ICAO

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

Fifth NAM/CAR Regional Meeting for National Continuous Monitoring Coordinators

(NCMC/5)

Final Report

Mexico City, Mexico, 15 to 16 November 2022

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HISTORICAL

ii.1   Place and Date of the Meeting

The Fifth NAM/CAR Regional Meeting for National Continuous Monitoring Coordinators (NCMC/5) was held at the ICAO NACC Regional Office, Mexico City, Mexico, from 15 to 16 November 2022.

ii.2   Opening Ceremony

Mr. Ricardo Delgado, Regional Officer, Aviation Security and Facilitation of the North American, Central American and Caribbean (NACC) Office of the International Civil Aviation Organization (ICAO) provided opening remarks and thanked the participants of the meeting. Mr. Marcelo Orellana, Regional Officer, Safety Implementation, of the ICAO NACC Regional Office welcomed the delegations to and officially opened the meeting.

ii.3   Officers of the Meeting

The NCMC/5 Meeting was led by Mr. Mario Ardanza, Cuba, rapporteur of the NCMC Working Group (WG). Mr. Orellana served as Secretary of the meeting.

ii.4   Working Languages

The working languages of the meeting were English and Spanish. The working papers, and information papers were available to participants in both languages.

ii.5   Schedule and Working Arrangements

It was agreed that the working hours for the sessions of the meeting would be from 9:00 to 15:00 hours daily with adequate breaks. Ad hoc Groups were created during the Meeting to do further work on specific items of the Agenda.

ii.6 **Agenda**

Agenda Item 1: **Adoption of the Provisional Agenda and Schedule**

Agenda Item 2: **Follow-up on Valid Conclusions and Decisions from previous NCMC Meetings and NACC/DCA related actions**

Agenda Item 3: **General Universal Safety Oversight Audit Programme (USOAP) Updates**

Agenda Item 4: **Status of USOAP Effective implementation (EI) in the NAM/CAR Regions**

Agenda Item 5: **Updates of the ICAO NACC Systemic Assistance Programme (SAP)**

Agenda Item 6: **NCMC Work Programme**

Agenda Item 7: **Other Business**

ii.7 **Attendance**

The Meeting was attended by 16 States/Territories from the CAR Region, totalling 21 delegates as indicated in the list of participants.

ii.8 **Conclusions and Decisions**

The Meeting recorded its activities as Draft Conclusions and Decisions as follows:

CONCLUSIONS: Activities requiring endorsement by the Directors of Civil Aviation of North America, Central America and Caribbean (NACC/DCA).

DECISIONS: Internal activities of the NCMC Working Group (NCMC/WG).

An executive summary of these conclusions/decisions is presented in **Appendix A** to this report.

ii.8   List of Conclusions and Decisions

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ii.9   List of Working and Information Papers and Presentations

		WORKING PAPERS		
Number	**Agenda Item**	**Title**	**Date**	**Prepared and Presented by**
WP/01	1	Provisional Agenda and Schedule	01/11/22	Secretariat
WP/02	2	Follow-Up on Valid Conclusions and Decisions from Previous NCMC Meetings	10/11/22	Secretariat
WP/03	5	The North American, Central American and Caribbean (NACC) Accident and Incident Investigation (AIG) Turnkey Project	10/11/22	Secretariat
WP/04	3	iPACK – Preparation for the ICAO Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA) Activities - Belize	12/11/22	Secretariat
WP/05	4	Effective Implementation Status in the CAR Region	13/11/22	Secretariat
WP/06	6	NCMC Working Group Proposed Work Programme	15/11/22	Secretariat

		INFORMATION PAPERS		
Number	**Agenda Item**	**Title**	**Date**	**Prepared and Presented by**
IP/01	--	List of Working, Information Papers and Presentations	14/11/22	Secretariat
NI/02	4	Cooperación de Intercambio de Inspectores entre COCESNA y las Autoridades de Aviación Civil de los Estados Miembros para la Asistencia y Asesoría en Seguridad Operacional (*available in Spanish only*)	11/11/22	COCESNA
IP/03	4	ICAO Global Aviation Training Overview	13/11/22	Secretariat

INFORMATION PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
NI/04	4	Material Guía y Listas de Verificación únicas desarrolladas por COCESNA/ACSA para los Estados Miembros (*available in Spanish only*)	15/11/22	COCESNA

PRESENTATIONS

Number	Agenda Item	Title	Presented by
1	2	National Continuous Monitoring Coordinators Functions and Responsibilities	Secretariat
2 REV2	6	Summary of the Work Programme of the NCMC Working Group of the NAM/CAR Regions	Secretariat
3	3	Universal Operational Security Oversight Audit Program (USOAP) General Updates	Secretariat

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Agenda Item 1:   **Adoption of the Provisional Agenda and Schedule**

1.1   The Secretariat presented WP/01 and invited the Meeting to approve the Provisional Agenda and Schedule. The Meeting approved the Agenda and the Schedule as presented

Agenda Item 2: **Follow-up on Valid Conclusions and Decisions from previous NCMC Meetings and NACC/DCA related actions**

2.1   Under WP/02, the Meeting reviewed the valid conclusions from de previous NCMC meetings and the challenges encountered to accomplish some of them due to the COVID-19 pandemic. The efforts of the ICAO NACC Regional Office to foster the implementation of the NCMC Working Group (WG) were shown. From this review, all previous conclusions and decisions were considered completed or superseded, except for conclusions 4 and 6:

a)   Conclusion 4 remains valid until 10 May 2023, as the NACC Regional Office will prepare a document with the pertinent recommendations to be submitted for the consideration of the NACC Regional Director on the NCMC functions as opportunities for improvement and the coordinated correction of deficiencies within the Safety System of each State.

b)   Conclusion 6 remains valid up to the first semester of 2023 as ICAO Secretariat will seek to support the Universal Safety Oversight Audit Programme (USOAP) Computer-Based Training (CBT) Training Phase 1 to the designated NCMC by 2023.

c)   Considering that the NCMC/WG has been reorganized in this meeting, and the need to report the progress to the 2023 NACC/DCA Meeting, the Meeting agreed to supersede Conclusions/Decisions 5 and 7 with the following decision:

DECISION NCMC/5/01	PLANNING AND WORK PLAN OF THE NCMC/WG	
What: That, in order to re-activate the NCMC/WG and collaborate and participate in the implementation of the pending actions, the NCMC/WG: a) analyse personnel needs that allow the fulfilment of their functions more effectively; and b) schedule activities to comply with the agreed period of 3 years (discussion on the period to standardize the period of validity of the appointment of the rapporteurs) by 10 May 2023.	**Expected impact:** ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Operational/Technical	
Why: To enhance the Effective Implementation (EI) within the region through collaboration among the NCMCs in coordination with the NACC Regional Office and the Regional Safety Oversight Organization (RSOO).		
When: 10 May 2023	**Status:** ☒ Valid / ☐ Superseded / ☐ Completed	
Who: ☐ States ☐ ICAO ☒ Other:	NCMC/WG	

2.2   Regarding the NACC/DCA Conclusions directed to the NCMC Group, the Meeting took note that the ICAO Secretariat will conduct a follow-up in February 2023 on the actions needed to report to the NACC/DCA.

Agenda Item 3:   **General Universal Safety Oversight Audit Programme (USOAP) Updates**

3.1   Under WP/04, the Meeting took note that an important update in the USOAP is the development and implementation of the USOAP - Continuous Monitoring Approach (CMA) Implementation Package (iPack). This iPack is a tool designed to expand the knowledge of experts in each one of the fields within the Civil Aviation Authority (CAA), covering subjects such as what is an USOAP-CMA audit and the correct manner of replying to each one of the Protocol Questions (PQ) of the eight audited areas.

3.2   The USOAP-CMA iPack also provides important information for the NCMCs, who will obtain skills and attitudes allowing guiding the team when addressing the audit activities in a holistic way. The provided information covers important subjects such as understanding when ICAO finds a Significant Safety Concern (SSC) and the role to follow by the State in those situations during the USOAP-CMA audit. The iPack has guidance material, including the ICAO Annexes, Documents, Circulars, and standardized online training based on competencies.

3.3   The iPack expert assigned to Belize is very knowledgeable on the subject and has resolved the concerns and doubts of experts on different topics in an expeditious and accurate manner. According to the iPack programme, the assistance to the experts is provided through fifteen days of technical support sessions with the experts of the State during a three-month period.

3.4   The Meeting recognized that the USOAP CMA iPack provides the knowledge and tools to the personnel of the technical areas, including the NCMC of the states to better face the activities of the ICAO USOAP. The following decision was formulated:

DECISION		
NCMC/5/02	**iPACK – PREPARATION FOR THE ICAO UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME (USOAP) CONTINUOUS MONITORING APPROACH (CMA) ACTIVITIES**	
What: That, taking into consideration the advantages of the USOAP CMA iPack and the experience gained by the States from the deployment of such iPack, the NCMC/WG welcome the USOAP CMA iPack in the States of the region.		**Expected impact:** ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Operational/Technical
Why: To support States in their compliance with ICAO Safety Standards and Recommended Practices (SARPs).		
When: Immediately		**Status:** ☒ Valid / ☐ Superseded / ☐ Completed
Who: ☐ States ☐ ICAO ☒ Other:	NCMC/WG	

3.5   Under P/03, the Meeting was informed on the latest updates in the USOAP On-Line Framework (OLF), particularly in the new features on the OLF dashboards and reports and graphs.

Agenda Item 4:   **Status of USOAP Effective implementation (EI) in the NAM/CAR Regions**

4.1   Under WP/5, the Secretariat informed on the status of the State Effective Implementation (EI) of the Standards and Recommended Practices (SARPs) through the evaluation of the OLF in accordance with the Systemic Assistance Program (SAP), and the Regional Aviation Safety Group–Pan America (RASG-PA) dashboard. The information gathered showed the trends within the region and where the focus should be applied.

4.2   Since commercial operations are slowly coming back to normal after the pandemic, the aviation authorities should increase their efforts to perform a robust evaluation of their safety performance regardless of the EI reached during the last round of USOAP audits. The CAR States were requested to work on their self-assessment to update the information available in the OLF.

4.3   The actual numbers in the OLF show that the critical areas are Accident Investigation (AIG), Aerodromes and Ground Aids (AGA), and Air Navigation Services (ANS). Moreover, the most affected Critical Elements (CEs) are CE-7 and 8. The intelligence information differs from these numbers due to:

   a)   The elapsed time since the last full audit in 83% of CAR Region States (the average in this layer is 12.5 years without full audit)
   b)   Only three States have received full audits in the past 7 years.
   c)   The Corrective Action Plans (CAPs) on the States included in item a) above are no longer valid.

4.4   In accordance with the information gathered as part of the updated SAP, there are some other areas that have to be taken into consideration, such as Aircraft Operations (OPS), Personnel Licensing and Training (PEL), and Airworthiness of Aircraft (AIR). The CEs that require attention are CE-4, 5 and 6. The following conclusion was formulated:

CONCLUSION	
NCMC/5/03	**EFFECTIVE IMPLEMENTATION STATUS IN THE CAR REGION**

What:	**Expected impact:**
That, taking into consideration, the critical areas for improvement (AIG, AGA, and ANS) from the USOAP, as well as the other areas for enhancement, the NCMC/WG: a) perform an objective self-assessment in order to have updated information under the NACC SAP activities; and b) take advantage of the various support initiatives (AIG Turnkey, State Safety Programme (SSP), etc.) and projects (Safety Oversight System (SOS) Project, Regulatory Comparison Document, etc.) offered by the ICAO NACC Regional Office.	☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Operational/Technical

Why:		
To improve the safety oversight systems and improve the EI within the CAR Region.		
When: immediate	**Status:** ☒ Valid / ☐ Superseded / ☐ Completed	
Who: ☐ States ☐ ICAO ☒ Other:	NCMC/WG	

4.5   Under NI/02, COCESNA presented an important initiative conducted by the Central American states coordinated by the Central American Agency for Aviation Safety (ACSA) in order to foster the interchange of experts among the Central American States. As part of the procedure, COCESNA has developed the "Control Book" tool, used by COCESNA Members for the follow-up and monitoring of the tasks and those responsible in the roadmap defined by each State. If required, the access to the tool can be requested directly from ACSA.

4.6   Through this tool, statistics are generated, which make it possible to identify and graph the progress in compliance with the protocols and the implementation of the critical elements of the different auditable areas. This Information Paper showed a good practice that can be utilized by other States to improve the safety oversight within the CAR Region.

4.7   Under IP/03, the Secretariat provided information related to the variety of Global Safety Initiative (GSI) courses offered by ICAO Global Aviation Training (GAT) developed to solve the training needs of the States identified through the analysis of nonconformities found during the audits. The IP provided details and links to the specific courses to facilitate the States in finding relevant information about the courses offered.

4.8   Under NI/04, COCESNA presented the initiative of developing standardized and homogenized documentation at the regional level conducted by ACSA. The purpose of the process is to promote Operational Safety through the standardization of documentation, in order to improve the capacities of States in compliance and supervision of Operational Safety and optimization of resources, contributing to improvements in a high degree of Operational Safety and maintaining the levels of effective implementation of COCESNA's member States

Agenda Item 5: **Updates of the ICAO NACC Systemic Assistance Programme (SAP)**

AIG Turnkey Project

5.1 Under WP/03, the Secretariat informed that through the USOAP, ICAO has sought to identify the strength of States' aviation systems in assessing their ability to honour the commitments under the Chicago Convention and its technical annexes regarding the implementation of the ICAO SARPs. The USOAP started with a focus on the areas of OPS and AIR, which ended up receiving more attention and, consequently, achieved a higher level of compliance in the general context of international aviation. Their shortcomings were highlighted as the programme progressed to include other areas, like AIG.

5.2 The current scenario reveals the need to pay more attention to accident investigation, not only for its direct contribution to accident prevention but also for its participation in the States' Safety Programmes (SSP), where it is an important supplier of data for analysis.

5.3 The ICAO NACC Regional Office deployed the Turnkey project as a means to assist Caribbean and Central American States in the area of AIG by:

a) building/enhancing national capacity in accident and incident investigation;

b) enabling the establishment/consolidation of Investigation Cooperative Mechanisms(ICMs); and

c) enabling the future adoption of a Regional Accident and Incident Investigation Organization (RAIO) approach.

5.4 The Project was initially structured into four sessions aimed at developing the elements necessary to enable the State to comply, at a minimum, with all AIG-related obligations arising from the Chicago Convention and its Annex 13.

5.5 A follow-up phase of the AIG Turnkey Project is under planning to provide "hands-on" assistance *in situ* to the States. That will be an opportunity to support the activities of selected States, effectively committed to the increase of their level of EI on AIG.

5.6 The NCMC/WG fully supports this type of Project like the AIG Turnkey for enhancing State AIG SARPs compliance, and therefore, it proposed the following conclusion:

CONCLUSION	
NCMC/5/04	**NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN (NACC) ACCIDENT AND INCIDENT INVESTIGATION (AIG) TURNKEY PROJECT**

What:	**Expected impact:**
That, considering AIG as one of the least implemented USOAP areas in the States in the CAR Region, and that it is extremely important to have active engagement from the relevant personnel within the authorities, the CAR States and NCMC/WG members: a) actively participate in the follow up conducted under Phase 2 of the AIG Turnkey Project, supporting the implementation at the regional level; and b) support, through each NCMC of the relevant States, the AIG personnel participating in the project, as required.	☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Operational/Technical

Why:		
To improve the Implementation in AIG in the Caribbean (CAR) Region		
When: Immediately	**Status:** ☒ Valid / ☐ Superseded / ☐ Completed	
Who: ☒ States ☐ ICAO ☒ Other:	States and NCMC/WG	

ANS Inspectorate Guidance

5.7 The Meeting was informed of the delivery of the document developed by the NACC Regional Office (RO) on the Air Navigation Services (ANS) Inspectorate Guidance (**Appendix A** to this report), in order to address the identified challenges for the CAR States to establish an effective organizational structure with functions related to safety oversight of ANS providers and the lack of clear guidance to develop processes and procedures to perform ANS inspections. Project RLA/09/801 – Multi-Regional Civil Aviation Assistance Programme (MCAAP) approved the Project to Develop Guidance to Support ANS Safety Oversight.

5.8 The main objective of the aforementioned activity was to draft a regional template to support the development of an ANS inspector manual and training programme. The guidance material prepared under this project seeks to support the CAR States to establish an organizational structure with functions related to safety oversight of ANS providers, including general and specific functions, job descriptions, annual planning and the methodology for determining staffing needs to carry out all safety oversight-related tasks, in order to assist ANS inspectors in carrying out their safety oversight functions in a standardized and effective manner in the following areas:

- Air Traffic Management (ATM);
- Procedures for Air Navigation Services — Aircraft Operations (PANS-OPS);
- Aeronautical Information Services/Aeronautical Information Management (AIS/AIM);
- Aeronautical Charts (ANC);
- Communications, Navigation and Surveillance (CNS);
- Aeronautical Meteorology (MET);
- Search and Rescue (SAR); and
- Safety Management Systems (SMS).

5.9   Finally, the Meeting took note that the guidance includes material for defining the competencies of civil aviation safety inspectors to develop minimum qualification and experience, and detailed training programmes for inspectors in the aforementioned areas. The general idea is to enhance the current USOAP ANS compliance with this guidance. The NACC Guidance to Support ANS safety oversight– Version 1.0 will be a dynamic document that can be enriched and improved as needed. It is also available at the following website:

https://www.icao.int/NACC/Documents/Meetings/2022/NCMC05/SafetyOversightANSManual.pdf

5.10   The NCMC/WG fully supports this initiative and formulated the following conclusion:

CONCLUSION NCMC/5/05 ANS INSPECTORATE GUIDANCE DOCUMENT	
What: That, considering ANS as one of the least implemented USOAP areas in the States in the CAR Region, and that makes it extremely important to have active engagement from the relevant personnel within the authorities: a) States consider/implement the NACC ANS Inspectorate Guidance as needed to improve their ANS USOAP compliance; and b) the NACC/WG follow-up on the implementation and impact/benefit of the ANS Guidance to the States, before the NCMC/6 Meeting.	**Expected impact:** ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Operational/Technical
Why: To improve the Implementation in ANS in the Caribbean (CAR) Region	
When: a) Immediate b) NCMC/6	**Status:** ☒ Valid / ☐ Superseded / ☐ Completed
Who: ☒ States ☐ ICAO ☒ Other:	NCMC/WG

Agenda Item 6:   **NCMC Work Programme**

6.1   Under WP/06, the meeting was recalled that the Second NAM/CAR Regional Meeting for National Continuous Monitoring Coordinators (NCMC/2), held in Mexico City, Mexico, from 14 to 16 November 2017, agreed to propose the establishment of the National Coordinators Working Group of NAM/CAR Continuous Monitoring (NAM/CAR/NCMC/WG) to support and improve the effective implementation of the Safety Oversight Systems of the NAM/CAR States, improving the preparation for the activities of the USOAP-CMA in accordance with ICAO requirements.

6.2   Since the activation of the NCMC, during its many teleconferences held during the pandemic, a review of the progress of the work programme was carried out, which led to the adjustment of the existing work methodology of the WG and the formation of two groups (of the English and Spanish-speaking countries) were agreed. These Working Groups will be coordinated and monitored by the ICAO NACC Regional Office.

6.3   The establishment of the NAM/CAR/NCMC/WG and its Terms of Reference (ToRs) are based on the Declaration of Intent (DoI) for the No Country Left Behind Strategy (NCLB) of the ICAO NACC Regional Office, agreed during the Sixth Meeting of Directors of Civil Aviation of North America, Central America and the Caribbean (NACC/DCA/6), held in Nassau, Bahamas from 10 to 12 May 2016.

