International Civil Aviation Organization

MIDANPIRG/19 and RASG-MID/9 Meeting

(Riyadh, Saudi Arabia, 14 - 17 February 2022)

Agenda Item 4.4: Outcomes of the SEIG/3 Meeting

OUTCOMES OF THE SEIG/3 MEETING

SUMMARY

This paper presents the outcome of the SEIG/3 meeting, including the SEIs and their respective actions outlined in MID-RASP 2020-2022 Draft Edition.

Action by the meeting is at paragraph 3.

REFERENCES

- MIDANPIRG/18-RASG-MID/8 Report
- SEIG/3 Report

1. INTRODUCTION

1.1 The Third meeting of the Safety Enhancement Implementation Group (SEIG/3) was virtually held from 23 to 25 November 2020. The meeting was attended by a total of thirty-seven (37) participants from Twelve (12) States (Bahrain, Egypt, Iran, Jordan, Kuwait, Oman, Qatar, Saudi Arabia, Sudan, UAE, USA and Yemen), three (3) Organization/s (ACAO, IATA, AACO), and one (1) ICAO Headquarters.

1.2 In accordance with the RASG-MID Procedural Handbook, the SEIG/3 virtual meeting agreed that the election of the Vice-Chairperson of the SEIG will be finalized during the next RASG-MID/9 meeting.

2. DISCUSSION

MID Regional Aviation Safety Plan (MID RASP) 2020-2022 Edition

2.1 The Middle East Regional Aviation Safety Plan (MID-RASP) 2020-2022 Edition considers and supports the objectives and priorities of GASP 2020-2022 Edition. MID-RASP also emphasizes the importance of identifying and mitigating risks at MID region level. In addition, MID-RASP is to create a common focus on regional aviation safety issues as a continuation of the MID region work to improve aviation safety and to comply with ICAO standards and supports MID States and industry in implementing the GASP 2020-2022 Edition.

2.2 The Eighth meeting of the Regional Aviation Safety Group – Middle East (RASG-MID/8) was held in Cairo, Egypt, Virtual Meetings, 15-22 February 2021; reviewed and endorsed the MID-RASP 2020-2022 Edition at **Appendix A** including the SEIs list and their respective actions through RASG-MID Conclusion 8/3. In addition, MID-RASP creates a common focus on regional aviation safety issues as a continuation of the MID region work to improve aviation safety and to comply with ICAO standards and supports MID States and industry in implementing the GASP 2020-2022 Edition.

2.3 The MID Region Safety Strategy is included in MID-RASP 2020-2022 Edition as an Appendix and the MID-RASP identifies for each Goal, SEI(s), which are mapped to the Strategy including their respective actions. Therefore, to address organizational challenges/issues, regional operational risks, and emerging risks, 16 SEIs and 51 actions have been included in the MID-RASP.

2.4 The SEIG/3 virtual meeting reviewed and finalised the list reflecting the status and progress made for each SEI and its respective action(s) as at **Appendix B**.

Safety targets and SSPIA

2.5 The SEIG/3 meeting was provided with updated information on the MID Region safety targets and an overview on the ICAO State Safety Programme Implementation Assessment (SSPIA).

SIMS

2.6 The meeting was provided with updated overview regarding the safety information management system (SIMS). The meeting noted that ICAO SIMS Workshop will be held in Cairo, Egypt and the date of the workshop will be published in the Tentative Schedule of Meetings 2022 during December 2021. Accordingly, the meeting encouraged States to participate actively in the Workshop.

SMIT Handbook

2.7 The meeting recalled that the RSC/7 meeting supported and endorsed the Regional Roadmap for Safety Management Implementation at **Appendix C** through RSC Conclusion 7/10 and agreed to the establishment of Safety Management Implementation Team (SMIT) and the development of a SMIT handbook through RSC Conclusion 7/11**.**

2.8 The SEIG/3 meeting was apprised with appreciation of the draft SMIT Handbook developed by the Secretariat and which would be mainly used for the conduct of a systematic and objective assessment of the State's SSP using MID Region SSP assessment tool to determine the State SSP main achievements and identify opportunities for enhancement and consequently supporting MID States to implement their SSP. Accordingly, the meeting reviewed the draft SMIT Handbook at **Appendix D** and agreed to its presentation to the RASG-MID/9 meeting for endorsement.

MID States Progress on NASPs Development

2.9 The MID-RASP establishes the first layer of priorities, which is further complemented at national level by National Aviation Safety Plans (NASPs) and/or States' Safety Programmes; and would ensure the timely implementation of the SEIs to address safety deficiencies and mitigate risks to attain the MID Region Safety Targets.

2.10 The SEIG/3 meeting noted that Kuwait and UAE confirmed that their NASPs have been completed and the copies of their NASPs will be shared with the ICAO MID Office. The meeting also noted that Bahrain, Jordan, Kuwait, Oman, Qatar, Saudi Arabia, and Sudan NASPs development is in progress.

2.11 The SEIG/3 meeting recognized the challenges facing the States in the development of their NASPs. In this respect, the meeting noted that the ICAO MID Office is planning to conduct Assistance Missions dedicated to NASP in order to support States with NASP development.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) Review and endorse the SMIT Handbook at **Appendix D** and agree to the following Draft Conclusion:

Why	To use the SMIT Handbook as a guide in the planning and conduct of assistance missions to States related to SSP/NASP
What	To endorse the SMIT Handbook
Who	RASG-MID/9
When	Feb 2022

DRAFT RASG-MID CONCLUSION 9/XX: SMIT HANDBOOK

*That, the SMIT Handbook including the MID Region SSP assessment tool at **Appendix D** is endorsed.*

b) Agree to the following Draft Conclusion related to the National Aviation Safety Plans (NASPs):

WHY	To establish NASPs in the MID States
What	Development of NASPs
Who	RASG-MID/9
When	Feb 2022

DRAFT RASG-MID CONCLUSION 9/XX: DEVELOPMENT OF NATIONAL AVIATION SAFETY PLAN (NASP) IN MID STATES

That, States

a) be encouraged to request assistance from the ICAO MID Regional Office related to the development of their NASPs including the conduct of assistance missions and/or customized NASP Workshop for each State; and

b) share their experiences related to the development of their NASPs during the Regional NASP Workshop to be organized by the ICAO MID Regional Office in 2022.

ICAO MID

SAFETY

MID-RASP

MIDDLE EAST REGIONAL AVIATION SAFETY PLAN

First Edition 2020-2022

MIDDLE EAST REGIONAL AVIATION SAFETY PLAN (MID-RASP)

ICAO

FIRST EDITION 2020–2022

Executive Summary

The Global Aviation Safety Plan (GASP) contains an aspirational safety goal to achieve and maintain zero fatalities in commercial operations by 2030 and beyond. This goal is deemed "aspirational" as it represents an ambition of achieving an even safer aviation system. The year 2030 has been selected as the timeframe for reaching this goal as it is when the traffic volume is forecasted to double. It is also the target year presented in the UN SDGs Agenda for Sustainable Development. In addition, ICAO Business Plan takes into consideration all of the work mandated to be undertaken by ICAO, regardless of source of funding. The Business Plan sets out the ICAO Strategic Objectives and priorities to guide the activities of the Organization to support Members States in their attainment of a safe, secure, efficient, economically viable and environmentally responsible air transport network.

The Middle East Regional Aviation Safety Plan (MID-RASP) 2020-2022 Edition considers and supports the objectives and priorities of GASP 2020-2022 Edition. MID-RASP also emphasizes the importance of identifying and mitigating risks at MID region level. In addition, MID-RASP is to create a common focus on regional aviation safety issues as a continuation of the MID region work to improve aviation safety and to comply with ICAO standards and supports MID States and industry in implementing the GASP 2020-2022 Edition.

Furthermore, the States national aviation safety plan (NASPs) should be developed in alignment with the GASP and the MID-RASP. However, priority should be given to national safety concerns. Moreover, the NASP should be also aligned and coordinated with the MID-RASP's (as appropriate) and with other efforts aimed at enhancing aviation safety.

MID-RASP provides a three-year plan for States in MID Region to strengthen its safety oversight capability and implement an effective safety management. This relates to the continuous reduction of regional operational risks and improvement in States' safety oversight and safety management capabilities. It adopts a risk-based approach to managing safety at regional-level through a coordinated approach and collaboration between States in the region, regional organizations and industry.

The RASG-MD is the governing body responsible for the development, implementation and monitoring of the MID-RASP, in collaboration with the ICAO MID Office, international and regional organizations and with the aviation industry. The MID-RASP is to be reviewed by the Safety Enhancement Implementation Group (SEIG) every year mainly to include new identified Safety Enhancement initiatives' (SEIs), review the existing SEIs, as well as their respective actions.

The MID region's strategic approach to managing safety at the regional level is to address the region's operational risks and other safety issues in a timely manner. Therefore, the MID-RASP strategic approach would focus on organizational challenges/issues, regional operational safety risks, and emerging risks as indicated below.

a. Organizational challenges/issues including the States 'safety oversight, safety management, aircraft accident and incident investigation, and human factors and competence of personnel.
b. In respect of regional operational safety risks, the focus would be on high risks categories identified in the GASP 2020-2022 Edition mainly the LOCI-I, CFIT, RE, RI, and MAC; and
c. Regarding the emerging risks, the focus would be on COVID-19 pandemic outbreak, Civil drones (Unmanned Aircraft Systems), and impact of security on safety. For GNSS outages, action has been taken.

MID Region safety indicators and targets were aligned with the 2020-2022 GASP goals and regional specific objectives and priorities. The RASG-MID would use the indicators listed in the MID Region safety strategy to measure safety performance and monitor each regional safety target. Moreover, the RASG-MID would continuously monitor the implementation of the SEIs listed in the MID-RASP and measure safety performance of the regional civil aviation system, to ensure the intended results are achieved, using the MID Region safety strategy.

The MID Region Safety Strategy includes six (6) Goals in line with GASP 2020-2022 Edition. For each Goal established in the MID Region Safety Strategy, identified SEI(s) be mapped to it including their respective actions. Thus, to address regional operational risks, organizational issues, and emerging risks; 16 SEIs and 43 actions have been identified, developed and proposed.

The MID-RASP provides guidance on how States should identify which top risks and key safety issues mentioned in the GASP and MID-RASP apply to their national context and then to be included in their NASPs. States should also add other safety issues which are unique to their operational context. Several MID-RASP SEIs which are intended for implementation by States at the national level are recommended for inclusion in their NASPs.

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PART-I. PLANNING

1. INTRODUCTION

1.1 Objectives and Principles

MID Regional Aviation Safety Plan (MID-RASP) constitutes the regional safety plan for MID Region, setting out the strategic priorities, main risks affecting the region aviation system and the necessary actions to mitigate those risks to further improve aviation safety.

The purpose of this MID-RASP is to continually reduce fatalities, and the risk of accidents, through the development and implementation of a regional aviation safety strategy. A safe aviation system contributes to the economic development of MID Region, the States which comprise it, and their industries. In addition, MID-RASP is to create a common focus on Regional aviation safety issues as a continuation of the MID Region work to improve aviation safety and to comply with ICAO standards. This approach complements the existing system of developing safety regulations, complying with them and investigating accidents and serious incidents when they occur.

The MID-RASP promotes the effective implementation of safety oversight systems of States in MID region, a risk-based approach to managing safety at the regional level, as well as a coordinated approach to collaboration between States in the region, international organizations and industry. All stakeholders are encouraged to support and implement the MID-RASP as the regional strategy for the continuous improvement of aviation safety.

The MID-RASP tries to add a proactive element to the current system by closing the safety management cycle and connecting the safety issues at regional level with the action plans and initiatives launched to mitigate the underlying risks.

The MID-RASP establishes the first layer of priorities which is further complemented at national level by national safety plans and Programmes. It builds a network for action, thus coordination and close collaboration are key to keeping it up to date and effective.

The MID-RASP Edition 2020-2022 covers the three-year period between 2020 and 2022 and will be updated on a yearly basis, as required, to cover subsequent three years' periods. It is a rolling 3-year plan.
The planning activity would be followed up by a reporting activity, in which progress on the actions is evaluated and also documented. This feedback loop ensures that the process to manage risks continuously improves and may contribute to the identification of new safety issues.

MID Region is committed to enhancing aviation safety, to the resourcing of supporting activities and to increasing collaboration at the regional level.

1.2 Relationship between MID-RASP and GASP and other Plans

Aviation's contribution towards the United Nations 2030 Agenda for Sustainable Development and in order to maximize the benefits of aviation, the priorities of the aviation sector should be integrated and reflected in State's economic and social development planning with an appropriately balanced development of transport modes, including multi-modal and urban planning initiatives. In addition, recognizing that air transport is a catalyst for sustainable development and that it represents an essential lifeline for Least Developed Countries (LDCs), and especially for Landlocked Developing Countries (LLDCs).

ICAO Business Plan takes into consideration all of the work mandated to be undertaken by ICAO, regardless of source of funding. The Business Plan sets out the Strategic Objectives and priorities to guide the activities of the Organization to support Members States in their attainment of a safe, secure, efficient, economically viable and environmentally responsible air transport network.

The GASP contains an aspirational safety goal to achieve and maintain zero fatalities in commercial operations by 2030 and beyond. This goal is deemed "aspirational" as it represents an ambition of achieving an even safer aviation system. The year 2030 has been selected as the timeframe for reaching this goal as it is when the traffic volume is forecasted to double. It is also the target year presented in the UN SDGs Agenda for Sustainable Development.

MID-RASP considers and supports the objectives and priorities of GASP. The purpose of GASP is to continually reduce fatalities, and the risk of accidents, by guiding the development of a harmonized aviation safety strategy and the development and implementation of regional and national aviation safety plans. A safe aviation system contributes to the economic development of States and their industries. GASP promotes the implementation of a State's safety oversight system, a risk-based approach to managing safety as well as a coordinated approach to collaboration between States, regional organizations and industry. One of the GASP goals is for States to improve their effective safety oversight capabilities and to progress in the implementation of SSPs. Thus, GASP calls for States to put in place robust and sustainable safety oversight systems that should progressively evolve into more sophisticated means of managing safety.

The States national aviation safety plans (NASPs) should be developed in alignment with the GASP and the MID-RASP. However, priority should be given to national safety concerns. Moreover, the NASP should be also aligned and coordinated with the MID-RASP's (as appropriate) and with other efforts aimed at enhancing aviation safety.

In addition, to addressing systemic safety, GASP addresses high-risk categories of occurrences, which are deemed global safety priorities. These categories were determined based on actual fatalities from past accidents, high fatality risk per accident or the number of accidents and incidents. The following high-risk categories have been identified for the 2020-2022 edition of the GASP: controlled flight into terrain; loss of control in flight; mid-air collision; runway excursion; and runway incursion. The GASP global priorities are addressed in MID-RASP.

The MID-RASP considers the objectives and priorities of the GASP to enhance the level of safety in aviation and to better prepare the Member States for the Universal Safety Oversight Audit Programme (USOAP) audits of their SSPs. ICAO, based on USOAP audit results, identified that States' inability to effectively oversee aviation operations remains a global safety concern. Thus, the GASP objectives call for States to put in place robust and sustainable safety oversight systems that should progressively evolve into more sophisticated means of managing safety. These objectives are aligned with ICAO Standards and Recommended Practices (SARPs) for the implementation of SSP by States and safety management systems (SMS) by service providers.

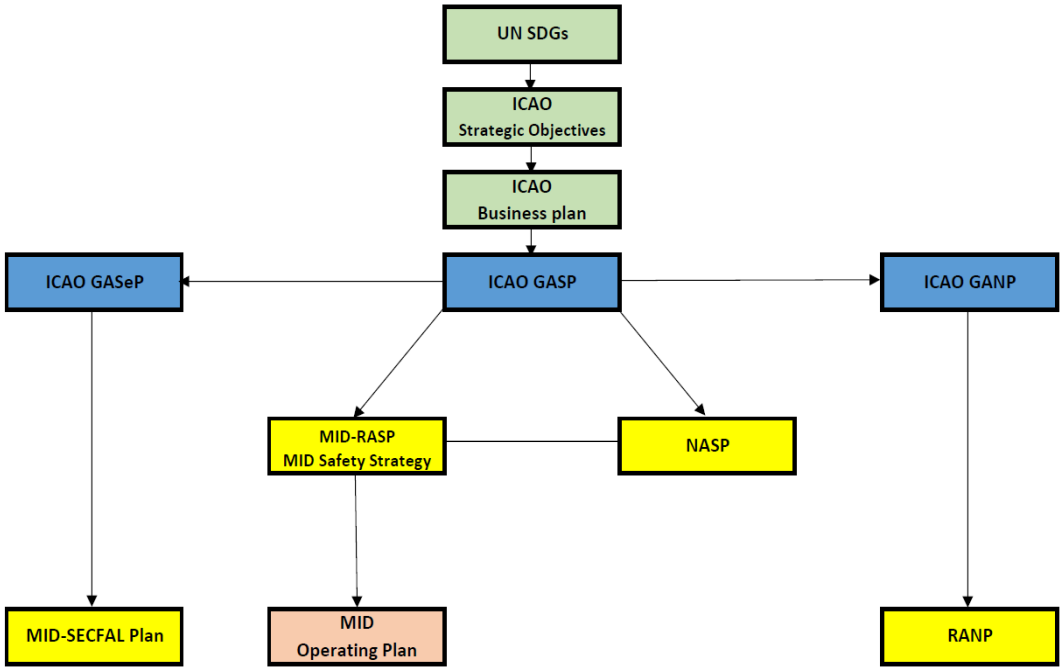
This MID-RASP edition 2020-2022 provides references to corresponding GASP 2020-2022 Safety Enhancement Initiatives (SEIs); covering organizational challenges, operational risks, and emerging risks.

The 2020-2022 Edition of the GASP would set forth ICAO's Safety Strategy in support of the prioritization and continuous improvement of aviation. The plan guides the implementation of regional and national aviation safety plans.

The 2020-2022 Edition of the GASP includes a new set of goals, targets and indicators, in line with the United Nations' 2030 Agenda for Sustainable Development.

In respect of MID-Safety strategy, the GASP provides the global strategic direction while the MID Safety Strategy provides regional specific goals and support the region's strategic approach to managing safety at the regional level. Consequently, MID region safety indicators and targets were aligned with the 2020-2022 GASP goals and targets as relevant in the MID Region. Furthermore, the RASG-MID would continuously monitor the implementation of the identified SEIs in the MID-RASP and measure safety performance of the regional civil aviation system, to ensure the intended targets are achieved, using the MID Region safety strategy to this plan. Moreover, MID safety strategy Goals support the region's strategic approach to managing safety at the regional level. Therefore, for each Goal established in the MID Region Safety Strategy, identified SEI(s) be mapped to it including their respective actions.

The MID safety strategy is included as an appendix and became an integral part of MID-RASP.



Graph 1: Relationship between MID-RASP and other Programmes and plans

2. HOW MID-RASP IS STRUCTURED

This MID-RASP presents the regional strategy for enhancing aviation safety for a period of three years. It is comprised of two parts and 7 chapters. The 2020-2022 MID- RASP Edition comprises two distinct parts:

- **Part I. Planning** provides an introduction, describes how the MID-RASP is developed and monitored and includes the safety priorities. It consists of **Chapters 1 to 5**.

- **Part II. Implementation** contains the safety performance monitoring and the detailed list of MID-RASP safety actions. It consists of **Chapters 6 and 7**.

- Both parts are supported by a number of appendices providing further details or assisting the reader.

Part-I. Planning

Part I provides an introductory explaining the main objective of this MID-RASP. Chapter 2, 3, and 4 explain how MID-RASP is structured, developed, monitored and presents the structure of the document. Chapter 5 presents safety priorities and the key actions taken as indicated below:

- 5.1 Organizational Challenges/issues
- 5.2 Regional operational safety risks
- 5.3 Emerging risks

Part-II. Implementation

Part II contains the safety performance monitoring and the detailed list of MID-RASP safety actions. It consists of Chapters 6 and 7.

The **chapter 6** presents the MID Region safety indicators and targets.

In respect of **chapter 7**, it facilitates the identification of SEIs and their respective actions relevant for each Goal identified in the MID Region Safety Strategy as follows:

- Goal 1: Achieve a continuous reduction of operational safety risks;
- Goal 2: Strengthen States' safety oversight capabilities/Progressively increase the USOAP-CMA EI scores/results;
- Goal 3: Ensure the appropriate infrastructure is available to support safe operations;
- Goal 4: Expand the use of Industry Programmes;
- Goal 5: Implementation of effective SSPs and SMSs; and
- Goal 6: Increase Collaboration at the Regional Level to enhance safety.

The MID Region Safety Strategy includes six (6) Goals in line with GASP 2020-2022 Edition. For each Goal established in the MID Region Safety Strategy, identified SEI(s) be mapped to it including their respective actions and the following information is provided:

Goal: Goal supports the region's strategic approach to managing safety at the regional level.

- **Name:** Goal #Number - SEI# Number: Description of the SEI;
- **Target(s)/Metrics.** Targets which serve to fulfil their respective Regional Goal;
- **Rationale** behind the safety issue (why it has been identified as an issue);
- **What it is to be achieved** (objective);
- **How we intend to monitor improvement** in the future;
- **How we intend to achieve** the objective; here, the various actions contributing to mitigate the identified risk in that area are described;
- **Actions**: The tasks required for the implementation of the SEI. The actions support the SEI and Targets of the Regional Goal;
- **References:**
  - Indicates key existing global documents from which the SEI is adopted, if applicable.

Stakeholders: The entities/ stakeholders in the MID region, to which the Actions are addressed
Example Action 1: Description of the Action to be taken
Subtask(s) if needed to be added **Owner(s)**: **Appointed Group/State(s)/Organization(s) to further develop details for implementation of the respective Action** **Priority:** Low, Medium, High **Completion Date**: The date in which the respective Action is expected to be implemented **Status**: new, ongoing, on hold, completed. (Provide also updated progress if any)
Example Action 2: Description of the Action to be taken
Subtask(s) if needed to be added **Owner(s):** Appointed Group/State(s)/Organization(s) to further develop details for implementation of the respective Action **Priority**: Low, Medium, High **Completion Date**: The year(s) in which the respective Action is expected to be implemented **Status:** new, ongoing, on hold, completed. (**Provide also updated progress if any**)

EXPECTED OUTPUT	
Deliverable(s)	**TIMELINE**
Description of the Result to be achieved	The year in which the respective Target is expected to be achieved

3. HOW MID-RASP IS DEVELOPED AND MONITORED

The RASG-MD is the governing body responsible for the development, implementation and monitoring of the MID-RASP, in collaboration with the ICAO MID Office, international and Regional organizations and with the aviation industry. The MID-RASP was developed in consultation with States, regional organizations, and other stakeholders in the region, and in alignment with the 2020-2022 of the GASP. If required, RASG-MID would seek the support of MIDANPIRG, other sub-groups, States, regional organizations, and industry to ensure the timely implementation of SEIs to address safety deficiencies and mitigate risks. Through close monitoring of the SEIs, SEIG would make adjustments to the MID-RASP and its initiatives, if needed, and update the MID-RASP document accordingly.

Furthermore, the MID-RASP is to be reviewed by SEIG every year mainly to include new identified SEIs, review the existing SEIs, and their respective actions. In addition, the MID-RASP is to be updated/endorsed by RASG-MID at least every three years and as deemed necessary.

The SEIG is established to assist RASG-MID to develop and monitor the implementation of SEIs as at **Appendix A** related to identified regional operational risks, organizational challenges, and emerged risks. In addition, the SEIG takes the lead and ensures that SEIs are accomplished in a timely, effective and efficient manner in coordination with RASG-MID, MIDANPIRG, and RASFG-MID groups and sub-groups (ASRG, ASPIG, AIIG, ATM-SG,..etc), States, regional organizations, and industry.

As a first step towards establishing this system and to facilitate MID-RASP implementation, it is necessary to enhance the communication and flow of safety data and information, as well as coordination processes, among RASG-MID and its subsidies, States, and regional organizations. There is also the need to continue to enhance collaboration with MIDANPIRG 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, would 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 runway excursions.

The MID-RASP was developed with the aim to address the MID region's operational and other safety issues in a timely manner, and as applicable. It is expected that this approach would facilitate MID States' support and participation in the implementation of these SEIs and their respective actions at both the regional and domestic levels. The three-year period of the MID-RASP, i.e. 2020 to 2022, was selected to coincide with the GASP review period of the same duration, to ensure continued alignment with the latest global plans.

States should ensure that a NASP is maintained and regularly reviewed. The MID-RASP provides the identified safety priorities in the region and States should identify which top risks and key issues mentioned in the GASP and MID-RASP which apply to their national context' and identify suitable mitigations actions within their NASP. States should also add/consider other safety issues which are unique to their operational context. Furthermore, States to establish a NASP taking into account the GASP and MID-RASP; and based on their operational safety needs.
The key contents of the MID-RASP were developed using a seven-step process recommended by the GASP to develop RASPs and NASPs, similar to the Plan-Do-Check-Act (PDCA) continuous improvement cycle, as follows:

a. Step 1 – Conduct self-analysis;
b. Step 2 – Identify safety deficiencies;
c. Step 3 – Identify key stakeholders and enablers;
d. Step 4 – Perform gap analysis with roadmap to identify SEIs;
e. Step 5 – Develop a list of prioritized SEIs to be implemented;
f. Step 6 – Develop a Regional aviation safety plan; and
g. Step 7 – Monitor implementation

The MID-RASP has been developed in congruence with the GASP, and supports the GASP aspirational goal of zero fatalities by 2030 and its objectives, goals, targets and indicators.

a. The MID-RASP structure adheres closely to GASP;
b. A comprehensive gap analysis was undertaken to identify the existing gaps between the existing work by RASG-MID, and subsequently also compared with ICAO Manual: Doc 10131, 'Manual on the Development of Regional and National Aviation Safety Plans;
c. The MID safety strategy is aligned with GASP 2020-2022 Edition, retained and included as an Appendix in the MID-RASP; and
d. MID-RASP SEIs were selected taking into consideration relevant SEIs for the region in line with GASP 2020-2022 Edition as well as relevant work plan items of DCGA, RASG-MID, and MIDANPIRG meetings. Moreover, GASP SEIs for States and Industry (domestic) were not considered as these are more suitable to be included in the NASPs of the MID States.

The MID-RASP supersedes the previous work of the RASG-MID subsidy bodies (RAST and SST) initiatives to elevate the commitment of the MID Region to improve its safety oversight capability, which relates to the continuous reduction of regional operational risks and improvement in safety oversight capabilities and safety management of States. In particular, the MID-RASP serves to raise awareness of safety risks and consequences, to States, industry and relevant stakeholders to commit and

provide resources including financial, staffing and technical expertise, to making improvements in safety management, oversight capability and operational safety performance. It also provides a basis to facilitate information sharing between relevant stakeholders who can take actions or provide support to address issues.

At the regional level, the MID-RASP commits RASG-MID to continue the following efforts as indicated below:

a. Focus on the development of the current regional SEIs to address the global High Risk Categories HRCs of LOC-I, CFIT, MAC, RI and RE, and other priorities as identified for the MID region in a data-driven and strategic manner, which may include organizational challenges and emerging risks;
b. Continue implementation support to States and industry, including the development of improved guidance materials as well as the organization of workshops and training to provide assistance and guidance to MID States;
c. Assist States in the implementation of SSP and SMS, and in the development of NASPs;
d. Promote regional government and industry collaboration for sharing best practices in safety management;
e. Put in place a structure for the collection, analysis and sharing of safety and operational data in the region to support a comprehensive approach to risk management, and facilitate initiatives to develop Regional data collection, and analysis;
f. Promote the effective implementation of AGA, with a focus on runway safety Programmes that support the establishment of Runway Safety Teams (RSTs) and implementation of SMS;
g. Support States in the development of their civil drones (UAS) national regulations;
h. Support States related to the impact of security on safety
i. Support States to establish and activate the MENA RSOO and the MENA ARCM.

States and industry are committed to the following efforts:

a. Implement, as appropriate, the GASP SEIs and MID-RASP SEIs and their respective actions in strategic and timely manner;
b. (For any States with SSCs), accord priority to the resolution of any SSCs identified by the ICAO USOAP CMA Programme. These should draw on the necessary resources available, including technical assistance from other States and Regional Programmes to resolve the SSCs promptly;
c. Accord priority to the implementation of SSP and SMS;
d. Use data-driven methodologies to identify HRCs, and implement collaborative solutions to reduce accident rates and fatalities in the Region, and likewise accord priority to the implementation of respective SEIs; and
e. Consider various options to leverage ICAO-recognized industry assessment Programmes such as the IATA Operational Safety Audit (IOSA), IATA Safety Audit for Ground Operations (ISAGO) and IATA Standard Safety Assessment Programme (ISSA). These options range from recognition of such Programmes to encouraging registration by all applicable operators as a means to strengthen their safety management and compliance.

4. OPERATIONAL CONTEXT

Aviation has continued to expand. It has weathered crises and demonstrated long-term resilience, becoming an indispensable means of transport. Historically, air transport has doubled in size every fifteen years and has grown faster than most other industries. In addition, air transport is a key enabler for sustainable economic and social development. Currently, the Global Air Transport Industry supports almost 65.5 million jobs worldwide and contributes USD 2.7 trillion to Global Gross Domestic Product (GDP), equivalent to 3.6% of global GDP and USD704.4 billion aviation direct economic impact.

The Middle East Region has been, for years, at the forefront of aviation growth and reshaping the global long haul markets by elevating its hub position for connecting Europe and Asia-Pacific, in line with the west to east shift of the geographical centre of gravity of air transport operations. Growth of the Region started to undergo a significant transition and slow down recently. Air transport supports 2.4 million jobs and USD 130 billion in GDP in the Middle East.

With the further movement of the air transport centre of gravity from West to East, the geographic position of the Gulf hubs will continue to offer a strategic advantage to several airlines in the Region. According to ICAO long-term traffic forecasts, total passenger traffic of the Middle East Region is expected to grow by around 4.6 per cent annually up to 2045, the second fastest growth among all Regions after Asia and Pacific. The Middle East is expected to be the fastest growing Region in terms of freight traffic growth, and is projected to grow at 5.4 per cent annually up to 2045. This increase will, in turn, drive growth in the economic output and jobs that are supported by air transport in the next decade. By 2036, it is forecasted that the impact of air transport and the tourism it facilitates in the Middle East will have grown to support 4.3 million jobs (78 per cent more than in 2016) and a USD 345 billion contribution to GDP (an increase of 166 per cent).

The Middle East has to contend with situations unique to the Region such as fluctuating oil revenues, Regional conflict and overcrowded air space. In addition, airlines in this Region are now facing challenges to their business models.

The growth of air transport requires a high-performing aviation system including airlines, airports and ATM. The overall efficiency of the ATM system commensurate with the level of predicted traffic growth should be increased through improved airspace design and organization. Furthermore, this Region is in need of political commitment to market liberalization. Although the Middle East is home to some of the world's largest hub airports, the relations between States are still mostly bound by bilateral air services agreements that limit market access to each other. *(Source: Aviation Benefits Report-2019).*

Over the last five years, the global scheduled commercial international operations accounted for approximately 38.4 million departures in 2019, compared to 32.9 million departures in 2015. The MID Region shows a slight decrease in traffic volumes during 2019. Total scheduled commercial departures in 2019 accounted for approximately 1.31 million departures compared to 1.22 million departures in 2015. In terms of an aircraft accident, the MID Region had an accident rate of 1.5 accidents per million departures in 2019, which decreased compared to the previous year (2018) for aircraft with a maximum certificated take off mass greater than 5,700 kg. The 5-year average accident rate for 2015-2019 is 2.02, which is below the global average rate (2.6) for the same period. The MID Region accident rate in 2019 is still below the global accident rate, which is 3.0 accidents per million departures.

