	NACC RO/SAF WG/NCMC WG/	NACC SAP/SOS PROJECT/	GASP	NACC RO

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Regional Goal I: Reduction in Operational Risks Targets							
2.1 Component 1 — State safety oversight system							
2.1.2 Phase 2 — Implementation of a safety oversight system (CE-6 to CE-8)							
GASP SEI	**Action**	**Action Custodian**	**Timeline**	**Stakeholders**	**Metrics**	**Source/ Fulfils**	**Monitoring Activity**
SEI-6 — Continued implementation of and compliance with ICAO SARPs at the regional level	6A — Work together with States in the region to assist States with low EI and/or significant safety concerns: – Provide support toward shortfalls in roadmap safety enhancement initiatives found in multiple States to increase cost effectiveness 6B — Increase the level of compliance with ICAO SARPs and the EI of CEs within the region (CE-6 to CE-8) 6C — Work with States' competent authorities and their enforcement oversight processes, to address safety concerns regarding foreign operators, in a timely manner (CE-6 to CE-8) 6D — Work with stakeholders to resolve safety concerns identified via accident and incident investigations, safety reports and other means (CE-8) 6E — Continue work on the high-risk categories of occurrences (see OPS roadmap)	RO/SAF	2022	NACC RO/NACC SAP/NCMC WG/SOS	SAP/SOS PROJECT/	GASP	NACC RO/RASG-PA
SEI-7 — Regional safety enhancement initiatives to support consistent coordination of regional programmes in implementing adequate safety oversight capabilities	7A — Identify resources that are available to support roadmap safety enhancement initiatives for States in the region (all CEs, emphasis on CE-6 to CE-8) 7B — Use the roadmap and regional analysis of relevant safety-critical information to determine regional priorities and resources that can be used to assist States. Due to the scarce human and financial resources, any planned actions should be targeted at those safety risks which can be sustainably addressed and have the highest impact in terms of improving safety (all CEs, emphasis on CE-6 to CE-8) 7C — Facilitate the provision of financial and technical assistance among regional resourced entities (RASG, RSOO, ICAO Regional Office, champion States, development banks and other	RO/SAF	2022	NACC/SAP/AIG	SAP	GASP	NACC/RASG-PA

	Regional Goal I: Reduction in Operational Risks Targets						
	2.1 Component 1 — State safety oversight system						
	2.1.2 Phase 2 — Implementation of a safety oversight system (CE-6 to CE-8)						
GASP SEI	**Action**	**Action Custodian**	**Timeline**	**Stakeholders**	**Metrics**	**Source/ Fulfils**	**Monitoring Activity**
	regional aid programmes) and give priority to States requiring assistance, in alignment with SEI-10 (all CEs, emphasis on CE-6 to CE-8) 7D — Strengthen existing RSOO, if necessary (CE-6 to CE-8)						
SEI-8 — Strategic collaboration with key aviation stakeholders to enhance safety in a coordinated manner	8A — Based on the identified safety deficiencies, establish a mechanism to identify collaborators and develop an action plan for the resolution of those deficiencies (CE-6 to CE-8) 8B — Provide assistance via RASG and/or RSOO to States for the conduct of surveillance activities (CE-7) 8C — Use technical guidance, tools and safety-critical information, developed in collaboration with States, RSOO, ICAO and/or other stakeholders, to assist in safety oversight functions (CE-6 to CE-8) 8D — Resolve safety concerns identified via accident and incident investigations, safety reports and other means (CE-8) 8E — While working to improve safety oversight, continue to work with RASG and/or RSOO to address high-risk categories of occurrences (see OPS roadmap)	NACC RO	2022	NACC RO	SAP	GASP	NACC RO/RASG-PA
SEI-9 — Continued provision of the primary source of regional safety information to ICAO by asking States to update all relevant documents and records as progress is made	9A — Assess if States in the region have updated their primary source of safety information to ICAO 9B — Solicit States in the region to complete and submit their USOAP corrective action plan 9C — Solicit States in the region to update and submit their self-assessment checklist based on USOAP CMA PQs 9D — Solicit States in the region to update and submit their SAAQ 9E — Solicit States in the region to update and submit their CCs on the EFOD system	RO/SAF	2022	NACC RO/NACC SAP/NCMC WG/SOS	SAP	GASP	NACC RO/RASG-PA

	Regional Goal I: Reduction in Operational Risks Targets						
	2.1 Component 1 — State safety oversight system						
	2.1.2 Phase 2 — Implementation of a safety oversight system (CE-6 to CE-8)						
GASP SEI	**Action**	**Action Custodian**	**Timeline**	**Stakeholders**	**Metrics**	**Source/ Fulfils**	**Monitoring Activity**
	9F — Continue to encourage States in the region to update documents and records, as required, in a timely manner						
	9G — Continue to make use of the RASGs, regional organizations or other regional fora to collect and share safety information, in order to assess the level of implementation of ICAO SARPs at the regional level						