6.4   Under P/02, a summary was presented by the Secretariat on the 2023 Work Programme of the NCMC Working Group of the NAM/CAR Regions included in **Appendix C**. In this regard and based on the current NCMC/WG ToRs - containing the NCMC's WG responsibilities and objectives, the Meeting formulated the following decision:

DECISION NCMC/5/06	APPROVAL OF 2023 NCMC/WG WORK PROGRAMME	
What: That, based on the current NCMC Terms of Reference (ToRs), the NCMC/WG Work Programme for 2023 (Appendix C to this report) is approved.		**Expected impact:** ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Operational/Technical
Why: To improve the safety oversight system of the States in the CAR Region and foster collaboration among States.		
When: Immediately	**Status:** ☒ Valid / ☐ Superseded / ☐ Completed	
Who: ☐ States ☐ ICAO ☒ Other:	NCMC/WG	

Agenda Item 7:   **Other Business**

7.1   No other business were discussed under this agenda item.

APPENDIX A
EXECUTIVE LIST OF CONCLUSIONS/DECISIONS

Number	Conclusion/Decision	Responsible for action	Deadline
5/1	**PLANNING AND WORK PLAN OF THE NCMC/WG**		
	That, in order to re-activate the NCMC/WG and collaborate and participate in the implementation of the pending actions, the NCMC/WG:		
	a) analyse personnel needs that allow the fulfilment of their functions more effectively; and	NCMC/WG	10 May 2023
	b) schedule activities to comply with the agreed period of 3 years (discussion on the period to standardize the period of validity of the appointment of the rapporteurs) by 10 May 2023.	NCMC/WG	10 May 2023
5/2	**iPACK – PREPARATION FOR THE ICAO UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME (USOAP) CONTINUOUS MONITORING APPROACH (CMA) ACTIVITIES**		
	That, taking into consideration the advantages of the USOAP CMA iPack and the experience gained by the States from the deployment of such iPack, the NCMC/WG welcome the deployment of the USOAP CMA iPack in the States of the region.	NCMC/WG	Immediate
5/3	**EFFECTIVE IMPLEMENTATION STATUS IN THE CAR REGION**		
	That, taking into consideration, the critical areas for improvement (AIG, AGA, and ANS) from the USOAP, as well as the other areas for enhancement, the NCMC/WG:		
	a) perform an objective self-assessment in order to have updated information under the NACC SAP activities; and	NCMC/WG	Immediate
	b) take advantage of the various support initiatives (AIG Turnkey, State Safety Programme (SSP), etc.) and projects (Safety Oversight System (SOS) Project, Regulatory Comparison Document, etc.) offered by the ICAO NACC Regional Office.	NCMC/WG	Immediate

Number	Conclusion/Decision	Responsible for action	Deadline
5/4	**NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN (NACC) ACCIDENT AND INCIDENT INVESTIGATION (AIG) TURNKEY PROJECT**		
	That, considering AIG as one of the least implemented USOAP areas in the States in the CAR Region, and that it is extremely important to have active engagement from the relevant personnel within the authorities, the CAR States and NCMC/WG members:		
	a) actively participate in the follow up conducted under Phase 2 of the AIG Turnkey project, supporting the implementation at the regional level; and	States and NCMC/WG	Immediate
	b) support, through each NCMC of the relevant States, the AIG personnel participating in the project, as required.	States and NCMC/WG	Immediate
5/5	**ANS INSPECTORATE GUIDANCE DOCUMENT**		
	That, considering ANS as one of the least implemented USOAP areas in the States in the CAR Region, and that makes it extremely important to have active engagement from the relevant personnel within the authorities:		
	a) States consider/implement the NACC ANS Inspectorate Guidance as needed to improve their ANS USOAP compliance; and	States	Immediate
	b) NACC/WG follow-up on the implementation and impact/benefit of the ANS Guidance to the States, before the NCMC/6 Meeting.	NACC/WG	NCMC/6 Meeting
5/6	**APPROVAL OF 2023 NCMC/WG WORK PROGRAMME**		
	That, based on the current NCMC Terms of Reference (ToRs), the NCMC/WG Work Programme for 2023 is approved.	NCMC/WG	Immediate

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

Regional Technical Cooperation Project for the
Multi-Regional Civil Aviation Assistance Programme
(MCAAP) (RLA/09/801)

Project to Develop Guidance to Support Air Navigation Services (ANS) Safety Oversight

Prepared by

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October 2022

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Introduction

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INTRODUCTION

This manual is developed as a guide to establish the responsibilities and functions of ICAO Member States with respect to aviation safety oversight, more specifically of Air Navigation Services (ANS), in compliance with their obligations as signatories to the Convention on International Civil Aviation ("Chicago Convention"). It is intended for State authorities and provides a basis for assisting States in the development of a manual for ANS inspectors.

The responsibilities, roles, and obligations, as well as the related guidance, described in this manual are derived from a variety of sources, including the Chicago Convention and its Annexes, the Procedures for Air Navigation Services (PANS), and the guidance material published by ICAO to assist its member States in the application of Standards and Recommended Practices (SARPs), as well as for the establishment and management of a State Safety Oversight System.

This guide has been published as a way to contribute to achieving the highest degree of uniformity possible in the procedures and organization related to safety oversight in the provision of ANS, emphasizing the importance that each Civil Aviation Authority (CAA) use the particular knowledge about its national civil aviation system to adjust the implementation of the content of this document to its specific environment, taking into consideration the size and complexity of the air navigation system for which it is responsible.

The manual adopts the definition of "safety oversight" from Annex 19 to the Chicago Convention — *Safety Management* Second Edition, July 2016): "*A function performed by a State to ensure that individuals and organizations performing an aviation activity comply with safety-related national laws and regulations*".

In order to keep the manual up-to-date and accurate, suggestions for improving its format, content, and presentation are welcome. In particular with respect to its application and usefulness. These comments will be taken into account in the preparation of subsequent editions. Periodic review of the latter will serve to ensure that it remains up-to-date and accurate. Please address comments to:

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Chapter 1 — General Information

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Chapter 1 — General Information

1.1   Objective

1.1.1.   The purpose of this material is to guide States in the development of their own ANS Inspector Manual, to be used as a working tool in the oversight processes of Air Navigation Service Providers (ANSPs).

1.1.2   Its use will allow standardizing the minimum requirements to occupy the position of ANS Inspector in the different areas, as well as initial training, On The Job Training (OJT), periodic or recurrent training of inspectors and oversight processes, thus helping to strengthen the implementation of its ANS safety oversight programmes.

1.1.3   It has been designed based on the responsibilities, functions and obligations with respect to safety oversight by an ICAO Member State, with the purpose of providing information and guidance to government authorities on the development of the inspector's manual for ANS as part of an effective and sustainable State Safety Oversight System (SSO), through the implementation of the eight Critical Elements (CEs) of said system.

1.1.4   The USOAP audits have reflected the need to reinforce effective implementation in the States of the ICAO SARPs related to the ANS, through their incorporation in the national regulations, as well as through the establishment of a safety oversight system by the Civil Aviation Authority (CAA) [or State entity or organization] responsible for such oversight, aiming to verify its effective implementation and compliance, as shown in Figure 1-1.
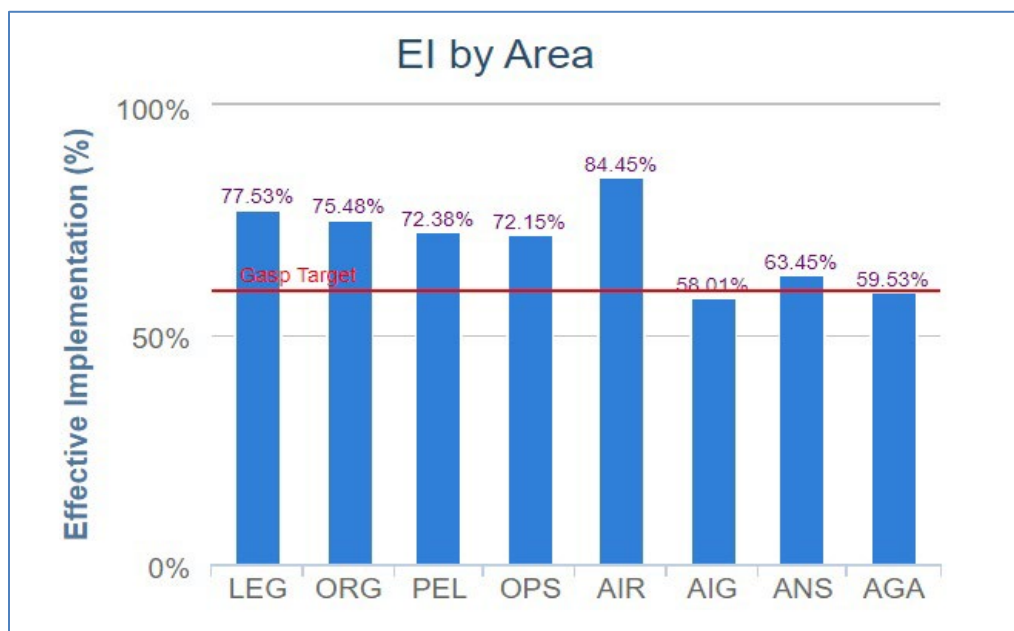
Figure 1-1. USOAP EI per Audit Area

1.2   Scope

1.2.1   This manual constitutes a guide for States to use when developing their air navigation inspector manual, and to standardize all the activities that inspectors must carry out during ANSP oversight.

1.3   Definitions

Civil Aviation Authority (CAA)- The governmental entity or entities however titled, that are directly responsible for the regulation of all aspects of civil air transport, technical (i.e. air navigation and aviation safety) and economic (i.e. the commercial aspects of air transport).

Aerodrome- A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft.

Aircraft- Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

Audit- Systematic, independent and documented process for obtaining evidence and objectively evaluating it to determine the extent to which audit criteria and requirements are met.

Critical elements (CE)- The critical elements of a safety oversight system cover the full spectrum of civil aviation activities. They are the elements on which an effective safety oversight system is based. The level of effective implementation of CEs is an indication of the State's safety oversight capability.

Aeronautical Study- Study of an aeronautical problem to determine possible solutions and select a solution that is appropriate and provides an acceptable level of safety.

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

Inspection- An examination of specific activities, products or services of an aviation license, certificate, approval or authorization holder (or applicant) performed by civil aviation inspectors to confirm compliance with requirements for the license, certificate, approval or authorization already issued (or being issued) by the State.

Inspector- Qualified person authorized by the State to perform oversight activities for civil aviation.

Lead Inspector- Lead inspector. Inspector who is designated as responsible for an inspection, and who exercises the authority on behalf of the CAA.

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Legislation- Generic term used to include primary aviation legislation and specific operating regulations, as defined in Critical Elements 1 and 2 of a State Safety Oversight System, respectively.

Operations Manual. A manual containing procedures, instructions and guidance for use by operational personnel in the execution of their duties.
Mitigation measure. Immediate action taken to resolve a significant safety concern (SSC).

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.

Risk mitigation. The process of incorporating defences, preventive controls, or remedial measures to reduce the severity or likelihood of the projected consequence of a hazard.

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

Authorized person. Person authorized in writing by the Director General of Civil Aviation or equivalent official to act under the provision in which the expression occurs.

Corrective action plan (CAP). Action plan to eliminate the cause of a deficiency or finding.

Policy. Document that sets out the position or orientation of the entity with respect to a specific issue.

Significant Safety Concern (SSC). Within the context of safety oversight, this refers to any condition, practice, or violation that occurs when a State allows the holder of a license, certificate, approval or authorization to exercise the privileges attached to the license, certificate, approval or authorization without the holder meeting the minimum requirements established by the State and by the Standards set forth in the Annexes to the Chicago Convention and resulting in an immediate safety risk to international civil aviation.

Human Factors principles. Principles which apply to aeronautical design, certification, training, operations and maintenance, and which seek safe interface between the human and other system components by proper consideration to human performance.

Procedure. Series of steps followed in a methodical way to carry out an activity or a process, describing what should be done, when and by whom; where and how each stage should be carried out; what information, documentation and resources should be used, and how everything should be controlled.

Process. Set of interrelated or interactive activities that transforms inputs into outputs. Processes within an organization or programme are generally planned and performed under controlled conditions to add value.

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

Service provider. An organization providing aviation products and/or services. The term thus encompasses approved training organizations, aircraft operators, approved maintenance organizations, organizations responsible for type design or manufacture of aircraft, engines or propellers, air traffic service providers and other air navigation service providers and aerodrome operators.

Aeronautical Information Publication (AIP). A publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation.

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

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

Air traffic service (ATS). A generic term meaning variously, flight information service, alerting service, air traffic advisory service, air traffic control service (area control service, approach control service or aerodrome control service).

Air navigation services (ANS). Services provided to air traffic during all phases of operations including air traffic management (ATM), communication, navigation and surveillance (CNS), meteorological services for air navigation (MET), search and rescue (SAR) and aeronautical information services (AIS).

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

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

Air traffic. All aircraft in flight or operating on the manoeuvring area of an aerodrome.

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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.

Oversight. Active monitoring of the aviation industry and service providers by the competent regulatory authorities to ensure that the international obligations and national requirements of the State are met by establishing a system based on the critical elements.

1.4   Abbreviations and acronyms

AIM   Aeronautical Information Management
AIP   Aeronautical Information Publication
ANS   Air Navigation Services
ATS   Air Traffic Service
CAA   Civil Aviation Authority, Civil Aviation Administration or an appropriate State Aviation regulatory body
CE   Critical Element of a Safety Oversight System
CMA   Continuous Monitoring Approach
EFOD   Electronic Filing of Differences
GASP   ICAO Global Aviation Safety Plan
ICAO   International Civil Aviation Organization
OJT   On-The-Job Training
OLF   Online Framework (USOAP)
PANS   Procedures for Air Navigation Services
RSOO   Regional Safety Oversight Organization
SARPs   Standards and Recommended Practices
SMS   Safety Management System
SSC   Significant Safety Concern
SSO   State Safety Oversight (system)
SSP   State Safety Programme
USOAP   ICAO Universal Safety Oversight Audit Programme

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Chapter 2 — International Civil Aviation Organization

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Chapter 2 — International Civil Aviation Organization

2.1   Introduction

2.1.1   The responsibilities, roles and obligations of ICAO Member States with respect to aviation safety oversight derive from their obligations as signatories to the Convention on International Civil Aviation ("Chicago Convention").

2.1.2   The ANS inspector is responsible for fulfilling a set of tasks that are basic to meeting the obligations of their State. Understanding where these obligations come from, their origins and rationale, should be part of an inspector's core competency.

2.1.3   The objective of this chapter is to provide guidelines to introduce fundamental aspects of ICAO and its Universal Safety Oversight Audit Programme (USOAP).

2.2   International Civil Aviation Organization (ICAO)

2.2.1   The International Civil Aviation Organization (ICAO) is a specialized agency of the United Nations, created on 7 December 1944 by signing the Convention on International Civil Aviation, in the city of Chicago, known as the Chicago Convention.

2.2.2   ICAO is made up of 193 States that, in their capacity as signatory States of the Chicago Convention, direct the Organization's activity with the aim of favouring diplomatic channels and cooperation in air transport among them.

2.2.3   The core function of the Organization is to maintain an administrative and specialized bureaucracy (the ICAO Secretariat) that facilitates such diplomatic interactions, and to investigate new air transport policies and innovations in standardization in accordance with the mandate it receives from States through the ICAO Assembly, or of the ICAO Council elected by the Assembly.

2.2.4   The Secretariat of the ICAO is headed by the Secretary General, based in the city of Montreal, Canada, and consists of seven Regional Offices: the Asia-Pacific Office in Bangkok, Thailand; the Eastern and Southern Africa Office in Nairobi, Kenya; the West and Central Africa Office in Dakar, Senegal; the Middle East Office in Cairo, Egypt; the European and North Atlantic Office in Paris, France; the South American Office in Lima, Peru; and the North America, Central America and Caribbean Office in Mexico City, Mexico.

2.2.5   The Assembly, comprised of all ICAO Member States, meets no less than once every three years and is convened by the Council at a convenient date and place. However, at the request of the Council or of not less than one fifth of all Member States, a special session of the Assembly may be convened at any time.

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2.2.6   The Assembly has numerous powers and duties, among them to: elect the Member States to be represented on the Council, evaluating and making appropriate decisions on the Council's reports and on any matter referred to it by the Council, and approving the Organization's budgets. At its discretion, the Assembly could transfer to the Council, the auxiliary committees or any other body, any matter within its scope of action. It may delegate to the Council the powers and authority necessary or desirable for the performance of ICAO functions, as well as revoke and modify the delegations of authority at any time and address any matter that falls within the sphere of action of ICAO and is not specifically assigned to the Council. In general, it reviews in detail the work of the Organization in the technical, administrative, economic, legal and technical cooperation spheres. It has the power to approve amendments to the Convention on International Civil Aviation (Chicago, 1944), which are subject to ratification by Member States.

2.2.7   The Council is a permanent body of the Organization responsible to the Assembly. It is composed of 36 Member States elected by the Assembly for a period of three years term. In the election, adequate representation is given to the States of chief importance in air transport, the States not otherwise included but that make the greatest contribution to the provision of facilities for international civil air navigation, and the States not otherwise included and whose appointment will ensure that all major geographic regions of the world be represented on the Council.

2.2.8   The Council has numerous functions, including the presentation of annual reports to the Assembly; carry out the resolutions of the Assembly; and discharge the duties and obligations which are laid on it by the Convention on International Civil Aviation (Chicago, 1944). It also manages ICAO's finances; appoints and defines the functions of the Air Transport Committee, as well as the Joint Support Committee for Air Navigation Services, the Finance Committee, the Illicit Interference Committee, the Technical Cooperation Committee and the Human Resources Committee. Appoints the members of the Air Navigation Commission and elects the members of the Edward Warner Award Committee, another key function of the Council is to appoint the Secretary General.

2.2.9   As one of the two governing bodies of ICAO, the Council gives continuing direction to the work of ICAO. In this regard, one of its major duties is to adopt international Standards and Recommended Practices (SARPs) and to incorporate these as Annexes to the Chicago Convention. The Council may also amend existing Annexes as necessary.

2.3   ICAO Universal Safety Oversight Audit Programme (USOAP)

2.3.1   Several reports were issued in the early 1990s on the lack of Effective Implementation (EI) of ICAO SARPs by States. The upward trend in accidents demonstrated insufficient safety oversight by States, which generated growing concern about the level of aviation safety worldwide, and the need to reduce the number of accidents to give step to the rapid increase in air traffic.

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2.3.2   On 7 June 1995, the ICAO Council approved the Safety Oversight Assessment Programme, then voluntary, as well as the corresponding mechanisms for financial and technical contributions. The programme was subsequently approved by the 31st session of the Assembly and became operational in March 1996. It was a voluntary assessment of a State's implementation capacity of ICAO SARPs and assessment reports were provided only to assessed States. The other Member States received a summary report on the deficiencies identified by the assessment team.

2.3.3   During its first two years, the ICAO Safety Oversight Assessment Programme identified numerous deficiencies in the establishment of effective safety oversight programmes in Member States. Consequently, the ICAO Council recognized the critical need for greater attention to global aviation safety, which was the main topic discussed during the Conference of Directors General of Civil Aviation on a Global Strategy for Safety Oversight. (DGCA/97), held in Montreal from 10 to 12 November 1997.

2.3.4   The 32nd Session of the Assembly (22 September - 2 October 1998) adopted Assembly Resolution A32-11 — Establishment of the ICAO Universal Safety Oversight Audit Programme (USOAP) with the objective of supervising the safety oversight obligations of all State entities to ensure the implementation of all the SARPs related to safety, contained in Annexes 1, 6 and 8 to the Chicago Convention.

2.3.5   The 35th session of the Assembly adopted Resolution A35-6, requested that the USOAP be expanded to include the safety-related provisions contained in all the Annexes to the Convention beginning in 2005. This Resolution further requested the Secretary General to restructure the USOAP to implement a Comprehensive Systems Approach (CSA) and restructure safety oversight audit reports to reflect the CEs of a safety oversight system, as presented in the Safety Oversight Manual (Doc 9734), Part A —Establishment and Management of a State Safety Oversight System.

2.3.6   In September 2007, the 36th session of the Assembly adopted Resolution A36-4 instructing the Council to examine different options for the continuation of the USOAP beyond 2010, including the feasibility of applying a new approach based on the concept of Continuous Monitoring Approach (CMA).

2.3.7   The 37th Session of the Assembly (September–October 2010) adopted Resolution A37-5, stating that the evolution of the USOAP to the CMA should remain a top priority for ICAO in order to ensure that safety performance information of the Member States be provided to the other Member States and to the traveling public on an ongoing basis. This vital enhancement of international aviation safety oversight required the involvement and support of all Member States, particularly during the transition period when the necessary tools and guidance for the USOAP CMA were being developed.

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2.3.8   The two-year transition to USOAP CMA took place from 2011 to 2012 and the programme was completed and launched on 1 January 2013, as scheduled and approved by the Council during its 197th session in November 2012. The CMA transition plan included numerous activities related to: communications with States and stakeholders, development and launching of the On-line Framework (OLF) and its many tools and modules, development of supporting documentation and guidance material, updating of the Quality Management System (QMS) of the USOAP CMA, documentation of processes and procedures, training of auditors and experts, carrying out on-site CMA activities in the States and development and expansion of agreements with relevant partners to foster coordination and cooperation.

2.3.9   During the transition, ICAO changed its approach to generating Protocol Questions (PQ) findings instead of Findings and Recommendations (F&Rs). ICAO also modified the formula for calculating EI, in order to make the EI percentage more accurate.

2.3.10   The USOAP CMA OLF (https://soa.icao.int/usoap/) was also launched on 1 January 2013 with redesigned and integrated tools required to conduct CMA activities available to be used. In order to ease States' transition to the OLF, ICAO created a phased plan to migrate State PQ Findings and Corrective Action Plans (CAP) data from the previous platform, i.e., from the Integrated Safety Trend Analysis and Reporting System (iSTARS) to the online platform. Data migration was carried out throughout 2013.
Note. — Version 2.0 of iSTARS, called SPACE, came out in 2013.

2.3.11   In the context of the USOAP CMA, the 37th Session of the Assembly also directed the Council to assess how information regarding Significant Safety Concerns (SSCs) could be shared with the public, so that the public could make informed decisions about the safety of air transport. During its 195th and 196th Sessions, the Council considered sharing unresolved SSCs with the public and approved that SSCs be provided on the ICAO public website from January 2014. The 38th Assembly session (September–October 2013) endorsed this process. Information on the existence and nature of an unresolved SSC is now published alongside the State-specific information already available on that website (www.icao.int).

2.3.12   The responsibilities, functions and obligations regarding safety oversight by an ICAO Member State are explained in ICAO Doc 9734, Safety Oversight Manual — Part A — Establishment and Management of a State Safety Oversight System. This manual provides information and guidance to government authorities on the establishment and management of an effective and sustainable State Safety Oversight System (SSO), through the implementation of the eight Critical Elements (CEs) of said system.

2.3.13   Part B of the Safety Oversight Manual provides guidance to States that wish to establish a Regional Safety Oversight Organization (RSOO) or participate in an established organization. The creation of an RSOO, as well as ways to ensure its sustainability, entail the adoption of a regional strategy, bringing together the efforts of Member States, international and regional organizations and other aviation stakeholders.

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2.3.14   ICAO Doc 9735, Universal Safety Oversight Audit Programme Continuous Monitoring Manual is the main reference document prepared in relation to the ICAO USOAP. It contains policies, procedures, information and guidance on managing and conducting program activities in the context of the CMA.

2.3.15   It is important that ANS Inspectors are familiar with the USOAP and know the responsibilities that may be assigned to them in order to comply with the requirements of the programme. Having access to the aforementioned reference documents facilitates the execution of tasks, as well as preparation for different types of activities related to the responsibilities of the State.