In respect of States' Safety Oversight capabilities, the Regional average overall Effective Implementation (EI) (13 out of 15 States have been audited) is 75.59 %, which is above the world average 68.39 % (as of May 5, 2020). Three (3) States are currently below EI 60%. All eight areas have an EI above 60%. However, the areas of AIG and AIG still need more improvement. Regarding the Critical Elements (CEs), CE4 (Qualified technical personnel) improved and is above 60% (60.08%) EI, whereas CE8 (resolution of safety issues) is the only one below EI 60% (59. 47%) EI. Moreover, the effective implementation in certification, surveillance, and resolution of Safety concerns need to be improved.

In terms of Safety Management, the average EI for SSP foundation PQs for States in the MID Region is 76, 21%. Implementation of SSP is one of the main challenges faced by the State in the MID Region. The RASG-MID addresses the improvement of SSP implementation in the MID Region as one of the top SEIs.

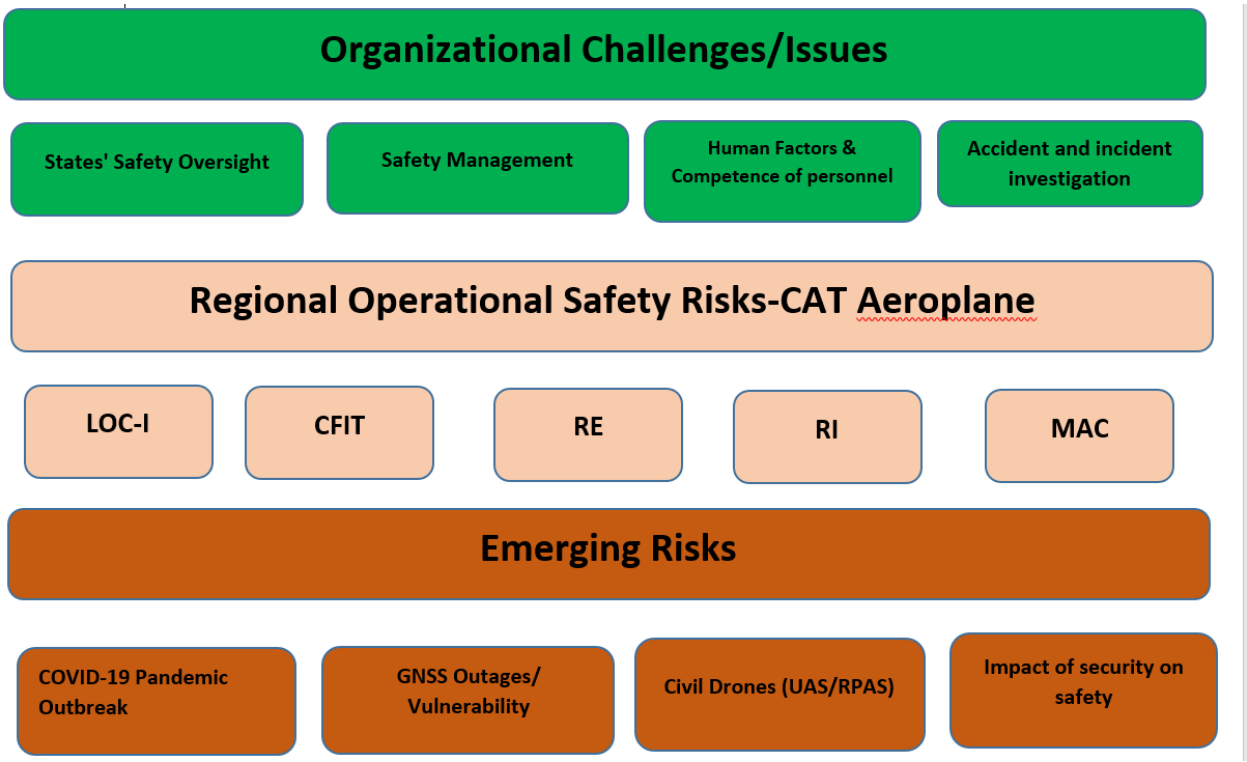
Common challenges in MID Region include:

a. The political/security situation in some States, the cross-national variation in Aviation development as well as the relatively small accreditation area, impede the provision of Technical assistance, implementation of Regional projects and the achievement of the Regional safety, air navigation and Security targets;
b. The lack of financial and human resources in some States, combined with the complexity of administrative arrangements for the approval of duty travel, political sensitivities, etc., affected the level of attendance to the activities organized by the ICAO MID Office as well as States' support to the MIDANPIRG, RASG-MID and the MID-RASFG Work Programmes and their subsidiary bodies;
c. Low level of reporting by States (inputs to the MID Air Navigation Report and MID Annual Safety Report, incidents, national plans, success stories, replies to State Letters, etc; and
d. Resources constraints (financial and technical personnel) in the Regional Office, combined with a high rotation rate vs. necessary time for new staff/comers to cope with the way of doing business in ICAO considering the MID Region specific challenges.

5. STRATEGIC PRIORITIES

The MID-RASP presents the safety priorities that were developed based on the ICAO GASP's including organizational challenges, operational safety risks, and emerging risks as well as region-specific issues identified by a safety risk assessment and published in MID Region Annual Safety Reports and RASG activities. Additionally, the MID region's strategic approach to managing safety at the regional level is to address the region's operational issues and other safety issues in a timely manner. Therefore, the MID-RASP strategic approach would focus on organizational challenges/issues, regional operational safety risks, and emerging risks as indicated in the graph 1 below.

a. Organizational challenges/issues including the States 'safety oversight, safety management, aircraft accident and incident investigation, and Human factors and competence of personnel. In terms of human factors and competence of personnel, as new technologies emerge on the market and the complexity of the system continues increasing, it is of key importance to have the right competencies and adapt training methods to cope with new challenges. It is equally important for aviation personnel to take advantage of the safety opportunities presented by new technologies;
b. In respect of regional operational safety risks, the focus would be on high risks categories identified in the GASP 2020-2022 Edition mainly the LOC-I, CFIT, RE, RI, and MAC; and
c. Regarding the emerging risks, the focus would be on COVID-19 pandemic outbreak, Civil drones (Unmanned Aircraft Systems), and impact of security on safety. For GNSS outages, action has been taken.



Graph 2: Safety priorities

Therefore, the MID-RASP adopts three focus areas approach:

First focus area involves enhancing existing Regional mechanisms to strengthen effective safety oversight capabilities and improve the implementation of effective safety management, in particular to:

a. integrate and refine existing RASG-MID building blocks already put in place such as MID Region Safety strategy, MID Annual Safety Report (MID ASR); existing SEIs, MID Region safety management Roadmap, Runway Safety Go-Team;
b. enhance coordination and communication with regional organizations including ACAO, ACI, CANSO, IATA, and other regional mechanisms, especially MENA RSOO once activated and MENA ARCM once established;
c. improve the scheduling and streamline the number of regional safety-related events including workshops, trainings, seminars; and
d. improve communication and sharing of data/ information between States.

In addition to the varying levels of safety oversight capabilities in the MID Region, other regional safety issues and activities have been identified and selected for inclusion in the MID-RASP. These were derived from the RASG-MID reports, analysis of USOAP data, accident and incident investigation reports, safety oversight activities over recent years from MID States, as indicated below:

a. Improve Regional Cooperation for the provision of Accident & Incident Investigation;
b. Improve implementation of ELP requirements;
c. Sharing of Safety Recommendations related to Accidents and Serious Incidents; and
d. Enhance State Oversight on Dangerous Goods.

Second focus area involves addressing regional operational safety risks effectively as the vision of the GASP is to achieve and maintain the goal of zero fatalities in commercial operations by 2030 and beyond.

Third focus area involves addressing the emerging safety risks that might impact safety in the future including the COVID-19 pandemic outbreak, GNSS outages/vulnerability, civil drones to ensure safe operation of unmanned aircraft system (UAS), and impact of security on safety. Taking into the consideration the actions which have been taken to ease the impact of COVID-19, additional safety actions would be developed and covered under the first focus area (organizational challenges).

5.1 Organizational Challenges/Issues

Organizational challenges are systemic issues which take into consideration the impact of organizational culture, and policies and procedures on the effectiveness of safety risk controls. Organizations include entities in a State, such as the civil aviation authorities (CAAs) and service providers, such as operators of aeroplanes, ATS providers and operators of aerodromes. Organizations should identify hazards in systemic issues and mitigate the associated risks to manage safety. A State's responsibilities for the management of safety comprise both safety oversight and safety management, collectively implemented through an SSP.

It is crucial that States' safety oversight capabilities and safety management, and aviation infrastructure should keep pace with these regional safety issues.

Therefore, for the triennium of 2020-2022, the MID Region should continue to focus its efforts in addressing the following top Regional organizational issues:

a. Lower USOAP EI scores, especially States with EI below 60%;
b. Slow pace of SSP implementation, as well as understanding of newer safety management and performance based concepts;
c. Slow pace of implementation of RASG-MID conclusion/ SEIs and tools to mitigate operational risks;
d. Lack of resources and expertise to manage and collect data on a State level, and no formal mechanisms in place that allow for the sharing and benchmarking of information at the Regional level;
e. Increasing risks associated with airspace congestion, and the lack of appropriate infrastructure to support safe operations; lack of capacity of regulatory authorities; and
f. Ease the impact of COVID-19 pandemic by supporting states and industry during the restart and recovery phases.

5.1.1 Strengthening of States' Safety Oversight Capabilities

Safety oversight is defined as a function by means of which States ensure effective implementation of the safety-related SARPs and associated procedures contained in the Annexes to the Convention on International Civil Aviation and related ICAO documents. States have overall safety oversight responsibilities, which emphasize a State's commitment to safety in respect of the State's aviation activity. An individual State's responsibility for safety oversight is the foundation upon which a safe global air transport system is built. States that experience difficulties in carrying out safety oversight functions can impact the state of International Civil Aviation.

USOAP-CMA audits had identified that States inability to effectively oversee aviation operations which remains a global concern. In respect of MID Region, the Regional average overall Effective Implementation (EI) (13 out of 15 States have been audited) is 75.59 %, which is above the world average 68.39 % (as of 5 May 2020). Three (3) States are currently below EI 60%.

All eight areas have an EI above 60%. However, the areas of AGA and AIG still need more improvement. Regarding the Critical Elements (CEs), CE4 (Qualified technical personnel) improved and is above 60% (60.08%) EI, whereas CE8 (resolution of safety issues) is the only one below EI 60% (59. 47%) EI.

Moreover, the effective implementation in certification, surveillance, and resolution of safety concerns need to be improved.

Key Actions completed/taken
a. Conducted technical assistance and NCLB missions to States to provide assistance related to the preparation of USOAP-CMA activities;
b. Conducted USOAP CMA Workshops to harmonize competencies of technical personnel needed to support effective safety oversight at the Regional level;
c. Developed and implemented a specific NCLB plan of actions for prioritized States according to established criteria;
d. Organized Government Safety Inspector (GSI) Course (AIR); and
e. Established MENA RSOO to assist States to resolve safety oversight deficiencies and carry out tasks and functions in the area of PEL, OPS, AIR, AGA and ANS.

5.1.2 Improve Regional Cooperation for the Provision of Accident & Incident Investigation

In respect of MID Region, the Regional average overall Effective Implementation (EI) (13 out of 15 States have been audited) is 75.59 %, which is above the world average 68.39 % (as of 5 May 2020). Three (3) States are currently below EI 60%. Regarding the Critical Elements (CEs), CE4 (Qualified technical personnel) improved and is above 60% (60.08%) EI, whereas CE8 (resolution of safety issues) is the only one below EI 60% (59. 47%) EI. All eight areas have an EI above 60%. However, the area of AIG still need more improvement.

Key Actions completed/taken
a. AIG Strategy in the Provision of AIG Functions endorsed by the DGCA-MID/4;
b. MENA AIG Regional Cooperation Mechanism (ARCM) endorsed by the DGCA meeting in Kuwait;
c. Organized ACAO/ICAO AIG Workshop on aircraft accident investigation techniques; and
d. Draft MENA ARCM implementation action plan endorsed by the RSC/7.

5.1.3 Sharing of Safety Recommendations related to Accidents and Serious Incidents

a. The Safety recommendations are the utmost results of investigation or safety studies conducted by States. In accordance with the provisions of Annex 13, a State shall send to ICAO a copy of the Final Report on its investigations into accidents and serious incidents involving aircraft of a maximum mass of over 5,700 kgs.

b. A safety recommendation is defined as a proposal by an accident investigation authority, based on information derived from an investigation. The intended purpose of a safety recommendation is the prevention of accidents or incidents, and the reduction of the consequences of such occurrences.

Key Actions completed/taken
a. Establishment of an Ad-hoc Action Group championed by Saudi Arabia and UAE

5.1.4 Improve Implementation of ELP Requirements

The decision to address language proficiency requirements (LPRs) for pilots and air traffic controllers was first made by the 32nd Session of the ICAO Assembly in September 1998 as a direct response to several fatal accidents, including one that cost the lives of 349 persons, as well as to previous fatal accidents in which the lack of proficiency in English was identified as a contributing factor. The intent was to improve the level of language proficiency in aviation worldwide, and reduce the communication

breakdowns caused by a lack of language skills. LPRs have now moved beyond implementation (Assembly Resolution A38-8 refers), entering a phase of post implementation.

Key Actions completed/taken
a. Development and dissemination the Questionnaire on ELP ; and
b. Analysis of the survey results and was reviewed by the RSC/7

5.1.5 Enhance State Oversight on Dangerous Goods

The data analysis results of the USOAP-CMA OPS area showed that the Dangerous Goods is one of the unsatisfactory PQs in operations for some states in the region. The identified issues highlighted in the analysis report as indicated below:

a. States have not implemented an effective system for safety oversight of the various entities involved in the transport of dangerous goods, including shippers, packers, cargo handling companies and air operators. Regarding the latter, some States, the authorities have not effectively reviewed the dangerous goods procedures of air operators, contained in the operations and ground handling manuals, mostly due to a lack of qualified dangerous goods inspectors;
b. Some States have not kept records relating to dangerous goods-related approvals; and
c. In addition, in some States, dangerous goods inspector procedures have not been established and implemented.

Safety actions have been planned to be taken during the year 2020. However, due to the COVID-19 pandemic some of the ICAO MID Office work Programme activities have been postponed for 2021 including Dangerous Goods workshop.

5.1.6 Improve the Status of Implementation of State Safety Programme (SSP) and Safety Management System (SMS)

States should build upon fundamental safety oversight systems to fully implement SSPs according to Annex 19, States shall require that applicable service providers under their authority implement an SMS. The SMS enables service providers to capture and transmit safety information which contributes to safety risk management. In this context, the role of the State evolves to include the establishment and achievement of safety performance targets as well as effective oversight of its service providers' SMS. Individual States should provide safety information derived from their SSPs to their respective RASGs to contribute to Regional safety risk management activities.

An SSP requires increased collaboration across operational domains to identify hazards and manage risks. Aviation authorities and organizations should anticipate new emerging threats and associated challenges by developing SRM principles.

Implementation of SSP is one of the main challenges faced by the State in the MID Region. The RASG-MID addresses the improvement of SSP implementation in the MID Region as one of the top Safety Enhancement Initiatives (SEIs). Currently, States in the MID Region could not reach to full implementation of the SSP framework. Common challenges/difficulties have been identified based on the States feedback and recommendations for the way forward were provided in this regard.

Key Actions completed/taken
a. Conducted and organized the Safety Management Training Courses and Workshops on SSP/SMS;
b. Development of the MID Region Safety Management Implementation Roadmap;
c. Establishment of the Safety Management Implementation Team (SMIT); and
d. Establishment the MENA RSOO to support States in the expeditious implementation of SSP.

5.1.7 Certification of International Aerodromes

All eight areas have an EI above 60%. In respect of the Critical Elements (CEs), CE4 (Qualified technical personnel) improved and is above 60% (60.08%) EI, whereas CE8 (resolution of safety issues) is the only one below EI 60% (59. 47%) EI. However, the areas of AGA still need more improvement.

Key Actions completed/taken
a. Conducted Aerodrome Safety Management Workshop;
b. Wildlife hazard Management and Control Workshop; and
c. RSA on Wildlife Management and Control Regulatory Framework & Guidance Material.

5.1.8 Establishment of Runway Safety Teams at International Airports

All eight areas have an EI above 60%. In terms of the Critical Elements (CEs), CE4 (Qualified technical personnel) improved and is above 60% (60.08%) EI, whereas CE8 (resolution of safety issues) is the only one below EI 60% (59. 47%) EI. However, the areas of AGA still need more improvement

Key Actions completed/taken
a. Runway Safety Go-Team Missions

5.1.9 Human Factors and Competence of Personnel

As the aviation system changes, it is imperative to ensure that human factors and the impact on human performance are taken into account, both at service provider and regulatory levels.
Human factors and human performance are terms that are sometimes used interchangeably. While both human factors and human performance examine the capabilities, limitations and tendencies of human beings, they have different emphases:

- Human Factors (HF) – this term focusses on why human beings function in the way that they do. The term incorporates both mental processes and physical ones, and the interdependency between the two.
- Human Performance (HP) – the output of human factors is human performance. This term focusses on how people do the things that they do.

As new technologies emerge on the market and the complexity of the system continues increasing, it is of key importance to have the right competencies and adapt training methods to cope with new challenges. CRM has been identified in the MID ASR as most important human factors issue in the domain of commercial air transport and safety actions would be identified and developed. In addition, Team Resource Management (TRM) was introduced into ATC following the success achieved with Crew Resource Management (CRM) in the airline community enhancing teamwork practices. The practice is applied within virtually every airline with training given to pilots and other operational staff.

Within the last decade in ATM there have been numerous advances in widespread acceptance of SMS under the guidance of ICAO. ICAO has now mandated the use of SMS Manual Doc 9859 to standardize the approach to safety. TRM as defined by ICAO is an integral component of SMS under human factor

5.2 Regional Operational Safety Risks

Operational safety risks arise during the delivery of a service or the conduct of an activity (e.g. operation of an aircraft, airports or of air traffic control). Operational interactions between people and technology, as well as the operational context in which aviation activities are carried out are taken into consideration to identify expected performance limitations and hazards. The RASG-MID utilizes available safety data and information to determine the region's operational safety risks which include global HRCs and additional regional operational safety risks.

5.2.1 Address Operational Safety Risks in Commercial Air Transport (CAT) Aeroplane Operations above 5,700 kgs

In terms of an aircraft accident, the MID region had an accident rate of 1.5 accidents per million departures in 2019, which decreased compared to the previous year (2018). The 5-year average accident rate for 2015-2019 is 2.02, which is below the global average rate (2.6) for the same period. The MID Region accident rate in 2019 is still below the global accident rate, which is 3.0 accidents per million departures.
The 5-year average fatal accident rate for 2015-2019 is 0.61, which is slightly above the global average rate (0.44) for the same period. The MID region had no fatal accidents in 2017 and 2019. However, four fatal accidents occurred in 2015, 2016, and 2018. The 2015 accident caused 224 fatalities, 67 were registered in 2016, and the year 2018 caused 66 fatalities.

The GASP 2020-2022 Edition identifies the global high risk categories (HRCs) as LOC-I, CFIT, MAC, RE and RI. In the MID Region in 2015-2019, the top most frequent accidents related to the loss of control-inflight and runway safety, which includes RE and ARC during Landing. In terms of fatality risk, the fatal accidents for the period 2015- 2019 were attributed to LOC-I.

Therefore, for the triennium of 2020-2022, the MID Region should continue to focus its efforts on mitigating and minimizing occurrences related to the Regional HRCs for this time period, namely:

1. Loss of Control-In Flight (LOC-I);
2. Runway Safety (RS); mainly (RE and ARC during landing);
3. Runway Incursion (RI);
4. Controlled Flight into Terrain (CFIT); and
5. Mid-Air Collision (MAC).

As a new global HRC, MAC is established as a top risk for the MID region based on the existing data driven approach used to determine the Regional HRCs. Therefore, there is a need for the MID region to build up its capability to collect and analyze safety data pertaining to MAC.

In addition, safety issues have been identified in the MID ASR and need to be considered by the States while developing their NASP as well as the industry as indicated at **Appendix B.**

5.2.1.1 Aircraft Upset in Flight (Loss of Control-Inflight)

Aircraft upset or loss of control inflight is the most common accident outcome for fatal accidents in CAT aero plane operations. It includes uncontrolled collisions with terrain, but also occurrences where the aircraft deviated from the intended flight path or intended aircraft flight parameters, regardless of whether the flight crew realized the deviation and whether it was possible to recover or not. It also includes the triggering of stall warning and envelope protections. During 2015-2019 aircraft upset, or loss of control contributed to two fatal accidents involving MID Region aeroplane.

Key Actions completed/taken
a. Organized and promoted training provisions on recovery from upset scenarios (UPRT workshop);
b. Assistance to States to implement the SSP/SMS through workshops/trainings; and
c. Development and publication of RSAs related to the LOC-I. - Airplane States Awareness (ASA) – Low Speed Alerting - Standard Operating Procedures Effectiveness and Adherence - Airplane States Awareness (ASA) –Training –Flight Crew training (Approach to stall & Up set recovery) Verification and Validation
d. Construction, approval and implementation of RNAV(GNSS) / RNP-AR procedures to all runways not currently served by precision approach procedure

5.2.1.2 Runway Excursion

Runway excursion covers materialized runway excursions, both at high and low speed, and occurrences where the flight crew had difficulties in maintaining the directional control of the aircraft or of the braking action during landing, where the landing occurred long, fast, off-centred or hard, or where the aircraft had technical problems with the landing gear (not locked, not extended or collapsed) during landing. During the period 2015-2019, Runway Excursions and abnormal runway contact accidents and serious incidents mainly occurred in the landing phase of flight.

Key Actions completed/taken	
a.	Conduct of assistance missions by the Runway Safety Go-Team (RST);
b.	Establishment of a MID-FPP to support states on the effective implementation of the PBN procedures;
c.	Promoted operational improvements and safety enhancements associated with the implementation of ASBU modules; e.g. PBN, CDO. Implementation of Performance-Based Navigation (PBN); particularly Approaches with Vertical Guidance (APV);
d.	Assistance to States to implement the SSP/SMS through workshops/trainings; and
e.	RSA on Wildlife Management and Control Regulatory Framework & Guidance Material.

5.2.1.3 Runway Incursion (RI)

A Runway Incursions refers to the incorrect presence of an aircraft, vehicle or person on an active runway or in its areas of protection. Their accident outcome is runway collisions. While there were no fatal accidents or accidents involving MID States operators in the last years involving runway collision, the risk of the reported occurrence demonstrated to be very real. In addition to this, MID States should provide further data analysis regarding runway incursion to identify the root causes and associated safety issues.

Key Actions completed/taken	
a.	Conduct of assistance missions by the Runway Safety Go-Team (RST); and
b.	Assistance to States to implement the SSP/SMS through workshops/trainings.

5.2.1.4 Controlled Flight into Terrain (CFIT)

It comprises those situations where the aircraft collides or nearly collides with terrain while the flight crew has control of the aircraft. It also includes occurrences, which are the direct precursors of a fatal outcome, such as descending below weather minima, undue clearance below radar minima, etc. There was no fatal accident involving MID States operators during this period. This key risk area has been raised by some MID States and in other parts of the world that make it an area of concern. However, additional data is needed for further analysis to identify the underlying safety issues.

Key Actions completed/taken
a. Establishment of MID-FPP to support states on the effective implementation of the PBN procedures;
b. Promoted operational improvements and safety enhancements associated with the implementation of ASBU modules; e.g., PBN, CDO, CCO. Implementation of Performance-Based Navigation (PBN); particularly Approaches with Vertical Guidance (APV);
c. Assistance to States to implement PBN routes for en-route and terminal airspace through meeting and workshops/seminars;
d. Assistance to States to implement the SSP/SMS through workshops/trainings;
e. Development and publication of RSAs; and
f. Construction, approval and implementation of RNAV(GNSS) / RNP-AR procedures to all runways not currently served by precision approach procedure.

5.2.1.5 Mid-Air Collision (MAC)

Refers to the potential collision of two aircraft in the air. It includes direct precursors such as separation minima infringements, genuine TCAS resolution advisories or airspace infringements. Although there have been no aero-plane mid-air collision accidents in recent years within the MID States. This key risk area has been raised by some MID States specifically in the context of the collision risk posed by military aircraft operating in Gulf area over the high seas which are not subject to any coordination with related FIRs for airborne operation. This is one specific safety issue that is a main priority in this key risk area. However, additional data is needed for further analysis to identify the underlying safety issues.

Key Actions completed/taken
a. Assistance to States to implement the SSP/SMS through workshops/trainings; and
b. Establishment of Near Mid Air Collision (NMAC) Group to carry out further analyses of the reported NMAC incidents and provide feedback to the ATM SG and ASRG.

5.3 Emerging Risks

Emerging safety issues are risks that might impact Safety in the future. These may include a possible new technology, a potential public policy, a new concept, a business model or idea that, while perhaps an outlier today, could mature and develop into a critical mainstream issue in the future or become a major trend in its own right.

5.3.1 GNSS Outages/ Vulnerability

Between 2015 and 2018, GPS outages accounted for 92 reported incidents. Air operators reported the most frequent GNSS outages problems. The reports were mainly located in the FIR Middle East-Europe. The majority of GPS outages were closely linked with political conflict in the Region. The most affected geographical area was Eastern Mediterranean related to the political conflict in the Region.

Key Actions completed/taken
a. RSA on GNSS vulnerability has been developed and published.

5.3.2 COVID-19 Pandemic Outbreak

It was noted that the rapidly evolving COVID-19 crisis heavily affected all aspects of civil aviation. The urgent need to coordinate all efforts to reduce the risks of the spread of COVID-19 by air transport and to protect the health of air travellers and aviation personnel, while maintaining essential aviation transport operations and ensuring an orderly return to normal operations in due course was underlined.

Key Actions completed/taken
a. Establishment of MID Region Recovery Plan Task Force (RPTF) to assist in developing Regional restart and recovery planning;
b. Establishment of RPTF 4 technical work streams namely: Public Health Requirements, Operational Safety Measures, Airport & Passengers Facilitation, and Air Navigation Services/Air Traffic Management;
c. Conduct of teleconferences with DGCAs and Regional international organization;
d. Development of MID CART Regional Implementation Roadmap;
e. Conduct of RASG-MID and MIDANPIRG virtual meetings;
f. Continuous communication and coordination with MID States;
g. Development of a COVID-19 web page to communicate to States and all stakeholders the guidance material issued by ICAO, WHO, international organizations, States best practices; and
h. CART document and CRRIC webinars conducted.

5.3.3 Ensure the safe operations of UAS (drones)

The number of drones at the global level has increased. Available evidence demonstrates an increase of drones coming into close proximity with manned aviation (both aeroplanes and helicopters) and the need to mitigate the associated risk. The civil aviation authority is responsible for, inter alia, ensuring aviation safety and protecting the public from aviation hazards. Operators of aircraft, whether manned or unmanned, are likewise responsible for operating safely. The rapid rise of UAS raises new challenges that were not considered in historic aviation regulatory frameworks. Before devising any regulatory framework for UAS operations, the regulator should understand and assess the UAS situation in its State.

UA operations will involve stakeholders' familiar with aviation as well as many who are not. It is important to include these stakeholders from the beginning when developing the UAS regulations. Their early involvement will ensure that the regulations appropriately address the needs of these groups while also serving to educate them on expectations and what is feasible.

Therefore, the safety actions would be developed to support States to develop their national regulations in order to ensure safe operation of UAS.

5.3.4 Impact of Security on Safety

The crash of flight MH17 immediately raised the question why the aero plane was flying over an area where there was an ongoing armed conflict. Similar events had occurred in the MID region. Thus, military or terrorist conflicts may occur in any State at any time and pose risks to civil aviation. This is why it's important for governments, aircraft operators, and other airspace users such as air navigation service providers (ANSPs), to work together to share the most up-to-date conflict zone risk-based information possible to assure the safety of civilian flights.

Furthermore, flying over or nearby conflict zones is related to both security and safety management and requires an integrated risk management process, as proposed by ICAO in the second edition of the Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones (Doc 10084) as an activity for further development. Several steps have to be taken, as part of the continuous risk assessment cycle including: the collection of information and intelligence; the subsequent threat analysis; the security risk assessment; the hazard identification; the safety risk assessment; the determination of the acceptable risk level and lastly information sharing. Each mitigating action should be accompanied with the identification of (new) hazards as a result of unintended consequences of the risk assessment mitigating actions.

The crash of flight MH17 shows, safety and security are intertwined. To manage the risks related to flying over conflict zones and other risks at the interface of safety and security as good as possible, closer cooperation between both worlds is necessary.

PART-II. IMPLEMENTATION

6. SAFETY IMPLEMENTATION

6.1 Safety Monitoring and Implementation

This section presents an outline of the safety performance indicators reflecting the MID Region safety strategic priorities in the area of safety. The RASG-MID would use the indicators listed in the MID Region safety strategy at **Appendix C** to measure safety performance and monitor each regional safety target. Furthermore, the MID Region Safety Strategy includes six (6) Goals in line with GASP 2020-2022 Edition.

The RASG-MID would continuously monitor the implementation of the identified SEIs in the MID-RASP and measure safety performance of the regional civil aviation system, to ensure the intended targets are achieved, using the MID Region safety strategy to this plan. Therefore, for each Goal established in the MID Region Safety Strategy, identified SEI(s) be mapped to it including their respective actions.

MID region safety indicators and targets were aligned with the 2020-2022 GASP goals and targets as relevant in the MID Region. A MID Region Annual safety report would be annually 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.

In the event that the regional safety goals and targets are not met, the causes would be addressed and presented to stakeholders. If RASG-MID identifies critical operational safety risks, reasonable measures would be taken to mitigate them as soon as practicable, possibly leading to an earlier revision of the MID-RASP by SEIG.

The monitoring of safety performance and its enhancement is achieved through identification of relevant Goals and Safety Indicators, taking into consideration the GASP 2020-2022 and regional specific objectives and priorities, as well as the adoption and attainment of Safety Targets with a specific timeframe.

The MID Region Safety Strategy includes the following Goals:

Aspirational Goal: Zero fatality by 2030, the GASP aspirational goal of ‘zero fatalities in commercial operations by 2030 and beyond’.

Goal 1: Achieve a Continuous Reduction of Operational Safety Risks: This is related to 2020-2022 GASP Goal 1. This is aligned with the high-level ICAO safety metrics, thereby facilitating comparison of MID Region performance with global averages. Indicators related to risk areas are identified through the MID Region risk assessment methodology and described in the MID Region ASR. These ‘operational’ safety indicators would continue to be monitored through the MID Region ASR.

Goal 2: Strengthen States’ safety oversight capabilities: This is related to 2020-2022 GASP Goal 2. The Monitoring will be based on the available data published through USOAP-CMA (OLF) and iSTARS. The Regional average overall Effective Implementation (EI) in the MID Region (13 out of 15 States have been audited) is 75.23 %, which is above the world average 68.53% (as of 25 Sep 2019). Three (3) States are currently below EI 60%.

Goal 3: Ensure the appropriate infrastructure is available to support safe operations: This is related to 2020-2022 GASP Goal 6. Related indicators will mainly be based on data available through ICAO iSTARS. Feedback provided by Member States would also be considered. The objective is

aligned with the 2020-2022 GASP requiring all States to implement the air navigation and airport core infrastructure including aerodrome safety by 2022.