Regional Goal I: Reduction in Operational Risks Targets							
2.2 Component 2 — State safety programme							
GASP SEI	**Action**	**Action Custodian**	**Timeline**	**Stakeholders**	**Metrics**	**Source/ Fulfils**	**Monitoring Activity**
SEI-10 — Start of promotion of SSP implementation at the regional level	10A — Identify an entity in the region who will guide and support SSP implementation at the regional level (RASG, RSOO, ICAO Regional Office, etc.) 10B — Guide and support SSP implementation by States: – Assess EI scores and verify completion of Component 1 of the roadmap – Collect SSP gap analyses and implementation plans of States – Identify common deficiencies – Develop regional strategies, including collaboration and resources, to assist States with implementation – Identify and promote safety management best practices in coordination with States and/or other regions – Follow-up on progress and attain updated gap analysis and implementation plans – Use the roadmap to align priorities of the RASG 10C — Engage States at the regional level and focus activities in line with the roadmap 10D — Continue work on the high-risk categories of occurrences (see OPS roadmap)	RO/SAF	2022	NACC/SAP/SSP/WG	SAP	GASP	RO/SAF
SEI-11 — Regional safety enhancement initiatives to support consistent coordination of regional programmes for SSP implementation	11A — Identify resources that are available to support SSP implementation by States in the region 11B — Use updates provided by States on the status of their SSP implementation to determine regional priorities and resources that can be used to assist individual States in the region 11C — Work with the ICAO Regional Office to facilitate the provision of technical assistance needed for SSP implementation 11D — Monitor the progress of SSP implementation (via iSTARS) and adjust regional resource priorities continuously	RO/SAF	2022	NACC/SAP/SSP/WG	SAP	GASP	RO/SAF

SEI-12 — Strategic collaboration with key aviation stakeholders to support SSP implementation	12A — Identify areas where collaboration/support is needed as part of States' SSP implementation plans (see SEI-14) 12B — Identify relevant collaborators from the key aviation stakeholders, including States implementing or having implemented an SSP 12C — Develop and implement a consistent and harmonized strategy to address the common elements identified as missing or deficient during the SSP gap analysis of States in the region 12D — Establish and implement a process via RASG and/or RSOO for a mentoring system, including providing assistance to States/industry, as well as sharing of best practices to support SSP implementation 12E — Develop and implement a process to provide training on SSP to relevant staff, in collaboration with RSOO and/or other States (e.g. initial, recurrent and advanced) 12F — Establish and implement a process for sharing technical guidance, tools and safety-critical information related to SSP (e.g. advisory circulars, staff instructions, safety performance indicators), in collaboration with States, RASG, RSOO, ICAO and/or other stakeholders 12G — Work with States in the region to ensure that all elements of their SSPs are present, suitable, operational and effective, and promote continual improvement	RO/SAF	2022	NACC/SAP/SSP WG	SAP	GASP	RO/SAF
SEI-13 — Establishment of safety risk management at the regional level	13A — Encourage States to actively update their SSP implementation status (via iSTARS) and to provide safety information, to enable the identification of hazards and management of safety risks in the region 13B — Develop and adopt harmonized safety reporting systems, as part of service providers' SMS within the region (e.g. voluntary reporting systems) 13C — Encourage States and industry within the region to share safety information and contribute to regional reporting and monitoring mechanisms	RO/SAF	2022	NACC/SAP/SSP WG	SAP	GASP	RO/SAF

	13D — Use regional safety performance measurement methodologies (including harmonized safety metrics) for the RASG to conduct safety risk analysis in coordination with RSOO or RAIO 13E — Encourage all States to contribute information on safety risks, including SSP safety performance indicators, to the RASG 13F — Encourage all States with effective safety oversight capabilities, and an effective SSP, to actively engage in RASG's safety risk management activities 13G — Use harmonized metrics for the development and monitoring of safety performance indicators at the regional level (within the RASG) 13H — Establish a regional safety risk registry						
SEI-14 — Regional allocation of resources to support continued development of the proactive use of risk modelling capabilities	14A — Work with States and organizations to leverage available technologies 14B — Identify and pool qualified USOAP auditor candidates from within the region with experience in safety oversight of service providers that have deployed advanced SMS 14C — Work with the ICAO Regional Office(s) and donor organizations to make use of available means (e.g. Technical Cooperation Bureau) to provide assistance in developing risk modelling capabilities	RO/SAF	TBD	NACC/SAP/SSP/WG	SAP	GASP	RO/SAF
SEI-15 — Regional collaboration with key aviation stakeholders to support the proactive use of risk modelling	15A — Support States in understanding and implementing safety culture concepts by sharing best practices and facilitating mentoring programmes to support safety culture development and the proactive use of risk modelling 15B — Promote the sharing and exchange of safety information and best practices within a confidential and non-punitive environment among States and stakeholders 15C — Encourage and support State public-private partnerships similar to the commercial/general aviation safety teams'	RO/SAF	TBD	NACC/SAP/SSP/WG	SAP	GASP	RO/SAF

	concept to identify and implement system safety enhancements 15D — Encourage and support States' efforts to establish mechanisms for the regular sharing and exchange of safety information, analyses, safety risk discoveries/lessons learned and best practices within a confidential and non-punitive environment						
SEI-16 — Advancement of safety risk management at the regional level	16A — Establish data sharing connectivity and integration among States and stakeholders to enable high-level regional monitoring and analysis activities 16B — Identify requirements for establishing inter-regional and global data sharing	RO/SAF	TBD	NACC/SAP/SSP WG	SAP	GASP	RO/SAF

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APPENDIX B

OTHER SAFETY ISSUES IN THE NAM/CAR CONTEXT

To be developed

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