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Chapter 3 ⸺ Civil Aviation Authority (CAA)

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Chapter 3 ⸺ Civil Aviation Authority (CAA)

3.1   Introduction

3.1.1   The organization and operation of each CAA is specific to the State in which it is located. Although there will always be similarities in their organization and operation, the legal framework and the reality of each State will mean that no CAA is the same as any other.

3.1.2   In this Chapter, the State must adopt the content based on its legal system, its legislation, the model assumed for the provision of ANS, the types of organizations involved and its own regulations, depending on its organizational model.

3.1.3   The development of each of the sections of this Chapter should be approached from the perspective of each CAA, and must reflect the existing (or non-existing) legislation, regulations and provisions that allow the establishment of the ANS safety oversight system.

3.2   Description of the air navigation system

3.2.1   To start with the planning for the establishment of the ANS oversight system, it is necessary to make a description of the air navigation system present in the State. This description must cover all the areas that make up the ANS, including its infrastructure, agreements and services, with levels of detail that allow defining the organizational structure of the oversight area, as well as the process of preparing the plans and oversight programmes.

3.2.2   This description must include the number of personnel working in each area, the equipment and technology used by them, the number of units that each area has throughout the geography of the State (or States) in question.

3.3   CAA Legal framework

3.3.1   The legal framework of the CAA can be made up of a variety of legal instruments, which enable the Authority to carry out and execute its functions and responsibilities. The main instruments for this purpose are the primary civil aviation legislation (civil aviation law or Act) and national regulation; but there may also be other instruments such as decrees, policies, and guidelines, to name a few, that may have an impact on the functioning of the CAA.

3.3.2   State primary aviation legislation.

3.3.2.1   The legal instruments that encompass the primary legislation of the State are detailed here.

3.3.3   ANS National regulation of each State.

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3.3.3.1   Here are detailed the document or documents in which the State transposes to the national legal framework the requirements derived from:

- • Annex 2
- • Annex 3
- • Annex 4
- • Annex 5
- • Annex 10 (with all its volumes)
- • Annex 11
- • Annex 12
- • Annex 15
- • Procedures for Air Navigation Services (PANS).

3.3.4   Other legal instruments relevant to the State, as well as international agreements.

3.4   Vision, mission and quality policy of the CAA

3.4.1   The CAA's mission statement should describe the rationale for the organization's existence. It focuses on the objectives to be met in the present, and must be defined in a precise and concrete way to guide the day-to-day work.

3.4.2   The CAA vision should describe an ideal expectation of what the organization is expected to be or achieve in the future.

3.4.3   If an organizational quality management system exists, the CAA's quality policy should define:

a. What should the organization do?
b. How should it do it?
c. Who are the people in charge?
d. Based on what objectives, are the functions performed?

3.4.4   In addition to the mission, vision, and quality policy of the CAA, the ANS oversight area could define its own mission, vision, and quality policy, within the previously defined institutional framework, which could be described in this section.

3.5   CAA Functions and Responsibilities

3.5.1   This section should contain a general description of the functions and responsibilities of the CAA, as defined by each State.

3.5.2   At the same time, it should offer a description of the different functional areas that are part of the CAA and their basic functions.

3.5.3   The organizational chart must be included in this section.

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3.5.4   A key aspect to be taken into consideration is the capacity of the Authority to regulate and supervise all aeronautical activities carried out under its responsibility, as well as the mechanisms to be able to exercise its compliance policy on the Air Navigation Service Provider(s) (ANSPs).

3.5.5   When the State is, at the same time, the regulatory authority and ANSP (in all or any of its areas), the requirements of the Convention must be met, and the State must ensure a clear separation of functions and responsibilities between the regulatory authority and the provision of services. The approval, certification and permanent supervision procedures must be applied as if the service provider were not a government entity.

3.5.6   The foregoing could be seen as more complicated when both functions, regulation and service provision, are part of the same organization. However, the principles of supervision and control must be the same, ensuring a clear functional separation, avoiding possible conflicts of interest, and establishing effective compliance mechanisms, as would be done with any other provider. This is achieved by ensuring that different units within the organization are responsible, each separately, for the provision of services and for oversight.

3.6   CAA ANS Oversight Area Functions and Responsibilities

3.6.1   This section should include a more specific description of the functions and responsibilities of the ANS oversight area, emphasizing the responsibility for ANS safety oversight, and the functions that must be performed to carry it out properly, this in each of the ANS areas.

3.6.2   Each State is responsible for defining the functions and responsibilities of the ANS oversight area, taking into consideration the structure of its CAA, the available resources, as well as the size and complexity of the service providers.

3.6.3   It is also necessary to recognize and document the administrative functions necessary to carry out the activities related to the oversight of air navigation services. In response to different bureaucratic and administrative requirements, there will be tasks that must be assumed by this area, which must also be taken into account, not only because of the workload they represent, but also because of the skills and abilities that would be necessary to be able to fulfil them. Functions such as the management of financial and logistical resources, matters related to human resource management, administrative planning and control tasks, among others, form an intrinsic part of the requirements to keep the ANS surveillance area operational within the CAA. In this regard, it may be necessary to consider specific tasks for inspection staff or additional support staff.

3.7   Considerations for the establishment of the CAA's ANS Oversight Area Organizational Chart

3.7.1   For the establishment of the organizational chart of the ANS oversight area of the CAA, each of the ANS areas must be taken into account:

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a)   Air Traffic Services (ATS).
b)   Aeronautical Information Services (AIS/AIM).
c)   Communication, Navigation and Surveillance   Services (CNS).
d)   Flight Procedures Design Services (PANS-OPS).
e)   Aeronautical Map Services (MAP).
f)   Aeronautical Meteorology Services (MET).
g)   Search and Rescue Services (SAR).

3.7.2   It should be taken into account that, despite the fact that there are seven sub-areas within the ANS, according to the structure and what is defined by each CAA to address its particular needs, and protected by its legal framework, it is possible that there may be scenarios where the specialties can be combined, depending on the competence and previous experience that is required for the performance of said functions.

3.7.3   As an example, the ATS and SAR areas, or AIS/AIM, MAP and PANS-OPS could be combined. The foregoing, it is emphasized, will depend on the particular structure and the requirements established by the CAA of each State. It is important to highlight that when the Authority decides to combine sub-areas, the training and competence must meet the requirements of each specialty.

3.7.4   The organizational structure must consider, in addition to the inspectors of each specialty, the person in charge of the ANS oversight area, who will be responsible for directing the tasks performed by the inspectors in the ANS oversight process.

3.7.5   An example of an organizational structure chart for the ANS oversight area is shown in Appendix 1 to Chapter 3 of this manual.

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Appendix 1 to Chapter 3 – Example of Organizational Chart for the ANS Oversight Area

Example 1

Example 2

Example 3

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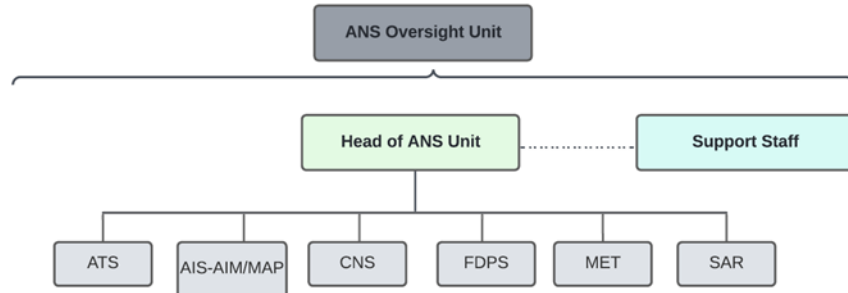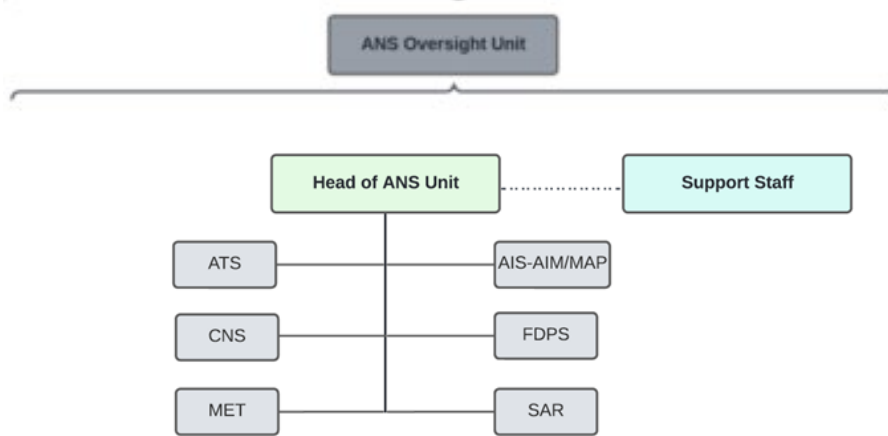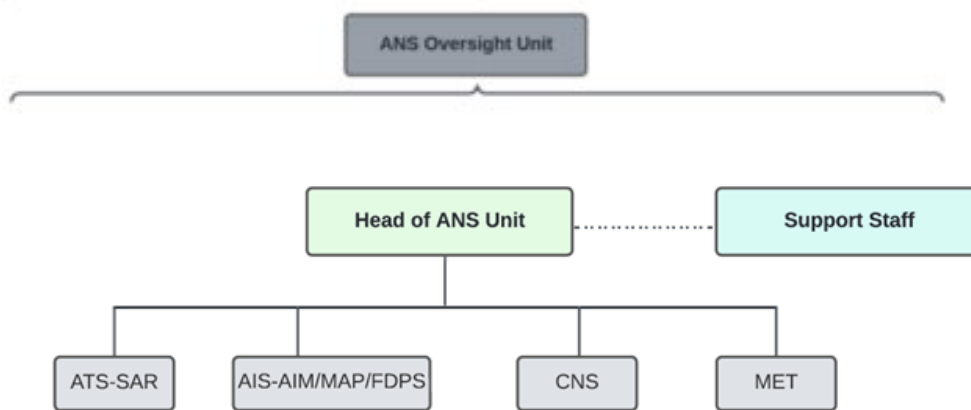
Chapter 4 — State Safety Programme (SSP)

4.1   Introduction

4.1.1   The objective of this chapter is to provide information to support or complement the initiatives for the establishment of the SSP, from the perspective of ANS. It can be taken only as general information or specific reference for the establishment of the authority processes to manage the Safety Management System (SMS) of the ATS service provider, according to the requirements established by the State.

4.1.2   Although the ICAO standards and guidance material for safety management are taken as a reference, it is important to highlight that the requirements established by the State in its legislation are those applicable to the Authority itself, as well as to service providers.

4.1.3   The way in which the State decides to implement the requirements of Annex 19 in its legislation, as well as the way in which the process for the implementation of the SMS is established, the SMS surveillance of ATS service providers, the establishment of agreements and performance targets, monitoring of normal activities, as well as integration with other management systems already established or required, should be taken into consideration when using this guidance material.

4.1.4   Annex 19 contains the ICAO SARPs related to the functional responsibilities of States for safety management. These include the establishment and maintenance of a SSP, which is nothing more than an integrated set of regulations and activities aimed at managing safety in a comprehensive manner.

4.1.5   With the approval and publication of the first edition of Annex 19, States were expected to establish and implement two sets of provisions, namely, the eight CEs of the SSO and the four components of the SSP.

4.1.6   Safety oversight reflects the traditional role of the State, which is to ensure the EI by the aviation industry of prescriptive regulations, while the SSP represents the incorporation of safety management principles.

4.1.7   The safety oversight system and the SSP are closely related in terms of the safety objectives that each seeks to achieve. Both address the roles and responsibilities of the State, the former primarily with regard to safety oversight, and the latter with regard to safety management and safety performance.

4.1.8   For this reason, in the second edition of Annex 19 they have been integrated and presented in a combined form as State functional responsibilities in terms of safety management. SARPs related to State safety management responsibilities, which encompass both safety oversight and safety management, are interdependent and constitute an integrated approach leading to effective safety management. This evolution is illustrated in Figure 4-1.

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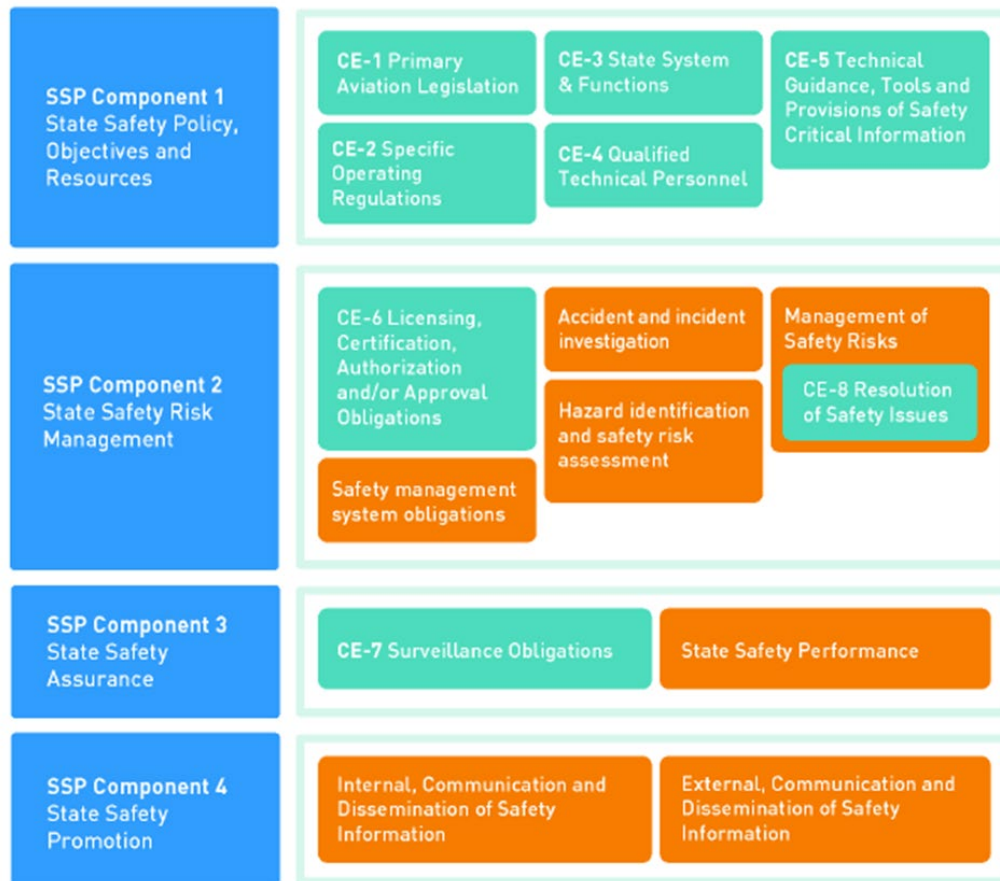
Figure 4-1.

4.1.9   The CEs of the SSO are the foundation of the SSP. The second edition of Annex 19 underlines the importance of a safety oversight system by maintaining the provisions related to the eight CEs at the standard level. Most SSP framework requirements have been upgraded to Recommended Practices, with some upgraded to Standards.

4.1.10   The implementation of an SSP requires close coordination between multiple entities responsible for the State's aviation functions. The implementation of the SSP does not alter the respective functions of the State's aviation organizations. Instead, the SSP aims to take advantage of the collective functions and capacities in terms of safety to continue improving it within the State. When beginning to implement an SSP, most States find that they already have existing processes and activities that cover many aspects of the SSP. The implementation of the SSP is aimed at enhancing these processes with additional performance and safety risk-based elements, as well as facilitating the effective implementation of the SMS by the State's aviation industry.

4.1.11   In view of the above, the SSP has the objective of ensuring that the State has an effective legislative framework to support the specific operating regulations, ensure coordination between the risk management system and the safety assurance and establish synergy between the relevant state aviation authorities, as well as supporting the EI and appropriate interaction with the SMS of the service providers,

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facilitating the observation and measurement of the State's aviation industry safety performance, maintaining or continuously improving the State's general performance in terms of safety.

4.2   SSP Framework

4.2.1   The SSP consists of four components and these in turn contain the elements that make up the processes and activities that must be carried out by the States in order to manage safety. These four components and the fourteen elements that make up their baseline framework:

Component 1. State safety policy, objectives and resources
           1.1   Primary aviation legislation;
           1.2   Specific operating regulations;
           1.3   State system and functions;
           1.4   Qualified technical personnel; and
           1.5   Technical guidance, tools and provision of safety-critical information.

Component 2. State Safety Risk Management
           2.1   Licensing, certification, authorization and approval obligations
           2.2   Safety management system obligations
           2.3   Accident investigation
           2.4   Hazard identification and safety risk assessment
           2.5   Management of safety risks

Component 3. State Safety Assurance
           3.1   Surveillance obligations
           3.2   State safety performance

Component 4. State Safety Promotion
           4.1   Internal communication and dissemination of safety information
           4.2   External communication and dissemination of safety information

4.3   SMS of ATS Providers

4.3.1   Annex 19 establishes that States will require service providers under their authority to implement an SMS, which will be acceptable to the State responsible for designating the provider, and in accordance with the framework contained in Appendix 2 to the aforementioned Annex.

4.3.2   The purpose of a SMS is to provide service providers with a systematic approach to managing safety. It is designed to continuously improve safety through hazard identification, data collection and analysis, and continuous assessment of safety risks.

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4.3.3   The SMS seeks to proactively contain or mitigate safety risks before they lead to aviation incidents and accidents. The system enables service providers to effectively manage their activities, their safety performance and their resources, while achieving a better understanding of their contribution to aviation safety.

4.3.4   An effective SMS demonstrates to States the service provider's ability to manage safety risks and addresses effective safety management at the State level.

4.3.5   The framework consists of four components and twelve elements that constitute the minimum requirements for the implementation of an SMS, which are:

1.   SAFETY POLICY AND OBJECTIVES
        1.1   Management commitment
        1.2   Safety accountability and responsibilities
        1.3   Appointment of key safety personnel
        1.4   Coordination of emergency response planning
        1.5   SMS Documentation

2.   SAFETY RISK MANAGEMENT
        2.1   Hazard identification
        2.2   Safety risk assessment and mitigation

3.   SAFETY ASSURANCE
        3.1   Safety performance monitoring and measurement
        3.2   The management of change
        3.3   Continuous improvement of the SMS

4.   SAFETY PROMOTION
        4.1   Training and education
        4.2   Safety communication

4.4   ATS-SMS Oversight

4.4.1   With the implementation of an SMS for ATS within the airspace of its jurisdiction, and in the aerodromes in which the provider provides services, the CAA must implement activities to monitor these systems.

4.4.2   The SMS acceptance and supervision process must be established in the corresponding aeronautical regulation, where the implementation phases, times and compliance requirements for each of the phases are described. Consequently, the authority must develop procedures to verify the progress made by the service provider in the implementation of the corresponding SMS.

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4.4.3   The oversight will be carried out using the SMS oversight guidelines or protocols that will be developed by the CAA (a guide for the verification of the SMS implementation phases is included in Attachment I of this document) based on the four components and the 12 elements that make up the SMS framework, which should be contained in the national regulations, derived from States responsibilities with respect to Annex 19. To evaluate the implementation and effectiveness of the SMS, interaction with the ATS provider is necessary, including discussions and face-to-face interviews.

4.4.4   To develop the activities related to the initial acceptance and supervision of the SMS, the State must develop the necessary procedures, which could be implemented through guides, supervision protocols, among others.

4.4.5   An important aspect of the SMS is the documentation of the system, including an "SMS Manual", which must contain the description of the processes, procedures, and policies of the system in order to facilitate the administration, communication, and internal maintenance of the system. This helps staff understand how the organization's SMS works and how the organization's safety policies and objectives will be met.

4.4.6   The two oversight activities that are considered as vital with respect to ATS SMS are:

a)   SMS initial acceptance: This is characterized by being a mostly documentary review of the system, it is carried out with the purpose of verifying that the SMS that the ATS provider proposes to implement complies with the minimum requirements defined within the framework of the SMS established in the national regulations, based on the SARPs of ICAO, and assess whether compliance and performance indicators are adequate.

b)   SMS continuous monitoring: This is carried out in order to verify continuous compliance with the requirements demonstrated in the initial acceptance and, in addition, monitor the processes related to the identification of hazards, risk management and continuous improvement. Continuous monitoring should include verification of performance agreements by the service provider that serve as input for setting and monitoring state performance goals.

4.4.7   The initial acceptance of the SMS would be recommended to be carried out in parallel with its implementation by the provider, making it necessary for both the CAA and the ATS provider to establish an implementation plan that involves both parties.

4.4.8   Once the documentation review of the system is completed, an inspection visit must be carried out as part of the initial acceptance.

4.4.9   Among the essential characteristics that must be considered in an initial acceptance of SMS are, but not limited to:

a)   Verify the SMS documentation system proposed by the ATS service provider, compliance with policies, written procedures, the existence of an organizational structure where the responsibilities and competencies of key personnel for SMS management are clearly established.

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b)   Verify the internal processes established for risk management and mitigation, this includes verification of compliance with the actual processes and their results in comparison with the written processes and other established elements.

c)   Identify and propose corrective actions where deficiencies have been identified.

4.4.10   The inspection visit can be carried out by an inspection team, and in the case of small aviation administrations it could be carried out by a single inspector accompanied by specialist to support the evaluation if necessary.

4.4.11   Any SMS supervision process must take into account the parallel processes exercised within the ATS service provider and its interfaces with the system.

4.4.12   Once the SMS has been accepted, continuous monitoring begins. This must be established to verify the continued compliance with the requirements in the SMS of the ATS that were shown to comply in the initial acceptance, as well as the additional safety performance requirements.

4.4.13   Although the SMS established by the provider must include safety assurance processes to demonstrate that safety is being managed, and these processes allow internal verifications to detect and correct safety issues, the continuous monitoring of the SMS by the CAA must verify these safety assurance procedures, and focus their attention on those areas where safety-related issues have been detected.