Goal 4: Expand the use of Industry Programmes: This is related to 2020-2022 GASP Goal 5. Related indicators will mainly be collected from IATA and other international and Regional organizations. Feedback provided by Member States would also be considered. The objective is aligned with the 2020-2022 GASP requiring all States increase the number of service providers participating in the corresponding ICAO recognized industry assessment Programmes by 2022.

Goal 5: Implementation of effective SSPs and SMSs: This is related to 2020-2022 GASP Goal 3 and Goal 5. Related indicators will mainly be based on data available through ICAO iSTARS. Feedback provided by Member States and Regional organizations would also be considered. MID Office will in addition collect relevant documentation and information from States (SSP and NASP). The objective is aligned with the 2020-2022 GASP requiring States to achieve an effective SSP, as appropriate to their aviation system complexity, by 2025.

Goal 6: Increase Collaboration at the Regional Level to enhance safety: This is related to 2020-2022 GASP Goal 4. Related indicators will mainly be based on data available through ICAO iSTARS and USOAP-CMA (OLF). Feedback provided by Member States would be also considered. The objective is aligned with the 2020-2022 GASP requiring all States to achieve a positive safety oversight margin, and an effective SSP, to actively lead RASGs' safety risk management activities, by 2022.

6.2 Communication of Progress to RASG-MID and Regional Stakeholders

A MID Region Annual safety report would be annually 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. In addition, the abovementioned information would culminate in a report on progress of implementation of the MID-RASP SEIs and their respective actions as well as in achieving the regional safety goals and targets; would be presented at every SEIG and RASG-MID meetings as well as safety seminars. The progress report should cover at least the following aspects:

a. Brief overview of the overall implementation of the MID-RASP;
b. Analysis on delay/ challenges encountered in implementation of SEIs and their respective actions; and
c. If regional safety goals and targets are not met, causes would be addressed and presented to relevant stakeholders.

7 SAFETY ACTIONS

This chapter addresses system-wide problems that affect aviation as a whole including the SEIs and their respective actions. In most scenarios, these problems are related to organizational processes and procedures, regional operational safety risks, and emerging risks. The safety actions in this chapter are driven principally by the need to maintain or increase the current level of safety in the aviation sector for the region.
This chapter also facilitates the identification of SEIs and their respective actions relevant for each Goal established in the MID Region Safety Strategy as follows:

- Goal 1: Achieve a continuous reduction of operational safety risks;
- Goal 2: Strengthen States' safety oversight capabilities/Progressively increase the USOAP-CMA EI scores/results;
- Goal 3: Ensure the appropriate infrastructure is available to support safe operations;
- Goal 4: Expand the use of Industry Programmes;
- Goal 5: Implementation of effective SSPs and SMSs; and
- Goal 6: Increase Collaboration at the Regional Level to enhance safety

7.1 Organizational Challenges and Emerging Risks

7.1.1 Goal 2: Strengthen States' Safety Oversight Capabilities

7.1.1.1 G2-SEI-01: Strengthening of States' Safety Oversight Capabilities

Target: The safety targets of this goal are indicated in the MID Region safety strategy at **Appendix C.**

Rationale:
The CEs are essentially the safety defense tools of the State Safety Oversight system needed for the effective and sustainable implementation of a safety-related policy and associated procedures. The effective implementation of the CEs is an indication of a State's capability for safety oversight. States must establish CE-1 through CE-5 prior to the implementation of CE-6 through CE-8 in order to provide effective safety oversight and safety management. An individual State's responsibility for safety oversight is the foundation upon which a safe global air transport system is built. States that experience difficulties in carrying out safety oversight functions can impact the state of International Civil Aviation.

States should work to continually improve their effective implementation of the eight CEs of the State's safety oversight system in all relevant areas, as appropriate to their aviation system complexity. Through collaborative efforts, the level of effective implementation of the CEs of a State's safety oversight system can increase, particularly in those States where a State faces shortages of human, financial or technical resources

What we want to achieve:
A robust oversight system across MID Region, where each CAA is able to properly discharge its oversight responsibilities, with particular care to exchange of information and cooperation with other CAAs and to the implementation of management systems in all organizations, as well as to ensure the availability of adequate personnel in CAAs. In addition, to Support MID Region States' civil aviation authorities to Strengthen States' Safety Oversight Capabilities and increase progressively the USOAP-CMA EI results.

How we monitor improvement:
Significant increase of the number of States with an EI above 60% and implementing risk-based oversight.

How we want to achieve it: This SEI should be considered by States for inclusion in their NASPs.

Actions to be taken: A1-A2-A3-
A1- Conduct Capacity Building Activities (Workshops, Training, Webinars, GSI Courses) to promote effective implementation of SARPs, with a focus on the following technical areas: ANS, AGA, and OPS.
A2- Conduct technical assistance and NCLB missions to States to provide assistance related to the preparation of USOAP-CMA activities
A3- Develop and implement a specific NCLB plan of actions for prioritized States according to established criteria

References: ICAO SARPs and guidance documents and 2020-2022 GASP Goal 2 “Strengthen States’ safety oversight capabilities"

Component 1 — State Safety Oversight (SSO) System

Phase 1 — Establishment of a Safety Oversight Framework

- GASP SEI-1: Consistent implementation of ICAO SARPs at the national level.
- GASP SEI-3: Regional safety enhancement initiatives to support consistent coordination of Regional Programmes in establishing adequate safety oversight capabilities.
- GASP SEI-4: Strategic collaboration with key aviation stakeholders to enhance safety in a coordinated manner.
- GASP SEI-5: Provision of the Regional safety information to ICAO by asking States to complete, submit and update all relevant documents and records.

Phase 2 — Implementation of a Safety Oversight System

- GASP SEI-6: Continued implementation of and compliance with ICAO SARPs at the Regional level.
- GASP SEI-8: Strategic collaboration with key aviation stakeholders to enhance safety in a coordinated manner.
- GASP 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.

Stakeholders: RASG-MID, MIDANPIRG, and States.

Action 1: Conduct Capacity Building Activities (Workshops, Training, Webinars, GSI Courses) to promote effective implementation of SARPs, with a focus on the following technical areas: ANS, AGA, and OPS.	
Owner:	ICAO, ACAO
Priority:	Medium
Completion date:	2022
Status:	Ongoing

Action 2: Conduct technical assistance and NCLB missions to States to provide assistance	
Owner:	ICAO
Priority:	High
Completion date:	2022
Status:	Ongoing

Action 3: Develop and implement a specific NCLB plan of actions for prioritized States	
Owner:	ICAO and concerned States
Priority:	High
Completion date:	2022
Status:	Ongoing
EXPECTED OUTPUT	
Deliverable(s)	**Timeline**
MID States to improve their score for the effective implementation (EI):	2022

7.1.1.2 G2-SEI-02: Improve Regional Cooperation for the Provision of Accident & Incident Investigation

Target/Metrics: The safety targets of this goal are indicated in the MID Region safety strategy at **Appendix C**.

Rationale:
States should work to continually improve their effective implementation of the CEs of the State's safety oversight system in the area of AIG. Through collaborative efforts and joining the MENA ARCM, the level of effective implementation of the CEs of a State's AIG can increase, particularly in those States where a State faces shortages of human, financial or technical resources.

What we want to achieve:
MID Region States' to Strengthen States' Safety Oversight Capabilities and increase progressively the USOAP-CMA EI results in the area of AIG.

How we monitor improvement:
Increase of the number of States with an EI above 60% for AIG area and then establishing an independent aircraft accident and incident investigation authority.

How we want to achieve it:

Actions to be taken: A1-A2
A1- Development and signature of the MOU among MENA ARCM States
A2- Conduct AIG Capacity Building Activities.

References: ICAO SARPs and guidance documents and 2020-2022 GASP Goal 2 "Strengthen States' safety oversight capabilities"

Component 1 — State Safety Oversight (SSO) System

Phase 1 — Establishment of a Safety Oversight Framework

- GASP SEI-2: Establishment of an independent Regional accident and incident investigation process, consistent with Annex 13.
- GASP SEI-3: Regional safety enhancement initiatives to support consistent coordination of Regional Programmes in establishing adequate safety oversight capabilities.
- GASP SEI-4: Strategic collaboration with key aviation stakeholders to enhance safety in a coordinated manner.

Stakeholders: RASG-MID, States, international organization	
Action 1: Development and signature of the MOU among the ARCM States	
Owner:	ICAO, ACAO, and States (TBD)
Priority:	High
Completion date:	2021
Status:	Ongoing
Action 2: Conduct AIG Capacity Building Activities.	
Owner:	ICAO and ACAO. (Supported by Stakeholders TBD)
Priority:	Medium
Completion date:	2022
Status:	Ongoing

EXPECTED OUTPUT	
Deliverable(s)	**Timeline**
MID States to improve their score for the effective implementation (EI) especially the area of AIG	2022

7.1.1.3 G2-SEI-03: Sharing of Safety Recommendations related to Accidents and Serious Incidents

Target/Metrics: The safety targets of this goal are indicated in the MID Region safety strategy at **Appendix C**.

Rationale:
States should work to continually improve their effective implementation of the CEs of the State's safety oversight system in the area of AIG. Through collaborative efforts, the level of effective implementation of the CEs of a State's AIG can increase, particularly in those States where a State faces shortages of human, financial or technical resources.

What we want to achieve:
MID Region States' civil aviation authorities to Strengthen States' Safety Oversight Capabilities and increase progressively the USOAP-CMA EI results in the area of AIG. In addition, the prevention of accidents or incidents, and the reduction of the consequences of such occurrences.

How we monitor improvement:
Increase of the number of States with an EI above 60% for AIG area and establishing an independent aircraft accident and incident investigation authority.

How we want to achieve it:

Action to be taken: A1
A1- Development of Questionnaire on Establishing a Platform for Sharing Safety Recommendations and be circulated to MENA States

References: ICAO SARPs and guidance documents and 2020-2022 GASP Goal 2 “Strengthen States’ safety oversight capabilities"

Component 1 — State Safety Oversight (SSO) System

Phase 1 — Establishment of a Safety Oversight Framework

- GASP SEI-3: Regional safety enhancement initiatives to support consistent coordination of Regional Programmes in establishing adequate safety oversight capabilities
- GASP SEI-4: Strategic collaboration with key aviation stakeholders to enhance safety in a coordinated manner

Stakeholders: RASG-MID, States, and international organization	
Action 1: Development of questionnaire to be circulated to MENA States on sharing safety recommendations on dedicated platform	
Owner:	ICAO, ACAO, and States (KSA & UAE)
Priority:	High
Completion date:	2022
Status:	Ongoing
EXPECTED OUTPUT	
Deliverable(s)	**Timeline**
Improve MID States the effective implementation (EI) in the area of AIG	2022

7.1.1.4 G2-SEI-04: Enhance State Oversight on Dangerous Goods

Target/Metrics: The safety targets of this goal are indicated in the MID Region safety strategy at **Appendix C**.

Rationale:
States should work to continually improve their effective implementation of the eight CEs of the State’s safety oversight system in the area of OPS.

What we want to achieve:
States to implement an effective system for safety oversight of the various entities involved in the transport of dangerous goods. In addition, MID Region States’ to Strengthen States’ Safety Oversight Capabilities and increase progressively the USOAP-CMA EI results in the area of OPS and enhance the state oversight on Dangerous Goods

How we monitor improvement:
increase of the number of States with an EI above 60% for OPS area and then to Strengthen States’ Safety Oversight Capabilities.

How we want to achieve it: This SEI should be considered by States for inclusion in their NASPs.

Actions to be taken: A1-A2-A3
A1- Dangerous Goods (DG)workshop for States ‘inspectors
A2- Develop guidance material to support States’ inspectors for the conduct of the oversight for DG
A3- Develop guidance material and providing webinar on Lithium batteries

References: ICAO SARPs and guidance documents and 2020-2022 GASP Goal 2 “Strengthen States’ safety oversight capabilities" and ICAO Annex 18 "Safe Transport of Dangerous Goods by Air".

Component 1 — State Safety Oversight (SSO) System

Phase 1 — Establishment of a Safety Oversight Framework

GASP SEI-1: Consistent implementation of ICAO SARPs at the national level

Phase 2 — Implementation of a Safety Oversight System

GASP SEI-6: Continued implementation of and compliance with ICAO SARPs at the Regional level

Stakeholders: RASG-MID, States, international organizations	
Action 1: Organize DG workshop for States’ inspectors in Casa Blanca	
Owner:	ICAO and ACAO. Supported by FAA
Priority:	High
Completion date:	2022
Status:	New
Action 2: Develop guidance material to support States’ inspectors for the conduct of the oversight for DG	
Owner:	States (Bahrain, Sudan, and Oman)
Priority:	Medium
Completion date:	2022
Status:	New
Action 3: Develop guidance material and providing webinar on Lithium batteries	
Owner:	IATA
Priority:	Medium
Completion Date:	2022
Status:	New
EXPECTED OUTPUT	
Deliverable(s)	**Timeline**
MID States to improve their score for the effective implementation (EI) especially the area of OPS	2022

7.1.1.5 G2-SEI-05: Human factors and Competence of Personnel

Target/Metrics: The safety targets of this goal are indicated in the MID Region safety strategy at **Appendix C**.

Rationale:
Human factors and competence of personnel are strategic priorities in the region. As new technologies emerge on the market and the complexity of the system continues increasing, it is of key importance to have the right competencies and adapt training methods to cope with new challenges. CRM has been identified in the MID ASR as most important human factors issue in the domain of commercial air transport Aeroplanes above 5700 kgs. The safety actions related to competence of personnel mainly English language proficiency would be further developed in the future.

The main objectives of TRM for operational staff are the development of attitudes and behaviour, which will contribute to enhanced teamwork skills and performance in order to reduce teamwork failures as contributory factors in ATM related incidents and accidents. The benefits of TRM are considered to be enhanced Threat and Error Management capabilities, continuity and stability of teamwork, task efficiency, sense of working as a part of a larger and more efficient team, increased job satisfaction; and improved use of staff resources.

What we want to achieve:
Ensure continuous improvement of aviation personnel competence.

How we monitor improvement:
Improvement in aviation personnel competence at all levels and then to Strengthen States' Safety Oversight Capabilities.
How we want to achieve it: This SEI should be considered by States for inclusion in their NASPs.

Actions to be taken: A1-A2-A3-A4
A1- Advisory Circular: Crew Resource Management Training Programme (CRM). **(Action addressed under G1-SEI-04:CFIT)**
A2- Organize Crew Resource Management Training workshop to share experience and best practices on CRM practical implementation
A3- Conduct workshop/webinar on fatigue and mental Health best practices
A4- Organize Team Resource Management Training workshop to share experience and best practices on TRM practical implementation.

References: ICAO SARPs and guidance documents and 2020-2022 GASP Goal 2 "Strengthen States' safety oversight capabilities"

Component 1 — State Safety Oversight (SSO) System

Phase 1 — Establishment of a Safety Oversight Framework

GASP SEI-1: Consistent implementation of ICAO SARPs at the national level

Stakeholders: RASG-MID, States, industry, international organizations

Action 2: Organize Crew Resource Management Training workshop to share experience and best practices on CRM practical implementation

Owner:	ICAO, and ACAO. Supported by IATA and KSA, FAA to be confirmed
Priority:	High
Completion date:	2022
Status:	New

Action 3: conduct workshop/webinar on fatigue and mental Health best practices

Owner:	ACAO and IATA. Supported by IFALPA, CANSO, KSA and Jordan
Priority:	High
Completion date:	2022
Status:	New

Action 4: Organize Team Resource Management Training workshop to share experience and best practices on TRM practical implementation	
Owner:	ICAO, ACAO, IATA, CANSO, FAA, and States (TBD)
Priority:	Medium
Completion Date:	20222
Status:	New

EXPECTED OUTPUT	
Deliverable(s)	**Timeline**
MID States to improve their score for the effective implementation (EI) and mitigate contributing factors to accidents and incidents	2022

7.1.1.6 G2-SEI-06: Impact of security on safety

Target/Metrics: The safety targets of this goal are indicated in the MID Region safety strategy at **Appendix C**.

Rationale:
The safety action in this area is aimed at mitigating the security related safety risks. The safety action in this area also include the mitigation of the risks posed by flying over zones where an armed conflict exists. Managing the impact of security on safety is a strategic priority in MID region.

What we want to achieve:
Increase safety by managing the impact of security on safety and mitigating related safety risks.

How we monitor improvement:
Continuous assessment and mitigation of security threats.

How we want to achieve it: This SEI should be considered by States for inclusion in their NASPs.

Actions to be taken: A1-A2-A3
A1- Circulate ICAO Doc 10084 Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones
A2- Organize seminar/Symposium to exchange experiences and good practices on assessing the risks and sharing of information related to the overflying of conflict zones in coordination with RASFG-MID and MIDANPIRG
A3- Encourage States to issue NOTAMs to share threats information emanated from conflict zones within their airspaces.
A4- AIM forum NOTAM standardized template

References: ICAO SARPs and guidance documents and 2020-2022 GASP Goal 2 “Strengthen States’ safety oversight capabilities". ICAO Annex 17.

Component 1 — State Safety Oversight (SSO) System

Phase 1 — Establishment of a Safety Oversight Framework

- GASP SEI-1: Consistent implementation of ICAO SARPs at the national level

Stakeholders: RASG-MID, RASFG-MID, MIDANPIRG, States, international organizations, industry	
A1- Circulate ICAO Doc 10084 Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones	
Owner:	ICAO
Priority:	High
Completion date:	2021
Status:	New
A2- Organize seminar/Symposium to exchange experiences and good practices on assessing risks and sharing of information related to the overflying of conflict zones in coordination with RASFG-MID and MIDANPIRG	
Owner:	ACAO and ICAO. Supported by IATA, CANSO, and States (TBD)
Priority:	High
Completion date:	2022
Status:	New
A3- Encourage States to issue NOTAMs to share threats information emanated from conflict zones within their airspaces	
Owner:	ICAO
Priority:	High
Completion date:	2021
Status:	New
A4- AIM forum NOTAM standardized template	
Owner:	ICAO
Priority:	High
Completion date:	2022
Status:	New

EXPECTED OUTPUT

Deliverable(s)	**Timeline**
mitigate contributing factors to accidents and incidents	2022

7.1.2 Goal 3: Ensure the Appropriate Infrastructure is available to Support Safe Operations

7.1.2.1 G3-SEI-01: Certification of International Aerodromes

Target/Metrics: The safety targets of this goal are indicated in the MID Region safety strategy at **Appendix C**.

Rationale:
Many International Airports are yet to be fully certified and many that are certified are facing challenges to apply the Standards and Recommended Practices (SARPs) as laid out in ICAO Annex 14 - Aerodromes and the ICAO Manual on Certification of Aerodromes (Doc 9774).

What we want to achieve:
MID Region States to improve international aerodromes infrastructures and ensure continuous improvement.

How we monitor improvement:
The number of certified international airports. The RASG-MID, members States, and partners would provide feedback on the effectiveness of the activities.

How we want to achieve it: This SEI should be considered by States for inclusion in their NASPs.

Actions to be taken: **A1-A2-A3-A4**
A1- Support States on the implementation of the ICAO Annex 14 requirements to achieve compliance with regards to Aerodrome Design and Operations, through Workshops/Training
A2- Enhance capacity building for States CAAs and Airport operators related to aerodromes certification through Workshops/Training
A3- Develop guidance material on Apron Management
A4 – Deployment of iPack on Aerodrome Re-Start

References: ICAO SARPs and guidance documents and 2020-2022 GASP. This is related to 2020-2022 GASP Goal 6 "Ensure the appropriate infrastructure is available to support safe operations"

Component 1 — State Safety Oversight (SSO) System

- GASP SEI-1: Consistent implementation of ICAO SARPs at the Regional level.
- GASP SEI-3: Regional safety enhancement initiatives to support consistent coordination of Regional Programmes in establishing adequate safety oversight capabilities.
- GASP SEI-4: Strategic collaboration with key aviation stakeholders to enhance safety in a coordinated manner.

Stakeholders: RASG-MID, States, industry, International organizations

Action 1: Support States on the implementation of the ICAO Annex 14 requirements to achieve compliance with regards to Aerodrome Design and Operations, through Workshops/Training

Owner: ICAO and ACI. Supported by ACAO

Priority: High

Completion Date: 2022

Status: Ongoing (Training conducted on implementing Annex 14, 8-12 Nov2020)

Action 2: Enhance capacity building for States CAAs and Airport operators related to aerodromes certification through Workshops/Training

Owner: ICAO and ACI

Priority: High

Completion date: 2022

Status New

Action 3- Develop guidance material on Apron Management

Owner: States (UAE and Egypt)

Priority: High

Completion Date: 2022

Status: New

Action 4 – **Deployment of iPack on Aerodrome Re-Start**

Owner: ICAO

Priority: High

Completion Date: 2022

Status: New

EXPECTED OUTPUT	
Deliverable(s)	**Timeline**
Increase the number of Certificated International Aerodromes	2022

7.1.2.2 G3-SEI-02: Establish Runway Safety Team (RST) at International Aerodromes

Target: The safety targets of this goal are indicated in the MID Region safety strategy **at Appendix C.**

Rationale:
Many States have difficulties on the development of the Runway Safety Programme and the establishment of Runway Safety Teams (RSTs) at airports as an effective means to reduce runway related accidents and incidents.

What we want to achieve:
MID Region States' civil aviation authorities to establish an effective RSTs at their aerodromes which would significantly reduce the runway safety related risks.

How we monitor improvement:
Number of the RSTs established at international aerodromes and number of the RST missions conducted. The RASG-MID, members States, and partners will give feedback on the effectiveness of the activities.

How we want to achieve it: This SEI should be considered by States for inclusion in their NASPs.

Actions to be taken: **A1-A2**
A1- Conduct of assistance missions by the Runway Safety Go-Team (RST)
A2- Support States to implement the Global Reporting Format Methodology through workshops/trainings: (Action addressed under G1-SEI-02: Runway Excursion)

References: ICAO SARPs and guidance documents and 2020-2022 GASP. This is related to 2020-2022 GASP Goal 6 "Ensure the appropriate infrastructure is available to support safe operations".

Component 1 — State Safety Oversight (SSO) System

- GASP SEI-1: Consistent implementation of ICAO SARPs at the Regional level.
- GASP SEI-3: Regional safety enhancement initiatives to support consistent coordination of Regional Programmes in establishing adequate safety oversight capabilities.
- GASP SEI-4: Strategic collaboration with key aviation stakeholders to enhance safety in a coordinated manner.

Stakeholders: RASG-MID, States, industry, international organizations/associations	
Action 1: Conduct of assistance missions by the Runway Safety Go-Team (RST)	
Owner:	ICAO, RSP (Runway Safety Programme Partners)
Priority:	High
Completion date:	2022
Status:	Ongoing
Action 2: Support States to implement the Global Reporting Format Methodology through Webinar/workshops/training. (Action addressed under G1-SEI-02: Runway Excursion)	
Owner:	ICAO, ACI, CANSO, IATA, FAA and Aircraft Manufactures

Priority:	High	
Completion Date:	2022	
Status:	Ongoing	(Webinar has been conducted on 27 Oct 20)

EXPECTED OUTPUT

Deliverable(s)	**Timeline**
Increase the number of establishment RST at international aerodromes	2022

7.1.3 Goal 4: Expand the Use of Industry Programmes

7.1.3.1 G4-SEI-01: Promote the Use of industry Programmes

Target: The safety targets of this goal are indicated in the MID Region safety strategy at **Appendix C.**

Rationale:

What we want to achieve:
Work with authorities and organizations to increase the number of service providers participating in the corresponding ICAO recognized industry assessment Programmes.

H**ow we monitor improvement:**
Increase the number of service providers participating in the corresponding ICAO recognized industry assessment Programmes. The RASG-MID and IATA will give feedback on the effectiveness of the activities.

How we want to achieve it:

Action to be taken: A1-A2
A1- Encourage IATA's IOSA and ISAGO registrations through safety promotion
A2- Encourage the implementation of ACI Airport Excellence (APEX) in Safety Programme

References: This is related to 2020-2022 GASP Goal 5 "Expand the use of industry Programmes"

Component 1 — State Safety Oversight (SSO) System

GASP SEI-1 — Strategic collaboration with key aviation stakeholders to enhance safety in a coordinated manner.

Stakeholders: RASG-MID, States, industry, international organizations/associations	
Action 1: - Encourage IATA's IOSA and ISAGO registrations through safety promotion	
Owner:	IATA
Priority:	Medium
Completion Date:	2022
Status:	Ongoing
Action 2: Encourage the implementation of ACI Airport Excellence (APEX) in Safety Programme	
Owner:	ICAO and ACI
Priority:	High
Completion Date:	2022
Status:	New

EXPECTED OUTPUT	
Deliverable(s)	**Timeline**
Increase the number of service providers participating in ICAO recognized industry assessment Programmes and maintain recurrent APEX Missions in the region:	2022

7.1.4 Goal 5: Implementation of Effective SSPs and SMSs

7.1.4.1 G5-SEI-01: Implement an effective Safety Management

Target: The safety targets of this goal are indicated in the MID Region safety strategy **at Appendix C.**

Rationale:
Management of safety in a systematic and proactive way enables authorities and organizations to set up management systems that take into consideration potential hazards and associated risks before aviation accidents occur. This global move is at the core of ICAO Annex 19. This safety area would enable further work to improve reporting processes, occurrence investigation at organizational level, and also the continued development of integrated data collection taxonomies.

What we want to achieve:
MID Region States to implement SSP and consequently their services providers to implement SMS. In addition, work with authorities and organizations to implement safety management.

How we monitor improvement:
ICAO Annex 19 framework requiring safety management is in place across all aviation domains, and organizations and authorities are able to demonstrate compliance.

How we want to achieve it: This SEI should be considered by States for inclusion in their NASPs.

States to give priority to the work on SSPs
In the implementation and maintenance of the SSP, States should in particular:

- ensure effective implementation of the Annex 19 Requirements and address deficiencies in oversight capabilities, as a prerequisite for effective SSP implementation;
- ensure effective coordination between State authorities having a role in safety management;
- ensure that inspectors have the right competencies to support the evolution towards risk- and performance based oversight;
- ensure that policies and procedures are in place for risk- and performance based oversight, including a description of how an SMS is accepted and regularly monitored;
- establish policies and procedures for safety data collection, analysis, exchange and protection;
- establish a process to determine safety performance indicators at State level addressing outcomes and processes;
- ensure that an approved SSP document is made available and shared with other States; and
- ensure that the SSP is regularly reviewed and that SSP effectiveness is regularly assessed.

SMS Assessment
States should make use of the available tools to support risk- and performance-based oversight. States also should regularly monitor status of compliance with SMS requirements of their industry.

SMS international cooperation
States should promote the common understanding of safety management and human factors principles and requirements in different countries, share lessons learned and encourage progress and harmonization, through active participation in the RASG-MID and other safety groups and fora.

FDM precursors of main operational safety risks
States in partnership with industry, other regional and international organizations should complete the good practice documentation which supports the inclusion of main operational safety risks such as RE, RI, LOC-I, CFIT and MAC into operators' FDM Programmes.

States to set up a regular dialogue with their national aircraft operators on flight data monitoring (FDM) Programmes
States to set up a regular dialogue with their national aircraft operators on flight data monitoring (FDM) Programmes, with the objectives of:

- promoting the operational safety benefits of FDM,
- fostering an open dialogue on FDM Programmes that takes place in the framework of just culture,
- encouraging operators to include and further develop FDM events relevant for the prevention of REs, MACs, CFIT and LOC-I, or other issues identified by the SSP

States to establish and maintain a National Aviation Safety Plan (NASP)
States should ensure that a NASP is maintained and regularly reviewed. The MID-RASP provides the identified safety priorities in the Region and States should identify which top risks and key issues mentioned in the GASP and MID-RASP; which apply to their national context, and identify suitable mitigation actions within their NASP. States should also add/consider others which are unique to their operational context.

Successful implementation of the NASP actions would require the commitment of resources from stakeholders within State, availability of data to effectively monitor the achievement of NASP Targets, and proper project governance. In addition to the actions, NASP shall also consider how to measure their effectiveness.

The Regional safety risk areas in the current MID-RASP edition are as follows: aircraft upset in flight, runway safety, airborne conflict, and terrain collision. In addition to this, main safety issues and their potential accident outcomes at **Appendix B** have been identified.

NASP should:

- describe how the plan is developed and endorsed, including collaboration with different entities within the State, with industry and other stakeholders;
- include safety objectives, goals, indicators and targets in line with in line with GASP as well as regional safety plan;
- identify the main safety risks at national level;
- include series of SEIs to address safety issues; and
- reflect the MID-RASP SEIs as applicable to the State.

Actions : A1-A2-A3-A4-A5-A6-A7-A8
A1- Conduct SSP training course in Cairo
A2- Conduct SSP Workshop in coordination with ACAO in Casablanca, Morocco
A3- Provide SSP/SMS workshops for MID States personnel
A4- Develop guidance material on occurrence reporting for the CAA personnel on establishing an effective operation of the mandatory and voluntary reporting systems
A5- Support and guide States in the development of NASPs through workshops and sharing of best practices.
A6- Development of guidance for the processes and procedures for oversight of SMS
A7- Deployment of the Aviation Safety Risk Management iPack
A8- Conduct assistance missions by SMIT to support States with SSP implementation

References: ICAO Annex 19 and GASP 2020-2022 Goal 3 “Implement effective State Safety Programmes"

Component 2 — State Safety Programme

- GASP SEI-10: Start of promotion of SSP implementation at the Regional level.
- GASP SEI-11: Regional safety enhancement initiatives to support consistent coordination of Regional Programmes for SSP implementation.
- GASP SEI-12: Strategic collaboration with key aviation stakeholders to support SSP implementation.
- GASP SEI-13: Start of SSP implementation at the national level.
- GASP SEI-14: Regional allocation of resources to support continued development of the proactive use of risk modelling capabilities.
- GASP SEI-15: Regional collaboration with key aviation stakeholders to support the proactive use of risk modelling.
- GASP SEI-16: Advancement of safety risk management at the Regional level.

Component 2 — State Safety Programme

GASP SEI-7: Strategic collaboration with key aviation stakeholders to complete SSP implementation

Stakeholders: RASG-MID, States, industry, international organizations/associations	
Action 1- Conduct SSP training course in Cairo	
Owner:	ICAO
Priority:	High
Completion Date:	2022
Status:	New
Action 2- Conduct SSP Workshop in coordination with ACAO in Casablanca, Morocco	
Owner:	ICAO and ACAO
Priority:	High
Completion Date:	2022
Status:	New
Action 3- Provide SSP/SMS workshops	
Owner:	ICAO. Supported by IATA, CANSO, ACI, and States (UAE)
Priority:	High
Completion Date:	2022
Status:	Ongoing (SSP Workshop conducted during March 2020 In Kuwait)
Action 4: Develop guidance material on occurrence reporting for the CAA personnel on establishing an effective operation of the mandatory and voluntary reporting systems	
Owner:	States (UAE))
Priority:	High
Completion Date:	2022
Status:	New

Action 5: Support and guide States in the development of NASPs through Workshops (Assistance Missions) and sharing of best practices.	
Owner of Action:	ICAO, and States (UAE),
Priority:	Medium
Completion Date:	2022
Status :	New
Action 6: Development of guidance for the processes and procedures for oversight of SMS	
Owner:	States (UAE),
Priority:	Medium
Completion Date:	2022
Status:	New
Action 7: Deployment of the Aviation Safety Risk Management iPack for OMAN	
Owner:	ICAO
Priority:	High
Completion Date:	2022
Status:	New
Action 8: Conduct assistance missions by SMIT to support States with SSP implementation	
Owner:	SMIT Team. ICAO, Egypt, Saudi Arabia, Qatar and UAE. Supported by CANSO and IATA
Priority:	High
Completion Date:	2022
Status:	New

EXPECTED OUTPUT	
Deliverable(s)	**Timeline**
MID States to implement the foundation of an SSP	2022
MID States to implement an effective SSP	2025

7.1.5 Goal 6: Increase Collaboration at the Regional Level to Enhance Safety

Target: The safety targets of this goal are indicated in the MID Region safety strategy **at Appendix C.**

Rationale:

What we want to achieve:
MID Region States to increase collaboration at the level so that to enhance safety.

How we monitor improvement:
The RASG-MID, members States, and partners would give feedback on the effectiveness of the activities.

How we want to achieve it: Actions to be developed in the future**.**

References: GASP 2020-2024 Goal 4 “Increase collaboration at the Regional level "

Component 1 — State Safety Oversight (SSO) System

Phase 1 — Establishment of a Safety Oversight Framework

- GASP SEI- SEI-1: Consistent implementation of ICAO SARPs at the Regional level.
- GASP SEI-3: Regional safety enhancement initiatives to support consistent coordination of Regional Programmes in establishing adequate safety oversight capabilities.
- GASP SEI-5: Provision of the Regional safety information to ICAO by asking States to complete, submit and update all relevant documents and records.

Phase 2 — Implementation of a Safety Oversight System

GASP 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.

7.2 Regional Operational Safety Risks

7.2.1 Goal 1: Achieve a continuous reduction in Operational Risks

7.2.1.1 G1-SEI-01: Aircraft upset in flight (LOC-I)

Target: The safety targets of this goal are indicated in the MID Region safety strategy at **Appendix C**.

Rationale:
Loss of control usually occurs because the aircraft enters a flight regime which is outside its normal envelope, usually, but not always, at a high rate, thereby introducing an element of surprise for the flight crew involved. Prevention of loss of control is a strategic priority. In addition, Aircraft upset or loss of control is the key risk area with the highest risk related to fatal accidents in CAT aeroplane operations having a maximum take-off weight above 5700 kg. It includes uncontrolled collisions with terrain, but also occurrences where the aircraft deviated from the intended flight path or intended aircraft flight parameters, regardless of whether the flight crew realized the deviation and whether it was possible to recover or not. It also includes the triggering of stall warning and envelope protections.
During 2015-2019 Aircraft upset or Loss of control contributed to two accidents and counted for around 66% of fatalities. During the years 2016 and 2018, the LOC-I occurred respectively during go around (GOA) and En-route phases of flight.

What we want to achieve:
Increase safety by continuously assessing and improving risk controls to mitigate the risk of loss of control.

How we monitor improvement:
Continuous monitoring of safety issues identified in the MID Region annual safety report for CAT aeroplane above 5,700 kgs.

How we want to achieve it:
States should set up a regular dialogue with their national aircraft operators on flight data monitoring (FDM) Programmes, with the objectives of: promoting the operational safety benefits of FDM, fostering an open dialogue on FDM Programmes that takes place in the framework of just culture, encouraging operators to include and further develop FDM events relevant for the prevention of LOC-I, or other issues identified by the SSP.

States to include LOC-I in national SSPs: LOC-I should be addressed by the States on their SSPs and included in NASPs. This should include as a minimum agreeing a set of actions and measuring their effectiveness

Actions: A1-A2-A3-A4-A5
A1- Guidance material on flight crew proficiency
A2- Advisory Circular: Mode Awareness and Energy State Management Aspects of Flight Deck Automation
A3- Conduct Upset Recovery Workshop
A4- Develop guidance material on Ground Handling Service Provider Certification Process
A5-Conduct a Ground Handling Workshop

References:

- GASP 2020-2024 Goal 1 “Achieve a Continuous Reduction of Operational Safety Risks".
- GASP SEIs (States, Region, and industry) – Mitigate contributing factors to LOC-I accidents and incidents.

Stakeholders: RASG-MID, States, industry, international organizations/associations	
Action 1: Guidance material on flight crew proficiency	
Owner	IATA and Aircraft manufacturers
Priority:	Medium
Completion Date:	2022
Status:	New
Action 2: Advisory Circular: Mode Awareness and Energy State Management Aspects of Flight Deck Automation	
Owner:	IATA and Aircraft manufacturers. Supported by KSA
Priority:	High
Completion Date:	2022
Status:	New
A3- Conduct Upset Recovery workshop	
Owner:	ACAO, IATA, and ICAO. Supported by FAA, and States (Host State to be confirmed later)
Priority:	High
Completion Date:	2022
Status:	Ongoing **(ICAO, KSA, and FAA UPRT Feb 20)**
Action 4- Develop guidance material on Ground Handling Service Provider Certification Process	
Owner:	IATA and State (KSA)
Priority:	Medium
Completion Date:	2022
Status:	New

Action 5- Conduct a Ground Handling workshop	
Owner:	ACAO and ICAO. Supported by IATA
Priority:	High
Completion Date:	2022
Status:	New

EXPECTED OUTPUT

Deliverable(s)	Timeline
Mitigate contributing factors to LOC-I accidents and incidents	2022

7.2.1.2 G1-SEI-02: Runway Safety- Runway Excursion

Target: The safety targets of this goal are indicated in the MID Region safety strategy at **Appendix C**.

Rationale:
Runway excursion covers materialized runway excursions, both at high and low speed, and occurrences where the flight crew had difficulties in maintaining the directional control of the aircraft or of the braking action during landing, where the landing occurred long, fast, off-centred or hard, or where the aircraft had technical problems with the landing gear (not locked, not extended or collapsed) during landing. During 2015-2019, Runway Excursions and abnormal runway contact accidents and serious incidents mainly occurred in the landing phase of flight and counted for approximately 1% of fatality.

What we want to achieve:
Increase safety by continuously assessing and improving risk controls to mitigate the risk of RE.

How we monitor improvement:
Continuous monitoring of safety issues identified in the MID Region annual safety report for CAT aeroplane above 5,700 kgs.

How we want to achieve it:
States to set up a regular dialogue with their national aircraft operators on flight data monitoring (FDM) Programmes, with the objectives of: promoting the operational safety benefits of FDM, fostering an open dialogue on FDM Programmes that takes place in the framework of just culture, encouraging operators to include and further develop FDM events relevant for the prevention of REs.

States to include Runway Excursions in national SSPs: REs should be addressed by the States on their SSPs and included in NASPs in close cooperation with the aircraft operators, air traffic control, and airport operators. This should include as a minimum agreeing a set of actions and measuring their effectiveness.

Actions: **A1-A2-A3-A4-A5**
A1- Support States to implement the Global Reporting Format (GRF) Methodology through Webinar/ Workshops/Training
A2- Guidance material on un-Stabilized Approach
A3: MID Region Action Plan/Milestones on the Global Reporting Format (GRF) Implementation
A4: MID Region customized ACI-ICAO Global Reporting Format (GRF) for Runway Surface Conditions for Airport Operators
A5- Develop guidance material/share best practices on GRF Deployment

References:

- GASP 2020-2024 Goal 1 “Achieve a Continuous Reduction of Operational Safety Risks".

- GASP SEIs (States, Region, and industry) – Mitigate contributing factors to RE accidents and incidents.

Stakeholders: RASG-MID, MIDANPIRG, States, industry, international organizations/associations	
Action 1: Support States to implement the Global Reporting Format (GRF) Methodology through Webinar/Workshops/Training (Reference: G3-SEI-02)	
Owner:	ICAO, ACI, CANSO, IATA, FAA and Aircraft Manufactures
Priority:	High
Completion Date:	2021
Status:	Ongoing (GRF webinar conducted on 27 Oct 2020)
Action 2: Guidance material on un-Stabilized Approach	
Owner:	IATA. Supported by CANSO and IFALPA
Priority:	Medium
Completion Date:	2022
Status:	New
Action 3: MID Region Action Plan/Milestones on the Global Reporting Format (GRF) Implementation	
Owner:	ICAO
Priority:	High
Completion Date:	2021
Status:	New
A4: MID Region customized ACI-ICAO Global Reporting Format (GRF) for Runway Surface Conditions for Airport Operators	
Owner:	**ACI and** ICAO
Priority:	High
Completion Date:	2021
Status:	New
A5- Develop guidance material/share best practices on GRF Deployment	
Owner:	UAE supported by IRAN, OMAN, SAUDI ARABIA
Priority:	High
Completion Date:	2022
Status:	New

EXPECTED OUTPUT

Deliverable(s)	**Timeline**
Mitigate contributing factors to RE accidents and incidents	2022

7.2.1.3 G1-SEI-03: Runway Safety- Runway Incursion

Target: The safety targets of this goal are indicated in the MID Region safety strategy at **Appendix C**.

Rationale:
Runway incursion refers to the incorrect presence of an aircraft, vehicle or person on an active runway or in its areas of protection, which can potentially lead to runway collision as the most credible accident

outcome. While there were no fatal accident or accident involving MID States operators in the last years involving runway collision, the risk of the reported occurrence demonstrated to be very real.

What we want to achieve:
Increase safety by continuously assessing and improving risk controls to mitigate the risk of RI.

How we monitor improvement:
Continuous monitoring of safety issues identified in the MID Region annual safety report for CAT aeroplane above 5,700 kgs.

How we want to achieve it:
States to include Runway Incursions in national SSPs: RIs should be addressed by the States on their SSPs and included in NASPs in close cooperation with the aircraft operators, air traffic control, and airport operators. This should include as a minimum agreeing a set of actions and measuring their effectiveness.

Actions:	**A1**
A1- Support States to implement aerodrome inspection through workshops/trainings/Webinars	

References:

- GASP 2020-2024 Goal 1 “Achieve a Continuous Reduction of Operational Safety Risks".
- GASP SEIs (States, Region, and industry) – Mitigate contributing factors to RI accidents and incidents.

Stakeholders: RASG-MID, MIDANPIRG, States, industry, international organizations/associations	
Action 1: Support States to implement aerodrome inspection procedures by providing workshops/training/Webinars	
Owner:	ICAO. Supported by FAA and UAE
Priority:	High
Completion Date:	2022
Status:	New

EXPECTED OUTPUT	
Deliverable(s)	**Timeline**
Mitigate contributing factors to RI accidents and incidents	2022

7.2.1.4 G1-SEI-4: Controlled Flight into Terrain (CFIT)

Target: The safety targets of this goal are indicated in the MID Region safety strategy at **Appendix C.**

Rationale:
It comprises those situations where the aircraft collides or nearly collides with terrain while the flight crew has control of the aircraft. It also includes occurrences, which are the direct precursors of a fatal outcome, such as descending below weather minima, undue clearance below radar minima, etc. There was no fatal accident involving MID States operators during this period. This key risk area has been raised by some MID States and in other parts of the world that make it an area of concern.

What we want to achieve:
Increase safety by continuously assessing and improving risk controls to mitigate the risk of CFIT.

How we monitor improvement:
Continuous monitoring of safety issues identified in the MID Region annual safety report for CAT

aeroplane above 5,700 kgs.

How we want to achieve it:
States to set up a regular dialogue with their national aircraft operators on flight data monitoring (FDM) Programmes, with the objectives of: promoting the operational safety benefits of FDM, fostering an open dialogue on FDM Programmes that takes place in the framework of just culture, encouraging operators to include and further develop FDM events relevant for the prevention of CFIT or other issues identified by the SSP.

States to include CFITs in national SSPs: CFIT should be addressed by the States on their SSPs and included in NASPs. This should include as a minimum agreeing a set of actions and measuring their effectiveness.

Actions: A1-A2-A3-A4
A1- Advisory Circular: Guidance for Operators to Ensure Effectiveness of GPWS Equipment
A2- Advisory Circular: Instrument Approach Procedures Using Continuous Descent Final Approach Techniques
A3- Guidance on the Establishment of a Flight Data Analysis Programme (FDAP)
A4- Advisory Circular: Crew Resource Management Training Programme (CRM)

References:

- GASP 2020-2024 Goal 1 “Achieve a Continuous Reduction of Operational Safety Risks".
- GASP SEIs (States, Region, and industry) – Mitigate contributing factors to CFIT accidents and incidents.
-

Stakeholders: ICAO, RASG-MID, MIDANPIRG States, industry, international organizations/associations

Action 1: Advisory Circular: Guidance for Operators to ensure effectiveness of GPWS Equipment

Owner: IATA and Aircraft manufacturers

Priority: Medium

Completion Date: 2022

Status: New

Action 2: Advisory Circular: Guidance for Operators on Training Programme on the use of GPWS

Owner: IATA and Aircraft manufacturers

Priority: Medium

Completion Date: 2022

Status: New

Action 3: Circulate ICAO Guidance Doc 10000 on Flight Data Analysis Programme (FDAP) to support States providing oversight to air operators

Owner: ICAO

Priority: Medium

Completion Date: 2021

Status: New

Action 4: Advisory Circular: Crew Resource Management Training Programme (CRM)

Owner: IATA, Aircraft manufacturers

Priority: High

Completion Date: 2022

Status: New

EXPECTED OUTPUT

Deliverable(s)	**Timeline**
Mitigate contributing factors to CFIT accidents and incidents	2022

7.2.1.5 G1-SEI-05: Airborne Conflict (Mid-Air Collisions)

7.2.1.5.1 G1-SEI-05A1: Loss of separation between civil and military aircraft

Target: The safety targets of this goal are indicated in the MID Region safety strategy **at Appendix C.**

Rationale:
Refers to the potential collision of two aircraft in the air. It includes direct precursors such as separation minima infringements, genuine TCAS resolution advisories or airspace infringements. Although there have been no aeroplane mid-air collision accident in recent years within the MID States, this key risk area has been raised by some MID States specifically in the context of the collision risk posed by military aircraft operating in Gulf area over the high seas which are not subject to any coordination with related FIRs for airborne operation. This is one specific safety issue that is a main priority in this key risk area.

What we want to achieve:
Increase safety by continuously assessing and improving risk controls to mitigate the risk of MAC.

How we monitor improvement:
Continuous monitoring of safety issues identified in the MID Region Annual Safety Report for CAT aeroplane above 5,700 kgs.

How we want to achieve it:
States to include MACs in national SSPs: MACs should be addressed by the States on their SSPs and included NASPs. This should include as a minimum agreeing a set of actions and measuring their effectiveness.

Actions: A1-A2
A1- States and regional organizations to share occurrences and/or safety analysis/information related to Near Mid Air Collisions (NMACs) including to the "Loss of separation between civil and military aircraft" and ATM-SG to perform a technical analysis of the reported occurrences and and/or safety analysis/information and then come out with recommendations. The technical analysis of the reported occurrences and recommendations be shared with ASRG.
A2- Guidance/raising awareness/coordination related to the civil and military cooperation in particular about aircraft operating over high seas

References:
- GASP 2020-2024 Goal 1 "Achieve a Continuous Reduction of Operational Safety Risks".
- GASP SEIs (States, Region, and industry) – Mitigate contributing factors to MAC accidents and incidents.

Stakeholders: RASG-MID, MIDANPIRG, States, industry, international organizations

Action 1: States and regional organizations to share occurrences and/or safety analysis/information related to Near Mid Air Collisions (NMACs) including the "Loss of separation between civil and military aircraft" and ATM-SG to perform a technical analysis of the reported occurrences and come out with recommendations.

Owner: ICAO, IATA, CANSO, and States

Priority: High

Completion Date: 2022

Status: New

Action 2: Guidance/raising awareness/ coordination related to the civil and military cooperation in particular about aircraft operating over high seas	
Owner:	ACAO, ICAO, States
Priority:	High
Completion Date:	2022
Status:	Ongoing
EXPECTED OUTPUT	
Deliverable(s)	**Timeline**
Mitigate contributing factors to MAC accidents and NMAC incidents	2022

7.2.1.5.2 G1-SEI-05A2: Interference to GNSS Signals

Stakeholders: RASG-MID, MIDANPIRG, States, industry, international organizations

Action 1: A1: GNSS/GPS interferences	
Owner:	ICAO and IATA
Priority:	High
Completion Date:	2022
Status:	New
EXPECTED OUTPUT	
Deliverable(s)	**Timeline**
Mitigate contributing factors to MAC accidents and NMAC incidents	2022

7.2.1.5.3 G1-SEI-05B: Ensure the Safe Operations of UAS (drones)

Target: The safety targets of this goal are indicated in the MID Region safety strategy at **Appendix C.**

Rationale:
The civilian use of UAS has markedly increased in recent years. Research and development into the civilian applications of unmanned aircraft (UA) is a dynamic and rapidly evolving area. Control and guidance systems are now available that enable these aircraft to perform a variety of tasks that were previously unachievable, unreasonably expensive, or involved too much personal risk. As a result, UA have an increasing presence in controlled and uncontrolled airspace. In addition, available evidence demonstrates an increase of drones coming into close proximity with manned aviation (both aeroplanes and helicopters) and the need to mitigate the associated risk. In connection with this, some States in the region developed their national regulations to ensure safe operations of UAS. However, there are currently some States in the region are unable to develop their national regulations to ensure safe operations of UAS. Therefore, guidance material to be developed to assist states' CAA personnel in the implementation and oversight of UAS operations and to mitigate the risk of the MAC.
When available, the guidance material would serve as an example for consideration by MID States to create, add, or amend, future or existing national UAS guidance material by the respective CAA.

What we want to achieve:
MID Region States' civil aviation authorities to develop national regulations to ensure safe operations of UAS and to create growth while maintaining a high and uniform level of safety.

How we monitor improvement:
Increase of number of states established national regulations to ensure safe operations of UAS. The RASG-MID, members States, and partners would give feedback on the effectiveness of the activities.

How we want to achieve it: This SEI should be considered by States for inclusion in their NASPs

Actions to be taken:	**A1-A2-A3**
A1- Circulate ICAO developed guidance and advisory circulars: Regulatory framework for the operation of drones to support states' CAA personnel in the implementation and oversight of UAS operations	
A2- Organize symposium	
A3- States and regional organizations to share occurrences and/or safety analysis/information involving drones to ASRG to perform a technical analysis of the reported occurrences and come out with recommendations.	

References: ICAO SARPs and guidance documents and 2020-2022 GASP. This is related to 2020-2022 GASP Goal 6 "Ensure the appropriate infrastructure is available to support safe operations".

Component 1 — State Safety Oversight (SSO) System

- GASP SEI-1: Consistent implementation of ICAO SARPs at the Regional level.
- GASP SEI-3: Regional safety enhancement initiatives to support consistent coordination of Regional Programmes in establishing adequate safety oversight capabilities.

Stakeholders: RASG-MID, MIDANPIRG, States, industry, international organizations/associations	
Action 1: Circulate ICAO developed guidance and advisory circulars: Regulatory framework for the operation of drones	
Owner:	ICAO
Priority:	High
Completion date:	2021
Status:	New
Action 2: Organize symposium related to drones subjects	
Owner:	ICAO, ACAO. Supported by FAA
Priority:	Medium
Completion date:	2022
Status:	New
Actions 3: - States and regional organizations to share occurrences and/or safety analysis/information involving drones to ASRG to perform a technical analysis of the reported occurrences and come out with recommendations	
Owner:	ICAO, IATA, ACI, CANSO, and States
Priority:	Medium
Completion date:	2022
Status:	New

EXPECTED OUTPUT

Deliverable(s)	**Timeline**
Ensure the safe operations of UAS to mitigate the risk of MID Air Collision (MAC)	2022

Appendix A- SEIG TORs

SAFETY ENHANCEMENT INITIATIVE GROUP

(SEIG)

TERMS OF REFERENCE

1. PURPOSE OF THE SEIG TO:

1.1 Support the RASG-MID in the development/update of the MID Regional Aviation Safety Plan (MID-RASP) and the monitoring of the implementation of Safety Enhancement Initiatives (SEIs) related to identified safety issues.

1.2 Assist in the development, implementation and review of SEIs to reduce aviation safety risks. These SEIs could be established based on the analysis of regional data, based on ICAO initiatives or the initiatives of other relevant organizations or based on the risks and issues identified through the USOAP audits process.

1.3 Recommend safety mitigations to the RASG-MID related to identified safety issues which would reduce aviation risks.

1.4 In order to meet its Terms of Reference, the SEIG shall:

a. follow-up the updates of the Global Aviation Safety Plan (GASP) and support the development, update and implementation of the MID Regional Aviation Safety Plan (MID-RASP) at the regional level and provide feedback to the RASG-MID;

b. identify and develop the SEIs, which are aligned with the regional priorities and targets, for implementation within the MID Region. The focus of these SEIs is to effectively and economically mitigate the safety risks identified by the ASRG;

c. identify difficulties, challenges and deficiencies related to the implementation of each SEI and propose mitigation measures;

d. identify assistance Programmes such as, but not limited to, workshops, seminars and capacity building activities to improve the level of implementation of the approved SEIs by the RASG-MID;

e. share expertise and experience and provide recommended actions for each SEI, in a prioritized manner based on best practices;

f. monitor the status of achieving related safety objectives and targets included in the MID Region Safety Strategy;

g. identify areas of concern to aviation safety that may be unique to the region, and develop data and mitigations to address those concerns;

h. work closely with States and stakeholders to ensure that SEIs and mitigation measures are implemented through a coordinated effort;

i. propose input to the RASG-MID for the development of the RASG-MID Annual Work Programme; and

j. Coordinate with relevant RASG-MID, MIDANPIRG and MID-RASFG subsidiary bodies issues with common interest.

2. COMPOSITION

The SEIG is composed of Members designated by the MID States and Partners.

3. ROLES AND RESPONSIBILITIES

- SEIG Chairpersons: – Coordinate SEIG activities and provide overall guidance and leadership;

- ICAO: Support; and

- Partners: collaborate in the development of materials as requested by the SEIG, and provide technical expertise and support, as required.

4. MEETINGS ARRANGEMENTS

- The Chairperson, in close co-operation with the Secretary, shall make all necessary arrangements for the most efficient working of the SEIG. The SEIG shall at all times conduct its activities in the most efficient manner possible with a minimum of formality and paper work (paperless meetings). Permanent contact shall be maintained between the Chairperson, Secretary and Members of the SEIG to advance the work. Best advantage should be taken of modern communications facilities, particularly video-conferencing (Virtual Meetings) and e-mails.

- Face-to-face meetings will be conducted when it is necessary to do so.

Appendix B- Identified safety issues as indicated in the 9th ASR

		Potential Accident Outcome						
Safety Issues	**Accident Severity**	**CFIT**	**LOC-I**	**MAC**	**GCOL**	**RE/ARC**	**Injury Damage inflight**	**Injury Damage on Ground**
Monitoring of flight parameters and automation modes	Catastrophic		x			x	x	x
Convective weather	Catastrophic	x	x			x		
Flight planning and preparation	Catastrophic	x	x			x		
Crew Resource Management	Catastrophic	x	x	x	x	x		
Handling of technical failure	Catastrophic	x	x			x		
Handling and execution of GOA	Catastrophic	x	x			x		
Loss of separation in flight/ and or airspace/TCAS RA	Catastrophic			x			x	
Experience, training and competence of Flight Crews	Catastrophic	x	x	x		x		
De-confliction between IFR and VFR traffic	Catastrophic			x			x	
Inappropriate flight control inputs	Catastrophic		x			x		
Contained engine Failure/Power Plant Malfunctions	Catastrophic	x	x			x	x	
Birdstrike/Engine Bird ingestion	Catastrophic		x			x		
Fire/Smoke-non impact	Catastrophic		x				x	x
Wake Vortex	Catastrophic		x				x	
Deviation from pitch or roll attitude	Catastrophic	x	x			x		
Security Risks with impact on Safety	Catastrophic		x					
Tail/Cross wind/Winds hear	Catastrophic		x			x		x
Runway Incursion	Catastrophic				x	x		x
Maintenance events	Catastrophic	x	x			x	x	x
Contaminated runway/Poor braking action	Major					x		x
Clear Air Turbulence (CAT) and Mountain Waves	Catastrophic		x				x	

Appendix C-MID Region Safety Strategy

REGIONAL AVIATION SAFETY GROUP – MIDDLE EAST

(RASG-MID)

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MID Region Safety Strategy

1. Strategic Safety Objective

1.1 Continuous improvement of aviation safety through a progressive reduction of the number of accidents and related fatalities in the MID Region to be in line with the global average, based on reactive, proactive and predictive safety management practices.

2. Safety Objectives

2.1 The purpose of ICAO Global Aviation Safety Plan (GASP) is to continually reduce fatalities, and the risk of accident, by guiding the development of a harmonized aviation safety strategy and the development and implementation of regional and national aviation safety plans. A safe aviation system contributes to the economic development of States and their industries. GASP promotes the implementation of a State's safety oversight system, a risk-based approach to managing safety as well as a coordinated approach to collaboration between States, regions and industry.

2.2 States and Regions must focus on their safety priorities as they continue to foster expansion of their air transport sectors.

2.3 The ICAO GASP establishes targeted safety objectives and initiatives while ensuring the efficient and effective coordination of complementary safety activities between all stakeholders.

2.4 The GASP provides a collaborative framework for States, regions and industry to support the management of organizational challenges and operational safety risks.

2.5 The 2020-2022 Edition of the GASP would set forth ICAO's Safety Strategy in support of the prioritization and continuous improvement of aviation. The plan guides the implementation of regional and national aviation safety plans.

2.6 The 2020-2022 Edition of the GASP includes a new set of goals, targets and indicators, in line with the United Nations' 2030 Agenda for Sustainable Development.

2.7 The global aviation safety roadmap, presented in the 2020-2022 Edition of the GASP, would serve as an action plan to assist the aviation community in achieving the GASP goals.

2.8 The MID Region safety objectives are in line with the GASP objectives and address specific safety risks identified within the framework of the Regional Aviation Safety Group-Middle East (RASG-MID), based on the analysis of available safety data.

2.9 The enhancement of communication and information exchange between aviation Stakeholders and their active collaboration under the framework of RASG-MID would help achieving the MID Region safety objectives in an expeditious manner.

3. Measuring and Monitoring Safety Performance

3.1 The first version of the MID Region Safety Strategy was developed by the First MID Region Safety Summit (Bahrain, 28-29 April 2013) and endorsed by the DGCA-MID/2 meeting (Jeddah, Saudi Arabia, 20 -22 May 2013).

3.2 The monitoring of safety performance and its enhancement is achieved through identification of relevant Goals and Safety Indicators, taking into consideration the GASP 2020-2022 and regional specific objectives and priorities, as well as the adoption and attainment of Safety Targets with a specific timeframe.

3.3 The MID Region Safety Strategy includes the following Goals:

- Aspirational Goal: Zero fatality by 2030
- Goal 1: Achieve a continuous reduction of operational safety risks
- Goal 2: Strengthen States' safety oversight capabilities/Progressively increase the USOAP-CMA EI scores/results
- Goal 3: Ensure the appropriate infrastructure is available to support safe operations
- Goal 4: Expand the use of Industry Programmes
- Goal 5: Implementation of effective SSPs and SMSs
- Goal 6: Increase Collaboration at the Regional Level to enhance safety

3.4 The MID Region Safety Goals, Indicators and Targets are detailed in the Table below:

MID Region Safety Targets

Aspirational Goal: Zero Fatality by 2030

Goal 1: Achieve a Continuous Reduction of Operational Safety Risks

Safety Indicator	Safety Target	Timeline	Links to GASP
Number of accidents per million departures	Regional average rate of accidents to be in line with the global average rate (baseline 2016)	2022	*Linked to Goal 1 and Target 1.1 of the GASP*
Number of fatal accidents per million departures	Regional average rate of fatal accidents to be in line with the global average rate (baseline 2016)	2022	
Number of fatalities per million departures	Number of fatalities per billion passengers carried (fatality rate) to be in line with the global average rate (baseline 2018)	2022	
Number of Runway Excursion accidents per million departures	Regional average rate of Runway Excursion accidents to be below the global average rate (baseline 2016)	2022	
Number of Runway Incursion accidents per million departures	Regional average rate of Runway Incursion accidents to be below the global average rate (baseline 2018)	2022	
Number of LOC-I related accidents per million departures	Regional average rate of LOC-I related accidents to be below the global rate (baseline 2016)	2022	
Number of CFIT related accidents per million departures	Regional average rate of CFIT related accidents to be below the global rate-(baseline 2016)	2022	
Number of Mid Air Collision (accidents)	Zero Mid Air Collision accident (baseline 2018)	2022	

Safety Indicator	Safety Target	Timeline	Links to GASP
Number of Near Mid Air Collision (serious incidents)	Regional average rate of Near Mid Air Collision (serious incidents per million departures) to be less than **0.1** All States to reduce the rate of Near Mid Air Collision (AIRPROX) within their airspace	2022	

Goal 2: Strengthen States' Safety Oversight Capabilities/Progressively Increase the USOAP-CMA EI Scores/Results

Safety Indicator	Safety Target	Timeline	Links to GASP
USOAP-CMA Effective Implementation (EI) results: a. Regional average EI b. Number of States with an overall EI over 60% c. Regional average EI by area d. Regional average EI by CE	a. Regional average EI to be above 70% b. 11 MID States to have at least 60% EI c. Regional average EI for each area to be above 70% d. Regional average EI for each CE to be above 70%	a. 2020-2022 b. 2020-2022 c. 2020-2022 d. 2020-2022	*Linked to Goal 2 and Target 2.1 of the GASP*
Number of Significant Safety Concerns (SSC)	a. No Significant Safety Concern (SSC) b. SSC, if identified, to be resolved as a matter of urgency, and in any case within 12 months from its identification	2016	

Goal 3: Ensure Appropriate Infrastructure is available to Support Safe Operations

Safety Indicator	Safety Target	Timeline	
Number of certified International Aerodrome as a percentage of all International Aerodromes in the MID Region	75% of the International Aerodromes certified (baseline 2017)	2020-2022	*Linked to Goal 6 and Target 6.1 of the GASP*
Number of established Runway Safety Team (RST) at MID International Aerodromes.	50% of the International Aerodromes having established a RST	2020-2022	

Goal 4: Expand the use of Industry Programmes

Safety Indicator	Safety Target	Timeline	Links to GASP
Use of the IATA Operational Safety Audit (IOSA), to complement safety oversight activities.	a. Maintain at least 60% of eligible MID airlines to be certified IATA-IOSA at all times. b. All MID States with an EI of at least 60% use the IATA Operational Safety Audit (IOSA) to complement their safety oversight activities (baseline 2018).	a. N/A b. 2020-2022	*Linked to Goal 5 and Target 5.2 of the GASP*
Use of the IATA Safety Audit for Ground Operations (ISAGO) certification, as a percentage of all Ground Handling service providers	The IATA Ground Handling Manual (IGOM) endorsed as a reference for ground handling safety standards by all MID States. Pursue at least 50% increase in ISAGO registration (baseline 2017).	2020-2022	
Coordinate the ACI Airport Excellence (APEX) in Safety programme	At least 1 ACI APEX in Safety to be conducted in 1 Airport of the Region per year	2021-2022	

Goal 5: Implementation of Effective SSPs and SMSs:

Safety Indicator	Safety Target	Timeline	Links to GASP
MID States to implement the foundation of an SSP			*Linked to Goal 3 and Target 3.1 of the GASP*
Number of States that have completed the SSP Gap Analysis on iSTARS	13 States	2020-2022	
Number of States that have developed an SSP implementation plan	13 States	2020-2022	
Regional Average SSP Foundation (in %)	70%	2020- 2022	
Number of States that have fully implemented the SSP Foundation	10 States	2020- 2022	
Number of States that have established Safety data collection and processing system (SDCPS)	12 States	2020-2022	
MID States to implement an effective SSP			*Linked to Goal 3 and Target 3.2 of the GASP*
Number of States that have implemented an effective SSP	7 States	2025	
Number of States that have established a process for acceptance of individual service providers' SMS	2 States	2020-2022	
Number of States that have published a national aviation safety plan	13 States	2025	
Number of States providing information on safety risks, including SSP SPIs, to the RASG-MID	7 States	2020-2022	
Establishment of a Regional mechanism for regional data collection, sharing and analysis	Regional Mechanism established (baseline 2018)	2022	

Goal 6: Increase Collaboration at the Regional Level to Enhance Safety:

Safety Indicator	Safety Target	Timeline	Links to GASP
Number of States attending the RASG-MID meetings	At least 12 States from the MID Region (baseline 2019)	2020-2022	*Linked to Goal 4 and Target 4.1 and 4.2 of the GASP*
Number of States providing required data related to accidents, serious incidents and incidents to the MID-ASRG	All States from the MID Region	2020-2022	
Number of States requiring and actively seeking assistance/support Number of States that received assistance/support through the RASG-MID, MENA RSOO and/or other NCLB mechanisms	All States having an EI below 60% to be member of the MENA RSOO All States having an EI below 60% to have an approved NCLB Plan of Actions for safety (agreed upon with the ICAO MID Office) (baseline 2019) SEI or Technical Assistance Mission/Project implemented for each assistance need identified by the RASG-MID (baseline 2019)	2020-2022 2020-2022	
Number of States, having an EI below 60% in some areas, delegating certain safety oversight functions to the MENA RSOO or other State(s)	Percentage of States, having an EI below 60% in some areas, delegating certain safety oversight functions to the MENA RSOO or other State(s), to be at least **50%**	2022	
Number of States that contribute to the implementation of SEIs and Technical Assistance Missions/Projects	7 States	2020-2022	
Percentage of SEIs implemented in accordance with the agreed timeframe	80% of the SEIs	N/A	

4. Governance

4.1 The MID Region Safety Strategy will guide the work of RASG-MID and all its member States and partners.

4.2 The RASG-MID will be the governing body responsible for the review and update of the Strategy, as deemed necessary.

4.3 Progress on the implementation of the MID Region Safety Strategy and the achievement of the agreed Safety Targets will be reported to the ICAO Air Navigation Commission (ANC), through the review of the RASG-MID reports; and to the stakeholders in the Region during the MID Region Safety Summits.