4.4.14   In addition, the SMS established by the ATS provider must be continuously evaluated through safety audits or inspections and focus on the following aspects:

a)   To monitor the SMS prioritizing the areas where verification of compliance is required,

b)   verify the actual processes and their results, compared with the written procedures,

c)   focus on the mechanisms implemented to detect and correct safety issues in the operations of the ATS service provider,

d)   request corrective actions where deficiencies are found,

e)   follow up on the implementation of corrective action plans where necessary, verifying their effective implementation; and

f)   the verification of safety performance by the ATS service provider, evaluating the achievement of safety performance goals, as well as compliance with performance agreements or the establishment of corrective action plans in the event of failure to comply with these agreements.

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4.4.15   At this point, it is important to clarify why SMS oversight is included in this chapter of the manual. This is because the safety oversight of air navigation services is an obligation that must be fulfilled even without an SMS being implemented by the ATS provider.

4.4.16   This surveillance process may be managed independently, or jointly if necessary, depending on the capabilities of the CAAs and their individual needs.

4.4.17   The CAA personnel that would be designated to carry out the surveillance of the SMS of ATS providers must have specific training and competencies to fulfil the functions and responsibilities derived from the supervision of the SMS. The Safety Management International Collaboration Group (SMICG) has developed guidance material to establish the competencies required by SMS inspection personnel, which is available at the following link: https://skybrary.aero/articles/sms-inspector-competency- guidance.

4.4.18   It is likely that within its workforce, the CAA has personnel with the necessary training and capabilities for the surveillance of the ATS service provider's SMS. If not, it becomes necessary to address this situation either by providing additional skills to existing staff or by hiring additional staff. The combination of technical skills with system management skills is a frequently used strategy.

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Chapter 5 — State Safety Oversight System

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Chapter 5 — State Safety Oversight System

5.1   Introduction

5.1.1   Safety oversight is defined as "the activities through which the State proactively verifies through inspections, audits and other activities that aviation license, certificate, authorization or approval holders continue to meet the established requirements and function at the level of competency and safety required by the State."

5.1.2   Safety oversight ensures that the national aviation industry complies with the applicable legal framework related to safety in order to achieve a level of safety equivalent to or higher than that defined in the SARPs.

5.1.3   Thus, each State's responsibility for safety oversight is the foundation underpinning the worldwide safety of aircraft operations. Consequently, when appropriate safety oversight is lacking in a member State, the safety of international civil aviation operations is threatened.

5.1.4   An effective and sustainable SSO system is characterized by the following:

a)   promulgation and timely amendment of national legislation, including all regulations that transpose at least the SARPs of the ICAO Annexes and PANS to the national legal framework, and guidance to the industry to support its compliance with the established requirements by the Authority for its operation, as well as their effective implementation by service providers that is verified by the State in a continuous and systemic manner;

b)   a well-balanced allocation of responsibilities between the State and the industry for civil aviation safety;

c)   the continuous allocation of the necessary financial and human resources for the State authorities to effectively carry out their responsibilities, functions and activities; and

d)   maintenance of harmonious relationships, including communication and consultation between the State and the civil aviation industry, while maintaining effective and clearly separate functional roles.

5.1.5   Some States refer to the aviation systems of other States or international organizations to adapt their national legislation, specific operating regulations, safety oversight structure, procedures manuals or other administrative documents. Although this practice can support the process of establishing the surveillance system and reduce significant workload, it is a process that must be well carried out and evaluated, taking into consideration that the context of each State is unique. This is much more than a "copy and paste" process, changing the names of the State or organizations. It is necessary to have an adequate knowledge of the models that are taken as reference, as well as the national and organizational context to be able to successfully adapt documentation from ICAO and from other States or organizations.

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5.1.6   In any case, the process of establishing the safety oversight system for ANS must be a well thought out process with due support at all levels of authority, led by personnel with the required skills or have the support of external personnel who can provide the correct and timely guidance. The ICAO NACC Regional Office is an option for direct assistance or through which this orientation could be managed.

5.2   Responsibilities of ICAO contracting States

5.2.1   The responsibility of the Contracting States to regulate and supervise all their aeronautical activities to ensure the safe, efficient and regular operation of air transport services is underlined in particular in three articles of the Chicago Convention.

5.2.2   Article 12 of the Chicago Convention requires that its Contracting States implement and apply the SARPs contained in the Annexes to the Convention, explicitly stating that: "Each contracting State undertakes to adopt measures to insure that every aircraft flying over or manoeuvring within its territory and that every aircraft carrying its nationality mark, wherever such aircraft may be, shall comply with the rules and regulations relating to the flight and manoeuvre of aircraft there in force. Each contracting State undertakes to keep its own regulations in these respects uniform, to the greatest possible extent, with those established from time to time under this Convention (…)".

5.2.3   Article 37 of the Chicago Convention specifies that "Each contracting State undertakes to collaborate in securing the highest practicable degree of uniformity in regulations, standards, procedures, and organization in relation to aircraft, personnel, airways and auxiliary services in all matters in which such uniformity will facilitate and improve air navigation". This uniformity is achieved by integrating the SARPs adopted and amended by ICAO into the national legal framework and methods of the Contracting States and applying them in a timely manner for the safety, regularity and efficiency of air navigation on a global scale.

5.2.4   Each Contracting State undertakes to ensure that all persons who violate the applicable regulations will be prosecuted.

5.2.5   Under Article 38 of the Chicago Convention, a Contracting State "shall give immediate notification to the International Civil Aviation Organization of the differences between its own practice and that established by the international standard" in the event that:
(a) it finds it impracticable to comply (…) with any (…) international standard or procedure; or
(b) it considers it impracticable to bring its own regulations or practices into full accord with any international standard or procedure after amendment of the latter; or
(c) deems it necessary to adopt regulations or practices differing (…) from those established by an international standard.

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5.2.6   To summarize the above, we could say that the States undertake to develop their national regulations based on the ICAO SARPs, or as close as possible to them, in order to achieve the highest degree of uniformity. And in cases where it is not possible for them to comply with the provisions of the SARPs, they must avail themselves of the notification of differences. Likewise, they must adopt the measures that ensure their strict compliance.

5.2.7   Additionally, all signatory States of the Chicago Convention acquire the obligations and privileges established in it and its Annexes. These general obligations include providing conditions for the operation of general aviation and air transport, such as:

a)   aerodromes;
b)   navigation aids;
c)   instrument approach charts and minima;
d)   weather reports;
e)   air traffic services
f)   search and rescue;
g)   aviation security; and
h)   the timely correction of any security deficiency in relation to these obligations.

5.2.8   Likewise, they must ensure conditions in their airspace so that aircraft operations are safe and efficient.

5.3   CAA Obligations

5.3.1   Political will and budgetary resource allocation are essential to the establishment and sustainability of an SSO and to ensuring Member States' compliance with ICAO SARPs. Many States face the challenge of the initial investment costs for building an effective and sustainable civil aviation safety oversight system. However, the socio-economic benefits and contributions of aviation to a State's sustainable development can offset such costs.

5.3.2   In this sense, the obligation of the States remains, and the solution of the difficulties they may face requires a firm and transparent commitment on the part of the governments. Therefore, the necessary human and financial resources should be allocated to the State authorities responsible for safety oversight, to enable them to effectively fulfil their safety oversight responsibilities, taking into account the size and complexity of their aviation activity. These elements should be taken into account and prioritized by States when developing their national development plans and strategic plans for the air transport sector.

5.3.3   States need to find a balance between the cost of establishing and sustaining their CAA and the ability of the industry and stakeholders to contribute to the funding of such a system.

5.4   Obligations of Air Navigation Service Providers Regarding Safety

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5.4.1   An ANSP is an organization that has been authorized or designated by the State to provide, on its behalf and in compliance with the corresponding regulations, one or more of the following services:

> a)   air traffic services,
> b)   aeronautical meteorology services,
> c)   aeronautical information and charts services,
> d)   flight procedures design services,
> e)   aeronautical telecommunication services, and
> f)   aeronautical search and rescue services.

5.4.2   The ANSP has the obligation to provide its services in a manner that allows for the safe, regular and efficient operation of aircraft, including compliance with the Laws and Regulations that the State and the CAA have established.

5.4.3   The ANSP is required to provide the CAA with any information deemed relevant for effective surveillance. In addition, the ANSP must allow duly identified air navigation inspection personnel access to the aerodrome and/or ANS units to carry out safety activities and/or inspections. Furthermore, the inspectors must be allowed, for the purposes of inspections and investigations, to carry all the necessary equipment, which include but is not limited to, personal computers, tablets, mobile phones, audio recorders and cameras.

5.4.4   The ANSP shall have instructions and procedures contained in a Procedures Manual for ATS, CNS, AIS/AIM, MAP, MET, SAR and FPDS units as appropriate, which shall be approved by the CAA.

5.4.5   The approval of the ANSP procedure manuals is necessary, because through the process of approving them, the aviation authority verifies that their content, and consequently the operation of this provider, is in accordance with the provisions of the PANS and national regulations relating to air navigation. In many cases, this is the first verification mechanism of the Authority.

5.5   Organization for the provision of ANS

5.5.1   Taking into account the particularities of the legal and administrative system, present on the States of the region, there are two models of separation between the Regulatory/Supervisory Authority and the ANS service provider that could be implemented. These models are:

a)   Functional Separation: The provision of ATS, AIS-AIM/MAP, MET, PANS-OPS, SAR and CNS services are delivered by one or several Directorates/Departments within the same CAA; and a Directorate or Department of the CAA that carry-out the safety oversight activities corresponding to said services.

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b)   Organizational Separation: The provision of ATS, AIS-AIM/MAP, MET, PANS-OPS, SAR and CNS services are provided by a State company or public company that administers and manages the ANS that have been delegated to it by the Authority or the State, it being clearly separate responsibility for safety oversight in charge of the CAA.

5.5.2   Regarding the provision of MET services, in most States, part or all of the service is provided by the State institution specialized in meteorology, separate from the CAA, providing said services through letters of agreement or agreements with the ATS units and other users of the aeronautical system.

5.5.3   The SAR service may be under the management of the Armed Forces, or totally or partially provided by the CAA itself.

5.5.4   In any of the cases mentioned above, the CAA has the obligation to carry out safety oversight and ensure that the requirements contained in the national regulations for the provision of ANS are met.

5.6   Safety Oversight System Critical Elements

5.6.1   CEs are essentially the safety defense tools of an SSO needed for the effective and sustainable implementation of a safety-related policy and associated procedures. To establish and implement an effective and sustainable SSO, ICAO Member States are required to implement eight CEs. The EI of the CEs is an indication of a State's capability for safety oversight.

5.6.2   The eight CEs of an SSO are interconnected and complement each other. CE-1 to CE-5 are presented as the "Establishment CEs", while CE-6 to CE-8 are the "Implementation CEs".

5.6.3   The Critical Elements are represented in the form of a wheel to illustrate that the lack of one of them would prevent it from rolling correctly, see figure 5-1.

Figure 5-1. Critical elements of a State Safety Oversight System.

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5.6.4   CE-1. Primary aviation legislation. The promulgation of a comprehensive and effective aviation law, commensurate with the size and complexity of the State's aviation activity and consistent with the requirements contained in the Convention on International Civil Aviation, to enable the oversight and management of civil aviation safety and the enforcement of regulations through the relevant authorities or agencies established for that purpose. The aviation law shall provide personnel performing safety oversight functions access to the aircraft, operations, facilities, personnel and associated records, as applicable, of individuals and organizations performing an aviation activity.

5.6.6   The CAA should be created through the enactment of the Aviation Act, giving it its powers and responsibilities, among which should be the authority to conduct continuous safety oversight inspections, as well as the authority to conduct any test or inspection to determine whether services and operations are performed in accordance with the Act, applicable national regulations, rules, standards, norms and directives. In addition, the Act should provide the CAA with regulatory power, as well as the possibility of delegating the powers granted to it.

5.6.10   CE-2. Specific operating regulations. The promulgation of regulations to address, at a minimum, national requirements emanating from the primary aviation legislation, for standardized operational procedures, products, services, equipment and infrastructures in conformity with the Annexes to the Convention on International Civil Aviation.

5.6.11   In order for CE 2 to be considered as established, the CAA must develop and make available to users of the State aviation system and its service providers, all national regulations that address, at a minimum, the ICAO Standards and Recommended Practices SARPs contained in the Annexes to the Chicago Convention.

5.6.12   In the case of the ANS, they are the SARPs contained in:

       Annex 2 — Rules of the Air
       Annex 3 — Meteorological Service for International Air Navigation
       Annex 4 — Aeronautical Charts
       Annex 10 — Aeronautical Telecommunications- Volume I
       Annex 10 — Aeronautical Telecommunications- Volume II
       Annex 10 — Aeronautical Telecommunications - Volume III
       Annex 10 — Aeronautical Telecommunications - Volume IV
       Annex 10 — Aeronautical Telecommunications - Volume V
       Annex 11 — Air Traffic Services
       Annex 12 — Search and Rescue
       Annex 14 — Aerodromes
       Annex 15 — Aeronautical Information Services
       Annex 19 — Safety Management

5.6.13   It is important to clarify that the direct adoption of the Annexes is not the appropriate method for their establishment, since the Annexes are written to indicate the actions required by the State to comply with its obligations and their wording is not aimed at establishing compliance by service providers.

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5.6.14   CE-3. State system and duties. The establishment of relevant authorities or government agencies, as appropriate, supported by sufficient and qualified personnel and provided with adequate financial resources for the management of safety. State authorities or agencies shall have stated safety functions and objectives to fulfil their safety management responsibility.

5.6.15   As established in CE-1, the CEs are related and complement each other. Through the enactment of a Civil Aviation Law, the CAA must be established, as well as any other government agency for the management of safety in the State in question.

5.6.16   For these government agencies, their functions and responsibilities must be clearly established, avoiding overlapping or dualities, and they must be provided with sufficient qualified personnel and the necessary financial resources to carry out their functions.

5.6.17   It is essential to have an organizational structure approved by the corresponding authority that evidences the above.

5.6.18   CE-4. Qualified technical personnel. The establishment of minimum qualification requirements for the technical personnel performing safety-related functions and the provision of appropriate initial and recurrent training to maintain and enhance their competence at the desired level. States shall implement a system for the maintenance of training records for technical personnel.

5.6.19   Through the establishment of a training policy by the CAA, the minimum qualification requirements of the personnel who perform functions related to safety oversight will be established, as well as the guidelines to establish and implement an effective training system, with the necessary training programmes and plans designed to provide and maintain a necessary level of qualification, which we address in greater detail in Chapter 7 of this manual.

5.6.20   CE-5. Technical guidance, tools and provision of safety-critical information. The provision of 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 and in accordance with established procedures in a standardized manner. States shall provide technical guidance to the aviation industry on the implementation of relevant regulations.

5.6.21   Through the correct implementation of CE-5, it is expected that the CAAs provide the inspection personnel with the appropriate facilities, instruments, equipment and adequate means of transportation, to the extent necessary for the development of their activities. This also includes the provision of technical guidance texts within which the inspector's manual must be included.

5.6.22   The checklists or inspection protocols are included in the guidance texts that must be provided to said personnel, as well as technical guidance intended for the industry to support compliance with the requirements established by the Authority. Among the guidance texts for the industry, we can mention advisory circulars, guidance material for the development of specific operating manuals, among others.

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5.6.23   CE-6. Licensing, certification, authorization and approval obligations. The implementation of 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.

5.6.24   In this case, it is important to point out that although it is true that the requirement for the certification of air navigation service providers to date has not been included in any ICAO regulation, it is also true that nothing prevents CAAs from establishing said requirement in its national regulations, since the SARPs constitute the minimum requirements. Some states have certification requirements for service providers in their national legislation.

5.6.25   It is important to note that, in the vast majority of civil aviation legislation, when CAAs are established, their functions and responsibilities include ensuring the adequate provision of said services, which could be considered as an approval by the State.

5.6.26   For instances not covered by what is established in the previous paragraph, and for instances in which the ANS service provider is not part of the State, the possibility of implementing the requirements in accordance with what is established in 5.6.24 should be considered.

5.6.27   CE-7. Surveillance obligations. The implementation of documented surveillance processes, by defining and planning inspections, audits and monitoring activities on a continuous basis, to proactively ensure that aviation license, certificate, authorization and approval holders continue to meet the established requirements. This includes the surveillance of personnel designated by the Authority to perform safety oversight functions on its behalf.

5.6.28   The maintenance of operations and the provision of services in a safe and continuous manner requires that the State establish and implement an operational safety surveillance system in order to ensure that they are carried out in accordance with the requirements of the applicable regulations.

5.6.29   The SSO to be established by the State should include, as a minimum, the elements indicated below:

      a)   the types of surveillance activities (e.g., audits, inspections, tests, safety events analyses);
      b)   the timeframe or frequency of the activities;
      c)   items to be covered or scope of the activities; and

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        d)   related methodology/procedures, job aids and guidance on how the activity should be conducted, starting from the notification of the service provider, if applicable, to the closure of the deficiencies identified during the activities.

5.6.30   These elements will be addressed in detail in chapter 8 of this manual.

5.6.31   CE-8. Resolution of safety issues. The use of a documented process to take appropriate actions, up to and including enforcement measures, to resolve identified safety issues. States shall ensure that identified safety issues are resolved in a timely manner through a system which monitors and records progress, including actions taken by individuals and organizations performing an aviation activity in resolving such issues.

5.6.32   Should the surveillance activities reveal that the license/rating/certificate/approval holder has failed or is unable to meet or maintain the required standards, the CAA should:

        a)   Promptly advise the license/rating/certificate/approval holder of the deficiency observed.

        b)   Provide deadlines for the submission of the CAP to be taken by the service provider.

        c)   Verify that corrective actions and related timeframes are appropriate, before formal acceptance of the CAP.

        d)   Initiate appropriate follow-up to verify the EI of the corrective actions.

5.6.33   The activities described here will be addressed in detail in chapter 10 of this manual.

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Chapter 6 — ANS Inspector

6.1   Introduction

6.1.1   This chapter will address subjects related to ANSIs, their responsibilities, personal attributes, the management of inspections, their general and specific functions.

6.1.2   It is important that each State, considering its specific environment, properly establish the responsibilities of the ANSIs, as well as the necessary attributes to fulfil them effectively.

6.1.3   The general and specific functions of the ANSIs included in this Chapter are presented as a guide on which the ANS oversight areas of the CAAs of each State can base their own. That is, they could be expanded, limited, or modified, depending on the operational environment of each State.

6.2   Objective

6.2.1   The objective of this chapter is to provide guidance regarding the conditions that allow an adequate performance of the ANSIs, in accordance with the standards established by each CAA.

6.2.2   The sections of this chapter will provide relevant information so that the CAA can identify a desirable profile for its ANSIs, in general aspects and, also, according to its area of specialty.

6.3   General information

6.3.1   ANSI, within their functions, are in charge of carrying out safety oversight of air navigation service providers operating in the State.

6.3.2   Due to the different inspection areas that exist within the ANS, which will be described in section 6.7, the CAA should have competent ANSIs in each of the inspection areas.

6.3.3   What is described in 6.3.2 is based on ICAO Doc 9734 Safety Oversight Manual Part A – The Establishment and Management of a State Safety Oversight System, which in its Chapter 3, 3.4.1.5 indicates that: "The organization with safety oversight responsibility should be organizationally competent; this may require a team of inspectors with a mix of disciplines. As a team, they should be as knowledgeable, qualified and experienced in the appropriate areas of qualification and experience as the organization being inspected….".

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6.4   Responsibilities of ANS Inspectors

6.4.1   ANSIs have the responsibility to continuously assess compliance with ANS regulations, which could include inspection of infrastructure, procedures, processes and other elements related to ANS.

6.4.2   ANSIs, in order to carry out its safety oversight functions, carry out inspection and analysis activities as established in the guidelines presented in this manual, the purpose of said activities being to verify compliance with the requirements established in the national regulation on ANS.

6.4.3   A part of the responsibilities of the ANSIs is the declaration of a service, installation or facility of the ANS in a suspended, non-available or non-operable state, and, likewise, to arrange and/or coordinate the requirement of immediate actions by the ANSP, when they find a situation in which it is considered that there is an imminent danger to operational safety.

6.4.4   To comply with what is stated in 6.4.3, ANSIs must have the authority, established in the legal framework of the CAA of each State, to effectively carry out these actions.

6.5   ANSI Personal attributes

6.5.1   ANSIs must possess an open attitude, good judgment, analytical skills, and assertiveness. In addition, they must have the ability to maintain objectivity at all times, be able to understand complex operations within their field of competence, and maintain clear awareness of the situation and the responsibilities they exercise in the performance of their duties.

6.5.2   The importance of the personal and ethical integrity that an inspector must possess should be highlighted, in order to avoid scenarios related to undue offers by a person or organization.

6.5.3   The adequate application of these attributes by the ANSIs will allow:

        a)   obtain and evaluate evidence objectively and correctly;
        b)   focus on the objective of the task;
        c)   be aware of the environment while performing safety oversight tasks;
        d)   show courtesy to the personnel involved and help to fulfil the purpose of the activities;
        e)   avoid distractions that may hamper the effectiveness of the work performed;
        f)   execute the tasks in the planned order;
        g)   show empathy and a good attitude towards the personnel involved in the activities;
        h)   react with serenity and prudence in stressful situations;
        i)   formulate acceptable conclusions based on observations made during inspections;

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j)   maintain firm criteria on certain conclusions, supported by the evidence collected, so that they are perceived objectively and constructively.

6.6   Confrontations/arguments during inspections

6.6.1   During an inspection of ANS units, disagreements could arise between the ANSI and the personnel responsible for the ANS.