Appendix D: Safety Actions- Consolidated List of SEIs with their respective Actions for follow up

SEI Code	SEI name	Actions	Owner(s)	Status/Progress	Completion date
Organizational Challenges and Emerging Risks					
Goal 2: Strengthen States' Safety Oversight Capabilities					
G2-SEI-01:	Strengthening of States' Safety Oversight Capabilities	**A1**- Conduct Capacity Building Activities (Workshops, Training, Webinars, GSI Courses) to promote effective implementation of SARPs, with a focus on the following technical areas: ANS, AGA, and OPS	ICAO	USOAP-CMA webinar conducted on 11 Feb 2021	2022
		A2- Conduct technical assistance and NCLB missions to States	ICAO		2022
		A3- Develop and implement a specific NCLB plan of actions	ICAO and concerned States		2022
G2-SEI-02:	Improve Regional Cooperation for the Provision of Accident & Incident Investigation	**A1**- Development and signature of the MOU among MENA ARCM States	ICAO, ACAO, and States (TBD)	. The AIIG/1 virtual meeting reviewed the MENA ARCM MoU draft and proposed to be presented to the 5th DGCA-MID for endorsement. The ARCM MoU endorsed by the 5th DGCA-MID virtual meeting and has been circulated to the States for signature.	2022
		A2- Conduct AIG Capacity Building Activities	ICAO and ACAO	Aircraft Accident and Incident investigation workshop to be held	2022

				in Morocco 28 Feb-1 March 2022. Joint event ACAO/ICAO.	

G2-SEI-03:	Sharing of Safety Recommendations related to Accidents and Serious Incidents	**A1**- Development of questionnaire to be circulated to MENA States on sharing safety recommendations on dedicated platform	ICAO, ACAO, and States (KSA & UAE)	The AIIG/1 virtual meeting agreed to establish a repository for MENA ARCM Member States to allow sharing and analysis of their safety recommendations and accordingly, the meeting reviewed the draft questionnaire and agreed to its presentation to the RASG-MID/9 meeting for endorsement.	2021
G2-SEI-04:	Enhance State Oversight on Dangerous Goods	**A1**- Dangerous Goods (DG)workshop for States 'inspectors	ICAO and ACAO. Supported by FAA	1. Joint ACAO/ICAO Dangerous Good Webinar has been held on 8 Nov 2021. 2. Joint event ACAO/ICAO Dangerous Goods Workshop back to back with Ground handling workshop planned to be held in Casa Blanca during 13-16 Nov 2022.	2022
		A2- Develop guidance material/share best practices to support States' inspectors for the conduct of the oversight for DG	States (Bahrain, Sudan, and Oman)	. To develop a guidance and be presented to SEIG/4 for review.	2022
		A3- Develop guidance material and providing webinar high energy devices	IATA	IATA will provide the tentative dates on Jan 2022 or Q1 2022	2022
		A4: Organize DG capacity building training	ICAO		2022

G2-SEI-05:	Human factors and Competence of Personnel	**A1**- Advisory Circular: Crew Resource Management Training Programme (CRM). **(Action addressed under G1-SEI-04:CFIT)**	IATA	IATA will provide the tentative dates on Jan 2022 or Q1 2022	2022
		A2- Organize Crew Resource Management Training workshop to share experience and best practices on CRM practical implementation	ICAO and ACAO. Supported by IATA and KSA. KSA: presentation/case study to be delivered by a subject matter expert (HF Investigator). FAA to be confirmed	Crew Resource Management (CRM) Workshop back to back with Team Resource Management (TRM) workshop planned to be held 19-23 June 2022. Joint ACAO/ICAO event and to be supported by KSA, CANSO, FAA and IATA	2022
		A3- Conduct workshop/webinar on fatigue risk management and mental Health best practices	IATA and ACAO. Supported by CANSO, IFALPA, Jordan, and KSA.	1- IATA will provide the tentative dates on Jan 2022 or Q1 2022 2- An online workshop conducted jointly by ACAO and CAAS/SAA from 20 to 24 Sep 2021.	2022
		A4- Organize Team Resource Management Training workshop to share experience and best practices on TRM practical implementation	ICAO, ACAO, IATA, CANSO, FAA, and States (TBD	Crew Resource Management (CRM) Workshop back to back with Team Resource Management (TRM) workshop planned to be held 19-23 June 2022. Joint ACAO/ICAO and supported by FAA and IATA	2022

G2-SEI-06:	Impact of security on safety	**A1-** Circulate ICAO Doc 10084 Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones	ICAO	SL issued by ICAO July 2021. Completed	2021
		A2- Organize seminar/Symposium to exchange experiences and good practices on assessing the risks and sharing of information related to the overflying of conflict zones in coordination with RASFG-MID and MIDANPIRG	ICAO and ACAO. Supported by IATA, CANSO, States (TBD)	Coordination on-going and planned to be included in ICAO MID Office tentative schedule 2022	2022
		A3- Encourage States to issue NOTAMs to share threats information emanated from conflict zones within their airspaces	ICAO	Maintained as planned and will be issued Dec 2021.	2021
		A4- AIM forum NOTAM standardized template.	ICAO and IATA		2022
Goal 3: Ensure the Appropriate Infrastructure is available to Support Safe Operations					
G3-SEI-01:	Certification of International Aerodromes	**A1**- Support States on the implementation of the ICAO Annex 14 requirements to achieve compliance with regards to Aerodrome Design and Operations, through Workshops/Training	ICAO and ACI. Supported by ACAO	1. Training course conducted on implementing Annex 14, during period of 8-12 Nov2020 2. Online Workshop on airport certification conducted by ACAO during the period 25-28 Oct 2021	2022
		A2- Enhance capacity building for States CAAs and Airport operators related to aerodromes certification through Workshops/Training	ICAO and ACI	Conducted training on aerodrome certification 15-19 Nov 2021	2022
		A3- Develop guidance material/ share best practices on Apron Management	States (UAE and Egypt)	Reviewed by ASPIG and be presented for endorsement by the RASG-MID/9	2022
		A4 – Deployment of iPack on Aerodrome Re-Start	ICAO	iPack for Aerodrome Restart deployment is on-going for Syria.	2022

G3-SEI-02:	Establish Runway Safety Team (RST) at International Aerodromes	**A1-** Conduct of assistance missions by the Runway Safety Go-Team (RST)	ICAO. Supported RSP (Runway Safety Programme Partners)	Coordination on going	2022
		A2: Support States to implement the Global Reporting Format Methodology through workshops/trainings**: (Action addressed under G1-SEI-02: Runway Excursion)**	ICAO and ACI. Supported by CANSO, IATA, FAA and Aircraft Manufactures	1.Webinar has been conducted on 27 Oct 20 2.ACI webinar on Implementing GRF at airports with non-winter conditions; dated 27 May 2021 3. Five customized training on GRF implementation conducted.	2022
Goal 4: Expand the Use of Industry Programmes					
G4-SEI-01:	Promote the Use of industry Programmes	**A1-** Encourage IATA's IOSA and ISAGO registrations through safety promotion	IATA	6 States signed the MoU 2 potential States to be added to the list 2022	2022
		A2- Encourage the implementation of ACI Airport Excellence (APEX) in Safety Programme	ICAO and ACI	Coordination on Going with ACI	2022
Goal 5: Implementation of Effective SSPs and SMSs					
G5-SEI-01:	Implement an effective Safety Management	**A1-** Conduct ICAO SSP training course in Cairo	ICAO	SSP course planned for 6-11 March 2022	2022
		A2- Conduct SSP Workshop in coordination with ACAO in Casablanca, Morocco	ICAO and ACAO	1. ACAO/ICAO SSP Implementation Workshop planned 23-27 May 2022. 2. An Event Risk Assessment webinar was delivered on 7 June 2021organised by ICAO MID Office	2022
		A3- Provide SSP/SMS workshops for MID States personnel	ICAO. Supported by IATA, CANSO, ACI, and States (UAE)	1.SSP workshop conducted in Kuwait in March 20. 2.SMS implementation training online course jointly with	2022

				Singapore CAAS 7-11 Feb 2022	
		A4- Develop guidance material/share best practices on occurrence reporting for the CAA personnel on establishing an effective operation of the mandatory and voluntary reporting systems	States (UAE)	Draft to be completed by Q 1 2022 and be presented to SEIG/4 for review	2022
		A5- Support and guide States in the development of NASPs through workshops and sharing of best practices	ICAO and States (UAE)	1. ICAO organized series of RASP webinars. - MID-RASP Webinar conducted by ICAO on 25 May 2021 2. ICAO organized series of Webinars related to GASP/NASP: - 16 March 2021: ICAO's Global Safety Strategy: the Global Aviation Safety Plan. - 30 March 2021: Introduction to the National Aviation Safety Plan - 13 April 2021: Using the Roadmap to Develop a National Aviation Safety Plan	2022
		A6- Development of guidance/share best practices for the processes and procedures for oversight of SMS	States (UAE)	Guidance material structure has been drafted and an update to be presented to the SEIG/3 meeting Draft to be completed by Q1 2022 and presented to SEIG/4 for review	2022
		A7- Deployment of the Aviation Safety Risk Management iPack	ICAO	Completion of ASRM iPACK related to COVID-19 project with PACA Oman and conducted the closing meeting on 4 May 2021. Completed.	2020
		A-8- Conduct assistance missions by SMIT to support States with SSP	SMIT.	SMIT Handbook Draft is reviewed by the SEIG/3 and will be	2022

		implementation		presented to RASG-MID/9 for endorsement.	

Goal 6: Increase Collaboration at the Regional Level to Enhance Safety					
	To be developed in the future				
Regional Operational Safety Risks					
Goal 1: Achieve a continuous reduction in Operational Risks					
G1-SEI-01:	Aircraft upset in flight (LOC-I)	**A1-** Guidance material on flight crew proficiency	IATA and Aircraft manufacturers	IATA will provide the tentative dates on Jan 2022 or Q1 2022	2022
		A2- Advisory Circular: Mode Awareness and Energy State Management Aspects of Flight Deck Automation	IATA and Aircraft manufacturers. Supported by KSA	IATA will provide the tentative dates on Jan 2022 or Q1 2022	2022
		A3- Conduct Upset Recovery Workshop	ACAO, IATA, and ICAO. Supported by FAA	ICAO, KSA, and FAA UPRT conducted in Feb 2020	2022
		A4- Develop guidance material/share best practices on Ground Handling Service Provider Certification Process	IATA and KSA	The 1st guidance material draft to be submitted for ASPIG meeting for review and endorsement by RASG-MID/10	2022
		A5- Conduct a Ground Handling workshop	ACAO and ICAO. Supported by IATA	Ground handling Workshop back to back with Dangerous Goods workshop planned to be held in Casablanca during 14-16 Nov 2022. Joint event ACAO/ICAO	2022
G1-SEI-02:	Runway Safety- Runway Excursion	**A1-** Support States to implement the Global Reporting Format (GRF) Methodology through Webinar/ Workshops/Training	ICAO and ACI. Supported by CANSO, IATA, FAA and Aircraft Manufactures	**05** virtual GRF Training classrooms conducted for the MID Region States/Airport Operators	2021
		A2- Guidance material on un-Stabilized Approach	IATA. Supported by CANSO and IFALPA	GM on UA shared by IATA and it will be shared with States	2022
		A3- MID Region Action Plan/Milestones on the Global Reporting Format (GRF) Implementation	ICAO	Completed and submitted for the States	2021
		A4: MID Region customized ACI-ICAO Global Reporting Format (GRF) for Runway Surface Conditions for Airport	ACI, ICAO	**05** virtual GRF Training classrooms conducted for the MID Region States/Airport Operators	2021

		Operators			
		A5- Develop guidance material/share best practices on GRF Deployment	UAE supported by IRAN, OMAN, SAUDI ARABIA	to be submitted to the ASPIG/4 for its validation.	2022
G1-SEI-03:	Runway Safety- Runway Incursion	**A1**- Support States to implement aerodrome inspection through workshops/trainings/Webinars	ICAO. Supported by FAA and UAE	Coordination on going with FAA and UAE	2022
G1-SEI-4:	Controlled Flight into Terrain (CFIT)	**A1**- Advisory Circular: Guidance for Operators to Ensure Effectiveness of GPWS Equipment	IATA and Aircraft manufacturers	IATA will provide the tentative dates on Jan 2022 or Q1 2022	2022
		A2- Advisory Circular: Instrument Approach Procedures Using Continuous Descent Final Approach Techniques	IATA and Aircraft manufacturers	IATA will provide the tentative dates on Jan 2022 or Q1 2022	2022
		A3- Circulate ICAO Guidance Doc 10000 on Flight Data Analysis Programme (FDAP) to support States providing oversight to air operators	ICAO	SL on ICAO Guidance Doc 10000 circulated by ICAO during July 2021. Completed	2022
		A4- Advisory Circular: Crew Resource Management Training Programme (CRM)	IATA, Aircraft manufacturers	IATA will provide the tentative dates on Jan 2022 or Q1 2022	2022
G1-SEI-05A1:	Loss of separation between civil and military aircraft"	**A1**- States and regional organizations to share occurrences and/or safety analysis/information related to Near Mid Air Collisions (NMACs) including to the "Loss of separation between civil and military aircraft" and ATM-SG to perform a technical analysis of the reported occurrences and and/or safety analysis/information and then come out with recommendations. The technical analysis of the reported occurrences and recommendations be shared with ASRG.	ICAO. Supported by IATA, CANSO, and States	NMACs analysis to be provided by IATA to the ATM-SG for technical review and then the ATM-SG to provide recommendations for the next course of actions.	2022
		A2: Guidance/raising awareness/ coordination related to the civil and military cooperation in particular over	ACAO and ICAO. Supported by States	CMC webinar is planned to be held 14-16 June 2022	2022

		high seas			

G1-SEI-05A2:	Interference to GNSS Signals	**A1**: GNSS/GPS interferences	ICAO and IATA	1.RSAdeveloped and circulated in 2020	2022

				2.Identify impacted area, identify source of the interference signals, develop RSA including risk management recommendations for preventive and reactive measures and reporting procedures.	
G1-SEI-05B:	Ensure the Safe Operations of UAS (drones)	**A1**- Circulate ICAO developed guidance and advisory circulars: Regulatory framework for the operation of drones to support states' CAA personnel in the implementation and oversight of UAS operations	ICAO	SL issued on the subject by ICAO MID office July 2021. Completed.	2021
		A2- Organize symposium on Drones related subjects	ICAO, ACAO. Supported FAA	- An ACAO-DfT-TSA Joint Virtual Workshop on Drones has been conducted the 9 & 10 Nov 21 with the attendance of more than 100 participants from 14 Arab States, 5regional organizations and industry stakeholders. - Symposium Planned to be held in Morocco during 5-7 Dec 2022	2022
		A3- States and regional organizations to share occurrences and/or safety analysis/information involving drones to ASRG to perform a technical analysis of the reported occurrences and come out with recommendations.	ICAO, IATA, ACI, CANSO, and States (TBD)	IATA to provide safety information and safety analysis if available.	2022

Appendix E:

SEIs identified in MID-RASP and recommended to States for inclusion in their NASPs as appropriate

SEI Code	SEI name
Organizational Challenges and Emerging Risks	
Goal 2: Strengthen States' Safety Oversight Capabilities	
G2-SEI-01:	Strengthening of States' Safety Oversight Capabilities
G2-SEI-04:	Enhance State Oversight on Dangerous Goods
G2-SEI-05:	Human factors and Competence of Personnel
G2-SEI-06:	Impact of security on safety
Goal 3: Ensure the Appropriate Infrastructure is available to Support Safe Operations	
G3-SEI-01:	Certification of International Aerodromes
G3-SEI-02:	Establish Runway Safety Team (RST) at International Aerodromes
Goal 5: Implementation of Effective SSPs and SMSs	
G5-SEI-01:	Implement an effective Safety Management
Regional Operational Safety Risks	
Goal 1: Achieve a continuous reduction in Operational Risks	
G1-SEI-01:	Aircraft upset in flight (LOC-I)
G1-SEI-02:	Runway Excursion (RE)
G1-SEI-03:	Runway Incursion (RI)
G1-SEI-4:	Controlled Flight Into Terrain (CFIT)
G1-SEI-05:	Airborne Conflict (Mid-Air Collisions)- Loss of separation between civil and military aircraft" and Ensure the Safe Operations of UAS (drones)

Appendix F: Definitions

Accident Investigation Authority. The authority designated by a State as responsible for aircraft accident and incident investigations within the context of Annex 13.

Audit Area. One of eight audit areas pertaining to the Universal Safety Oversight Audit Programme (USOAP), i.e. primary aviation legislation and civil aviation regulations (LEG), civil aviation organization (ORG); personnel licensing and training (PEL); aircraft operations (OPS); airworthiness of aircraft (AIR); aircraft accident and incident investigation (AIG); air navigation services (ANS); and aerodromes and ground aids (AGA).

Contributing Factors. Actions, omissions, events, conditions, or a combination thereof, which, if eliminated, avoided or absent, would have reduced the probability of the accident or incident occurring, or mitigated the severity of the consequences of the accident or incident. the identification of contributing factors does not imply the assignment of fault or the determination of administrative, civil or criminal liability.

Critical Elements (CEs). The critical elements of a safety oversight system encompass the whole spectrum of civil aviation activities. They are the building blocks upon which an effective safety oversight system is based. The level of effective implementation of the CEs is an indication of a State's capability for safety oversight.

Effective Implementation (EI). A measure of the State's safety oversight capability, calculated for each critical element, each audit area or as an overall measure. The EI is expressed as a percentage.

Operator. The person, organization or enterprise engaged in or offering to engage in an aircraft operation.

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

Safety Audit. A USOAP CMA audit that a State requests and pays for (on a cost recovery basis). The State determines the scope and date of a safety audit. Also see definition of audit.

Safety Data. A defined set of facts or set of safety values collected from various aviation related sources, which is used to maintain or improve safety.

Note: such safety data is collected from proactive or reactive safety-related activities, including but not limited to:

a. accident or incident investigations;
b. safety reporting;
c. continuing airworthiness reporting;
d. operational performance monitoring;
e. inspections, audits, surveys; or
f. safety studies and reviews.

Safety Enhancement: initiative (SEI). One or more actions to eliminate or mitigate risks associated with contributing factors to a safety occurrence or to address an identified safety deficiency. There are two main types of SEIs to address safety risks and issues at the Regional level.

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

Safety Management System (SMS). A systematic approach to managing safety, including the necessary organizational structures, accountability, responsibilities, policies and procedures.

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

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

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

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

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

Significant Safety Concern (SSC). Occurs when the State allows the holder of an authorization or approval to exercise the privileges attached to it, although the minimum requirements established by the State and by the Standards set forth in the Annexes to the Convention are not met, resulting in an immediate safety risk to International Civil Aviation.

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

Appendix G: Abbreviations and Acronyms

AIIA:	Accident and Incident Investigation Authority
ACI:	Airports Council International
ADRM:	Aerodrome
AGA:	Aerodrome and Ground Aids
AIG:	Aircraft Accident and Incident Investigation
ALAR:	Approach and Landing Reduction
ANS:	Air Navigation Services
ANSP:	Air Navigation Service Provider
APV:	Approaches with Vertical Guidance
ARC:	Abnormal Runway Contact
ASBU:	Aviation System Block Upgrade
ASR:	Annual Safety Report
ATM:	Air Traffic Management
ATS:	Air Traffic Services
BIRD:	Bird Strike
CAA:	Civil Aviation Authority
CASI:	Civil Aviation Safety Inspectors
CAST:	Commercial Aviation Safety Team
CE:	Critical Element
CFIT:	Controlled Flight into Terrain
CICTT:	CAST/ICAO Common Taxonomy Team
CMA:	Continuous Monitoring Approach
CRM:	Crew Resource Management
CAST:	US Commercial Aviation Safety Team
DGCA:	Conference of Directors General of Civil Aviation
EI:	Effective Implementation
FDAP:	Flight Data Analysis Programme
FIR:	Flight Information Region
F-NI:	Fire/ Smoke (Non-Impact)
GADSS:	Global Aeronautical Distress and Safety System
GANP:	Global Air Navigation Plan
GASOS:	Global Aviation Safety Oversight System
GASP:	Global Aviation Safety Plan
GASP-SG:	Global Aviation Safety Plan Study Group
GEN:	General Aspects
GPWS:	Ground Proximity Warning System
HRC:	High Risk Categories of Occurrences
IATA:	International Air Transport Association
ICAO:	International Civil Aviation Organization
IFALPA:	International Federation of Airline Pilots' Associations
IOSA:	IATA Operational Safety Audit
ISAGO:	IATA Safety Audit for Ground Operations
iSTARS:	Integrated Safety Trend Analysis and Reporting System
LOC-I:	Loss of Control In-flight
MAC:	AIRPROX/ TCAS alert/ loss of separation/ near miss collisions/ mid-air collisions
MTOW:	Maximum Take-Off Weight
NASP:	National Aviation Safety Plan

NCLB:	No Country Left Behind
NDP:	National Development Plan
OAG:	Official Airline Guide
OPS:	Flight Operations (USOAP Audit Area)
ORG:	Civil Aviation Organization (USOAP Audit Area)
PDCA:	Plan-Do-Check-Act methodology
RAMP:	Ground Handling
RASG:	Regional Aviation Safety Group
RASP:	Regional Aviation Safety Plan
RE:	Runway Excursion (departure or landing)
RI:	Runway Incursion
RS:	Runway Safety
RSOO:	Regional Safety Oversight Organization
RST:	Runway Safety Team
RTC:	ICAO Regional Training Centre of Excellence
SAFE:	ICAO Safety Fund
SARPs:	Standards and Recommended Practices
SCF-NP:	System/Component Failure or Malfunction – Non-power plant
SCF-PP:	System/Component Failure or Malfunction - Power plant
SDCPS:	Safety Data Collection and Processing System
SEI:	Safety Enhancement Initiatives
SISG:	ICAO's Safety Indicator Study Group
SMS:	Safety Management Systems
SPI:	Safety Performance Indicator
SSC:	Significant Safety Concern
SSO:	State Safety Oversight
SSP:	State Safety Programme
SRP:	Safety Reporting and Programme
TCAS:	Traffic Collision and Avoidance System
TOR:	Terms of Reference
UAS:	Unmanned Aircraft Systems
UNK:	Unknown or Undetermined
UPRT:	Upset Prevention and Recovery Training
USOAP:	Universal Safety Oversight Audit Programme
USOS:	Undershoot/ Overshoot

-END-

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APPENDIX B

Safety Actions- Consolidated List of SEIs with their respective Actions

SEI Code	SEI name	Actions	Owner(s)	Status/Progress	Completion date
Organizational Challenges and Emerging Risks					
Goal 2: Strengthen States' Safety Oversight Capabilities					
G2-SEI-01:	Strengthening of States' Safety Oversight Capabilities	**A1**- Conduct Capacity Building Activities (Workshops, Training, Webinars, GSI Courses) to promote effective implementation of SARPs, with a focus on the following technical areas: ANS, AGA, and OPS	ICAO	USOAP-CMA webinar conducted on 11 Feb 2021	2022
		A2- Conduct technical assistance and NCLB missions to States	ICAO		2022
		A3- Develop and implement a specific NCLB plan of actions	ICAO and concerned States		2022
G2-SEI-02:	Improve Regional Cooperation for the Provision of Accident & Incident Investigation	**A1**- Development and signature of the MOU among MENA ARCM States	ICAO, ACAO, and States (TBD)	. The AIIG/1 virtual meeting reviewed the MENA ARCM MoU draft and proposed to be presented to the 5th DGCA-MID for endorsement. The ARCM MoU endorsed by the 5th DGCA-MID virtual meeting and has been circulated to the States for signature.	2022
		A2- Conduct AIG Capacity Building Activities	ICAO and ACAO	Aircraft Accident and Incident investigation workshop to be held in Morocco 28 Feb-1 March 2022. Joint event ACAO/ICAO.	2022
G2-SEI-03:	Sharing of Safety	**A1**- Development of questionnaire to be	ICAO, ACAO, and		2021

	Recommendations related to Accidents and Serious Incidents	circulated to MENA States on sharing safety recommendations on dedicated platform	States (KSA & UAE)	The AIIG/1 virtual meeting agreed to establish a repository for MENA ARCM Member States to allow sharing and analysis of their safety recommendations and accordingly, the meeting reviewed the draft questionnaire and agreed to its presentation to the RASG-MID/9 meeting for endorsement.	
G2-SEI-04:	Enhance State Oversight on Dangerous Goods	**A1**- Dangerous Goods (DG)workshop for States 'inspectors	ICAO and ACAO. Supported by FAA	1. Joint ACAO/ICAO Dangerous Good Webinar has been held on 8 Nov 2021. 2. Joint event ACAO/ICAO Dangerous Goods Workshop back to back with Ground handling workshop planned to be held in Casa Blanca during 13-16 Nov 2022.	2022
		A2- Develop guidance material/share best practices to support States' inspectors for the conduct of the oversight for DG	States (Bahrain, Sudan, and Oman)	. To develop a guidance and be presented to SEIG/4 for review.	2022
		A3- Develop guidance material and providing webinar high energy devices	IATA	IATA will provide the tentative dates on Jan 2022 or Q1 2022	2022
		A4: Organize DG capacity building training	ICAO		2022
G2-SEI-05:	Human factors and Competence of Personnel	**A1**- Advisory Circular: Crew Resource Management Training Programme (CRM). **(Action addressed under G1-SEI-04:CFIT)**	IATA	IATA will provide the tentative dates on Jan 2022 or Q1 2022	2022
		A2- Organize Crew Resource Management Training workshop to share experience and best practices on CRM practical implementation	ICAO and ACAO. Supported by IATA and KSA. KSA: presentation/case study to be	Crew Resource Management (CRM) Workshop back to back with Team Resource Management (TRM) workshop planned to be held 19-23 June 2022. Joint ACAO/ICAO event and to be	2022

			delivered by a subject matter expert (HF Investigator). FAA to be confirmed	supported by KSA, CANSO, FAA and IATA	
		A3- Conduct workshop/webinar on fatigue risk management and mental Health best practices	IATA and ACAO. Supported by CANSO, IFALPA, Jordan, and KSA.	1- IATA will provide the tentative dates on Jan 2022 or Q1 2022 2- An online workshop conducted on FRMS jointly by ACAO and CAAS/SAA from 20 to 24 Sep 2021.	2022
		A4- Organize Team Resource Management Training workshop to share experience and best practices on TRM practical implementation	ICAO, ACAO, IATA, CANSO, FAA, and States (TBD	Crew Resource Management (CRM) Workshop back to back with Team Resource Management (TRM) workshop planned to be held 19-23 June 2022. Joint ACAO/ICAO and supported by FAA and IATA	2022
G2-SEI-06:	Impact of security on safety	**A1-** Circulate ICAO Doc 10084 Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones	ICAO	SL issued by ICAO July 2021. Completed	2021
		A2- Organize seminar/Symposium to exchange experiences and good practices on assessing the risks and sharing of information related to the overflying of conflict zones in coordination with RASFG-MID and MIDANPIRG	ICAO and ACAO. Supported by IATA, CANSO, States (TBD)	Coordination on-going and planned to be included in ICAO MID Office tentative schedule 2022	2022
		A3- Encourage States to issue NOTAMs to share threats information emanated from conflict zones within their airspaces	ICAO	Maintained as planned and will be issued Dec 2021.	2021
		A4- AIM forum NOTAM standardized template.	ICAO and IATA		2022
Goal 3: Ensure the Appropriate Infrastructure is available to Support Safe Operations					
G3-SEI-01:	Certification of International Aerodromes	**A1**- Support States on the implementation of the ICAO Annex 14 requirements to achieve compliance with regards to	ICAO and ACI. Supported by ACAO	1. Training course conducted on implementing Annex 14, during period of 8-12	2022

		Aerodrome Design and Operations, through Workshops/Training		Nov2020 2. Online Workshop on airport certification conducted by ACAO during the period 25-28 Oct 2021	
		A2- Enhance capacity building for States CAAs and Airport operators related to aerodromes certification through Workshops/Training	ICAO and ACI	Conducted training on aerodrome certification 15-19 Nov 2021	2022
		A3- Develop guidance material/ share best practices on Apron Management	States (UAE and Egypt)	Reviewed by ASPIG and be presented for endorsement by the RASG-MID/9	2022
		A4 – Deployment of iPack on Aerodrome Re-Start	ICAO	iPack for Aerodrome Restart deployment is on-going for Syria.	2022
G3-SEI-02:	Establish Runway Safety Team (RST) at International Aerodromes	**A1**- Conduct of assistance missions by the Runway Safety Go-Team (RST)	ICAO. Supported RSP (Runway Safety Programme Partners)	Coordination on going	2022
		A2: Support States to implement the Global Reporting Format Methodology through workshops/trainings**: (Action addressed under G1-SEI-02: Runway Excursion)**	ICAO and ACI. Supported by CANSO, IATA, FAA and Aircraft Manufactures	1.Webinar has been conducted on 27 Oct 20 2.ACI webinar on Implementing GRF at airports with non-winter conditions; dated 27 May 2021 3. Five customized training on GRF implementation conducted.	2022
Goal 4: Expand the Use of Industry Programmes					
G4-SEI-01:	Promote the Use of industry Programmes	**A1**- Encourage IATA's IOSA and ISAGO registrations through safety promotion	IATA	6 States signed the MoU 2 potential States to be added to the list 2022	2022
		A2- Encourage the implementation of ACI Airport Excellence (APEX) in Safety Programme	ICAO and ACI	Coordination on Going with ACI	2022
Goal 5: Implementation of Effective SSPs and SMSs					