6.6.2   This could be due to a misunderstanding of ANSIs roles and authority. In this sense, the ANSIs will take into account the following:

a)   before initiating an inspection, the ANS Inspectors must identify to the person in charge, presenting their credentials and clearly explaining the scope of their functions and the objective of the inspection;

b)   if after what is indicated in a), the ANS Inspectors is prevented from accessing the facilities and documents, the inspector will proceed to explain to the person who denies access the authority and powers that empower them to carry out the inspection, supported by the legal framework of the CAA of each State;

c)   if the situation persists, ANS Inspectors must request the presence of the head or immediate superior of the unit in question, and resolve the problem with this person;

d)   in the event of a confrontation or discussion, the inspector must remain firm, but at the same time, discreet, calm and patient;

6.6.3   Confrontations or discussions during the performance of inspectors' tasks are unpredictable situations, and in some cases, complex to resolve. However, at all times ANSIs must show an impartial, calm attitude, and open to conflict resolution, without this implying a detriment in firmness and objectivity.

6.7   ANS Inspector Categories

6.7.1   According to the latest update of the USOAP programme, dated December 2020, the seven inspection areas related to ANS are:

a)   ATS Inspector (Air Traffic Services).
b)   AIS Inspector (Aeronautical Information Services)
c)   CNS Inspector (Communication, Navigation and Surveillance Services).
d)   FPDS Inspector (Flight procedures design services).
e)   MAP Inspector (Charts Services).
f)   MET Inspector (Aeronautical Meteorology Services).
g)   SAR Inspector (Search and Rescue Services).

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6.7.2   As indicated in Chapter 3, where required, and provided that the equivalent requirements of technical competence, experience and knowledge are met, the functions of two or more areas may be assigned to one ANSI. For this, the ANSI must comply with the requirements that correspond to each area.

6.8   General Duties of the ANS Surveillance Area Manager and ANSIs

6.8.1   The main functions of the ANS oversight manager listed below are the basic ones, and States should not be limited in including additional functions that they may consider necessary.

a)   Prepare and update an annual plan of activities, including the list of service providers to be inspected, the dates of the inspections and the composition of the inspection teams.

b)   Notify service providers about inspection dates and the composition of the inspection team.

c)   Approve the appointments of the members of the inspection teams and of the lead inspector of each team, if necessary.

d)   Prepare and supervise the training programme for the inspectors under their supervision.

e)   Coordinate between service providers and safety oversight inspectors in all matters related to the inspection programme.

f)   Facilitate the exchange of information and documents between the inspection team leader and the service provider and ensure that all arrangements for conducting inspections have been processed.

g)   Coordinate the preparation of inspection reports.

h)   Follow up on non-conformities, corrective actions, and closure of non-conformities performed by inspection personnel.

6.8.2   Although there are seven specialty areas in the ANS, all ANSIs share general functions that apply to all areas.

6.8.3   These ANSIs general functions are:

a)   The primary function of ANSIs is the permanent safety oversight, carried out through inspections to ensure compliance with the standards established by the CAA.

b)   Prepare and make amendments to national regulations, the inspector's manual, advisory circulars, technical standards and other documents within the scope of their competence.

c)   Propose standards and procedures to optimize safety oversight.

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d)   Participate in the investigation processes of accidents and incidents and regulations violations in their area of specialty, and issue recommendations to prevent these situations from happening again.

e)   Evaluate, and subsequently accept or reject, the ANSP documents that must be approved by the CAA.

f)   Develop the annual surveillance plan corresponding to their area of specialty.

g)   Coordinate the annual surveillance plan for their specialty area with the person in charge of the area or with the service provider, as appropriate.

h)   Comply with the annual surveillance plan, and update it according to the changes generated during the applicable period.

i)   Coordinate within the CAA, in accordance with the organizational structure and hierarchical agency, the findings of the safety inspections and the necessary actions to guarantee a safe provision of the ANS.

j)   Follow up on the discrepancies or non-conformities detected during the safety surveillance of the ANSPs, within the term established in the corresponding corrective action plan.

k)   Supervise that the ANS providers have the operational agreements updated and needed for the correct rendering of services.

6.8.4   The processes of inspection, identification and follow-up of nonconformities, corrective actions and closure of nonconformities are developed in Chapters 9 and 10 of this manual.

6.9   Specific functions of ANSIs by specialty

6.9.1   AIS-AIM Inspector

6.9.1.1   Comply with the annual programme and plan for operational safety oversight in the AIS area and other elements applicable to the management of aeronautical information for air navigation, in accordance with the following:

a)   Verify compliance with the requirements of [CAA AERONAUTICAL REGULATION APPLICABLE TO AIS].

b)   Verify the existence of agreements with data originators, formalized and legalized, that include a guarantee of validation of their origin.

c)   Verify the correct implementation and maintenance of the Quality Management System.

d)   Carry out inspections of the AIS units, in order to verify the correct application of the applicable standards and procedures, by the units and AIS personnel.

e)   Participate in the surveillance of the activities of the civil aviation training centres of AIS personnel.

f)   Monitor the non-conformities identified during the surveillance process of AIS providers, verifying that the deadline for carrying out the corresponding corrective actions is met.

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g)   Verify that the AIS service provider supervises and maintains the competence of the personnel.

h)   Evaluate, and subsequently accept or reject, CAPs submitted by the AIS service provider in response to inspections performed.

6.9.2   ATS Inspector

6.9.2.2   Comply with the annual safety oversight programme and plan in the field of ATS and other applicable elements of ATM, in accordance with the following:

a)   Verify compliance with the requirements of [CAA AERONAUTICAL REGULATION APPLICABLE TO ATS].

b)   Carry out inspections of the ATS units, in order to verify the correct application of the applicable standards and procedures, by the units and ATS personnel.

c)   Report on the results of the inspections carried out and the actions that are necessary to raise the level of safety of the organization.

d)   Participate in the evaluation of aeronautical personnel requesting licenses, ratings, qualification checks, skills and advice in specific cases in the field of their specialty.

e)   Verify compliance with fatigue management standards by ATS service providers.

f)   Verify that the ATS provider supervises and maintains the competence of the personnel, and informs the authorities of the training needs or improvements required to improve the performance of the personnel.

g)   Monitor the non-conformities identified during the surveillance process of ATS providers, verifying that the deadline for carrying out the corresponding corrective actions is met.

h)   Evaluate, and subsequently accept or reject, CAPs submitted by the ATS service provider in response to inspections performed.

i)   Record and maintain the traceability of the inspection processes carried out, as well as safe custody and protection of all the evidence collected as support.

6.9.3   CNS Inspector

6.9.3.1   Comply with the annual safety oversight programme and plan within the scope of the CNS, in accordance with the following:

a)   Verify compliance with the requirements of [CAA AERONAUTICAL REGULATION APPLICABLE IN CNS].

b)   Supervise the Quality Management System of the CNS service provider.

c)   Verify that the CNS provider maintains and verifies the competence of its technical personnel (Air traffic safety electronics personnel (ATSEP) personnel).

d)   Carry out technical inspections of the facilities, equipment and CNS systems.

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      e)   Verify that the CNS service provider performs inspection and calibration flights for radio aids, radars and aeronautical communications in accordance with [CAA AERONAUTICAL REGULATION APPLICABLE TO CNS].

      f)   Support the supervision of the civil aviation training centres activities that train technical personnel of the CNS provider.

      g)   Follow up on the non-conformities identified during the surveillance process to CNS providers, verifying that the deadline for corrective actions is met.

      h)   Propose, if necessary and as a preventive measure, the suspension of aeronautical activities, in the CNS field, when it considers that the minimum operational safety conditions are not met.

      i)   Evaluate, and subsequently accept or reject, the CAPs presented by the CNS service provider in response to the inspections carried out.

6.9.4   FPDS Inspector

6.9.4.1   Comply with the annual safety oversight programme and plan in the FPDS area, in accordance with the following:

      a)   Verify compliance with the requirements of [CAA AERONAUTICAL REGULATION APPLICABLE IN FPDS.

      b)   Carry out inspections of the FPDS entities, in order to verify the correct application of the applicable standards and procedures, by the entities and the FPDS personnel.

      c)   Support the supervision of instrument flight procedure design training centres.

      d)   Monitor the non-conformities identified during the FPDS provider surveillance process, verifying that the deadline for carrying out the corresponding corrective actions is met.

      e)   Supervise that the FPDS provider maintains the competence of the technical personnel.

      f)   Ensure that the FPDS provider has completed all stages of the design of instrument flight procedures prior to the publication of the respective procedures.

      g)   Ensure that the FPDS provider has implemented a review system for instrument flight procedures published in its area of responsibility.

      h)   Verify that the FPDS has all the necessary supporting documentation when it has contracted the services of a third provider of instrument flight procedure design.

      i)   In coordination with FPDS, participate in the validation process of instrument flight procedures.

      j)   Evaluate, and subsequently accept or reject, the CAPs presented by the FPDS provider in response to the inspections carried out.

6.9.5   MAP Inspector

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6.9.5.1   Comply with the annual safety surveillance programme and plan in the MAP area, in accordance with the following:

a)   Verify compliance with the requirements of [CAA AERONAUTICAL REGULATION APPLICABLE IN MAP]

b)   Carry out inspections of the MAP units, in order to verify the correct application of the applicable standards and procedures, by the MAP units and personnel.

c)   Participate in the supervision of civil aviation training centres for MAP personnel.

d)   Monitor the non-conformities identified during the monitoring process for MAP providers, verifying that the deadline for carrying out the corresponding corrective actions is met.

e)   Verify that the MAP provider monitors and maintains staff competency.

f)   Evaluate, and subsequently accept or reject, the CAPs presented by the MAP service provider in response to the inspections carried out.

6.9.6   MET Inspector

6.9.6.1   Comply with the annual safety surveillance programme and plan in the MET field, in accordance with the following:

a)   Verify compliance with the requirements of [CAA AERONAUTICAL REGULATION APPLICABLE TO MET].

b)   Carry out surveillance activities for MET service providers, in order to verify the correct application of the applicable standards and procedures, by the MET units and personnel.

c)   Monitor the non-conformities identified during the monitoring process of MET providers, verifying that the deadline for carrying out the corresponding corrective actions is met.

d)   Verify the effectiveness and efficiency of the quality management system implemented by the MET service provider.

e)   Obtain and maintain documentary evidence of the evidence of identified non-conformities.

f)   Verify that the MET service provider maintains the qualifications, skills and competencies of aeronautical meteorological personnel.

g)   Verify that the meteorological instruments used by the MET service provider are correctly located, installed and calibrated.

h)   Evaluate, and subsequently accept or reject, the CAPs presented by the MET service provider in response to the inspections carried out.

6.9.7   SAR Inspector

6.9.7.1   Comply with the annual safety surveillance programme and plan in the SAR field, in accordance with the following:

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a)   Verify compliance with the requirements of [CAA AERONAUTICAL REGULATION APPLICABLE IN SAR].

b)   Carry out inspections of the SAR units (Rescue Coordination Centre (RCC) or Rescue subcentre (RSC), as appropriate), in order to verify the correct application of the applicable standards and procedures, by the units and SAR personnel.

c)   Monitor the activities of the training centres for SAR personnel.

d)   Monitor the non-conformities identified during the surveillance process of SAR providers, verifying that the deadline set for carrying out the corresponding corrective actions is met.

e)   Verify that the SAR provider supervises and maintains the competence of personnel.

f)   Evaluate, and subsequently accept or reject, the CAPs presented by the SAR service provider in response to the inspections carried out.

6.10   ANSIs ID

6.10.1   ANSIs will be granted and ID that will accredit the functions conferred by the CAA to perform inspection functions, including their entry and permanence in the facilities of any CAA office, as well as in facilities and dependencies of ANS and aerodromes.

6.10.2   The ID must grant the ANSI the right to access documentation, related to the ANS, which is required for the performance of their duties.

6.10.3   ANSI must comply with all security procedures established in restricted areas of the ANS and aerodromes.

6.10.4   The CAA must establish a procedure for the issuance, renewal and validity control of the ANSI ID, including procedures to communicate the cancellation of IDs.

6.10.5   The ID should include:

a)   Recent colour picture of the holder.

b)   Full name and surname, and national identification document number.

c)   Signature and stamp of the CAA competent authority.

d)   Expiration date.

6.10.5.1   What is indicated in 6.10.5 should not limit the CAA of each State to include any other data or information, in the ANSI ID that is considered relevant and necessary.

6.10.6   The ANSI ID must detail the legislation/regulation that stipulates the powers and attributions of the ANSI to perform its functions and that which stipulates the obligation of ANS providers and aerodrome operators to give access to the ANSI to the ANS agencies and facilities.

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7.1   Introduction

7.1.1   Among the responsibilities, functions and obligations of the ICAO Member States with respect to aviation safety oversight in compliance with their obligations as signatories of the Convention on International Civil Aviation, is the establishment and management of an effective and sustainable State safety oversight system, through the implementation of the eight CEs of said system.

7.1.2   The importance of training is identified in ICAO Doc 9734, Part "A – The Establishment and Management of a State Safety Oversight System", as one of the eight CEs (CE-4 Qualified Technical Personnel).It is indicated in it that the State will establish minimum qualification requirements for the technical personnel that perform safety oversight functions and will provide adequate initial and periodic training to maintain and improve their competence at the desired level.

7.1.3   In this chapter, the CAAs must include the description and content of their training programme for ANS inspection personnel. With the intention of guiding the CAAs in this process, we include some guidelines that can be used as a guide, emphasizing the need for the training plan to be aligned with the functions and responsibilities assigned to each inspector, with the objective of providing them with the skills and abilities required to be able to fulfill the tasks that are delegated to them.

7.1.4   It is also important to note that the basic technical competencies of the inspector should, as a minimum, be comparable to those of the service provider's personnel to be supervised. In other words, the inspector who carries out the surveillance of air traffic control services, for example, must have basic training as an air traffic controller and practical experience in the areas he/she will have to supervise. It is on this basic training and experience that the inspector's training is built. The same should apply to the other areas.

7.1.5   To ensure that inspection personnel receive the required training effectively and maintain their skills, the CAAs must establish and implement an effective training system. This should be based on a documented training policy, which is established and signed at the CAA management level.

7.1.6   This policy must contain the guidelines for the establishment of a training system that ensures that all the necessary training will be provided to the ANS inspection personnel. The instruction to be provided will include: initial, basic, On-the-Job Training (OJT), periodic or recurring, and specialized or advanced instruction, in addition to the establishment of a specific instruction programme for each specialty area.

7.1.7   For periodic or recurring training, the policy must include its periodicity, which should be annual or every two years, with the purpose of keeping the inspection personnel competent, updated and abreast of new techniques in a specific subject. It is also necessary when:

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      a)   updates are made in the procedures,

      b)   implementation of new technology,

      c)   new regulations are implemented, or significant amendments to existing ones and,

      d)   new national and international standards.

7.1.8   Another important aspect is the determination of which training require recurrence, for which it is necessary to highlight what is established in 7.1.4. It is therefore recommended not only to provide recurrent training of the ANS inspector course, but that recurrence should also include some of the trainings included in their basic and advanced training according to the corresponding inspection area, which should be included by the CAAs taking into consideration their specific needs.

7.1.9   A system must be established for the preservation of personnel training records, with the purpose of evidencing its correct implementation. This system should define the custodian of the information, as well as elements related to data protection.

7.1.10   The training system must establish the requirements, structures, procedures and guidelines to develop training programmes for inspection personnel for ANS.

7.1.11   The training programmes that are developed based on the training policy will have the objective of developing the skills required in the different specialty areas of safety surveillance.

Note: Guidance on inspector training and qualification can be found in the Manual on the Competencies of Civil Aviation Safety Inspectors (Doc 10070).

7.2   General Training (initial and basic)

7.2.1   General training to be provided to the inspectors will be developed by the CAA and included in this part of the manual, in order to provide a common base of knowledge of the work environment, regardless of the area of specialty. It will be made up of the initial training and the basic training, which could be divided or provided jointly. This because in some CAAs the initial instruction is already contemplated as part of the induction that all the personnel receive at the time of their entry into the Authority.

7.2.2   This general training will be designed to provide the basic knowledge about the organizational structure of the CAA, functions and responsibilities of all its departments, and the processes of elaboration of regulations, standards and manuals to the personnel.

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7.2.3   This training is intended to provide personnel with the necessary skills to understand, know and demonstrate the use of a common set of principles, methodologies and standards. This will benefit the CAA by facilitating the creation of effective multi-disciplinary working groups and audit teams, when necessary, further creating consistency in the State's safety oversight system, ensuring that all inspectors can work together towards a State objective.

7.2.4   Once generic training is completed, CAAs should implement OJT programmes for inspectors, and assign experienced inspectors as guides and mentors. Upon completion of the OJT, the CAA must document and retain, in accordance with its training record system, the OJT records demonstrating achievement of competencies in the inspector's file.

7.2.5   When the CAA does not have experienced inspectors in the area of ANS for the provision of the OJT, it may, through cooperation between States or with regional organizations, request the secondment of experienced personnel on a temporary basis who, after a process of delegation of authority, would be in charge of the provision of the OJT that are required.

7.3   Training Plan

7.3.1   The CAA must develop and include in this part of the manual the training plans for the ANS inspector; these plans must include initial, basic, OJT, advanced and recurrent training in order to provide them with the skills, knowledge, abilities and attitudes necessary to carry out their duties.

7.3.2   The training plan to be developed by the CAA for the ANS Inspector must cover the following topics, which we include as a guide, without this constituting a limitation for the CAAs to include additional topics that could be considered as necessary:

Initial Training:

       a)   mission and objectives of the CAA;
       b)   organizational structure and functions of the different departments of the CAA;
       c)   general description of the role of ICAO, the Convention and its Annexes, as well as the USOAP;
       d)   hierarchical order of the national legislation;
       e)   overview of national aviation laws and regulations (State-specific).

Basic Training:

       a)   basic aeronautical inspectors course;
       b)   advanced course for inspectors;
       c)   basic concepts of human factors;
       d)   certification and authorization processes and procedures;
       e)   surveillance and inspection processes and procedures;

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f)   audit processes and procedures;
g)   risk assessments;
h)   State Safety Programme;
i)   Safety Management Systems.

7.3.3   In the basic training for those States in which their air traffic service providers have not yet implemented an SMS, it could be envisaged only up to item f), and the subsequent content could be considered as advanced training, the one that we address later in this chapter.

7.3.4   Recognizing that knowledge and skills acquired during general training erode, on-going training is necessary to maintain that knowledge and skills. This section also covers topics related to system changes and improvements.

7.3.5   Due to the above, CAAs must develop and implement well-thought-out continuous training plans to ensure that their inspection staff can respond effectively to the needs of the industry, particularly when improvements in technology and methodologies arise, to ensure that the inspectors are effective in their safety oversight duties, and must also include refresher or recurrent training.

7.3.6   Another important point of the training plans is advanced training, this is given with the aim of improving the skills of already experienced inspectors, so that they can effectively address complex and challenging oversight problems. These are essential competencies to effectively oversee the execution of oversight programmes or lead multidisciplinary inspection teams, even in performance-based regulatory environments.

7.3.7   Advanced training enables inspectors to acquire the knowledge to analyse corporate processes and procedures and accurately assess their effectiveness, to ensure the highest levels of compliance and conformity in achieving the results established in the goals.

7.3.8   As a guide, we can recommend training in the following areas, which we consider as advanced instruction or training for inspectors, without this constituting a limitation for the inclusion of others that could be considered necessary by the CAA:

a)   programme management;
b)   organizational cultures and change management;
c)   implementation of the quality management system and auditing techniques;
d)   conflict resolution;
e)   root cause analysis;
f)   corrective and preventive action plans;
g)   conducting investigations and security case resolution procedures;
h)   drafting of technical reports.

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7.3.9   Taking into consideration that training on the topics listed above is not always available at aeronautical training centres, and that there are many organizations that offer this training, the key is finding the right provider to deliver the quality training that inspectors require.   Ultimately, the competency levels of the inspectors will determine the quality of the State's safety program.

7.4   Training per specialty area

7.4.1   In this part of the manual, the CAAs are expected to include the description of the minimum training required by the inspection personnel of each of the inspection areas of the ANS prior to their training as inspectors.

7.4.2   As a reference, we include guidelines for the description of this training, which is not intended to be exhaustive or to be copied in full; it is only a reference that must be taken into consideration by the CAA.

   a)   Training for the ATS Inspector
      •   Air Traffic Control Basic Training, Aerodromes.
      •   Procedural Approach and Area Control Course.
      •   RADAR Approach and Area Control Course.
      •   ADS and Multilateration system application course.
      •   Course on Reduced Vertical Separation Minimum (RVSM).
      •   Performance-based navigation (PBN) Course.
      •   Automated management of flight plans.
      •   ATS Supervision Course.

   b)   Training for the Inspector of the Aeronautical Information Services (AIS-AIM/MAP)
      •   ARO/AIS Aerodrome Basic Course.
      •   NOTAM Specialist Course.
      •   Aeronautical Cartography Course.
      •   World Geodetic System – WGS-84/Terrain and Obstacle Data (TOD).
      •   Aeronautical Information Services Management Course (AIM).
      •   Quality management systems.
      •   ISO Auditor.
      •   Database management course.

   c)   Training for the Inspector of the Communication, Navigation and Surveillance (CNS)

      •   Navaids systems courses (according to the air navigation infrastructure installed in the State).

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- Communications systems courses (according to the communications infrastructure installed in the State).
- Courses on aeronautical information systems (according to the infrastructure installed in the State).
- Operation, Maintenance and Configuration of data communication networks.
- Surveillance systems course (according to the surveillance infrastructure installed in the State).
- Course on automation systems (according to the infrastructure installed in the State).

d) Training for the Inspector of the Aeronautical Meteorology (MET)

The World Meteorological Organization (WMO) establishes two general categories of personnel, namely, meteorologists and meteorological technicians, as defined below:

- Meteorologist: a person who has successfully completed the requirements of the Basic Instruction Package for Meteorologists at university degree level; and
- Meteorological Technician: a person who has successfully completed the requirements of the Basic Instruction Package for Meteorological Technicians. (PIB- TM)

Detailed information on both training packages is contained in the "Guide for the Application of Education and Training Standards in Meteorology and Hydrology Volume I – Meteorology" WMO-N° 1083

The decision regarding the competencies of the MET inspection personnel must take into account the complexity of the MET service and the level of maturity of the service provider. Additionally, the availability of MET training in the State must be considered objectively and reasonably.