G5-SEI-01:	Implement an effective Safety Management	**A1-** Conduct ICAO SSP training course in Cairo	ICAO	SSP course planned for 6-11 March 2022	2022
		A2- Conduct SSP Workshop in coordination with ACAO in Casablanca, Morocco	ICAO and ACAO	1. ACAO/ICAO SSP Implementation Workshop planned 23-27 May 2022. 2. An Event Risk Assessment webinar was delivered on 7 June 2021organised by ICAO MID Office	2022
		A3- Provide SSP/SMS workshops for MID States personnel	ICAO. Supported by IATA, CANSO, ACI, and States (UAE)	1.SSP workshop conducted in Kuwait in March 20. 2.SMS implementation training online course jointly with Singapore CAAS 7-11 Feb 2022	2022
		A4- Develop guidance material/share best practices on occurrence reporting for the CAA personnel on establishing an effective operation of the mandatory and voluntary reporting systems	States (UAE)	Draft to be completed by Q 1 2022 and be presented to SEIG/4 for review	2022
		A5- Support and guide States in the development of NASPs through workshops and sharing of best practices	ICAO and States (UAE)	1. ICAO organized series of RASP webinars. - MID-RASP Webinar conducted by ICAO on 25 May 2021 2. ICAO organized series of Webinars related to GASP/NASP: - 16 March 2021: ICAO's Global Safety Strategy: the Global Aviation Safety Plan. - 30 March 2021: Introduction to the National Aviation Safety Plan - 13 April 2021: Using the Roadmap to Develop a National Aviation Safety Plan	2022
		A6- Development of guidance/share best	States (UAE)	Guidance material structure has	2022

		practices for the processes and procedures for oversight of SMS		been drafted and an update to be presented to the SEIG/3 meeting Draft to be completed by Q1 2022 and presented to SEIG/4 for review	
		A7- Deployment of the Aviation Safety Risk Management iPack	ICAO	Completion of ASRM iPACK related to COVID-19 project with PACA Oman and conducted the closing meeting on 4 May 2021. Completed.	2020
		A-8- Conduct assistance missions by SMIT to support States with SSP implementation	SMIT.	SMIT Handbook Draft is reviewed by the SEIG/3 and will be presented to RASG-MID/9 for endorsement.	2022
Goal 6: Increase Collaboration at the Regional Level to Enhance Safety					
	To be developed in the future				
Regional Operational Safety Risks					
Goal 1: Achieve a continuous reduction in Operational Risks					
G1-SEI-01:	Aircraft upset in flight (LOC-I)	**A1**- Guidance material on flight crew proficiency	IATA and Aircraft manufacturers	IATA will provide the tentative dates on Jan 2022 or Q1 2022	2022
		A2- Advisory Circular: Mode Awareness and Energy State Management Aspects of Flight Deck Automation	IATA and Aircraft manufacturers. Supported by KSA	IATA will provide the tentative dates on Jan 2022 or Q1 2022	2022
		A3- Conduct Upset Recovery Workshop	ACAO, IATA, and ICAO. Supported by FAA	ICAO, KSA, and FAA UPRT conducted in Feb 2020	2022
		A4- Develop guidance material/share best practices on Ground Handling Service Provider Certification Process	IATA and KSA	The 1st guidance material draft to be submitted for ASPIG meeting for review and endorsement by RASG-MID/10	2022
		A5- Conduct a Ground Handling workshop	ACAO and ICAO. Supported by IATA	Ground handling Workshop back to back with Dangerous Goods workshop planned to be held in Casablanca during 14-16 Nov 2022. Joint event ACAO/ICAO	2022
G1-SEI-02:	Runway Safety- Runway Excursion	**A1**- Support States to implement the Global Reporting Format (GRF) Methodology through Webinar/	ICAO and ACI. Supported by CANSO, IATA,	**05** virtual GRF Training classrooms conducted for the MID Region States/Airport Operators	2021

		Workshops/Training	FAA and Aircraft Manufactures		
		A2- Guidance material on un-Stabilized Approach	IATA. Supported by CANSO and IFALPA	GM on UA shared by IATA and it will be shared with States	2022
		A3- MID Region Action Plan/Milestones on the Global Reporting Format (GRF) Implementation	ICAO	Completed and submitted for the States	2021
		A4: MID Region customized ACI-ICAO Global Reporting Format (GRF) for Runway Surface Conditions for Airport Operators	ACI, ICAO	**05** virtual GRF Training classrooms conducted for the MID Region States/Airport Operators	2021
		A5- Develop guidance material/share best practices on GRF Deployment	UAE supported by IRAN, OMAN, SAUDI ARABIA	to be submitted to the ASPIG/4 for its validation.	2022
G1-SEI-03:	Runway Safety- Runway Incursion	**A1**- Support States to implement aerodrome inspection through workshops/trainings/Webinars	ICAO. Supported by FAA and UAE	Coordination on going with FAA and UAE	2022
G1-SEI-4:	Controlled Flight into Terrain (CFIT)	**A1**- Advisory Circular: Guidance for Operators to Ensure Effectiveness of GPWS Equipment	IATA and Aircraft manufacturers	IATA will provide the tentative dates on Jan 2022 or Q1 2022	2022
		A2- Advisory Circular: Instrument Approach Procedures Using Continuous Descent Final Approach Techniques	IATA and Aircraft manufacturers	IATA will provide the tentative dates on Jan 2022 or Q1 2022	2022
		A3- Circulate ICAO Guidance Doc 10000 on Flight Data Analysis Programme (FDAP) to support States providing oversight to air operators	ICAO	SL on ICAO Guidance Doc 10000 circulated by ICAO during July 2021. Completed	2022
		A4- Advisory Circular: Crew Resource Management Training Programme (CRM)	IATA, Aircraft manufacturers	IATA will provide the tentative dates on Jan 2022 or Q1 2022	2022
G1-SEI-05A1:	Loss of separation between civil and military aircraft"	**A1**- States and regional organizations to share occurrences and/or safety analysis/information related to Near Mid Air Collisions (NMACs) including to the "Loss of separation between civil and military aircraft" and ATM-SG to perform a technical analysis of the reported	ICAO. Supported by IATA, CANSO, and States	NMACs analysis to be provided by IATA to the ATM-SG for technical review and then the ATM-SG to provide recommendations for the next course of actions.	2022

		occurrences and and/or safety analysis/information and then come out with recommendations. The technical analysis of the reported occurrences and recommendations be shared with ASRG.			
		A2: Guidance/raising awareness/ coordination related to the civil and military cooperation in particular over high seas	ACAO and ICAO. Supported by States	CMC webinar is planned to be held 14-16 June 2022	2022
G1-SEI-05A2:	Interference to GNSS Signals	**A1**: GNSS/GPS interferences	ICAO and IATA	1.RSAdeveloped and circulated in 2020 2.Identify impacted area, identify source of the interference signals, develop RSA including risk management recommendations for preventive and reactive measures and reporting procedures.	2022
G1-SEI-05B:	Ensure the Safe Operations of UAS (drones)	**A1**- Circulate ICAO developed guidance and advisory circulars: Regulatory framework for the operation of drones to support states' CAA personnel in the implementation and oversight of UAS operations	ICAO	SL issued on the subject by ICAO MID office July 2021. Completed.	2021
		A2- Organize symposium on Drones related subjects	ICAO, ACAO. Supported FAA	- An ACAO-DfT-TSA Joint Virtual Workshop on Drones has been conducted the 9 & 10 Nov 21 with the attendance of more than 100 participants from 14 Arab States, 5regional organizations and industry stakeholders. - Symposium Planned to be held in Morocco during 5-7 Dec 2022	2022
		A3- States and regional organizations to share occurrences and/or safety analysis/information involving drones to	ICAO, IATA, ACI, CANSO, and States (TBD)	IATA to provide safety information and safety analysis if available.	2022

		ASRG to perform a technical analysis of the reported occurrences and come out with recommendations.			

APPENDIX C

MID REGION SAFETY MANAGEMENT IMPLEMENTATION ROADMAP 2020-2025

1. Introduction

1.1 An SSP comprises a range of processes and activities that together provide a State with the means to manage safety and to deliver well-directed safety oversight. An effective SSP assists States to proactively identify hazards and mitigate safety risks at the national level. It is the foundation on which a State builds a proactive approach to national aviation safety.

1.2 Effective SSP implementation is a gradual process. The State plans, organizes, develops, implements, maintains, controls and continuously improves the SSP in a manner that meets its safety objectives. The complexity of the air transportation system and the maturity of the State's safety oversight capabilities determine the time required to achieve a fully mature SSP. The level of effective implementation of an SSP in the State affects its relationship with the national aviation safety plan.

2. Objective

2.1 Assist MID States to comply with the requirement for the implementation of the State Safety Programmes (SSPs) by States and the SMS by service providers as established in the Annex 19, Safety Management, Global Aviation Safety Plan (GASP) and MID Region Safety Strategy. The Roadmap is to be linked to the MID NCLB Strategy in order to support the States in a prioritized manner and will be implemented within the RASG-MID framework.

GASP 2020-2022

2.2 Goal 3 of 2020-2022 edition of the GASP calls for the implementation of effective SSPs. The goal addresses organizational challenges faced by States when implementing an SSP and includes the implementation of SMS by service providers within individual States, in accordance with Annex 19. Two targets are linked to this goal and they represent a phased approach to SSP implementation, as follows:

- Target 3.1 calls for all States to implement the foundation of an SSP by 2022.

- Target 3.2 calls for all States to implement an effective SSP, as appropriate to their aviation system complexity by 2025. An "effective SSP" refers to an SSP that actually achieves the objectives that it is intended to achieve.

MID Region Safety Strategy

2.3 The Strategy was developed in line with the GASP taking into consideration specific needs identified within the framework of the Regional Aviation Safety Group-Middle East (RASG-MID). Goal 5 is related to the Implementation of Effective SSPs and SMSs with the following targets:

- 13 States that have completed the SSP Gap Analysis on iSTARS by 2020
- 13 States that have developed an SSP implementation plan by 2020
- Regional Average SSP Foundation of 70% by 2022
- 10 States that have fully implemented the SSP Foundation by 2022
- 10 States that have established an ALoSP by 2025
- 7 States that have implemented an effective SSP by 2025

SSP Gap Analysis

2.4 A State moving into SSP implementation should conduct an SSP gap analysis to ensure it is ready to begin SSP implementation. It should use the ICAO iSTARS SSP Gap Analysis application to complete this process. If a State already has an effective SSP, it can use the established safety risk management process to identify hazards.

SSP foundation PQs

2.5 The term "foundation of an SSP" refers to a subset of the USOAP PQs that have been identified as fundamentals and are considered as prerequisites for sustainable implementation of the full SSP. These are referred to as "SSP foundational PQs". SSP foundational PQs are grouped in nineteen subject areas derived from Annex 19 and Doc 9859. States can prioritize and address these PQs when conducting the SSP gap analysis or while defining the SSP implementation/action plan. The concept of "foundation of an SSP" is intended to replace the 60 per cent EI score previously used in the GASP as a threshold to progress into implementation of the SSP. The intent is that these PQs be included in the SSP implementation planning to ensure sustainability.

National Aviation Safety Plan

2.6 Assembly Resolution A39-12 on ICAO resolves that States should develop and implement national aviation safety plans, in line with the goals of the GASP. Each State should produce a national aviation safety plan. If the State has implemented an SSP, the plan should be linked to this Programme. If the State has other national plans, the national aviation safety plan should be linked to these, as appropriate. The national aviation safety plan presents the strategic direction for the management of aviation safety at the national level, for a set time period (e.g. over the next five years). It outlines to all stakeholders where the CAA and other entities involved in the management of aviation safety should target resources over the coming years.

SSP Implementation Assessment (SSPIA)

2.7 The SSPIA Programme has been rolled out beginning 2018, however the perquisite for scheduling an SSPIA as follows:

- Evidence of a robust and sustainable safety oversight system and aircraft accident/serious incident investigation system (including implementation aspects);
- Evidence of effective mandatory safety reporting system, aircraft accident and incident database and safety analyses; and
- Effective completion and updates of PQ self-assessment by the State (for both "legacy" PQs and SSP-related PQs.

-

2.8 The SSPIA broken down into 8 areas: GEN (SSP general aspects), SDA (safety data analysis), PEL, OPS, AIR (AMO aspects only), ANS (ATS aspects only), AGA, and AIG.

3. Scope

3.1 Based on the data analysis at **Appendix A**, the followings are grouping schemes of States for the SSP implementation proposed:

a. Tier 1: States that currently have a validated SSP Foundation Index above 85%, agree with the ICAO MID Office for an initial assessment mission to be followed by the development of a SSP Implementation Plan (in coordination with the State), in order to receive necessary technical assistance.

b. Tier 2: States that have a validated SSP Foundation Index between 75% and 85%, agree with the ICAO MID Office for an initial assessment mission to be followed by the development of a SSP Implementation Plan (in coordination with the State), in order to receive necessary technical assistance.

c. Tier 3: States that have a validated SSP Foundation Index below 75%, agree with the ICAO MID Office for an initial assessment mission to be followed by the development of a SSP Implementation Plan (in coordination with the State), in order to receive necessary technical assistance.

4. Implementation of the Roadmap

4.1 In order to achieve the objectives and goals of the Roadmap, a Safety Management Implementation Team (SMIT) will be established, with the objective to conduct assistance missions to States, provide workshops and training under the leadership of ICAO in line with the MID Region NCLB Strategy. The main functions and responsibilities of the SMIT are:

a. Assist and support MID States to develop and implement SSP and SMS for Service Providers
b. Assist and support States to complete the SSP Gap Analysis and Implementation Plans
c. Provide SSP workshops and trainings including risk management, safety assurance, safety culture, as required

4.2 The Team will be composed of SMEs from the MID Office, States and other Stakeholders, as needed.

4.3 States are encouraged to provide support for the implementation of the Roadmap.

4.4 The ICAO MID Office will coordinate and monitor the Roadmap's implementation in coordination with the Safety Enhancement Implementation Group (SEIG), and provide technical assistance on this matter.

5. Activities

5.1 The activities comprise direct actions to assist MID States to complete the implementation of every element required for the SSP implementation, including,

a) meet with State high level decision makers to establish and empower the SSP implementation team;
b) conduct an initial assistance mission to determine the State main achievements and identify opportunities for enhancement which will be culminated with the development of an SSP implementation action plan in coordination with the State;
c) assist and support States to complete the SSP Gap Analysis and Implementation Plans;
d) monitor and assess the maturity of the State SSP Implementation;

e) provide SSP workshops and trainings including risk management, safety assurance, safety culture, as required;
f) assist and support State in the development of the SSP documentation including processes/procedures, etc.;
g) prepare States for the USOAP –SSP Implementation Assessment (SSPIA); and
h) follow-up implementation missions, as required.

6. Monitoring the progress of the SSP implementation

6.1 ICAO MID Office will monitor the progress of the MID Region SSP implementation Roadmap 2020-2025 in line with the GASP and MID Region Safety Strategy.

7. Benefits

7.1 The main benefits are to:

a) improve the level of implementation of SSP for States and SMS for Service Providers; and
b) achieve the objectives and targets of the GASP and MID Region Safety Strategy.

8. Beneficiaries

8.1 The main beneficiaries are MID States and their associated civil aviation systems including service providers.

Appendix A: MID Regional Status

a. The implementation of SSP requires certain maturity level of implementation of Critical Elements (CEs) and areas to support an effective safety oversight system that integrates the prescriptive and the performance base concept.

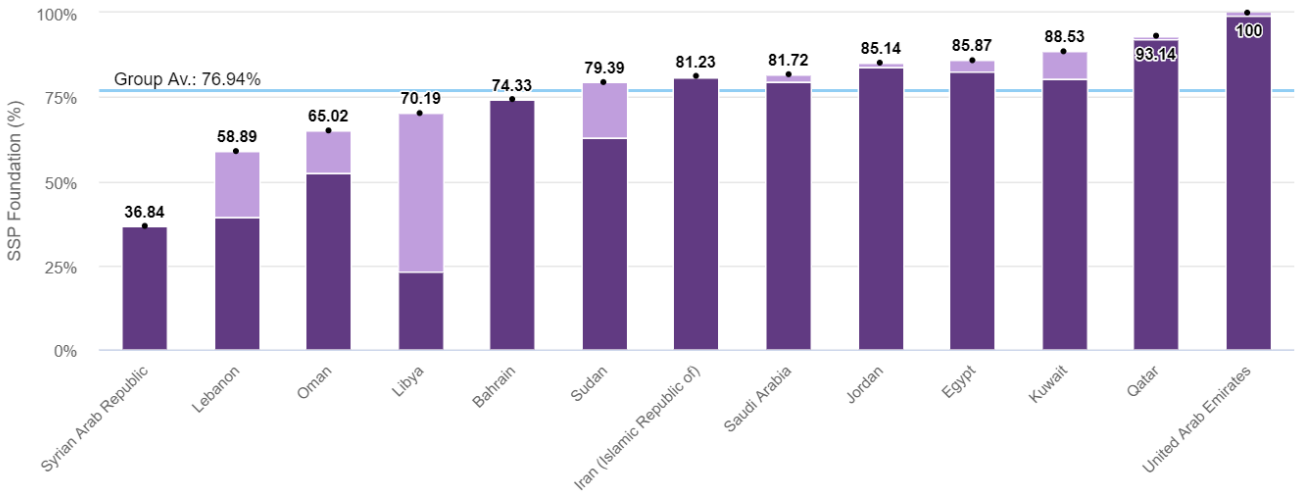
b. ICAO also developed the SSP Foundation PQ tool, which is available on SPACE/iSTARS 3.0. This application displays a sub-set of 299 PQs out of the 1,047 PQs used to calculate the USOAP EI level. This sub-set of PQs is considered as the foundation for an effective SSP implementation. The SSP Foundation Indicator is calculated, as the percentage of PQs which are either validated by USOAP or submitted as completed through the Corrective Action Plans (CAP) on the USOAP CMA Online Framework (OLF). This sub-set of PQs aims to assist the States to build a solid safety oversight foundation for the implementation of SSP and identify the real gap.

c. The analysis of the SSP implementation in this report is based solely on States' responses (self-assessment) using the ICAO Integrated Safety Trend Analysis and Reporting System (iSTARS) portal.

MID Region States overall SSP foundation status

The Graph 1 shows that the overall SSP Foundation Protocol Questions (PQs) results by State as follows:

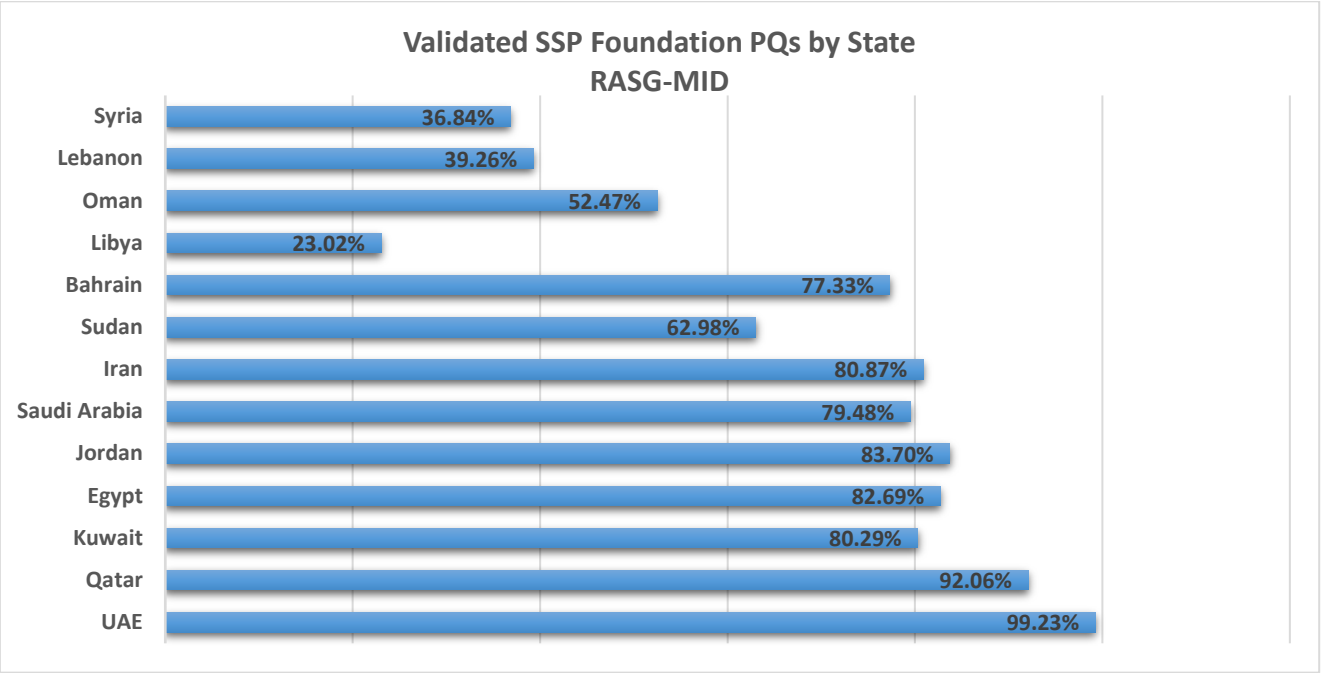
a. Above 95% (1 States): United Arab Emirates
b. Between 80-91 (6 States): Qatar, Kuwait, Saudi Arabia, Jordan, Egypt, Iran;
c. Between 74-80% (3 States): Bahrain, Sudan, Libya; and
d. Below 74% (3 States): Syria, Lebanon, Oman.



Graph 1: Over all SSP Foundation (RAG-MID) Source: iSATRS on 28 Nov 2019

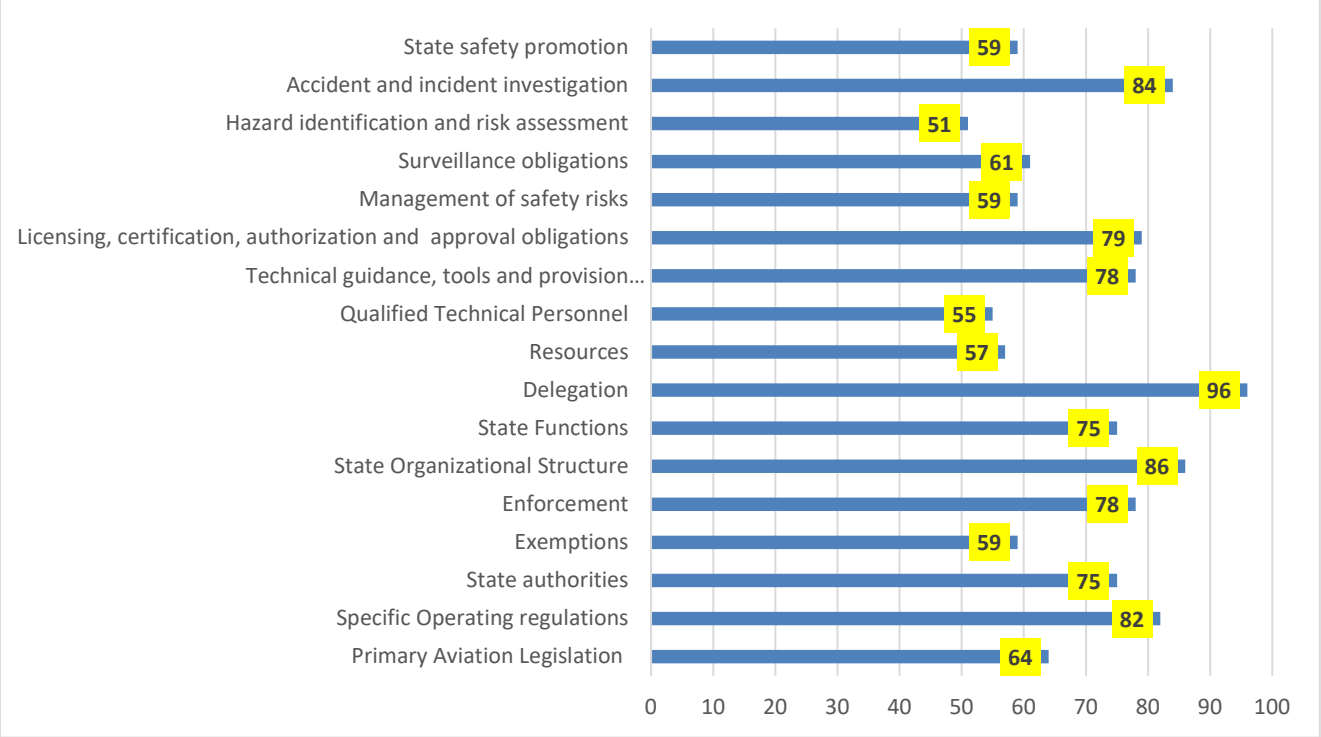
The Graph 2 shows that the validated SSP Foundation Protocol Questions (PQs) results by State:

a. Above 85% (2 States): United Arab Emirates and Qatar
b. Between 75%-=85% (6 States): Kuwait, Saudi Arabia, Jordan, Bahrain, Egypt, Iran; and
c. Below 75% (3 States): Sudan, Libya, Syria, Lebanon, Oman.



Graph 2: Validated SSP Foundation by State- (RASG-MID) Source: iSATRS on 28 Nov 2019

The Graph 3 includes the sub-set of PQs are grouped by 17 subjects based on the Annex 19 amendment 1 and the 4th edition of the Safety Management Manual (forthcoming). States with EI above 60% may still have PQs to address which are fundamental for their SSP. These PQs can be prioritized and addressed when conducting the SSP Gap Analysis or while defining the SSP implementation/action plan Hazard identification and risk assessment is the lowest one with 51%, followed by qualified technical personnel with 55%, resources with 57%, and management of safety risks with 59%.

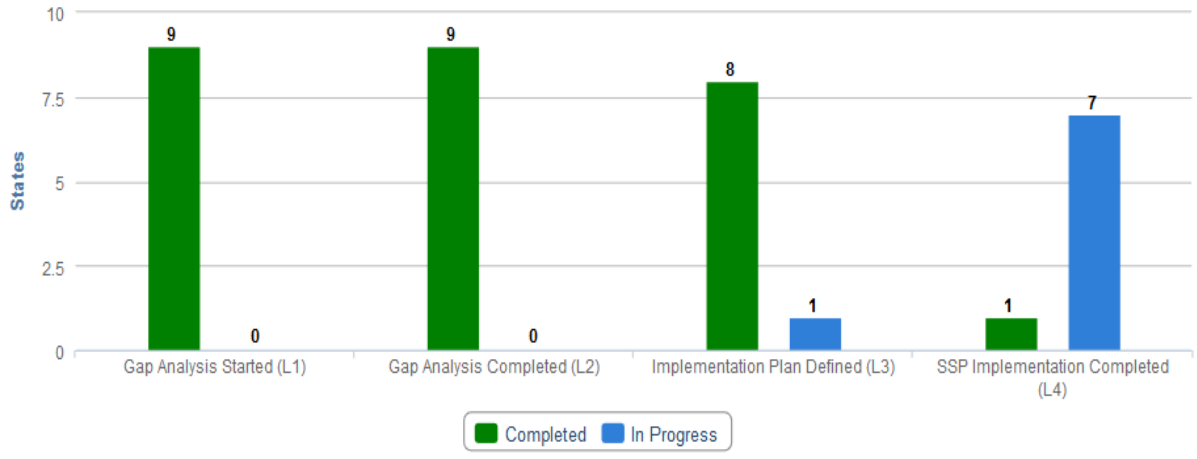


Graph 3: Average EI by Safety Management subjects for States in MID Region (Source: iSTARS as of 30 Oct 2019)

MID Region States SSP implementation progress (Gap Analysis)

The SSP statistics shown in the graph 4 are high-level information about each Gap analysis project performed by States themselves (Self-reported by the State and not validated by ICAO). SSP implementation progress has been measured for each State using simple milestones as per the entered data.

The estimated SSP maturity/implementation levels are shown in the graph 2. It shows that the majority of MID Region Member States have still not closed all actions and fully implemented their SSP.



Graph 4: Source: iSATRS on 28 Nov 2019

Code	State Name	Progress	Level (Up %)	
BHR	Bahrain	SSP Implementation Completed	**L4 / 100% L4**	●●●●
EGY	Egypt	Implementation Plan Defined	**L3 / 33.3% L4**	●●●◐
IRN	Iran (Islamic Republic of)	Gap Analysis Completed	**L2 / 33.3% L3**	●●◐○
JOR	Jordan	-		○○○○
KWT	Kuwait	Implementation Plan Defined	**L3 / 16.7% L4**	●●●◐
OMN	Oman	Implementation Plan Defined	**L3 / 35.7% L4**	●●●◐
QAT	Qatar	Implementation Plan Defined	**L3 / 88.1% L4**	●●●●
SAU	Saudi Arabia	Implementation Plan Defined	**L3 / 97.6% L4**	●●●●
SDN	Sudan	Implementation Plan Defined	**L3 / 92.9% L4**	●●●●
ARE	United Arab Emirates	Implementation Plan Defined	**L3 / 76.2% L4**	●●●◐

ICAO MID

SAFETY

SMIT

Safety Management Implementation Team (Handbook)

First Edition (unedited version) November 2021

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Notice to users:

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Amendments

Amendment Number	Affected pages	Description	Date

1. Definitions

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

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

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

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

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

*__Hazard.__ A condition or an object with the potential to cause or contribute to an aircraft incident or accident.

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

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

Safety data. A defined set of facts or set of safety values collected from various aviation-related sources, which is used to maintain or improve safety.

Note: Such safety data is collected from proactive or reactive safety-related activities, including but not limited to:

a. accident or incident investigations;
b. safety reporting;
c. continuing airworthiness reporting;
d. operational performance monitoring;
e. inspections, audits, surveys; or
f. safety studies and reviews.

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

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

Safety objective. A brief, high-level statement of safety achievement or desired outcome to be accomplished by the State safety programme or service provider's safety management system.

Note: Safety objectives are developed from the organization's top safety risks and should be taken into consideration during subsequent development of safety performance indicators and targets.

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

*__Safety performance__. A State's or service provider´s safety achievement as defined by its safety performance targets and safety performance indicators.

*__Safety performance indicator__. A data-based parameter used for monitoring and assessing safety performance.

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

*__Safety risk__. The predicted probability and severity of the consequences or outcomes of a hazard.

*__State safety programme (SSP)__. An integrated set of regulations and activities aimed at improving safety.

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

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

Trigger. An established level or criteria value for a particular safety performance indicator that serves to initiate an action required, (e.g., an evaluation, adjustment or remedial action).

2. Introduction

2.1 Background

Safety management seeks to proactively mitigate safety risks before they result in aviation accidents and incidents. Through the implementation of safety management, States can manage their safety activities in a more disciplined, integrative and focused manner. Possessing a clear understanding of its role and contribution to safe operations enable a State, and its aviation industry, to prioritize actions to address safety risks and more effectively manage its resources for the optimal benefit of aviation safety.

The effectiveness of a State's safety management activities is strengthened when implemented in a formal and institutionalized way through a State safety Programme (SSP) and through safety management systems (SMSs) for its service providers. A State's safety Programme, combined with the SMSs of its service providers, systematically addresses safety risks, improves the safety performance of each service provider, and collectively, improves the State's safety performance.

In connection with this, MID Region Safety Management Implementation Roadmap has been developed and endorsed by the RSC/7 meeting on February 2020. The same meeting also established the Safety Management Implementation Team (SMIT) as the main Regional Framework for the provision of assistance to States through Safety Management Assistance Missions; and the ICAO MID Office develops a SMIT handbook.

2.2 Purpose of the Handbook

This Handbook is designed to:

a. describe the components of an effective SMIT;
b. serve as a single reference for SMIT activities;
c. define the SSP assessment process; and
d. support States with an effective SSP implementation.

2.3 Scope of the Handbook

A successful SMIT requires all key stakeholders to cooperate in a collaborative manner. This document, therefore, is intended to serve as a reference and guidance for SMIT team and the MID Region civil aviation authority interested in implementing the SSP.

2.4 How to use the Handbook

Chapters 3, 4 and 5 provides a general understanding of the processes involved in managing the SMIT Team and conducting an effective SSP assessment.

Appendix B includes a MID Region SSP assessment tool including comprehensive guidance for its use.

3. Safety Management Implementation Team (SMIT)

3.1 Goals and General Description of the SMIT

The primary role of SMIT Team is to assist and support the MID Region States to develop SSP and effective guidance material to SMS for Service Providers.

The SMIT should conduct an assistance mission to the interested State to determine State SSP main achievements and identify opportunities for enhancement which would be culminated with the development of an SSP implementation plan by the State or to be revised.

Although not considered as a regulatory authority, the SMIT is aimed to support States to develop SSP and effective guidance material to SMS for Service Providers by assisting and supporting States to determine State SSP main achievements and identify opportunities for enhancement.

The SMIT could support States in different subject related to implementation of SSP and SMS, as indicated below:

- Conduct SSP assessment;
- Support States to develop or revise the SSP implementation plan;
- Provide SSP workshops including risk management methodologies, safety performance indicators, SDCPS, safety culture, SMS Assessment;
- Support States in the development of NASPs; and
- Assist and support State in the development of the SSP documentations including processes/procedures development.

3.2 *Terms* of Reference (TORs)

The SMIT is established to assist and support the MID Region states to develop and implement State Safety Programme (SSP) and Safety Management System (SMS) for Service Providers and provide assistance to the MENA RSOO's operations, as needed. The SMIT TORs is at **Appendix A.**

4. SMIT Organizational Structure

The assessment should normally be carried out by a SMIT Team that includes a Chairperson with an appropriate level of competence in SSP and technical specialists (Team Members) to support the assessment.

In any case, the initiator for SSP assessment would normally be the State (Regulator authority). This chapter provides basic about the SMIT composition, training and competency, roles and responsibilities.

4.1 SMIT Composition:

The SMIT team performing the SSP assessment should be diverse and represent all required oversight activities in a State.

The assessment should normally be carried out by a SMIT Team that includes a Chairperson with an appropriate level of competence in SSP and technical specialists to support the assessment. It is important to structure the assessment in a way that allows interaction with a number of personnel at different levels of the State/organization to determine how effective aspects of the SSP are throughout the organization. SMIT consists of a Chairperson and a number of Team Members (TMs), as required, covering the scope of the SSP assessment activity to be conducted. TMs can be SMEs from ICAO MID Office, States and organizations.

The ICAO MID Office identifies and maintains a list of qualified SMIT SMEs. The members of each SSP assessment activity team are selected from this list, based on their availability, up-to-date and training status to conduct the SSP assessment activities. Assignment of qualified TMs to a SSP assessment activity is made in coordination with their respective organizations and authorities.

4.2 *SMIT* Competency Considerations

It is important that staff are trained and competent to carry out the SSP Assessment and to apply the assessment in a consistent manner. This is likely to involve additional training as the Assessment involves inspectors making judgements that may be subjective.

SMIT team should be trained and competent prior to use of the tool as indicated below:

- SSP (based on the ICAO State Safety Management and SSO);
- National Aviation Safety Plan (NASP);
- Differentiating between the NASP and the SSP;
- Interview techniques;
- Understanding of compliance and auditing;
- Understanding of risk management;
- Understanding how safety performance framework and indicators are developed and used in a management system

- Appreciation of the difference between compliance and performance for SSP effectiveness;
- Report writing techniques to allow narrative to be used to summarize the assessment; and
- Ability to support the move from traditional, compliance-based oversight to risk based/performance-based oversight that focuses on how the SSP is performing based on Safety Performance Indicators (SPIs).

4.3 Roles and Responsibilities

The SMIT Chairperson

The Chairperson serves as the coordinator and spokesperson for the team. The roles and responsibilities of the Chairperson may also include a variety of administrative and/or organizational aspects, such as:

i. Coordination with State;
ii. Prepare the scope and duration of the State SSP assessment;
iii. The availability and release of the SMIT TMs;
iv. Conduct face to face meetings/virtual meetings with SMIT team during the preparation phase, during the on-site mission, and after the assistance mission; and
v. Submit the final summary report to ICAO MID office.

SMIT Team Members

For the SSP assessment mission to achieve its maximum effectiveness, it is important to share safety information between Chairperson and SMIT TMs in assessing State SSP activities by supporting the SMIT Chairperson on all SSP assessment activities.

State SSP Focal Point

In order to support SSP assessment and facilitate related activities, each State is responsible for designating/nominating one qualified SSP Focal Point (SSP FP) to act as primary point of contact for all SSP assessment processes and activities.

The SSP FP is responsible for submitting, maintaining and/or updating the information to be provided by the State to the SMIT Team on an ongoing basis, including but not limited to:

i. SSP initial self-assessment;
ii. Information and documentation; and
iii. other relevant safety information, as requested by SMIT team.

5. SSP Assessment Process

The SSP assessment process is divided into the following four phases:

a. the preparation phase;
b. the on-site conduct phase;
c. the summary report production phase; and
d. The development and follow up on the SSP implementation action plan.

a) The Preparation Phase:

During this phase, SMIT Team prepares for the activity by:

i. confirming the scope and duration of the State SSP assessment;
ii. confirming the assignments of the Chairperson and all TMs;
iii. requesting the availability and release of all TMs;
iv. advising State of the SMIT team's composition before the start of the planned activity;
v. the Chairperson to forward the State Self-assessment and all available and relevant material and documents to the TMs prior to the meeting and on-site activity in order to provide them with sufficient time for review and preparation;
vi. reviewing the State initial self-assessment and documents submitted by the State, including to provide their comments/inputs to the SMIT Chairperson;
vii. holding a face to face meeting/virtual meeting to conduct the final review of the consolidated State initial self-assessment;
viii. making travel arrangements; and
ix. managing various administrative issues.

The State should prepare for the activity by:

i. conducting and completing an initial SSP self-assessment using the MID region Assessment tool at **Appendix B**; however, this should be preceded by a gap analysis of the SSP;
ii. Submitting the initial self- assessment once completed to the Chairperson including the supporting documentation at three weeks before the on-site activity;
iii. preparing, updating and organizing evidence and documentation to be submitted to the activity team, including legislation, operating regulations, manuals and/or procedures, records;
iv. communicating with the Chairperson in a timely manner and providing him/her with all required information and documentation;
v. identifying and providing the air operator/service provider to be visited during the on-site mission; and
vi. supporting the Chairperson with travel, transportation and administrative issues and information, as required

b) The On-site Conduct Phase:

During this phase: SMIT team needs to

i. conduct opening briefing by the Chairperson;
ii. conduct a systematic and objective assessment of the State's SSP using MID Region SSP assessment tool at **Appendix B;**
iii. visit the State's air operator/Service Providers;
iv. determine State SSP main achievements and identify opportunities for enhancements/improvements.;
v. collect and documents evidence submitted by the State that support the implementation of SSP; and
vi. inform the State of the outcome of the SSP Assessment during a closing meeting or briefing between the SMIT team and State authorities.

In this phase, the State:

i. ensures that State representatives, counterparts and staff members implicated in the conduct of the activity are available for interviews and discussions with the activity team;
ii. makes the evidence, information and documentation requested by the SMIT team readily available and submits them to the team in a timely manner;
iii. facilitates and arranges visits to industry and/or service providers;
iv. provides a suitable working environment for the activity team; and
v. arranges daily transportation and administrative issues, as required.

c) The Summary Report Production Phase:

During this phase, the summary report **at Appendix C** needs to determine the State SSP main achievements and identify opportunities for enhancement covering areas of State Safety Programme; State Safety Policy, Objectives and Resources; State Safety Risk management; State Safety Assurance; State Safety Promotion; and safety data and safety information collection, analysis, protection, sharing and exchange.

i. the TMs submit to the Chairperson their inputs/contribution on the area(s) covered during the onsite assessment maximum 3 days after the onsite mission;
ii. the Chairperson compiles and performs the technical review of the draft report of the SSP assessment activity and share it with SMIT team for final review before submission;
iii. the Chairperson produces the final draft report and may pass it to State for review and comment for a sufficient period in advance;
iv. the Chairperson, upon receiving State's comments, reviews them in coordination with SMIT for incorporation in the final report; sends the final summary report to ICAO MID office; and
v. ICAO MID Office submits to the State the final summary report at the end of this phase.

d) The Development and Follow up on the SSP Implementation Plan

During this phase States needs to:

i. develop the SSP implementation plan that includes milestones and timeframes if not yet done within maximum three weeks or revise the current SSP implementation plan if it is in place;
ii. submit to ICAO MID office the final SSP implementation plan; and
iii. initiate coordination meetings with ICAO MID office to support in the implementation of the plan, if needed.

ICAO MID office needs to:

i. conduct technical assistance missions using the MID office expertise/resources;
ii. request in-kind assistance/support from States and organizations/Resource Mobilization;
iii. provide guidance on TCB projects and capacity building activities; and
iv. request assistance from SMIT and Safety Enhancement Implementation Group (SEIG).

For continuous improvement, the State may request the SMIT to conduct a follow up SSP assessment mission to ensure the SSP implementation maturity.

APPENDIX A

SAFETY MANAGEMENT IMPLEMENTATION TEAM (SMIT)

TERMS OF REFERENCE

A) Purpose of the SMIT:

The SMIT is established to:

1. Assist and support the MID Region states to develop and implement State Safety Programme (SSP) and Safety Management System (SMS) for Service Providers.
2. Will provide assistance to the MENA RSOO's operations, as needed.

In order to meet its Terms of Reference, the SMIT shall:

1. conduct initial assistance missions to the States to determine States main achievements and identify opportunities for enhancement which will be culminated with the development of an SSP implementation action plan in coordination with the State;
2. assist and support States to complete the SSP gap analysis and SSP implementation plan;
3. provide SSP and SMS workshops for State personnel including risk management, safety assurance, safety culture;
4. assist and support States in the development of the SSP documentations including processes/procedures development, NASPs, etc;
5. meet with States high level decision makers to establish and empower the SSP implementation team;
6. periodic follow-up implementation missions; and
7. share the outcome of its missions with the concerned MID-RASG & MIDANPIRG; as appropriate.

B) Composition:

The SMIT is composed of ICAO Officers, MID Region Champion States and stakeholders

C) Roles and Responsibilities:

- MID-RASG Chairperson – Coordinate SMIT activities and provide overall guidance and leadership;

- ICAO – Support; and

- MID Region Champion States – Provide Subject Matter Experts (SMEs) as in-kind contribution by Champion States and assist in the SSP implementation.

APPENDIX B

MID REGION
State Safety Program (SSP)
Assessment Tool

November 2021

1. Introduction

The International Civil Aviation Organization (ICAO) Annex 19 promotes a common approach to Safety Management across aviation sectors and domains; both for States and for organizations.
An SSP comprises a range of processes and activities that together provide a State with the means to manage safety and to deliver well-directed safety oversight. An effective SSP assists States to proactively identify hazards and mitigate safety risks at the national level. It is the foundation on which a State builds a proactive approach to national aviation safety.

Effective SSP implementation is a gradual process. The State plans, organizes, develops, implements, maintains, controls and continuously improves the SSP in a manner that meets its safety objectives. The complexity of the air transportation system and the maturity of the State's safety oversight capabilities determine the time required to achieve a fully mature SSP. The level of effective implementation of an SSP in the State affects its relationship with the national aviation safety plan

The MID Region SSP assessment tool is customized from the Safety Management International Collaboration Group (SM ICG) SSP assessment tool. The MID Region State Safety Program (SSP) Assessment Tool in direct support of this common approach. The following guidance explains the background and methodology relevant to the use of the MID Region SSP Assessment Tool.

2. Background and Purpose

The MID Region SSP assessment tool has been designed to be used for assessing State Safety Management responsibilities and an SSP. It can be used for initial self-assessment or continuous improvement of an SSP. The tool is based on a series of questions or expectations that can be used by a State and SMIT to assess the progress achieved by the State on the implementation of SSP. It requires an interaction with all SSP stakeholders, face-to-face discussions and interviews with a cross-section of State personnel as part of the assessment. It has been designed to indicate the State's level of compliance with the ICAO Eight Critical Elements (CE) of a State Safety Oversight (SSO) system, integrate the SSP approach and the CEs of a SSO system where applicable. The goal is to thereby establish a common standard for evaluating compliance and progress achieved by the State on the implementation of the SSP. The tool has been designed to evaluate the maturity of the SSP in a standardized manner in order to give the State an overall picture of its SSP performance.

3. SSP Assessment Process

The SSP assessment process is described in the SMIT Handbook and the process is divided into the following four phases:

a. the preparation phase;
b. the on-site conduct phase;
c. the summary report production phase; and
d. The development and follow up on the SSP implementation action plan.

4. How to Use the Tool

Effective SSP implementation is a gradual process that requires time and resources to fully mature. Therefore, the size and complexity of the air transportation system, as well as the maturity of the State's aviation safety oversight capabilities are factors to be considered during an SSP assessment. It is also to be noted that the SMIT team will use the maturity levels **"Not Present and Not Planned (NP)"; "Not Present but Being Worked On (WO)"; "Present"; "Effective"** during the assessment.

This assessment tool follows the Eight CEs of an SSO system as laid out in in Annex 19. Guidance to support the determination of maturity levels for each SSP-related PQ

1. **Not Present and Not Planned (NP)**: Based on current situation in State
2. **Not Present but Being Worked On (WO)**: Based on State's work in progress
3. **Present:** There is evidence that the relevant indicator is documented within the organization's SSP documentation; suitable based on the size, nature, and complexity of the organization, and the inherent risk in its activity; and is in use and an output is being produced
4. **Effective:** there is evidence that the relevant indicator is achieving the desired outcome and has a positive safety impact.

What to look for: This section guides the evaluator when looking at each individual feature and is not meant to be a checklist. The items listed are not specific to an individual Not Present and Not Planned (NP), Not Present but Being Worked On, Present or Effective level but remind the evaluator of areas they may want to consider. Some items in this column may not be relevant depending on the size, type, or nature of the organization.

Objective of the SSP Assessment: The main objective of the MID Region SSP Assessment Tool is to assess the SSP in terms of compliance and effectiveness in a consistent way so that to support and guide States to implement an effective SSP.

MID Region SSP Assessment Tool

State:	**Approval/Certificate Reference(s):**
Scope of the Assessment:	**SMIT Team (Name and Department):**
Date of Assessment:	

1.1 STATE SAFETY PROGRAMME

Assessment	Indicators of compliance and performance		NP	WO	P	E	Comments
	1.1.1	The State has established an SSP that is commensurate with the size and complexity of the State's civil aviation system.					

Guidance

What to look for

- Check there is a published high-level national strategic document (e.g. SSP main document) that lays out the State's methodology, practices and activities to support the implementation of its SSP, including all SSP components.
- **Check the SSP document to ensure it**:
  - Describes all the elements of the SSP (in accordance with Annex 19).
  - Is signed by senior management from all appropriate aviation regulatory organizations.
  - Describes roles and responsibilities of all appropriate State aviation regulatory organizations.
  - Is reviewed periodically for content and currency and updated as appropriate.
- **Check SSP implementation (including updates to the SSP) to ensure:**
  - A gap analysis (based on the Standards and Recommended Practices [SARPs] in Annex 19 or annex updates) was performed and results are available.
  - The gap analysis is reviewed periodically for content and currency.
  - An implementation plan that includes milestones and timeframes based on the SSP gap analysis.
  - Senior management takes action to ensure the implementation plan is accomplished.
  - Coordination amongst all appropriate State organizations.

Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
Based on current situation in State	Based on State's work in progress	1. The State established and documented an SSP in accordance with Annex 19. The SSP is documented and coordinated with all appropriate State aviation organizations. 2. The SSP gap analysis and implementation plan describes all the elements of the SSP in accordance with Annex 19 and is based on the size and complexity of the aviation system	1. The SSP document, gap analysis, and implementation plan are periodically reviewed for currency and content and updated as appropriate.

			3. State regulatory organizations conduct State safety management-related functions and activities as described in the SSP. When delegated, the delegating State reviews and monitors the performance of the delegated entities.	

1.2 STATE SAFETY POLICY, OBJECTIVES AND RESOURCES

1.2.1 PRIMARY AVIATION LEGISLATION (CE-1)

	Indicators of compliance and performance		NP	WO	P	E	Comments
Assessment	1.2.1.1	The State has promulgated a comprehensive and effective aviation law, commensurate with the size and complexity of its aviation system.					
	1.2.1.2	The aviation law enables the oversight and management of civil aviation safety.					
	1.2.1.3	The aviation law enables the enforcement of regulations through relevant authorities or agencies.					
	1.2.1.4	The aviation law provides personnel performing safety oversight functions access to the aircraft, operations, facilities, personnel, and associated records, as applicable.					
Guidance	**What to look for**						
	• **Check that the aviation laws address:** o State authority to regulate the aviation industry. - Verify that the accountable executive has been delegated, as a minimum: 1) authority and accountability, on behalf of the State, for the implementation and maintenance of the SSP across its aviation system, with the exception of the State's accident investigation organization; 2) authority on human resources issues related to the SSP place holder organization; 3) authority on major financial issues related to the SSP place holder organization; 4) authority on service provider certification and safety oversight by the SSP place holder organization; and 5) responsibility for the coordination of all SSP-related issues of the State. o SSP document has been completed and approved by the SSP accountable executive. o State requirements and responsibilities consistent with the Convention on International Civil Aviation (to include applicable annexes). o Oversight and management of civil aviation safety based on size and complexity. o Enforcement of regulations through the relevant authorities or agencies. o Access to aircraft, operations, facilities, personnel, and associated records, as applicable, of organizations performing an aviation activity. o Periodic review for content and currency and updates as appropriate.						

- **Check that the enforcement policies address:**
  - Conditions and measures under which the State carries out enforcement policies.
  - Conditions under which punitive action is considered (e.g., illegal activity, negligence, or willful misconduct).
  - Conditions and allowances for service providers to manage and resolve certain safety issues, within the context of an approved SMS.
  - Promotion of behaviors consistent with a positive safety culture.
  - Periodic review for content and currency and updates as appropriate.

Not Present and Not Planned (NP)	**Not Present but Being Worked On (WO)**	**Present**	**Effective**
Based on current situation in State	Based on State's work in progress	1. There is documented aviation law that provides the authority to regulate the aviation industry. The laws are enforceable and allow for access to regulated entities. 2.The aviation law is consistent with the Convention on International Civil Aviation (to include applicable annexes) and details safety oversight and management of civil aviation based on size and complexity. 3.The aviation industry is regulated consistent with its laws. The enforcement of regulations is performed by relevant authorities having access to regulated entities.	1. The aviation law is comprehensive to provide oversight and management of aviation safety. The aviation law is reviewed periodically for content and currency and updated as appropriate.

1.2.2 SPECIFIC OPERATING REGULATIONS (CE-2)

	Indicators of compliance and performance		NP	WO	P	E	Comments
Assessment	1.2.2.1	The State has promulgated regulations to address, at a minimum, national requirements emanating from the primary aviation legislation.					
	1.2.2.2	The regulations standardize operational procedures, products, services, equipment, and infrastructures.					
	1.2.2.3	The regulations are in accordance with the Annexes to the Convention on International Civil Aviation.					
	1.2.2.4	The State periodically reviews specific operating regulations, guidance material and implementation policies to ensure they remain relevant and appropriate.					
	1.2.2.5	The State has a procedure for identifying and notifying differences to ICAO when regulations are not in accordance the Annexes.					
Guidance	**What to look for**						
	• Check that primary aviation legislation provides for the promulgation of specific operating regulations. • **Check that specific operating regulations address:** o National requirements emanating from the primary aviation legislation. o Standardization of operational procedures, products, services, equipment, and infrastructures. o Applicable to ICAO Annexes and SARPs. o Specific risks that exist in the State's civilian aviation system. o Guidance material that provides additional information and interpretation of the regulations (also check guidance material for consistency with above). o Check the reviewing, authorizing, and notifying of differences to ICAO, as well as the periodic review of differences that have been previously notified.						

	Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
	Based on current situation in State	Based on State's work in progress	1.There are documented regulations to address national requirements from primary aviation legislation and procedures to notify ICAO of differences when regulations are not in accordance the ICAO Annexes. 2. Regulations are written to standardize, based on national requirements, operations, procedures, products, services, equipment, and infrastructures based on size and complexity of the aviation system. 3.There is regulatory standardization of operations, procedures, products, services, equipment, and infrastructures throughout the aviation industry. ICAO is notified of differences to ICAO Annexes.	1. Regulations are reviewed periodically for content and currency and updated as appropriate to address specific risks that exist in the State's aviation system.

1.2.3 STATE SYSTEM AND FUNCTIONS (CE-3)

	Indicators of compliance and performance		NP	WO	P	E	Comments
Assessment	1.2.3.1	The State established relevant authorities or agencies, as appropriate.					
	1.2.3.2	The relevant authorities or agencies are supported by sufficient qualified personnel and are provided with adequate financial resources for the management of safety.					
	1.2.3.3	The State authorities or agencies have stated safety functions and objectives to fulfil its safety management responsibilities.					
	1.2.3.4	The State ensures that qualified personnel performing safety oversight functions are recruited and retained.					
	1.2.3.5	The State uses a methodology to determine their staffing requirements for personnel performing safety oversight functions, taking into account the size and complexity of the aviation activities in their State.					
	1.2.3.6	Personnel performing State safety oversight functions are provided with guidance that addresses ethics, personal conduct, and the avoidance of actual or perceived conflicts of interest in the performance of official duties.					
Guidance	**What to look for**						
	• **Check that relevant authorities or agencies are established (considering the importance of functional independence).** o the State authority in charge of coordinating the implementation and maintenance of the SSP is formally designated by an appropriate governing body. o the responsibilities, governance and documented roles of the State authority in charge of coordinating the implementation and maintenance of the SSP are clearly defined. o the designated authority that is responsible for coordinating the implementation and maintenance of the SSP, including a department or person responsible for day-to-day SSP-related functions, is able to make progress in institutionalizing the SSP within the State o the State identified the accountable executive for the administration and coordination of the implementation and operation of the SSP o the SSP accountable executive coordinate, as appropriate, the SSP activities of the different State regulatory and administrative organizations						

- there is an established SSP coordination group at the State level, chaired by the designated authority in charge of coordinating the SSP implementation and maintenance
- all relevant State authorities (including, but not limited to, Civil Aviation Authority, Accident Investigation Authority and Military Aviation Authority) are represented in the coordination group.
- the coordination group addresses both strategic and operational aspects.
- all relevant State authorities actively participate in the SSP coordination group on a regular basis and in a continuous manner
- the coordination group meetings have defined objectives and established meetings frequency
- State has a periodic internal review mechanism for assurance of continuous conformance and improvement of its SSP

- Have a process to determine staffing requirements to ensure sufficient qualified personnel (based on size and complexity).
- Have a process to determine the necessary resources for the management of safety, which is approved by senior management within the State.
- Take the necessary measures to ensure staff recruitment and retention including the remuneration and conditions of service.
- Ensure senior management has the authority and responsibility for the management of safety and the control of the necessary resources.
- Provide guidance to address ethics, personal conduct, and the avoidance of actual or perceived conflicts of interest.
- Periodically review the availability of necessary resources.

Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
Based on current situation in State	Based on State's work in progress	1. The State established and documented relevant authorities or agencies with stated safety functions and objectives. 2. Relevant authorities or agencies are supported by sufficient qualified personnel and the methodology to determine their staffing requirements is based on the size and complexity of the aviation system. 3. Authorities or agencies perform stated safety oversight functions, possess qualified personnel, and are provided with appropriate guidance and adequate financial resources.	1. Authorities or agencies periodically review safety oversight functions and staffing requirements for content and currency and updates them as appropriate.

	Indicators of compliance and performance		NP	WO	P	E	Comments
Assessment	1.2.3.7	The State identifies, defines, and documents the requirements, obligations, functions, and activities regarding the establishment and maintenance of the SSP.					
	1.2.3.8	The State established a safety policy and safety objectives that reflect its commitment regarding safety and facilitates the promotion of a positive safety culture with stakeholders					
	1.2.3.9	The safety policy and safety objectives are published and periodically reviewed to ensure that they remain relevant and appropriate to the State.					
Guidance	**What to look for**						
	• Check for documentation (that identifies, defines, and documents SSP requirements, obligations, functions, and activities). • Check specific activities and responsibilities related to the management of safety of each relevant State authority involved in SSP implementation are documented. • Check there is a published national document (e.g. National Aviation Safety Plan) that addresses the State's specific operational safety risks (and other safety issues) and lays out the activities undertaken by each State authority to improve the overall safety performance • Check that the published national document addresses the State's specific operational safety risks (and other safety issues), and each State authority is actively realizing its designated responsibilities in a manner that contributes positively to the improvement of the overall safety performance • **Check that the safety policy:** o Is signed by senior management and communicated throughout the State o Reflects the following senior management commitment: o To provide the necessary resources (for the implementation and maintenance of the SSP). o To achieve the highest (possible) safety standards. o To continuous improvement of the SSP. o Cites and explains the State's enforcement policy o Outlines actions that are not tolerable (e.g. willful misconduct, gross negligence, etc.). o Is communicated both internally and externally. o To the promotion of a positive safety culture periodically reviewed for content and currency and updated as appropriate.						

- **Check that safety objectives take into account:**
  - A mechanism in place to ensure that all relevant stakeholders are involved in the establishment of the safety objectives
  - The safety objectives represent the State risk picture
  - There is a mix of process and outcome-oriented objectives.
  - Safety performance monitoring and measurement.
  - The promotion of a positive safety culture in the aviation community.
  - Promotion and communication of the safety objectives throughout the aviation community.
  - Periodic review for content and currency to ensure the objectives remain relevant and appropriate to the State.

Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
Based on current situation in State	Based on State's work in progress	1. Requirements, obligations, functions, and activities regarding the establishment and maintenance of the SSP are identified, defined, and documented. Safety policy and objectives are established. 2. The established safety policy and safety objectives reflect management commitment and are based on the size and complexity of the aviation system. 3.The SSP, safety policies, and safety objectives accomplish senior management's commitment to achieving the highest possible safety standards and promote a positive safety culture with stakeholders.	1. The State's SSP, safety policies, and safety objectives are periodically reviewed for content and currency and updated as appropriate.

1.2.4 QUALIFIED TECHNICAL PERSONNEL (CE-4)

	Indicators of compliance and performance		NP	WO	P	E	Comments
Assessment	1.2.4.1	The State established minimum qualification requirements for the technical personnel performing safety-related functions.					
	1.2.4.2	The State provides for appropriate initial and recurrent training to maintain and enhance qualified technical personnel competence at the desired level.					
	1.2.4.3	The State implemented a system for the maintenance of training records for technical personnel.					
Guidance	**What to look for**						
	• Check for minimum qualification requirements for the technical personnel performing safety-related functions. • Check SSP-related training programme has been developed, including a training needs analysis (TNA) to determine the relevant training needs of each pertinent State authority • Where appropriate, a competency-based approach is applied to address K/S/A (knowledge/skills/attitude) requirements. • Check the SSP-related training Programme caters to the different safety management training needs of different personnel, based on their duties and responsibilities (i.e. inspectorate, data analysts, midlevel management, top management, legal department, AIA, Military, etc.). • Check that the State is able to assess competency of its technical personnel. • Check the training plan addresses both initial acceptance and continuous monitoring of service providers. • Check the training plan addresses scalability and complexity of service providers' SMS. • Check that training is available to maintain and enhance the competence of technical personnel. • Check that the training includes both initial and recurrent training. • Check to ensure a methodology exists to document, review, and maintain training records for technical personnel. • Check that training programs equip technical personnel performing safety-related functions with skills to: o Assess service providers' SMS. o Evaluate service provider safety performance. • Check the SSP training plan is formalized and implemented. • Check that the training and qualification program is periodically reviewed for content and currency and updated as appropriate.						

	Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
	Based on current situation in State	Based on State's work in progress	1. Minimum qualification requirements are established and documented, initial and recurrent training is provided, and training records are maintained for qualified technical personnel. 2. Minimum qualification requirements, initial and recurrent training, and maintenance of training records for technical personnel are based on size and complexity of the aviation system. 3. Minimum qualification requirements and initial and recurrent training are established to maintain and enhance qualified technical personnel competence. There is a functioning system to maintain training records for technical personnel.	1. The training and qualification of technical personnel is periodically reviewed for content and currency and updated as appropriate.

1.2.5 TECHNICAL GUIDANCE, TOOLS AND PROVISION OF SAFETY-CRITICAL INFORMATION (CE-5)

	Indicators of compliance and performance		NP	WO	P	E	Comments
Assessment	1.2.5.1	The State provides appropriate facilities, comprehensive and up-to-date technical guidance material and procedures, safety-critical information, tools and equipment, and transportation means, as applicable, to the technical personnel to enable them to perform their safety oversight functions effectively.					
	1.2.5.2	States shall provide technical guidance to the aviation industry on the implementation of relevant regulations.					
Guidance	**What to look for**						
	• **Interview technical personnel to ensure that they:** o Are able to perform safety oversight functions in a standardized manner. o Are provided appropriate facilities, equipment, and transportation to conduct safety oversight functions. o Are provided guidance materials and procedures to conduct safety oversight functions in a timely manner. o Are provided safety-critical information to conduct safety oversight functions. • **Check State established an SSP documentation and records** o Review the SSP document. o Review the SSP documentation system. o Verify that the documentation system ensures records keeping and the appropriate storage, archiving, protection and retrieval of all documents relating to SSP activities. • **Check that technical guidance materials, procedures, and tools on the implementation of SMS are provided to the Service providers as applicable: (Review guidance/procedures)** o Ensure State developed guidance material on the implementation of SMS for its service providers as applicable o Ensure effective implementation of relevant regulations. o Are provided in a timely manner to the aviation industry. o Are periodically reviewed for content and currency and updated as appropriate.						

	Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
	Based on current situation in State	Based on State's work in progress	1. Facilities, guidance material and procedures, safety-critical information, tools and equipment, and transportation are provided for technical personnel. Guidance material on relevant regulations is provided to the aviation industry. 2. Facilities, guidance material and procedures, safety-critical information, tools and equipment, and transportation (to include guidance on regulatory implementation to industry) are based on the size and complexity of the aviation system. 3. Technical personnel perform safety oversight functions using adequate resources provided by the State. Technical guidance is provided on regulatory implementation.	1. Facilities, guidance material and procedures, safety-critical information, tools and equipment, and transportation (to include guidance to the aviation community) is reviewed for content and currency and updated as appropriate.