Additionally, the following courses or training should be considered:
- Aerodrome forecast development course.
- Basic Course on Interpretation and Use of Satellite Images.
- Quality management systems.
- International Standards Organization (ISO) Auditor Course.

e) Training for the Search and Rescue Inspector (SAR)
- SAR Basic Course.
- SAR Coordinator Course.
- SARSAT Basic Course.

f) Training for the Inspector of the FPDS

- Aeronautical Cartography.

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- Conventional Instrument Flight Procedure Design Course PANS-OPS
- World Geodetic System - WGS-84/TOD.
- Global Navigation Satellite System – GNSS.
- Ground-based augmentation system (GBAS) Application Course.
- PBN Instrument Flight Procedure Design Course
- Required Navigation Performance Authorization Required (RNP AR) Instrument Flight Procedure Design Course
- Quality Management Systems.
- ISO Auditor.

7.4.3   All inspectors should be updated on the new technologies that affect their area of expertise, so the instructional plan should be flexible and adaptable to incorporate the development and implementation of these new technologies.

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Chapter 8 — ANS Safety Oversight

8.1   Introduction

8.1.1   This chapter provides guidance for the safety oversight process for ANS.

8.1.2   The content provided in this Chapter is intended to provide information related to: the principles that should guide safety oversight (and in turn the inspection processes), the scope of safety oversight in the ANS, determine the number of inspectors needed for safety oversight, the establishment of an annual ANS oversight programme and plan, the inspection plan, the types of oversight activities, and the inspection protocols used during ANS safety surveillance.

8.1.3   Regarding the determination of the number of inspectors, it is necessary to indicate that this document intends to point out the minimum considerations that the CAA must take into account for this calculation. The methodology used to define this number will depend exclusively on the criteria that the CAA of each State considers most convenient and relevant for its particular scenario.

8.2   Objectives

8.2.1   The main objective of safety oversight in ANS is to verify compliance with current national requirements and regulations by ANS providers in their various agencies.

8.2.2   In turn, through the safety oversight of the ANS, it is possible to identify elements that need corrective actions to maintain the safety standards of the ANS.

8.3   Safety Oversight Principles

8.3.1   The principles for carrying out safety surveillance, through the inspection processes, which are detailed below, are based on ISO 19011:2011 Standard – Guidelines for auditing management systems, and Doc 9735 – Universal Safety Oversight Audit Programme Continuous Monitoring Manual.

8.3.2   The CAA of each State could expand, limit or modify the principles described in this section, so that they adapt to their specific environment.

8.3.3   The basic principles that every ANS inspector must keep in mind when carrying out an inspection activity are the following:

              a)   Ethical conduct.

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b) Integrity.
c) Impartiality.
d) Fair presentation.
e) Professionalism.
f) Confidentiality.
g) Evidence-based approach.

8.4   Scope of Safety Oversight

8.4.1   The scope of safety oversight in ANS will include the areas described in Chapter 3, 3.6.1, and is described below:

a)   AIS. Inspection activities should be performed to aeronautical information services, to verify compliance with [CAA AERONAUTICAL REGULATIONS APPLICABLE TO AIS], including the management of the AIS provider, the training process and maintenance of competence of the technical staff of the service provider among other aspects that may impact safety, including the establishment of a quality system for AIS.

b)   ATS. Inspection activities should be carried out on air traffic services, including the headquarters in charge of ATS management and the TWR, APP and ACC units to verify compliance with the [CAA AERONAUTICAL REGULATION APPLICABLE TO ATS]. The inspection should include verification of compliance with personnel licensing regulations and ATS training plans. Additionally, it must be ensured that the ATS provider implements procedures to systematically verify the evaluation of the performance of its operations and the management of fatigue in its personnel. This is done through the establishment, for example, of safety reporting, analysis and follow-up systems (including ATS incidents), periodic and systematic safety reviews, as well as safety risk assessments against ATS system changes related to safety and potentially dangerous activities for civil aircraft.

c)   CNS. The inspection process should be carried out on the Communications, Navigation and Surveillance (CNS) services to verify compliance with the [CAA AERONAUTICAL REGULATION APPLICABLE TO CNS], including the verification process for navigation aids, maintenance of CNS equipment, human resource management including the training of technical personnel among other elements that may have an impact on operational safety.

d)   PANS-OPS. The inspection activities should be carried out on the provider that designs the instrument flight procedures, to verify compliance with the [CAA AERONAUTICAL REGULATION APPLICABLE IN PANS-OPS], including the management of the PANS-OPS provider, the training process and maintenance of the competence of technical personnel, and all those aspects that may have an impact on operational safety. Additionally, it should be evaluated that the service provider submits the instrument flight procedures to a periodic review (including validation) to ensure that they are adapted to changes in criteria and continue to respond to user requirements and that service providers services comply with process quality control measures (including check for obstacles).

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e)   MAP. The inspection activities should be carried out at the aeronautical MAP services, to verify compliance with the [AAC AERONAUTICAL REGULATION APPLICABLE TO MAP], including the management of the MAP provider, the process of training and maintaining the competence of technical personnel of the service provider among other relevant aspects.

f)   MET. The inspection must be carried out at the meteorological service for international air navigation to verify compliance with the [AAC AERONAUTICAL REGULATION APPLICABLE TO MET], including the management of the MET provider that encompasses the process for compliance with the training plan, maintenance of equipment, the required coordination with other air navigation services dependencies, equipment calibration, among other aspects that may have an impact on safety, including the establishment of a quality system for MET services.

g)   SAR. The inspection activities must be carried out on the search and rescue services to verify compliance with the [CAA AERONAUTICAL REGULATION APPLICABLE IN SAR], including the management of the SAR provider, the training process, the coordination of the SAR services with search and rescue regions or adjacent service providers, among other aspects relevant to the service.

8.4.2   In other words, the ANS surveillance area of the CAA of each State should carry out safety surveillance, through its ANS Inspectors and using its inspection processes, in each of the ANS areas.

8.4.3   As a guide, the CAA could use an ANS safety oversight scope that includes the following components:

a)   Documentation.
b)   Procedures.
c)   Human Resources: personnel, licenses, training.
d)   Material resource: equipment, materials, environment.

8.4.4   The categorization described in 8.4.3 should serve as a reference to the CAA surveillance areas of each State, and guide the structure of the inspection process.

8.5   Determination of the number of inspectors necessary for safety oversight

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8.5.1   The CAA of each State must develop a methodology to calculate the number of inspectors needed to cover their safety oversight obligations in all ANS areas.

8.5.2   In this section, the elements included in the developed methodology should be included in order to clearly detail all the factors considered.

8.5.3   The calculation of the number of inspectors, through the developed methodology, is normally carried out through a document (form, template, software) independent of the Air Navigation Services Inspector Manual, since this calculation could be updated more frequently than the manual itself.

Note – The ANS INSPECTOR Manual could reference the document used to calculate the number of inspectors. For example: "*The CAA uses the A123 form to calculate the number of inspectors needed to monitor the safety of ANS".*

8.5.4   The elements that could guide the methodology used to calculate the number of INSPECTOR ANS needed could include, but not be limited to:

a) Development and amendment of regulations.
b) Development and amendment of guidance material (procedures, circulars, directives, policies, checklists, among others).
c) Surveillance programme and plan (number of inspections to be completed).
d) Time assigned to the training of the ANS inspector.
e) Inspectors' vacations.
f) Periods of disability/illness (estimated).

8.5.5   The CAA should establish a procedure for the periodic review of the methodology for the calculation of the number of ANS Inspectors required, as well as for the calculation itself. This is due to changes in the environment that may require a revision of the number of ANS Inspectors.

8.5.6   A term could be established for periodic reviews, as indicated in 8.5.5, and leave the possibility of carrying out these reviews when necessary for extraordinary reasons.

8.5.7   Likewise, because in some areas the CAA will only have one inspector, alternative mechanisms should be considered able to cover the activities of these areas in case of disability/illness of this inspector.

8.6   ANS Oversight Programme

8.6.1   The oversight programme is a statement of the surveillance activities that are carried out in a given period for each ANS. The Surveillance Programme details the frequency with which inspection activities must be carried out at ANS providers in order to exercise adequate supervision.

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8.6.2   The surveillance programme should define the minimum number for each type of inspection that should be carried out on each of the air navigation services.

8.6.3 The following table shows an example of the ANS surveillance programme:

ANS Area	Minimum number of scheduled inspections per year (SI)	Minimum number of unscheduled inspections per year (UIP)
AIS-AIM	3 **SI**	1 **UIP**
ATS	3 **SI**	2 **UIP**
CNS	4 **SI**	2 **UIP**
PANS-OPS	1 **SI**	1 **UIP**
MAP	1 **SI**	1 **UIP**
MET	2 **SI**	1 **UIP**
SAR	1 **SI**	1 **UIP**

Table 8-1. ANS Oversight Programme

8.6.4   The surveillance programme should be sufficiently adaptable and flexible to adjust to changes in the ANSP environment. Likewise, the CAA could establish a procedure for the periodic review of the surveillance programme.

8.7   Annual Surveillance Plan

8.7.1   The annual surveillance plan establishes the surveillance activities that are carried out in a determined period, and usually comprises a period of twelve months.

8.7.2   This plan should be prepared once a year, on a date stipulated by the CAA of each State. With its approval, the CAA must ensure the allocation of the resources required for its proper execution.

8.7.3   The frequency with which inspection activities must be carried out at ANS providers will depend on what is established in the ANS surveillance programme.

8.7.4   The CAA must control the progress of the annual surveillance plan and be capable of showing that, at a minimum, all the programmed activities have been fulfilled; and if not, provide a detailed and valid justification, as well as the mitigation measures implemented (e.g. rescheduling inspections for subsequent months).

8.7.5   In the planning of surveillance activities, the size, nature and complexity of the supplier to be inspected must be considered; likewise, other criteria should be considered for the planning of activities, such as:

a) Number of operations of the air traffic services unit.

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b) Number of non-conformities found in previous monitoring activities.
c) Number of ANSP technical personnel.
d) Number of ATS incidents in the last period, identifying if there was another ANS involved in them.
e) Number and complexity of CNS air navigation systems.
f) Number of SAR organizations and personnel.
g) Date of the last inspection carried out.
h) Number of flight procedure designs, RNAV procedures and conventional procedures designed and published in the last year.
i) Number of MET offices and personnel.
j) Number of dependencies, services and AIS-AIM/MAP personnel.
k) Progress in the CAP from previous inspections.

8.7.6   In addition to the scheduled inspections included in the Annual Surveillance Plan, unscheduled inspections may be carried out. These will consist of specific inspections to an ANS provider to assess specific aspects of safety that are considered necessary to review.

8.7.7   The CAA must define prior notification periods to the ANS provider for each inspection to be carried out, taking into account the type of inspection in question. In some cases, due to the type of inspection, prior notification to the ANS provider is not required.

8.7.8   The reference to the types of inspection is detailed in section 8.9.

Note. – Appendix 1 to Chapter 8 Annual Surveillance Plan Format, provides a guide for the preparation of this plan.

8.8   Inspection Plan

8.8.1   The Inspection Plan presents the activities to be carried out during an inspection in an orderly and structured manner. This document serves as a guide for the inspector and the supervised supplier on the activities that will be carried out during a oversight activity.

8.8.2   The lead inspector should prepare, in coordination with the team of inspectors, the Inspection Plan that will contain all activities in detail and chronologically, including:

a) The opening meeting.
b) The closing meeting.
c) Interviews.
d) Visits to ANSP facilities that will be carried out during the inspection.

8.8.3   The Inspection Plan should be sent to the ANSP well in advance of the activity, preferably together with the inspection notification, and may be adjusted in coordination with the ANS provider.

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8.8.4   The Inspection Plan should be part of the records of the ANS surveillance process.

Note. – Appendix 2 to Chapter 8 Inspection Plan Format, provides a guide for the preparation of this plan.

8.9   Objective of the Inspection Plan

8.9.1   The Inspection Plan is an essential document to comply with safety surveillance activities. Its main objectives are:

   a)   Provide the members of the inspection team with a systematic work plan for each area to be inspected.
   b)   Give clarity to the inspected ANSP about the activities that are going to be developed.
   c)   Make the members of the inspection team responsible for the efficient performance of the work entrusted to them.
   d)   Serve as a chronological record of surveillance activities.
   e)   Facilitate the review of the work to the lead inspector.

8.10   Types of inspections in safety oversight

8.10.1   One of the most important tasks for the success of the safety oversight process is to properly define the types of inspections that are going to be carried out in the ANSPs.

8.10.2   These selected types of inspection must conform to the criteria indicated in 8.7.5.

8.10.3   The task of defining the type of inspection can be complex, since there are multiple variables to consider. However, it has been identified that this selection should be based on two approaches that coexist, which are:

a)   Approach based on planning, which is based on the criteria described in section 8.7, referring to the annual surveillance plan.
b)   Scope-based approach, which is based on the inspection protocols described in section 8.11 of this Chapter.

8.10.4   With regard to the planning-based approach, it can be mentioned that it is the most commonly used, and is linked to what is described in section 8.6, regarding the oversight programme.

8.10.4.1   The types of inspection, according to the approach based on planning, are:

   i.   Scheduled inspection (SI).
   ii.   Unscheduled inspection (UI).
   iii.   Random Inspection (RI).

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Approach	Type of Inspection	Description
Planning	Scheduled	Inspection activity included in the annual surveillance plan. Requires prior notification to the ANS provider.
Planning	Unscheduled	Inspection activity that has not been included in the annual surveillance plan, but that is considered necessary to ensure the safety of the ANSP. Requires prior notification to the ANS provider.
Planning	Random	Inspection activity that is generated without prior notification to the ANSP. It could be carried out, among other reasons, for reports of situations that would cause a high impact on operational safety.

Table 8-2 Types of inspection according to the planning-based approach

8.10.4.2   The types of inspection, according to the scope-based approach, are:

    i.   Full protocol inspection (FP).
    ii.   Specific protocol inspection (SP).
    iii.   Follow-up inspection (FI).
    iv.   Request for specific information (RSI).

Approach	Type of Inspection inspección	Description
Scope	Full Protocol	Inspection activity that covers all the questions included in the inspection protocol.
Scope	Specific protocol	Inspection that is carried out based on a protocol of questions specifically designed for said inspection. It could focus on a specific topic, for example: the ATC training programme, the navaid maintenance programme, to name a few. The specific protocol follows from the full protocol.
Scope	Follow-up	Inspection whose main objective is to verify compliance with the Corrective Action Plan (CAP) referred to a previous inspection activity.
Scope	Request for specific information	More than an inspection, it is a request directed specifically to gather information on a topic of interest. The attention and response of the SIE is mandatory, and in case of not being attended, it could generate an inspection of greater scope.

Table 8-3 Types of inspections according to the scope-based approach

8.10.4.3   Using the information in tables 8-2 and 8-3, different combinations could be generated to define the type of inspections, based on the two established approaches. As an example, a full protocol (FP) scheduled inspection (SI) could be performed; and in the same way inspections could be carried out with another type of combination according to what is identified and established in the annual surveillance plan.

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8.10.5   In addition to the types of inspections already described, a separate mention should be made of two types of inspections, which are:

> a)   Virtual inspection. This type of inspection is carried out through virtual communication platforms (eg. Zoom, Microsoft Teams), and allows the inspection team to carry out surveillance activities remotely, when for reasons of force majeure it is not possible to attend in person. the dependencies inspected or simply when it is considered convenient to do them this way. For this type of inspection, prior communications are required with the provider in question, in order to ensure aspects such as the availability of an Internet connection, the ability of the service provider to manage the virtual communication platform and prepare evidence, availability of those involved. , the scope of the inspection, among others. A very important aspect to take into account in this type of inspection is the preparation of the evidence by the service provider, since, due to the fact that it will be presented through virtual means, it is important that it has been prepared sufficiently. in advance to comply with the times established for the inspection.
>
> b)   Desk inspection. This type of inspection does not require an on-site visit by the inspection team. It is limited to reviewing the documentation of the service provider, in terms of manuals, procedures, letters of agreement, to name a few. The advantage of this type of inspection is that it can be carried out with few resources, and can serve as preparation for larger face-to-face activities.

8.11   Inspection protocols for ANS safety oversight

8.11.1   The inspection protocols, also known as checklists, are the main work tools of the ANS Inspector during the safety surveillance activities of the ANSPs.

8.11.2   These tools or work aids constitute the standardized format used by the ANS Inspector to verify the compliance of service providers with regard to the applicable regulations, in each of the areas of Air Navigation Services.

8.11.3   Inspection protocols contain the questions through which the ANS Inspector evaluate compliance with each of the requirements contained in the national regulations applicable to the service in question.

8.11.4   The inspection protocols must be considered work guides for the ANS Inspector. The CAA of each State is responsible for developing its own inspection protocols, based on its national regulations. These guides should contain information that supports the work of the ANS Inspector, and allows the objectives of safety oversight to be achieved.

8.11.5   The information that an inspection protocol should contain could include the following data:

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a) Header with the name and logo of the CAA that carries out the ANSP safety oversight.
b) General information such as:
   • Name of the service provider subject to inspection.
   • Date.
   • Name of the ANSP executive/director/head.
   • Name of the lead inspector.
   • Name of the members of the inspection team.
c) Protocol Question number.
d) Regulatory reference for each question.
e) Protocol questions.
f) Answer to the question in Yes or No format.
g) Guidance for review of evidence for the ANS INSPECTOR on each question.
h) Implementation status.
i) Evidence, notes, comments.

8.11.6   It is important to note and remember that each protocol question is based on a national regulation requirement. In other words, its wording is based on the requirement, and it must be clear and concise, so that the ANS provider is able to identify the evidence that must be provided for the ANS Inspector's analysis.

8.11.7   Inspection protocols should be reviewed and amended in the following circumstances:

a) Changes in the national regulation due to amendments to the ICAO Annexes.
b) Changes in the national regulation due to amendments proposed by the CAA.
c) Modification in the wording, scope, guide, or any element that affects the protocol questions.

8.11.8   Any change in the inspection protocols should be communicated to the ANSPs well in advance, before being implemented. Likewise, it is important to have an internal system that allows for version control, so that the ANS Inspector always use the updated version of the inspection protocols.

Note. – Appendix 3 to Chapter 8 Inspection Protocol Format, provides a guide for the preparation of this plan.

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Appendix 1 to Chapter 8 – Template for Annual Surveillance Plan

ANNUAL SURVEILLANCE PLAN

AUTHORITY		YEAR	DATE

UNIT	TYPE OF INSPECTION*	MONTH												OBS
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	

Filling Guide:

1. In the "Authority" field, enter the official name of the CAA ANS surveillance area.

2. Indicate the year for which the annual surveillance plan is prepared.

3. Write down the preparation date of the annual oversight plan.

4. Name the ANS unit to be inspected (eg: XXXX Airport MET Office, XXX Radar Control Centre).

5. Establish the type of inspection to be carried out in each agency in accordance with the provisions of section 8.10.

6. Highlight the month in which each of the inspections of the annual surveillance plan would be carried out. It can be indicated by marking the selected month with an "x", or by highlighting the space for the month in question with another colour.

7. "OBS" is the space to record any additional information pertinent to each inspection. 8.10.

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Appendix 2 to Chapter 8 – Inspection Plan Template

INSPECTION PLAN			
DATE			
INSPECTION TEAM			
Lead Inspector		*Remarks*	
Inspectors			
SCOPE:			
REMARKS:			
INSPECTION DETAILS			
Date/Time	**Activity**	**Head**	**Comments**
PREPARED BY:		**SIGNATURE**	**DATE**

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Filling Guide:

1.   Indicate the date on which the inspection would take place.
2.   Write down the name of the lead inspector and the rest of the inspectors that make up the inspection team. In the "Remarks" column it could be noted, for example, if any of the inspectors are receiving their on-the-job training (OJT).
3.   In the scope, the type of service and the unit that is inspected must be detailed.
4.   The notes section could be used for any information that is useful for the development of the inspection.
5.   In the "Inspection" section
    5.1   Date/time: refers to the date and time that the described activity will start.
    5.2   Activity: state whether it is the opening meeting, documentation review, interviews, equipment verification, field visit, closing meeting.
    5.3   Head: indicate who is in charge of leading the activity, either the lead inspector or one of the inspectors.
    5.4   Comments: write down the comments that should be taken into account for each activity.
6.   Indicate the name of the person who prepares the inspection plan, his/her signature, and the date on which the plan is prepared

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Appendix 3 to Chapter 8 – Inspection Checklist Template

[CAA LOGO]	[CAA NAME AND ANS OVERSIGHT AREA]					
	CHECKLIST [INSERT NATIONAL APPLICABLE REGULATION]					
1. ANSP NAME:					**2. Date:**	
3. Address:						
4. Name of the Director/executive/Chief:						
5. Lead Inspector:						
6. Inspectors: • A • B • C • D						
7. Chapter 1/A/I… [Insert name of chapter national applicable regulation]						
8. **Nº**	**9.** **Reference**	**10.** **Protocol Question**	**11.** **Response**	**12.** **Guidance for evidence review**	**13.** **Status of Implementation**	**14.** **Evidence /Notes/ Comments**
001	[Insert reference to regulation requirement]	[Insert protocol question]	❑ Yes ❑ No	[Insert guidance for ANS INSPECTOR]	❑ Satisfactory ❑ Non Satisfactory ❑ Not applicable	
003	. .					
005	. .					
007	. .					
009	. .					
011	. .					
013	. .					
015	. .					
7. Chapter 2/B/II… [Insert name of chapter national applicable regulation]						

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017	. .				
019	. .				
021	. .				
023	. .				
025	. .				
027	. .				
029	. .				
031					
7. Chapter 3/C/III… [Insert name of chapter national applicable regulation]					
033					
035					
037					
039					
041					
043					
045					
047					
049					

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Chapter 9 — Procedure of the ANS Inspection

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Chapter 9 — Procedure of the ANS Inspection

9.1   Introduction

9.1.1   This chapter focuses on describing the guide presented in this manual to carry out inspections in ANS.

9.1.2   The most important elements to be taken into account will be described as follows: the preparation prior to the inspection, the execution of the inspection, and the steps to follow after the inspection.

9.1.3   In addition, two formats are included that can be used as a reference by the CAAs of the States, to develop their own inspection report and non-conformance report formats.

9.2   General information

9.2.1   This chapter defines the activities to be followed by the ANSI for the inspection of ANS providers.

9.2.2   The description of the activities is carried out as a process flow, in order to present the guide clearly and precisely. The specific details of the activities, such as deadlines, responsible, among others, are subject to modification by the CAA of each State, according to what best fits their safety oversight system.

9.3   Procedure Description

9.3.1   Preparation of the surveillance activity

Item Nº	Description	Responsible(s)
1	Inspection activities are scheduled well in advance, at least xx days prior to the activity	Director/Coordinator/ Head of the ANS
2	The lead inspector is appointed at least xx days in advance, prior to activity.	Director/Coordinator/ Head of the ANS
3	The ANS Inspectors who will participate in the activity are designated. The lead inspector becomes aware of the background, records, CAPs or pending non-conformances of the ANS unit, as well as any record or document that helps to know the situation of the provider to be inspected.	Lead Inspector
4	The lead inspector meets with the team to organize the inspection activity and brings them up to date on the background check of the ANSP	Lead Inspector

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Item №	Description	Responsible(s)
5	The team of inspectors reviews the corresponding inspection guides according to the ANS area to be inspected	Inspection Team
6	The team of inspectors prepares the Inspection plan, which must be approved by the head of the ANS Oversight Area	Inspection Team Director/Coordinator/Head of the ANS
7	The inspection plan is sent to the ANSP (See Appendix 2 of Chapter 8) Note 1. For a scheduled activity, the inspection plan should be sent at least xx days before the activity Note 2. For an unscheduled activity, the inspection plan should be sent at least xx days prior to the activity.	Director/Coordinator/Head of the ANS Oversight Area

9.3.2   Inspection Execution

Item №	Description	Responsible(s)
Opening Meeting		
1	At the opening, the ANS provider is thanked for its cooperation in the surveillance process, explaining that the activity to be carried out is part of the surveillance plan established by the Authority.	Lead Inspector
2	Presentation of the team of inspectors that will carry out the inspection activity, and of the representatives of the ANS provider that will attend the inspection	Lead Inspector Inspection Team ANSP
3	The objective and methodology of the inspection, the scope; including, the places to be visited and any other details that the lead inspector deems appropriate to address	Lead Inspector
Inspection		
4	The ANSI, according to his/her specialty, inspects and evaluates compliance with ANS requirements and regulations. To do this, you must use the inspection protocols (checklists) corresponding to the inspected area. Note. The ANSI should complete the ANS checklists, which should be kept for at least xx months, as evidence of the inspections carried out.	Inspection Team
5	The interviews or other activities necessary for the collection of evidence in the evaluation of the requirements will be carried out. Note. Interviews should be conducted in a way that does not disrupt the activities of the service provider. If it is decided that it is necessary to take photographs or videos, the person in charge of the ANS provider or the designated person should be informed that said activity will be carried out.	Inspection Team

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Item Nº	Description	Responsible(s)
6	All evidence collected during the activity must be properly ordered, classified and guarded.	Lead Inspector Inspection Team
Closing Meeting		
7	The ANSP is thanked for his/her cooperation in the oversight process. The lead inspector may make a briefing of the findings found during the activity and the mitigation measures that need to be applied (if applicable).	Lead Inspector
8	The lead inspector briefs the service provider on the process of monitoring the inspection activity, including that related to the presentation of corrective actions, submission dates and any other information that he/she considers appropriate	Lead Inspector

9.3.3   Post Inspection

Item Nº	Description	Responsible(s)
1	The inspection team shall prepare the report of the findings identified during the inspection activity; for this, they will use the "Inspection Report" format, which presents a summary of all the inspection activity carried out in the ANS; It will also use the "Non-conformance Report" format to describe each of the findings identified during the activity.	Lead Inspector Inspection Team
2	Once the report is prepared, it should be signed by [TO BE DEFINED BY CAA]	To be defined by the CAA
3	The report should be submitted within xx calendar days after the closing of the inspection activity	Director/Coordinator/Head of the ANS Oversight Area
4	The ANSP must prepare and submit for approval of the CAA, the CAP in response to the report submitted	ANSP
5	The lead inspector together with the ANS Inspector team must evaluate the CAP presented by the ANSP, and must accept or reject the actions established in the CAP	Lead Inspector Inspection Team
6	The CAP will be accepted by the CAA until 100% of the corrective actions proposed in it has been approved.

Note. The CAP acceptance criteria are detailed in Chapter 10 of this manual | Lead Inspector |

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Appendix 1 to Chapter 9 – Inspection Report Template

INSPECTION REPORT		
Section A. General Information of the Activity		
1. Reference Number:	2. Start Date:	3. Completion Date:
4. Place:		
5. ANS Unit:		
6. Lead Inspector:		
7. Inspection Team:		
Section B. Scope		
Section C. Reference Documentation		
Non-conformances found? YES NO		# Non-conformances:
Section D. Summary of the inspection		

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Filling Guide:

1.   Section A. General Information of the Activity:

- The reference number refers to the number of the official letter or letter that is sent to the ANSP to notify of the inspection activity.
- Under start date, enter the date on which the inspection begins. Under completion date, indicate the date on which the inspection ends.
- Indicate the place where the inspection is carried out (address).
- Detail the name of the ANS unit where the inspection is carried out.
- Record the names of the lead inspector and the members of the inspection team.

2.   Section B. Scope:

- Mention the ANS area to which the inspection refers.
- Make reference to the name of the area in charge of the service to be inspected.

3.   Section C. Reference Documentation:

- Indicate all documentation that supports the inspection to be carried out and that would be used during the activity.
- For example: surveillance plan, national regulations, manuals, ICAO documentation, among others.

4.   Section D. Inspection summary:

- Describe, as a summary, the activities carried out during the inspection and the most relevant aspects that were identified.
- Start this section by thanking the ANSP for its collaboration during the inspection, or indicate the difficulties encountered during the activities.
- Highlight the positive aspects that were evidenced by the ANSP.
- Indicate, graphically and numerically, the level and percentage of compliance of the ANSP with respect to the regulatory requirements evaluated during the inspection.
- Avoid providing too much detail on non-conformances, as these will be described in the non-conformance report form.

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Appendix 2 to Chapter 9 – Non Conformances Report Template

NON-CONFORMANCES REPORT	
Section A. General Information	
1. Follow-up Number:	2. Number of Non-conformance:
3. ANS Unit:	4. Date:
5. Reference to Regulation:	
Section B. Description of the non-conformance	
Comments:	
Date required for CAP submission (dd/mm/yyyy):	
Inspector's signature	**Date**:

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Filling Guide:

5.   The follow-up number refers to the number of the letter sent to the ANSP to notify them of the inspection activity.

6.   The " Number of non-conformance" is the tracking code by which the specific non-conformance of the inspection performed is recorded. One way to do this is to use the acronym of the ANS areas, plus a number; for example: ATS 01, would be non-conformance #1 found in an inspection performed by an air traffic services unit.

7.   Detail the name of the ANS unit where the inspection is performed.

8.   Indicate the date of the inspection.

9.   Note the regulatory reference of the requirement that is not being complied with and, therefore, generates the non-conformance.

10.   In "Description of the non-conformance", explain the reason(s) for the regulatory non-compliance that led to the identification of the non-conformance in question. The wording of this section should be clear and concise, so that there is no questioning of the ANS supplier. In addition, it is important that this section supports the service provider in developing the CAP.

11.   In "Comments" you can expand on what is indicated in Section B, emphasizing the missing evidence, what needs to be developed, and any other details that will support the supplier in the corrective process of the identified non-conformance.

12.   The service provider is required to deliver the CAP within xx days of the CAA's delivery of the non-conformance report (this deadline should be defined by the CAA according to its best judgement). It is important to mention that the deadline for delivery of the CAP is not the same as the deadline given for closure of the non-conformance, since the deadline required to submit the CAP is one thing, and the deadline required to implement it is another.

13.   The inspector must sign the non-conformance report and indicate the date it was prepared.

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Chapter 10 — Procedures for the Classification and Resolution of ANS Non-Conformances Procedure of the ANS Inspection

10.1   Introduction

10.1.1   In this chapter, CAAs must develop and include the procedure for the classification and resolution of non-conformances in the ANS, which are detected through safety oversight activities.

10.1.2   Detected non-conformances must be documented, classified and ANSPs will be required to prepare and submit a CAP acceptable to the authority to address them.

10.1.3   This chapter establishes a reference framework on which the CAAs of the States can establish their procedures related to the identification of non-conformances and their resolution. Each State must carry out a prior analysis of its legislation and regulation, in order to guarantee that the procedures established for non-conformances do not breach any existing legislation or regulation. The terms and actions described in this chapter will serve as a guide for States to decide the way to handle these situations that best suits their legal framework.

10.2   Objective

10.2.1   The objective of the procedures for the classification and resolution of detected non-conformances is to notify, request and monitor the progress in the implementation of the Corrective Action Plans prepared and submitted by the ANSPs, as a result of the execution of oversight.

10.3   Description of the Procedure

10.3.1   In this section we include a description, as a guide for CAAs, of the procedure to be developed in order to guide inspectors in the process of classifying detected non-conformances, through oversight activities carried out in accordance with the provisions of chapter 8 of this manual, as well as their follow-up and resolution.

10.3.2   The ANSI responsible for each area, after completing the oversight of the area of his/her competence, must document all the non-conformances detected, for which he/she must have a non-conformance report format or form.

10.3.4   Once the classification has been carried out in accordance with the provisions of 10.4, the ANSP will be notified of the non-conformances detected, through the use of the non-conformances form, for those cases in which they represent an imminent danger to safety. It should be carried out immediately after the oversight activity ends, and the others could wait for the final report of the oversight activity to be sent.

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10.3.5   With the notification of the non-conformances detected, the ANSPs will be required to develop a Corrective Action Plan, which must contain the measures aimed at mitigating or eliminating the risks resulting from the non-conformances.

10.3.6   The CAP to be submitted must meet the requirements established by the CAA for its acceptance or approval. Section 10.5 of this manual provides a guide for the development of CAPs.

Note. – Appendix 2 to Chapter 9 shows a model form for recording non-conformances.

10.4   Categories of non-conformances

10.4.1   For the classification of non-conformances there is a wide variety of criteria that could be used by the CAA, which range from the development of an operational safety risk matrix for its classification or the simplest ones that focus on the aspects of prescriptive compliance.

10.4.2   Taking into consideration the CAAs that have not yet developed their manuals and procedures related to ANSP oversight, we focus on the guidance for the implementation of a simple but effective classification system for non-conformances.

10.4.3   Assuming that with the effective implementation of the SARPs contained in the Annexes and the ICAO PANS, the States can achieve an acceptable level of safety, which would reduce the risks to a level as low as reasonably feasible, it is the link between the non-conformances detected in oversight and the level of risk in the activities for which the State assumes responsibility is evident.

10.4.4   Based on the qualification received by the non-conformances resulting from the oversight activities, the priority for the implementation of the corrective or mitigation measures is defined, as well as the deadlines for the implementation of the Corrective Action Plans of the non-conformances.

10.4.5   For the implementation of a simple classification system we recommend that all non-conformances be classified in two categories, which could be A and B or 1 and 2.

10.4.6   All non-conformances related to non-compliance with the requirements established by national regulations (Aviation Law and Regulations) will be categorized as category A or 1. Non-compliance with operational procedures that directly affect operational safety will also be included in this categorization.

10.4.7   All non-conformances related to deficiencies in the characteristics of documentation, procedures or best safety practices will be categorized as category B or 2.

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10.4.8   In correspondence with the categorization of non-conformances seen above, the CAA will establish deadlines both for the start of the implementation of corrective actions, and for the eradication of the non-conformance.

10.4.9   For the establishment of deadlines, it is important to take into consideration the scope of the measure to be implemented and the feasibility of implementation within it, as an example we can take, the time that could require the modification of a manual or procedure, and the time needed to acquire some equipment or technology.

10.4.10   Due to the above, it is difficult to establish deadlines for the categories that adjust to all possible non-conformances, so the use of common sense is appreciated when establishing deadlines that could exceed those recommended here.

10.4.11   For category A or 1 non-conformances, if they directly affect safety, they must be addressed immediately, and if this is not possible, it should be rectified within a period not exceeding 72 hours. If it is related to a system or procedure that needs to be documented and implemented, the ANSP may have a period of no more than 60 business days, after the notification or receipt of the final report, for the development and implementation of the corrective action.

10.4.12   For category B or 2 non-conformances, these findings must be rectified within a period not exceeding 90 business days after receiving the report.

10.5   Corrective Action Plan (CAP)

10.5.1   The CAA must develop and include in this section the guidelines for the preparation and acceptance of a corrective action plan in order to mitigate or eliminate non-conformances, for which we include basic guidelines that allow its development.

10.5.2   It may be necessary for the CAA to develop guidance material separately from its ANS Inspector Manual, aimed at guiding ANSPs in the development of Corrective Action Plans.

10.5.3   Based on the non-conformances reported immediately or through the final report of the oversight activity, ANSPs shall submit an action plan for approval by the CAA that shall contain dates, responsible parties and specific actions for each of the non-conformances contained in the final report.

10.5.4   The corrective action plan should be submitted for approval no later than 45 calendar days after receipt of the final oversight report. After its approval, the actions established in the plan are followed up.

10.5.5   If one or more non-conformances had been notified immediately due to the level of risk they represented, and if corrective actions had been implemented for them, these should also be included in the CAP.

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10.5.6   Taking into consideration the deadlines that ANSPs have to submit their CAPs and the existence of non-conformances that cannot be resolved in the short term, the CAA will request the implementation of mitigation measures for the effects of these non-conformances.

10.5.7   Mitigation measures are necessary to achieve and maintain acceptable safety levels, until non-conformances can be definitively corrected.

10.5.8   The content of a Corrective Action Plan to be presented by the ANSPs, it must meet the following criteria:

1)   Relevant. CAPs should consider the issues and meet the requirements related to the non-conformance.
2)   Integral. The CAP must be complete and include all the elements or aspects related to the non-conformance.
3)   Detailed. CAPs should be listed step by step, as necessary, to outline the application process.
4)   Specific. The CAPs must identify the tasks and who must carry them out, and by when, in coordination with the responsible departments.
5)   Realistic. CAPs should be realistic in terms of their content and implementation timeframes.
6)   Consistent. The CAPs should be consistent with the other CAPs presented by the different areas within the provider.

10.5.9   The approval process of the Corrective Action Plan submitted by the ANSP must be carried out by the ANS Inspector of each of the specialty areas, who in turn will be responsible for monitoring its implementation, in accordance with established in chapter 6.

10.5.10   Once the CAP approval process has been completed, the ANSP must be notified, so that they can start the implementation of the actions contained therein.

10.6   Follow-up procedure to the ANS CAPs

10.6.1   A very important part of an effective SSO is the follow-up of the corrective action plans for non-conformances. This section should include the procedure developed by the CAA to follow up on the implementation process of the CAP submitted by the ANSPs, for the mitigation, correction or elimination of detected non-conformances.

10.6.2   Below we include basic guidelines for its development, which may be improved by adding a higher level of detail to each component and adding additional items that may be necessary, taking into account the size and complexity of each aviation system in particular.

10.6.3   As part of the process for the follow-up and resolution of non-conformances, according to what is established in the CAP submitted to the ANSP, the ANSP must submit the documentation that serves as evidence for the closure of the non-conformances within the term established in the CAP.

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10.6.4   When the deadline indicated for the completion of the corrective action(s) indicated in the CAP has elapsed and the evidence has not been received, the CAA shall establish the necessary reminder mechanisms for the ANSPs and establish a deadline for sending the evidence.

10.6.5   In the event that the ANSP, even after receiving a reminder, does not send the evidence related to the implementation of the corrective measures, the CAA must take the necessary actions in accordance with the procedures established for the resolution of safety cases or measures of compliance.

10.6.6   Upon receiving the evidence, it must be evaluated by the ANS Inspector(s) of the corresponding area, who will keep a record of it, which could include photos, video and voice recordings, documents, emails, etc., in order to demonstrate the progress of your CAP.

10.6.7   If necessary, within the follow-up process, and taking into consideration the nature of the non-conformance or non-conformances, oversight activities may be carried out for the follow-up and closure of the non-conformances, for which a format or form should be available.

10.6.8   In the event that during a follow-up and closure activity it is found that the results of a corrective action are not acceptable, and according to the criteria of the ANS Inspector, the non-conformance cannot be considered as closed, it will be documented and notified to the ANSP.

10.6.9   Upon notification that the measure(s) implemented to correct a non-conformance has not yielded the expected results, the ANSP shall submit an update or revision of the CAP containing new measures to address the non-conformance.

10.6.10   The non-conformance follow-up procedure must include the guidelines for the conservation and protection of the safety information obtained through it.

10.6.11   It is at this point that the entire safety monitoring process can easily lose its effectiveness, validity and credibility. All the work carried out for the promulgation of the applicable national regulation, the establishment of the safety oversight system and the performance of all the work for the execution of the inspection plan, loses its validity if the CAA does not give adequate attention to the monitoring of the corrective action plan. In this sense, the workload associated with this process and the internal monitoring mechanisms that the CAA must implement must be taken into consideration. Enforcement mechanisms will also be subject to testing.

Note. –Appendix 1 to Chapter 10 shows a model format for tracking and closing non-conformances.

10.7   Lack of attention to the CAP by the ANSP

10.7.1   This section should include the enforcement measures and procedures developed by the CAA in response to the ANSP's failure to address the CAP. In this section, we will provide basic guidelines to help guide the process.

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10.7.2   Doc 9734, part A in 3.8.3.1 states that "Effective and timely actions taken by the industry should result in the effective resolution of safety issues. However, in the absence of a resolution, the CAA should take the appropriate enforcement measures, such as the imposition of limitations, the suspension or revocation of certificates/licences/ approvals, or the imposition of financial penalties"

10.7.3   Based on the legislation and procedures of the State, the CAA must establish and implement clear, complete and detailed policies and procedures regarding compliance for the use of its inspection personnel. Such policies and procedures should allow for an effective, proportionate, gradual, and consistent approach to compliance by CAA personnel.

10.7.4   In the event that an ANSP does not pay the necessary attention to its CAP and does not correct non-conformances within the time frames established by the CAA, appropriate and progressive compliance measures should be adopted to ensure that non-conformances are corrected quickly.

10.7.5   In order to establish a system that allows the correct implementation of CE 8 as part of its SSO, the CAA must develop and implement a policy aimed at establishing its compliance.

10.7.6   As part of it, the personnel must be provided with guides for the correct imposition of compliance measures, within which a guide manual for the imposition of compliance measures should be included, which will allow said personnel to act systematically and consistently.

10.7.7   Within the policy, as well as in the guides, a classification of non-compliances must be included, which could be minor, moderate or serious, taking into account safety.