1.3 STATE SAFETY RISK MANAGEMENT

1.3.1 LICENSING, CERTIFICATION, AUTHORIZATION AND APPROVAL OBLIGATIONS (CE-6)

Assessment	**Indicators of compliance and performance**		**NP**	**WO**	**P**	**E**	**Comments**	
	1.3.1.1	The State implemented documented processes and procedures to ensure that individuals and organizations performing an aviation activity meet the established requirements before they are allowed to exercise the privileges of a license, certificate, authorization, or approval to conduct the relevant aviation activity.						
Guidance	**What to look for**							
	• Check that processes and procedures are documented to ensure that individuals and organizations meet established requirements. • Check that individuals and organizations meet requirements before they are allowed to exercise privileges of a license, certificate, authorization, or approval. • Check that the processes and procedures are periodically reviewed for content and currency and updated as appropriate.							
	Not Present and Not Planned (NP)	**Not Present but Being Worked On (WO)**	**Present**					**Effective**
	Based on current situation in State	Based on State's work in progress	1. There are documented processes and procedures to ensure individuals and organizations meet established requirements before they are allowed to exercise the privileges of a license, certificate, authorization, or approval. 2. The processes and procedures for licensing, certificating, authorizing, or approving aviation activities are based on the size and complexity of the aviation system. 3. Individuals and organizations performing an aviation activity are meeting established requirements before they are allowed to conduct the relevant aviation activity.					1. The State's processes and procedures for licensing, certificating, authorizing, or approving aviation activities are periodically reviewed for content and currency and updated as appropriate.

1.3.2 SAFETY MANAGEMENT SYSTEM OBLIGATIONS

	Indicators of compliance and performance		NP	WO	P	E	Comments
Assessment	1.3.2.1	The State requires service providers under their authority, as listed in Annex 19, to implement an SMS.					
	1.3.2.2	The State ensures that safety performance indicators and targets established by service providers and operators are acceptable to the State.					
Guidance	**What to look for**						
	• **Check the State has promulgated regulatory requirements to implement SMS acceptable to the State, in accordance with ICAO provisions for the following service providers:** o Approved training organizations, in accordance with Annex 1. o Operators of airplanes or helicopters authorized to conduct international commercial air transport, in accordance with Annex 6. o Approved maintenance organizations providing services to operators of airplanes or helicopters engaged in international commercial air transport, in accordance with Annex 6. o Organizations responsible for the design or manufacture of aircraft, engines, or propellers in accordance with Annex 8. o Air traffic service (ATS) providers in accordance with Annex 11. o Operators of certified aerodromes in accordance with Annex 14, Volume I. • Check for guidance material to industry that is related to the implementation of SMS based on the SMS framework in accordance with Annex 19. • Check that SMS regulations and guidance take into consideration the service provider's size and complexity. • Check there is a mechanism in place to determine the initial and continued acceptability of Service providers' SMS. • Check the mechanism enables the implementation of Service providers' SMS in a phased-in approach. • Check there is a mechanism in place to assess the service provider's hazard log, including the data sources that feed and ensure that all hazards that are documented in the hazard log are subjected to a risk assessment. • Check there is a mechanism in place to evaluate the service providers' risk management processes, including residual risks. • Check there is a mechanism in place to ensure the identification of trends, safety risks and emerging issues by the service providers. • Check there is a mechanism in place to ensure the monitoring and analysis of safety occurrences, including mandatory, voluntary and internal reports, by the service providers. • Check that service provider safety performance indicators (SPIs) and their respective alert and target levels are acceptable to the State. – (ensure state-level risks are considered).						

- Verify effective implementation of the agreement process used to ensure that service providers SPIs, targets and alerts by checking that:
  - There is a mechanism in place to ensure that service providers' SPIs relate to the S.M.A.R.T objectives
  - There is a mechanism in place to ensure that individual service providers have balanced their SPIs, incorporating both leading and lagging indicators as well as State-level and self-generated SPIs
  - There is a mechanism in place to systematically monitor alert levels and to ensure that air operators have defined the actions needed in case an alert level is reached.
  - Verify that the agreed safety performance indicators are commensurate with the scope and complexity of the service provider's specific operational context.

Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
Based on current situation in State	Based on State's work in progress	1. There are documented State requirements for service providers listed in Annex 19 to implement an SMS. 2. Requirements for implementation of SMS and acceptance of service provider safety performance indicators and targets are based on the size and complexity of the aviation system. 3. Service providers, listed in Annex 19 implemented SMS in accordance with the SMS framework. Service provider safety performance indicators are acceptable to the State.	1. The State's SMS requirements and acceptance of safety performance indicators and targets are periodically reviewed for content and currency and updated as appropriate.

1.3.3 ACCIDENT AND INCIDENT INVESTIGATION

Assessment	Indicators of compliance and performance		NP	WO	P	E	Comments
	1.3.3.1	The State established, as part of the management of safety, an independent accident and incident investigation process					
Guidance	**What to look for**						
	• Check that there is an accident and incident investigation authority and/or process in accordance with Annex 13. • Check that the independence of the accident and incident investigation authority/process from other government aviation organizations is maintained. • Check that the accident investigation authority has independence in the conduct of investigations and unrestricted authority over the investigation's conduct. • Check that accident and incident investigation authority/process objective is to prevent accidents and incidents and promote a positive and just safety culture. • Check for means to ensure appropriate safety measures are taken after safety recommendations are issued by the accident and investigation authority. • Check the investigation authority ensures that the personnel responsible for addressing safety management-related aspects in aircraft accident and serious incident investigations develop the required competencies • The training plan addresses safety management-related aspects. • Check the guidance material has been established for use by the personnel of the State's accident investigation authority to help ensure that safety management related aspects are appropriately addressed in investigations (when relevant) • Check there is a mechanism in place to ensure that safety management-related aspects are being addressed adequately in the investigation authority investigations o Relevant final reports consistently address safety management-related aspects. o Interfaces between different organizations' SMS are being addressed. • Check that the accident and incident investigation process is periodically reviewed to ensure it remains relevant to the State.						

	Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
	Based on current situation in State	Based on State's work in progress	1. There is an independent accident and incident investigation authority and/or process. 2. An independent accident and incident investigation authority and/or process is established based on the size and complexity of the aviation system. 3. The accident and incident investigation authority and/or process functions independently with the objective of accident prevention and promotion of a positive and just safety culture.	1. The accident and incident investigation process is periodically reviewed for content and currency and updated as appropriate.

1.3.4 HAZARD IDENTIFICATION AND SAFETY RISK ASSESSMENT

Assessment	Indicators of compliance and performance		NP	WO	P	E	Comments
	1.3.4.1	The State established and maintains a process to identify hazards from collected safety data.					
	1.3.4.2	The State developed and maintains a process that ensures assessment of safety risks associated with identified hazards.					

Guidance

What to look for

- Check for a detailed process to identify, track, and monitor State-level hazards.
- Check for a State process to assess safety risks.
- Check that the State possesses personnel with expertise in safety risk management principles.
- Check that the hazard identification and risk assessment processes are based on the size and complexity of the State's aviation system.
- The State has processes to prioritize safety risks based on the assessed likelihood and severity.
- Check the safety risk management mechanism is based on relevant and accurate (when applicable) data and safety information.
- Check there is a mechanism in place to ensure that safety risks identified by air operators/service providers are raised at the State level, feeding the SSP and its risk picture as well as the NASP.
- Check there is a hazard identification log at the State level, which is based, amongst others, on hazards and safety issues that have been raised by the air operators'/service providers, and it feeds the SSP and its risk picture.
- The process to identify hazards and assess safety risk is periodically reviewed for content and currency and updated as appropriate.

Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
Based on current situation in State	Based on State's work in progress	1. There are documented processes to identify hazards from collected safety data and the assessment of associated safety risks. 2. The process to identify safety hazards and assess safety risks is based on the size and complexity of the aviation system. 3. Safety data collection and processing systems (SDCPS) and other relevant data sources are used to identify hazards and assess safety risks associated with identified hazards.	1. The processes to identify hazards and assess safety risks are reviewed for content and currency and updated as appropriate.

1.3.5 MANAGEMENT OF SAFETY RISKS AND RESOLUTION OF SAFETY ISSUES (CE-8)

	Indicators of compliance and performance		NP	WO	P	E	Comments
Assessment	1.3.5.1	The State uses a documented process to take appropriate actions, up to and including enforcement measures, to resolve identified safety issues.					
	1.3.5.2	The State ensures identified safety issues are resolved in a timely manner through a system that monitors and records progress of the actions taken by individuals and organizations performing an aviation activity.					
	1.3.5.3	The State uses a system to monitor and record progress, including actions taken by individuals and organizations performing an aviation activity in resolving such issues.					
Guidance	**What to look for**						
	• Check for a process, with clearly defined objectives, to take appropriate actions to resolve safety issues that includes: o The types of actions that can be taken. o Timeframes for corrective measures to be completed. o Corrective measures that are tracked, monitored, and evaluated to ensure that service provider deficiencies are corrected. o Requirements for service providers to address non-compliances and identify the root causes of the contributing factors for those non-compliances. o Requirements for service providers to develop corrective actions that ensure non-compliances do not recur by addressing the root causes. o Requirements for service providers to develop corrective actions that ensure the identified non-compliances are corrected in a timely manner. • Check that the process ensure all deficiencies and/or safety issues are addressed in a standardized manner. • Check for a progressive approach of escalation to the actions the State takes, based on the severity of the findings. • Check for a method to take more serious actions when the service provider does not respond appropriately to a request for corrective actions.						

	Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
	Based on current situation in State	Based on State's work in progress	1. There is a documented process to take appropriate actions to resolve identified safety issues in a timely manner. 2. The process to take appropriate actions to resolve identified safety issues in a timely manner is based on the size and complexity of the aviation system. 3. Identified safety issues are resolved in a timely manner through a system of monitoring and recording progress of actions taken by individuals and organizations performing an aviation activity.	1. The process to resolve identified safety issues is periodically reviewed for content and currency and updated as appropriate.

Assessment	Indicators of compliance and performance		NP	WO	P	E	Comments
	1.3.5.4	The State has and maintains a process to manage safety risks.					

Guidance

What to look for

- Check for a safety risk management process that is documented and maintained.
- Check that the safety risk management process assesses root causes and underlying factors associated with risk.
- Check that the safety risk management process includes risk management strategies (risk acceptance, risk control, risk avoidance, and/or risk control transfer).
- Check for guidance material on the safety risk management process.
- Check that the safety risk management process is reviewed for content and currency and updated as appropriate.

Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
Based on current situation in State	Based on State's work in progress	1. There is a process to manage safety risks that includes risk management strategies. 2. Risk management processes are detailed in guidance material and are based on the size and complexity of the aviation system. 3. Safety risks are managed through assessment of root causes and underlying factors and the use of risk management strategies.	1. The process to manage safety risks is periodically reviewed for content and currency and updated as appropriate.

1.4 STATE SAFETY ASSURANCE

1.4.1 SURVEILLANCE OBLIGATIONS (CE-7)

	Indicators of compliance and performance		NP	WO	P	E	Comments
Assessment	1.4.1.1	The State has documented and implemented surveillance processes by defining and planning inspections, audits, and monitoring activities on a continuous basis.					
	1.4.1.2	The surveillance processes proactively assure that aviation license, certificate, authorization, and approval holders continue to meet the established requirements.					
	1.4.1.3	The surveillance processes include the surveillance of personnel designated by the Authority to perform safety oversight functions on its behalf.					
	1.4.1.4	The surveillance processes take into consideration the safety performance as well as the size and complexity of its aviation products or services.					
Guidance	**What to look for**						
	• Check for a surveillance process with clearly stated objectives and documented procedures. • Check the State, as part of its surveillance Programme, periodically assesses Service Providers' SMS, • Check that the surveillance processes: o Define and plan inspections, audits, and monitoring activities on a continuous basis. o Ensure aviation license, certificate, authorization, and approval holders meet established requirements and function at the level of competency and safety required by the State. o Include the surveillance of personnel designated by the State/Authority to perform safety oversight functions on its behalf. o Take into consideration the safety performance as well as the size and complexity of its aviation services. o Are reviewed periodically for content and currency.						

	Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
	Based on current situation in State	Based on State's work in progress	1. There are documented surveillance processes with clearly stated objectives and procedures. 2. The surveillance processes define and plan inspections, audits, and monitoring of aviation license, certificate, authorization, and approval holders and designees. The surveillance processes are based on the size and complexity of the aviation system. 3. Inspections, audits, and monitoring activities are conducted on a continuous basis to proactively ensure that aviation license, certificate, authorization, and approval holders meet established requirements, to include personnel designated by the State.	1. The surveillance processes are periodically reviewed for content and currency and updated as appropriate.

Assessment	Indicators of compliance and performance		NP	WO	P	E	Comments
	1.4.1.5	The State has procedures to prioritize surveillance activities (inspections, audits, and surveys) towards those areas of greater safety concern or need.					
	1.4.1.6	The State periodically reviews the safety performance of an individual service provider.					

Guidance

What to look for

- Check that the surveillance processes are detailed enough to ensure a standardized approach to:
  - Setting scope and frequency of surveillance activities based on collected safety data and other pertinent information.
  - Utilization of different approaches of surveillance (inspection, audits, process review, surveys, etc.).
  - Include both scheduled and unscheduled surveillance activities.
  - Prioritization of surveillance activities based on service provider risk profiles, hazard identification, risk assessments, and previous surveillance outcomes.
  - Measure service provider regulatory compliance with established standards.
  - Assess the effectiveness of risk based surveillance activities.
  - Documenting and classifying surveillance findings of compliance and non-compliance.
  - Communicating findings to service providers.
- Check for a process to periodically review the safety performance of an individual service provider for content and currency.

Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
Based on current situation in State	Based on State's work in progress	1. There are documented processes and procedures to prioritize surveillance activities towards areas of greater safety concern or need. 2. The procedures to prioritize surveillance activities and review the safety performance of the service provider is based on the size and complexity of its aviation system. 3. Collected safety data and information is used to prioritize surveillance activities. The scope and frequency of surveillance activities utilize different approaches and are prioritized towards those areas of greater safety concern.	1. Procedures for prioritizing surveillance activities and reviewing individual service provider safety performance is periodically reviewed for content and currency and are updated as appropriate.

1.4.2 STATE SAFETY PERFORMANCE

		Indicators of compliance and performance	NP	WO	P	E	Comments
Assessment	1.4.2.1	The State develops and maintains a process to evaluate the effectiveness of actions taken to manage safety risks.					
	1.4.2.2	The State develops and maintains a process to evaluate the effectiveness of actions taken to resolve safety issues.					
	1.4.2.3	The State evaluates the effectiveness of their individual SSP to maintain or continuously improve their overall level of safety performance.					
Guidance	**What to look for**						
	• **Check that State has a mechanism in place to select and monitor its safety performance indicators (SPIs)** o There is a mechanism in place to define S.M.A.R.T (specific, measurable, achievable, relevant and timely) SPIs that are based on the safety objectives and the State-level risk picture. o SPIs have associated targets and alert levels, where appropriate. o There is a mix of leading and lagging indicators. o There is a mechanism in place to ensure that all relevant State authorities are providing information that contributes to the formulation of the SPIs o There is a mechanism in place to share the State-level SPIs with the relevant stakeholders. o Targets and alert levels (when used) are reasonable, and are broken-down into intermediate targets, if needed. o There is a mechanism in place to identify the safety performance baseline. o safety performance and associated safety indicators are appropriate and relevant to the size and complexity of the State's aviation activities. o Check if guidance exists to assess the adequacy and applicability of the safety performance o Check that the There is a mechanism in place to ensure that SPIs, targets and alert levels, when used, are being reviewed continuously.					

	Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Operating	Effective
	Based on current situation in State	Based on State's work in progress	1. There is a documented process to evaluate the effectiveness of actions taken to manage safety risks, resolve safety issues evaluate the SSP to maintain or continuously improve the overall level of safety performance. 2. Evaluation of the effectiveness of actions taken to manage safety risks, resolve safety issues, and continuously improve the overall level of safety performance is based on the size and complexity of the aviation system. 3. There is a mechanism in place to ensure that all relevant State authorities are providing information that contributes to the formulation of the SPIs	1. The effectiveness of actions taken to manage safety risks, resolve safety issues and continuously improve the overall level of safety performance is periodically reviewed for content and currency and updated as appropriate.

1.5 STATE SAFETY PROMOTION

1.5.1 INTERNAL COMMUNICATION AND DISSEMINATION OF SAFETY INFORMATION

Assessment	**Indicators of compliance and performance**		**NP**	**WO**	**P**	**E**	**Comments**
	1.5.1.1	The State promotes safety awareness and the sharing and exchange of safety information within State aviation organizations.					
	1.5.1.2	The State clearly and effectively communicates to all pertinent organizations and individuals on their role in the SSP.					

Guidance

What to look for

- Check for processes to share and exchange safety information with relevant State aviation organizations and employees.
- Check and interview individuals and employees of State aviation organizations for awareness of shared and exchanged safety information.
- Check for a feedback process for State aviation organizations and employees to provide inputs regarding shared or exchanged safety information.
- Check for a process to measure the effectiveness of safety information sharing and exchange with its relevant State organizations.
- Check for State communication on SSP roles and interview pertinent State organizations and employees on their role in the SSP.
- Check for senior management commitment to the SSP through active and visible participation.
- The SSP is communicated so that state aviation organizations and employees are made aware of their contributions and obligations with regard to the SSP.

Not Present and Not Planned (NP)	**Not Present but Being Worked On (WO)**	**Present**	**Effective**
Based on current situation in State	Based on State's work in progress	1. There is a documented process to promote safety awareness and the sharing and exchange of safety information with State organizations. 2. Sharing and exchange of safety information within State aviation organizations and the communication of organizational and individual roles in the SSP is based on the size and complexity of the aviation system.	1. State processes that promote safety awareness and the sharing and exchange of safety information within the State

			3. State aviation organizations share and exchange safety information and communicate to all pertinent organizations and individuals their roles in the SSP	aviation organizations is periodically reviewed for content and currency and updated as appropriate.

1.5.2 EXTERNAL COMMUNICATION AND DISSEMINATION OF SAFETY INFORMATION

	Indicators of compliance and performance		NP	WO	P	E	Comments
Assessment	1.5.2.1	The State promotes safety awareness and the sharing and exchange of safety information with the aviation community.					
	1.5.2.2	The State participates in regional and global aviation safety information sharing and exchange activities.					
	1.5.2.3	The SSP document and its associated safety policy, enforcement policy, and aggregate safety indicators are included in the State's safety information communication and sharing process.					
Guidance	What to look for						
	• Check for processes that promote safety awareness and the sharing and exchange of safety information with the aviation community. • Check that the State facilitates the participation of the aviation community regarding safety information sharing and exchange opportunities. • Check that the process ensures safety information is communicated with the aviation community in a timely manner (e.g., web-based communication). • Check that the process ensures safety information is communicated to the general public. • Check that safety information is updated on a regular basis and is disseminated. • Check for the communication of a positive safety culture in the promotion of safety awareness and the sharing and exchange of safety information. • Check that the State identifies safety training that is accessible to the aviation community. • Check for participation in regional and global conferences, workshops, and training courses. • Check that the SSP document is available to the aviation community. • Check for a means to ensure the aviation community is aware of the SSP documentation. • Check that safety policy, enforcement policy, and aggregate safety indicators from the SSP are in the safety information communication and sharing process.						

	Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Operating	Effective
	Based on current situation in State	Based on State's work in progress	1. There is a process to promote safety awareness and the sharing and exchange of safety information with the aviation community. 2. The processes to promote the sharing and exchange of safety information and communication of the SSP is based on the size and complexity of the state aviation system. 3. State aviation organizations share and exchange safety information with the aviation community. Safety policy, enforcement policy, and aggregate safety indicators are included in the State's safety information communication and sharing process.	1. State processes to promote safety awareness and the sharing and exchange of safety information with the aviation community periodically reviewed for content and currency and updated as appropriate.

2. SAFETY DATA AND SAFETY INFORMATION COLLECTION, ANALYSIS, PROTECTION, SHARING AND EXCHANGE

2.1 SAFETY DATA COLLECTION AND PROCESSING SYSTEMS

	Indicators of compliance and performance		NP	WO	P	E	Comments
Assessment	2.1.1	The State established SDCPS to capture, store, aggregate, and enable the analysis of safety data and safety information.					
	2.1.4	The State authorities responsible for the implementation of the SSP have access to the SDCPS as referenced in Annex 19, section 5.1.1 to support their safety responsibilities, in accordance with the principles in Appendix 3.					
	2.1.5	The safety database uses standardized taxonomy to facilitate safety information sharing and exchange.					
Guidance	**What to look for**						
	• Check for SDCPS that collect: o Mandatory and voluntary safety reports. o Data/information from surveillance activities. o Data/information from accidents and incidents. • Check that Authorities with responsibilities to implement and maintain the SSP have access to relevant portions. • Check for legislation and processes that provide appropriate protection for the data (from disclosure) and the source of the data (from inappropriate action). • Check that data/information in different SDCPS are stored in a manner that facilitates analysis including potential cross-sector hazards.						

	Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
	Based on current situation in State	Based on State's work in progress	1. There are SDCPS to capture, store, aggregate, and enable the analysis of safety data and safety information. 2. The SDCPS contains a standardized taxonomy and is based on the size and complexity of the aviation system. 3. State authorities have access to SDCPS to enable the analysis of safety data and information to support their safety activities.	1. SDCPS and the standardized taxonomy are reviewed periodically for currency and content and updated as appropriate.

Assessment	Indicators of compliance and performance		NP	WO	P	E	Comments
	2.1.2	The State established a mandatory safety reporting system that includes the reporting of incidents.					

Guidance

What to look for

- Check for a mandatory safety reporting system to include the reporting of incidents as part of its SDCPS.
- Check for criteria for the type of mandatory reports to be submitted by service providers.
- Check for the use of a standardized taxonomy (e.g., the Accident/Incident Data Reporting [ADREP] system).
- Check that mandatory safety reports are stored in SDCPS in a manner that facilitates classification, analysis, and retrieval.
- Check that mandatory safety reports are protected from inadvertent disclosure.
- Check that mandatory safety reports are promptly submitted by relevant service providers when there is an incident.
- Check that service providers' mandatory reports include sufficient information and details to allow for a detailed analysis.
- Check for a process to periodically review the effectiveness of the mandatory reporting system.

Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
Based on current situation in State	Based on State's work in progress	1. There is a mandatory safety reporting system that includes the reporting of incidents 2. The mandatory safety reporting system includes the reporting of incidents as part of the SDCPS and is based on the size and complexity of the aviation system. 3. Mandatory and voluntary safety reports, data/information from surveillance activities, accidents and incidents are collected in SCDPS.	1. Mandatory safety reports and SDCPS are reviewed periodically for currency and content and updated as appropriate.

Assessment	Indicators of compliance and performance		NP	WO	P	E	Comments
	2.1.3	The State established a voluntary safety reporting system to collect safety data and safety information not captured by mandatory safety reporting systems.					

Guidance

What to look for

- Check for a voluntary safety reporting system to include the reporting of incidents as part of its SDCPS.
  - Check for criteria for the type of voluntary reports to be submitted by service providers.
  - Check for a standardized taxonomy (e.g., ADREP).
  - Check that voluntary safety reports are stored in SDCPS in a manner that facilitates classification, analysis, and retrieval.
  - Check that voluntary safety reports are protected from inadvertent disclosure.
  - Check that voluntary safety reports are promptly submitted by relevant service providers when there is an incident.
  - Check that service providers' voluntary reports include sufficient information and details to allow for a detailed analysis.
  - Check for a process to periodically review the effectiveness of the voluntary reporting system.
- Check for awareness in the aviation community of State voluntary reporting systems.
  The system is known to relevant State authorities and service providers' personnel, accessible, and easy to use.
- Check and interview the aviation industry for trust in and supports for State voluntary safety reporting systems.
  - Check for a process to evaluate the effectiveness of the voluntary reporting system.

Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
Based on current situation in State	Based on State's work in progress	1. There is a voluntary safety reporting system, with documented processes that includes the reporting of incidents. 2. The voluntary safety reporting system includes the reporting of incidents as part of the SDCPS and is based on the size and complexity of the aviation system. 3. Service providers and the aviation community trust and support voluntary safety reporting. Voluntary safety reports are submitted promptly and contain sufficient information and details.	1. Voluntary safety reports and SDCPS are reviewed periodically for currency and content and updated as appropriate.

2.2 SAFETY DATA AND SAFETY INFORMATION ANALYSIS

Assessment	Indicators of compliance and performance		NP	WO	P	E	Comments
	2.2.1	The State establishes and maintains a process to analyze the safety data and safety information from the SDCPS and associated safety databases.					

Guidance

What to look for

- Check for processes to analyze the safety data and safety information from the SDCPS and associated safety databases.
- Check that the analysis performed by the State is able to identify systemic sector hazards not otherwise identified by individual service providers and operators.
- Check that the analysis performed by the State is able to identify systemic cross-sector hazards not otherwise identified by individual sectors.
- Check that hazards are analyzed to assess the level of risk associated with each hazard.
- Check that the process includes both proactive and reactive methods of safety data analysis.
- Check for a process to prioritize hazards based on risk.
- Check There is a mechanism in place to ensure that the information is reflected in the SSP main document and the NASP
- Check to ensure hazards and are acted upon based on the prioritization of risk.
- There is a mechanism in place to ensure that the information is used to refine the State level SPIs.
- Check for processes to periodically review the analysis of safety data and safety information from SDCPS and associated databases for content and currency.

Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
Based on current situation in State	Based on State's work in progress	1. There is a process to analyze the safety data and safety information from the SDCPS and associated safety databases. 2. The process to analyze safety data and safety information from the SDCPS and associated safety databases includes both proactive and reactive methods and is based on the size and complexity of the aviation system. 3. The analysis of safety data identifies systemic sector and cross sector hazards. Hazards are assessed for risk and acted upon based on the prioritization of risk.	The process to analyze safety data and safety information from the SDCPS and associated safety databases is periodically reviewed for content and currency and updated as appropriate.

2.3 SAFETY DATA AND SAFETY INFORMATION PROTECTION

	Indicators of compliance and performance		NP	WO	P	E	Comments
Assessment	2.3.1	The State protects safety data captured by, and safety information derived from, mandatory and voluntary safety reporting systems and related sources.					
	2.3.2	The State has not made available or used safety data or safety information collected, stored, or analyzed for purposes other than maintaining or improving safety, unless the competent authority determines, in accordance with Appendix 3, that a principle of exception applies.					
	2.3.3	The State was not prevented from using safety data or safety information to take any preventive, corrective, or remedial action that is necessary to maintain or improve aviation safety.					
Guidance	**What to look for**						
	• Check national laws, regulations, and policies protecting safety data, safety information, and related sources to ensure: o A balance is struck between the need to protect safety data, safety information, and related sources and the need to properly administer justice. o The conditions under which safety data, safety information, and related sources qualify for protection are specified. o Safety data and safety information is made available to the aviation community for the purpose of maintaining or improving aviation safety. o The protection of safety data and safety information extends to mandatory and voluntary safety reporting systems. • Check that, unless a principle of exception (in accordance with Appendix 3) applies, safety data or safety information is not used: o For disciplinary, civil, administrative, or criminal proceedings against employees, operational personnel, or organizations and/or disclosure to the public. o In a way different from the purposes for which they were collected. • Check that when a principle of exception applies, the use of safety data and safety information in disciplinary, civil, administrative, and criminal proceedings will be carried out only under authoritative safeguards. • Check there is a mechanism in place to protect ambient/workplace recordings. • Safety data, safety information and related resources are protected in a continuous manner, including ambient/workplace recordings.						

	Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
	Based on current situation in State	Based on State's work in progress	1. There are national laws, regulations, and policies protecting safety data, safety information, and related sources. The protection extends to mandatory and voluntary reporting systems. 2. Safety data or safety information is not used for purposes other than maintaining or improving safety and protections in national laws, regulations, and policies are based on the size and complexity of the aviation system. 3. Safety data and information is used to take preventative, corrective, or remedial actions to maintain or improve safety. Protected data and information is not used unless a principle of exception is applied.	1. National laws, regulations, and policies protecting safety data, safety information, and related sources are periodically reviewed for currency and content and updated as appropriate.

	Indicators of compliance and performance		NP	WO	P	E	Comments
Assessment	2.3.5	The State takes necessary measures, including the promotion of a positive safety culture, to encourage safety reporting through the mandatory and voluntary safety reporting systems.					
	2.3.6	The State facilitates and promotes safety reporting by adjusting applicable laws, regulations, and policies as necessary.					
	2.3.7	The State has instituted and made use of appropriate advance arrangements between their authorities and State bodies entrusted with aviation safety and those entrusted with the administration of justice. Such arrangements take into account the principles specified in Appendix 3.					

Guidance

What to look for

- Check for measures by the State to encourage mandatory and voluntary safety reporting through SDCPS and other sources.
- Check for the adjusting of applicable laws, regulations, and policies, as necessary, to facilitate the promotion of safety reporting.
- Check for advance agreements between authorities, State bodies, and organizations responsible for the administration of justice that promote safety reporting.
- Check for a process to periodically review the measures, facilitation, and advance agreements instituted by the State for currency and content.

Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
Based on current situation in State	Based on State's work in progress	1. There is a documented process to encourage, facilitate. and promote safety reporting. Advance agreements are instituted between aviation authorities and State bodies entrusted with aviation safety and those entrusted with the administration of justice. 2. The process to encourage, facilitate, and promote safety reporting is based on the size and complexity of the aviation system. 3. State measures, facilitation, and advance agreements promote safety reporting. State laws are adjusted to promote a positive safety culture.	1. The processes to encourage, facilitate, and promote safety reporting and use of advance arrangements is periodically reviewed for currency and content and updated as appropriate.

2.4 SAFETY INFORMATION SHARING AND EXCHANGE

		Indicators of compliance and performance	NP	WO	P	E	Comments
Assessment	2.4.1	When the State, in the analysis of the information contained in its SDCPS, identifies safety matters considered to be of interest to other States, the State forwards such safety information to them as soon as possible.					
	2.4.2	The State promotes the establishment of safety information sharing or exchange networks among users of the aviation system, and facilitates the sharing and exchange of safety information, unless national law provides otherwise.					

Guidance

What to look for

- Check for processes by which the State forwards timely safety information in its SDCPS on identified safety matters to other interested States.
- Check for agreements with other States on the level of protection and the conditions on which safety information will be shared (see Appendix 3).
- Check for promotion of safety information sharing or exchange networks among users of the aviation system.
- Check for the facilitation of sharing and exchange of safety information, unless national law provides otherwise.
- Check and interview aviation system users for safety information sharing or exchange networks.
- Check for a process to review forwarding of safety information to other States and safety information sharing or exchange networks.

Not Present and Not Planned (NP)	Not Present but Being Worked On (WO)	Present	Effective
Based on current situation in State	Based on State's work in progress	1. There are documented processes to forward safety information of interest to other States and promote safety information sharing and exchange among users of the aviation system. 2. The processes to forward safety information and promote information sharing and exchange is based on the size and complexity of the aviation system. 3. The State identifies and forwards timely safety information to other interested States. Safety information is shared and exchanged through networks among users of the aviation system.	1. The processes to forward safety information and promote information sharing and exchange is based is periodically reviewed for currency and content and updated as appropriate.

APPENDIX C

MISSION SUMMARY REPORT

Summary Report

Introduction

a. Background

b. Mission Summary

c. Acknowledgments

1.1 State Safety Programme

a. Main Achievements:

b. Opportunities for enhancements:

1.2 State Safety Policy, Objectives and Resources

a. Main Achievements:

b. Opportunities for enhancements:

1.3 State Safety Risk Management

a. Main Achievements:

b. Opportunities for enhancements:

1.4 State Safety Assurance

a. Main Achievements:

b. Opportunities enhancements:

1.5 State Safety Promotion

a. Main Achievements:

b. Opportunities for enhancements:

2. Safety Data and Safety Information Collection, Analysis, Protection, Sharing and Exchange

a. Main Achievements:

b. Opportunities for enhancements:

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