10.7.8   The guides to be developed must include the classification tables or types of violations and non-compliance, as well as detailed guides for the imposition of mitigation measures

10.7.9   Among the measures to be imposed by the CAA for non-compliance in the implementation of the corrective measures or actions contained in a CAP, and considering the classification of the non-compliance addressed in the CAP, the following should be included:

a)   Warning Letter;
b)   Imposition of mitigation measures;
c)   Temporary suspension of aeronautical licenses or certificates of suitability issued by the CAA;
d)   Definitive suspension of the aeronautical licenses or certificates of suitability issued by the CAA;
e)   Fine

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10.7.10   Among the mitigation measures included in subparagraph b) of the previous paragraph, the following could be included:

a)   Degradation of ATS service, limited only to Flight Information Service (FIS)/Aerodrome Flight Information Service (AFIS);

b)   Limitation or delays to operations;

c)   Modification of service schedules;

d)   Increase or penalty to the operational minima of Instrument Approach Charts (IAC) Obstacle clearance altitude/Obstacle clearance height (OCA/OCH; and

e)   Partial closure of one or more runways, taxiways or platforms

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Appendix to Chapter 10 – Format for tracking and closing non-conformances

AIR NAVIGATION SERVICES SAFETY OVERSIGHT			
CAA Logo	**RECORD OF FOLLOW-UP AND RESOLUTION OF DEVIATIONS AND/OR NON-CONFORMANCES**		
Follow-up Activity No:			
ANS Unit:			
No.	**Corrective action**	**Satisfactory**	**Non Satisfactory**
	Signature		**Date**
ANSP Representative:			
CAA Inspector:			

Attachment A. AIM Inspection Protocol

[AAC LOGO]	[NAME CAA AND ANS OVERSIGHT UNIT]					
	CHECKLIST [INSERT APPLICABLE NATIONAL REGULATION]					
1. Name of the ANSP:					**2. Date:**	
3. Address:						
4. Name of the director/executive/head responsible:						
5. Lead inspector:						
6. Inspectors: • **A** • **B.** • **C** • **D**						
7. Chapter 1/A/I… [Insert name of the chapter of the applicable national regulation]						
8. No.	**9. Reference**	**10. Protocol question**	**11. Response**	**12. Guidance for review of evidence**	**13. Status of implementation**	**14. Evidence /Notes/ Comments**
001	[Insert reference to regulation requirement]	Does the AIM have manuals describing the organization and operating procedures?	❑ Yes ❑ No	Verify: 1. Descriptive manual of the organization. 2. AIS/AIM operating manual.	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
003	. .	Has the AIM department established a properly organized quality system?	❑ Yes ❑ No	Verify: 1. The mechanisms established to ensure effective implementation. 2. Documentary evidence of the	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	

				established quality system, including procedures, processes and resources.			
005		. .	Does the AIM department comply with providing a copy of the integrated aeronautical information that has been requested by the AIM units?	❏ Yes ❏ No	Verify: 1. A copy of the integrated aeronautical information documentation. 2. Mechanism established to provide the information.	❏ Satisfactory ❏ Not Satisfactory ❏ Not applicable	
007		. .	Do AIM personnel use and make the national regulations in conjunction with the Procedures for Air Navigation Services - Aeronautical Information Management PANS-AIM available for consultation?	❏ Yes ❏ No	Verify: 1. The availability of documentation on site.	❏ Satisfactory ❏ Not Satisfactory ❏ Not applicable	
7. Chapter 2/B/II… [Insert name of the chapter of the applicable national regulation]							
009		. .	Does the AIM department have the necessary equipment and systems to	❏ Yes ❏ No	Verify: Communication media and office equipment available: -AMHS,	❏ Satisfactory ❏ Not Satisfactory ❏ Not applicable	

		provide the services?		-computers, -printers, -copiers, -plotter, -telephone, -fax.		
011	. .		❑ Yes ❑ No		❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
013	. .					
015	. .					
7. Chapter 3/C/III… [Insert name of the chapter of the applicable national regulation]						
017						
019						
021						
023						

Attachment B. ATS inspection protocol

[CAA LOGO]	[NAME CAA AND ANS OVERSIGHT UNIT]					
CHECKLIST [INSERT APPLICABLE NATIONAL REGULATION]						
1. Name of the ANSP:					2. Date:	
3. Address:						
4. Name of the director/executive/head responsible:						
5. Lead inspector:						
6. Inspectors: • A • B. • C • D						
7. Chapter 1/A/I… [Insert name of the chapter of the applicable national regulation]						
8. No.	9. Reference	10. Protocol question	11. Response	12. Guidance for review of evidence	13. Status of implementation	14. Evidence /Notes/ Comments
001	[Insert reference to regulation requirement]	Are the provisions of the CAA applied in reference to the structure and organization of the airspace?	❑ Yes ❑ No	Verify: 1. Descriptive manual of the organization 2.ATS Operational Manual 3. Law/code/decree	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	

003	. .	Does the ATS provider have the regulations that support its functions, responsibilities and obligations?	❑ Yes ❑ No	Verify: 1. Descriptive manual of the organization 2.ATS Operational Manual 3. Law/code/decree	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
005	. .	Are air traffic services provided in accordance with the designation of the parts of the airspace and aerodromes established by the CAA?	❑ Yes ❑ No	Verify: 1. Descriptive manual of the organization 2.ATS Operational Manual	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
007	. .	Has the ATS provider defined the airspace class(es) and the services provided?	❑ Yes ❑ No	Verify in the AIP, the class of air space declared and services rendered in these	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
7. Chapter 2/B/II… [Insert name of the chapter of the applicable national regulation]						
009	. .		❑ Yes ❑ No		❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
011	. .		❑ Yes ❑ No		❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
013	. .					

015	. .					
7. Chapter 3/C/III… [Insert name of the chapter of the applicable national regulation]						
017						
019						
021						
023						

Attachment C. CNS inspection protocol

[CAA LOGO]	[NAME CAA AND ANS OVERSIGHT UNIT]					
CHECKLIST [INSERT APPLICABLE NATIONAL REGULATION]						
1. Name of the ANSP:					**2. Date:**	
3. Address:						
4. Name of the director/executive/head responsible:						
5. Lead inspector:						
6. Inspectors: **A** **B.** **C** **D**						
7. Chapter 1/A/I… [Insert name of the chapter of the applicable national regulation]						
8. No.	**9. Reference**	**10. Protocol question**	**11. Response**	**12. Guidance for review of evidence**	**13. Status of implementation**	**14. Evidence /Notes/ Comments**
001	[Insert reference to regulation requirement]	Does the CNS service provider have manuals describing the organization and operating procedures?	❑ Yes ❑ No	Verify: 1. Descriptive manual of the organization. 2. CNS Operational Manual.	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
003	. .	Does the CNS service provider comply with national regulations and CAA provisions	❑ Yes ❑ No	Verify: 1 CNS Operating Procedures Manual. 2. Availability of CAA regulation	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	

		. .	for the service provision?		and guidance material.		
005		. .	Does the CNS service provider submit installation projects for new systems and services; for review and approval to the CAA?	❑ Yes ❑ No	Verify: 1. CNS Operating Procedures Manual. 2. Records of previous installations or modifications.	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
007		. .	Does the CNS service provider ensure that it has sufficient and qualified personnel to carry out maintenance activities on the CNS systems?	❑ Yes ❑ No	Verify: 1. Review the established methodology for determining staffing needs. 2. Examine the records of the maintenance performed.	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
7. Chapter 2/B/II… [Insert name of the chapter of the applicable national regulation]							
009		. .	Are the national regulations and the relevant ICAO documents available to CNS technical staff, as well as the rest of relevant publications?	❑ Yes ❑ No	Verify: 1. Evaluate the method that guarantees the reception, control and distribution of the necessary technical documentation. 2. Evaluate the method to determine the validity of the documents	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	

				3. Check if they are available: -AIP - Applicable aeronautical regulations. - - -		
011	. .		❑ Yes ❑ No		❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
013	. .					
015	. .					
7. Chapter 3/C/III… [Insert name of the chapter of the applicable national regulation]						
017						
019						
021						
023						

Attachment D. MAP Inspection Protocol

[CAA LOGO]	[NAME CAA AND ANS OVERSIGHT UNIT]					
CHECKLIST [INSERT APPLICABLE NATIONAL REGULATION]						
1. Name of the ANSP:					**2. Date:**	
3. Address:						
4. Name of the director/executive/head responsible:						
5. Lead inspector:						
6. Inspectors: **A** **B.** **C** **D**						
7. Chapter 1/A/I… [Insert name of the chapter of the applicable national regulation]						
8. No.	**9. Reference**	**10. Protocol question**	**11. Response**	**12. Guidance for review of evidence**	**13. Status of implementation**	**14. Evidence /Notes/ Comments**
001	[Insert reference to regulation requirement]	Are all roles and responsibilities of the MAP service provider's staff clearly defined?	❑ Yes ❑ No	Verify: 1. Examine the document that details the functions and responsibilities of the MAP staff.	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
003	. .	Does the MAP services provider comply with the requirement that aeronautical charts be readily	❑ Yes ❑ No	Verify: 1. The mechanisms established to ensure effective implementation. 2. The way charts are readily available to users.	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	

			available to users?	❑		❑	
005		. .	Does the MAP services provider comply with the quality requirements of aeronautical data in relation to the integrity of the data and the resolution of the charts, in accordance with the provisions of the (applicable national regulation)?	❑ Yes ❑ No	Verify: 1. Compliance with applicable national regulations.	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
007		. .	Does the MAP services provider ensure that the aeronautical charts provided are adequate, accurate and kept up to date through an adequate review service?	❑ Yes ❑ No	Verify: 1. The measures that ensure that the information contained in the chart is complete, accurate and up-to-date.	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
7. Chapter 2/B/II… [Insert name of the chapter of the applicable national regulation]							
009		. .	Does the MAP services provider have a training program for its personnel?	❑ Yes ❑ No	Verify: 1. The type and frequency of instruction provided (initial, recurrent, and specialized).	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	

				2. That it is adequate to acquire and maintain the level of knowledge, expertise, competence and qualifications necessary according to the functions of each technician.		
011	. .		❑ Yes ❑ No		❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
013	. .					
015	. .					
7. Chapter 3/C/III… [Insert name of the chapter of the applicable national regulation]						
017						
019						
021						
023						

Attachment E. MET Inspection Protocol

[CAA LOGO]	[NAME CAA AND ANS OVERSIGHT UNIT]					
	CHECKLIST [INSERT APPLICABLE NATIONAL REGULATION]					
1. Name of the ANSP:					**2. Date:**	
3. Address:						
4. Name of the director/executive/head responsible:						
5. Lead inspector:						
6. Inspectors: **A** **B.** **C** **D**						
7. Chapter 1/A/I… [Insert name of the chapter of the applicable national regulation]						
8. No.	**9. Reference**	**10. Protocol question**	**11. Response**	**12. Guidance for review of evidence**	**13. Status of implementation**	**14. Evidence /Notes/ Comments**
001	[Insert reference to regulation requirement]	Does the MET service provider meet WMO requirements for qualifications and training of personnel providing aeronautical meteorological services?	❑ Yes ❑ No	Verify: 1.- Schedules 2.- Daily parts 3.- Personal files	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
003	. .	Has the MET service provider implemented a	❑ Yes ❑ No	Verify: 1. The mechanisms established to ensure	❑ Satisfactory ❑ Not Satisfactory	

			properly organized quality system?		effective implementation. 2. Documentary evidence of the established quality system , including procedures, processes and resources.	❑ Not applicable	
005		. .	Has the MET service provider arranged for wind sensors used for routine local reporting to be properly positioned to provide the best possible indication of conditions along the runway or touchdown area?	❑ Yes ❑ No	Verify: 1. The placement sites.	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
007		. .	Does the CNS service provider ensure that it has sufficient and qualified personnel to carry out maintenance activities on the CNS systems?	❑ Yes ❑ No	Verify: 1. Review the established methodology for determining staffing needs. 2. Examine the records of the maintenance performed.	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
7. Chapter 2/B/II… [Insert name of the chapter of the applicable national regulation]							
009		. .	Has the MET service provider established policies and procedures for	❑ Yes ❑ No	Verify: 1. Examine documents with internal coordination	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	

		coordination between ATS and other entities for the provision of services?		procedures and confirm if they apply. 2. if coordination is made with: - The operators - Aeronautical information services (AIS/AIM) - If ATS/MET coordination is carried out. - That the agreement includes the calibration of the MET equipment used by ATS personnel.		
011	. .		❑ Yes ❑ No		❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
013	. .					
015	. .					
7. Chapter 3/C/III… [Insert name of the chapter of the applicable national regulation]						
017						
019						

Attachment F. PANS-OPS Inspection Protocol

[CAA LOGO]	[NAME CAA AND ANS OVERSIGHT UNIT]					
	CHECKLIST [INSERT APPLICABLE NATIONAL REGULATION]					
1. Name of the ANSP:					**2. Date:**	
3. Address:						
4. Name of the director/executive/head responsible:						
5. Lead Inspector:						
6. Inspectors: A B. C D						
7. Chapter 1/A/I… [Insert name of the chapter of the applicable national regulation]						
8. No.	**9. Reference**	**10. Protocol question**	**11. Response**	**12. Guidance for review of evidence**	**13. Status of implementation**	**14. Evidence /Notes/ Comments**
001	[Insert reference to regulation requirement]	Has the PANS-OPS service provider established mechanisms to review published procedures, and verify that they are subject to periodic review to ensure that they continue to meet the criteria	❏ Yes ❏ No	Verify: 1. The mechanisms established to ensure effective implementation. 2. Procedures, work files, documentation and data. 3. Confirm that the maximum interval for the review is five years.	❏ Satisfactory ❏ Not Satisfactory ❏ Not applicable	

			for possible changes?				
003		. .	Has the PANS-OPS provider established the mechanisms for the conservation of all design documentation, in order to correct anomalies or errors in the data that are detected during the phases of production, maintenance or operational use?	❑ Yes ❑ No	Verify: 1. Review the mechanisms in place to ensure effective implementation. 2. Review procedures, work files, documentation, and data.	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
005		. .	Does the PANS-OPS provider perform in-flight validation of instrument flight procedures, including obstacle checks?	❑ Yes ❑ No	Verify: 1. The mechanisms established to guarantee effective implementation. 2. The reports and results of flight inspections of instrument flight procedures.	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
007		. .	Has the PANS-OPS service provider established mechanisms for the Obstacle Clearance Height (OCH) to be provided in the publication for	❑ Yes ❑ No	Verify: 1. The mechanisms established to guarantee effective implementation. 2. The AIP. 3. Control of records of publications made.	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	

			each approach procedure developed?				
7. Chapter 2/B/II… [Insert name of the chapter of the applicable national regulation]
009	. .		Has the PANS-OPS provider developed and established procedures for archiving documentation and records related to the process of developing new procedures and modifying existing procedures?	❑ Yes ❑ No	Verify: 1. The mechanisms established to guarantee effective implementation. 2. The existence and suitability of the files. 3. The traceability of the information, verifying a sampling procedure.	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
011	. .			❑ Yes ❑ No		❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
013	. .						
015	. .						
7. Chapter 3/C/III… [Insert name of the chapter of the applicable national regulation]
017							
019							

Attachment G. SAR Inspection Protocol

[CAA LOGO]	[NAME CAA AND ANS OVERSIGHT UNIT]					
CHECKLIST [INSERT APPLICABLE NATIONAL REGULATION]						
1. Name of the ANSP:					**2. Date:**	
3. Address:						
4. Name of the director/executive/head responsible:						
5. Lead inspector:						
6. Inspectors: **A** **B.** **C** **D**						
7. Chapter 1/A/I… [Insert name of the chapter of the applicable national regulation]						
8. No.	**9. Reference**	**10. Protocol question**	**11. Response**	**12. Guidance for review of evidence**	**13. Status of implementation**	**14. Evidence /Notes/ Comments**
001	[Insert reference to regulation requirement]	Has the SAR service provider developed an operating procedures manual?	❑ Yes ❑ No	Verify: 1. That the content of the manual is in accordance with the provisions contained in the applicable national regulations.	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
003	. .	Is the region where SAR services must be provided clearly defined and does it coincide	❑ Yes ❑ No	Verify: 1. The SAR manual. 2. The publication of aeronautical information AIP.	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	

			with the limits of the FIR?			
005	. .		Does the search and rescue service provider carry out RCC coordination effectively?	☐ Yes ☐ No	Verify: 1. RCC coordination procedures and reports. 2. The checklist used by the technical staff.	☐ Satisfactory ☐ Not Satisfactory ☐ Not applicable
007	. .		Has the search and rescue services provider established a joint coordination center for aeronautical and maritime operations?	☐ Yes ☐ No	Verify: 1. The documentation through which the joint RCC is established. 2. The coordination process between the aeronautical and maritime RSCs.	☐ Satisfactory ☐ Not Satisfactory ☐ Not applicable
7. Chapter 2/B/II… [Insert name of the chapter of the applicable national regulation]						
009	. .		Does the RCC and RSC have fast and secure two-way means of communication with everyone involved in a SAR mission?	☐ Yes ☐ No	Verify: 1. The availability of equipment: - communication radios - AMHS - cell phones - phones enabled for international calls - international code of signals.	☐ Satisfactory ☐ Not Satisfactory ☐ Not applicable
011	. .			☐ Yes ☐ No		☐ Satisfactory ☐ Not Satisfactory ☐ Not applicable

013	. .					
015	. .					
7. Chapter 3/C/III… [Insert name of the chapter of the applicable national regulation]						
017						
019						
021						

Attachment H. Guidance for the preparation of inspection protocols

Note 1: Appendix 3 to Chapter 8 contains the inspection protocol format on which this guidance is based.

Note 2: This guidance is intended to support the ANS oversight unit of the CAA of the States for the development of their inspection protocols. The CAA of each State can choose the format, structure and content that best suits its context.

1. For purposes of this guidance, the inspection protocol is divided into three parts, which are:

a. **Header**

[CAA LOGO]	[NAME CAA AND ANS OVERSIGHT UNIT]
	CHECKLIST [INSERT APPLICABLE NATIONAL REGULATION]

b. **Inspection information**

1. Name of the ANSP:	**2. Date:**
3. Address:	
4. Name of the director/executive/head responsible:	
5. Lead inspector:	
6. Inspectors: • **A** • **B.** • **C** • **D**	

c. **Protocol Body**

7. Chapter 1/A/I… [Insert name of the chapter of the applicable national regulation]						
8. No.	**9. Reference**	**10. requirement question**	**11. Response**	**12. Requirement Question Assessment Guidance**	**13. State implementation**	**14. Evidence /Notes/ Comments**

001	[Insert reference to regulation requirement]	[Insert protocol question]	❑ Yes ❑ No	[Insert guide to ISNA]	❑ Satisfactory ❑ Not Satisfactory ❑ Not applicable	
003	. .					
005	. .					

2. Steps to prepare the inspection protocol

a. Header section

- Insert the logo of the State CAA.
- Indicate the name of the CAA and the name given to the CAA's ANS oversight unit.
- Define the type of inspection protocol, according to the ANS oversight areas, indicating the reference to the national regulation applicable to the protocol.

b. "Inspection information" Section

- Enter the name of the air navigation service provider to which the inspection protocol applies.
- Indicate the date on which the inspection is carried out. If the activity spans more than one day, describe it appropriately.
- Indicate the place where the inspection is carried out (eg: airport control tower XXX, control center XXX, MET office XXX...).
- Write down the name of the person in charge of the station/office/unit of the air navigation service provider that is being inspected.
- Record the name of the lead inspector who will be in charge of the oversight activity.
- List the inspectors who will participate in the oversight activity.

c. "Body of the protocol" section

- The body of the protocol contains all the inspection questions referring to each of the requirements of the regulation that are intended to be evaluated.
- For a better structure, sections could be established within the protocol, referenced to each chapter of the regulation (as seen in item 7).
- Item 8 indicates the protocol question number.
- Item 9 is associated with the specific reference of the protocol question. This reference is obtained from the requirement of the regulation that addresses the question (for example: General Civil Aviation Law article xx, ATS Regulation requirement xx).

- Item 10 contains the protocol question, which is written based on the requirement it deals with. The question should be asked in an interrogative format, using the text of the requirement as a basis, and should be as clear and concise as possible.
- Item 11 indicates whether the service provider's response is affirmative or negative with respect to compliance with the question in question.
- Item 12 contains a guide for the ANS inspectors, so that the question can be evaluated in the most complete and exhaustive way possible, in order to verify that the ANS provider's compliance is adequate.
- Item 13 elaborates on item 11, since it confirms whether the ANS provider, in addition to indicating that it does comply with the protocol question, has shown evidence of its implementation, and this implementation is correct according to the established requirements. For example: the ANS provider may answer that it does have a training program for air traffic controllers, which would be indicated in item 11 as "Yes", but the ANS inspector, upon reviewing the documentation in greater detail, identifies that the program is not complying in accordance with the established provisions, which in item 13 would be indicated as "Not Satisfactory".
- Item 14 allows the ANS inspector to write down all relevant and pertinent information on each of the protocol questions applied. These notes will serve as support for the preparation of the inspection report.

Project to Develop Guidance to Support Air Navigation Services (ANS) Safety Oversight
Attachments

Attachment I. Guidance for the verification of SMS implementation phases

This guidance provides the essential aspects to check at each of the service provider's SMS implementation phases. It is necessary that these requirements be contained in the national regulations of the States. This guidance considers the provisions of Annex 19 and ICAO Doc. 9859. The State may include the aspects that, according to its context, it deems appropriate; as well as establish the implementation structure that best suits the organization.

The guidance below is based on a phased implementation of the SMS:

Phase 1   Aspects to be evaluated:

- Identification of the accountable executive and safety responsibilities of safety managers.
- Establishment of the SMS implementation team.
- SMS implementation plan.

Phase 2   Aspects to be evaluated:

- Development and dissemination of the safety policy (with the approval of the accountable executive).
- Hazard identification and safety risk management through reactive processes.
- SMS training in risk management.
- Establishment of a documentation system for the record of the SMS implementation plan.

Phase 3

- Establishment of a voluntary reporting procedure.
- Process for prioritizing and assigning identified hazards for risk mitigation.
- Establishment of proactive and predictive processes in risk management.
- Updating of the documentation related to the SMS.

Phase 4

- Development of safety indicators and objectives.
- Continuous improvement of the SMS.
- Establishment and maintenance of a dissemination mechanism for SMS-related information.

NCMC WG 2023 Work Programme

The rapporteurs will coordinate 4 meetings during the year which will be held quarterly (may be modified as needed). Meetings will be virtual and coordinated with the Secretariat.

1.   First meeting (March 2023)
- Establish methodology for collecting information on common problems
- Identification of technical areas that require support
- Identification of training needs
- Identification of internal problems for carrying out the self-assessment or any phase of the activity cycle of the NCMCs in their States
- Establishment of lines of action on the issues found
- Preparation of the meeting report and coordination with the Secretariat

2.   Second meeting (June 2023)
- Classification of issues by critical element
- Creation of a Task Force by technical area
- Coordinate with the Secretariat and raise training needs to the directors
- Establish, together with the NACC Regional Office and RSOOs, technical support lines to solve difficulties in fulfilling the duties of the NCMCs
- Preparation of the meeting report and coordination with the Secretariat

3.   Third meeting (September 2023)
- Follow-up on actions taken in previous meetings
- Evaluations of the progress achieved by the States regarding the duties of the national coordinators, in the tasks designated in the working group and goals achieved.
- Preparation of the meeting report and coordination with the Secretariat
- Exhibition of work done and on-going during the annual meeting of NCMCs
- Accountability to the directors through a formal report

4.   Fourth meeting. (December 2023)
- Review of processes and identification of possible opportunities for improvement
- Record of achieved goals
- Record of lessons learned
- Preparation of the meeting report and coordination with the Secretariat
- Accountability the directors through a formal report
- Preparation of plan for 2024

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