



ICAO

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

Seventh Eastern Caribbean Civil Aviation Technical Group Meeting

E/CAR/CATG/7

Final Report

Miami, United States, 26 to 28 July 2023

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of ICAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

List of Contents

Contents	Page
Index	i-1
Historical	ii-1
ii.1 Place and Date of the Meeting	ii-1
ii.2 Opening Ceremony	ii-1
ii.3 Working Languages.....	ii-1
ii.4 Schedule and Working Arrangements.....	ii-1
ii.5 Agenda	ii-2
ii.6 Attendance	ii-2
ii.7 Draft Conclusions and Decisions/Conclusions and Decisions.....	ii-3
ii.8 List of Working and Information Papers and Presentations.....	ii-3
List of Participants	iii-1
Contact Information	iv-1
Agenda Item 1	1-1
<i>Adoption of the Provisional Agenda, Working Method and Schedule</i>	
Agenda Item 2	2-1
<i>Review and follow-up to Conclusions/Decisions of E/CAR/CATG/5, NACC/WG and GREPECAS</i>	
2.1 <i>Review and follow-up to Valid Conclusions/Decisions of the E/CAR/CATG</i>	
2.2 <i>Follow on Valid Conclusion and Decision of the NACC/WG, NACC/WG/RAP and GREPECAS</i>	
Agenda Item 3	3-1
<i>Air Navigation Matters</i>	
3.1 <i>Global/Regional Air Navigation Developments</i>	
3.2 <i>New version of the Global Air Navigation Plan (GANP), 7th Edition</i>	
3.3 <i>Status of Air Navigation Services (ANS) implementation in the E/CAR States</i>	
Agenda Item 4	4-1
<i>Follow-up of the Activities of the NACC/WG Task Forces</i>	
4.1 <i>Progress reports of the AIM, AGA, ATM, CNS, MET and SAR Committees</i>	
4.2 <i>E/CAR/NTG and E/CAR/RD Ad hoc Group Reports</i>	
Agenda Item 5	5-1
<i>Other Business</i>	

HISTORICAL

ii.1 Place and Date of the Meeting

The Seventh Eastern Caribbean Civil Aviation Technical Group (E/CAR/CATG/7) Meeting was held at the IATA Americas premises in Miami, United States, from 26 to 28 July 2023.

ii.2 Opening Ceremony

Mrs. Mayda Ávila, Regional Officer, Communication, Navigation and Surveillance, of the North American, Central American and Caribbean (NACC) Office of the International Civil Aviation Organization (ICAO), provided opening remarks and thanked the International Air Transport Association (IATA) for hosting the meeting.

The E/CAR/CATG/7 Meeting was held with the participation of the Chairperson Mrs. Shenneth P Phillips, Antigua, who chaired the meeting plenary.

ii.3 Working Languages

The working language of the meeting was English and the working papers, information papers and report of the meeting were available to participants in said language.

ii.4 Schedule and Working Arrangements

It was agreed that the working hours for the sessions of the meeting would be from 09:00 to 16:00 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, Working Method and Schedule

Agenda Item 2: Review and follow-up to Conclusions/Decisions of E/CAR/CATG/5, NACC/WG and GREPECAS

2.1 Review and follow-up to Valid Conclusions/Decisions of the E/CAR/CATG

2.2 Follow on Valid Conclusion and Decision of the NACC/WG, NACC/WG/RAP and GREPECAS

Agenda Item 3: Air Navigation Matters

3.1 Global/Regional Air Navigation Developments

3.2 New version of the Global Air Navigation Plan (GANP), 7th Edition

3.3 Status of Air Navigation Services (ANS) implementation in the E/CAR States

Agenda Item 4: Follow-up of the Activities of the NACC/WG Task Forces

4.1 Progress reports of the AIM, AGA, ATM, CNS, MET and SAR Committees

4.2 E/CAR/NTG and E/CAR/RD Ad hoc Group Reports

Agenda Item 5: Other Business

ii.7 Attendance

The Meeting was attended by 7 States/Territories, 1 International Organization, 3 delegations from the industry, and 3 persons from the Secretariat totalling 29 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 the Eastern Caribbean (E/CAR/DCA)

DECISIONS: Internal activities of the E/CAR Civil Aviation Technical Group (E/CAR/CATG).

ii.8 List of Decisions:

Number	Title	Page
E/CAR/CATG/7/01	INTEGRATION OF ECAR/NTG, ECAR/RD AND ECAR/CATG UNDER THE NACC/WG	5-2
E/CAR/CATG/7/02	ACTION PLAN TO COMPLETE EVALUATION OF THE E/CAR STATES ON THE STATUS OF AIR NAVIGATION SERVICES IMPLEMENTATION	5-3
E/CAR/CATG/7/03	SUPPORT TO THE DEVELOPMENT OF THE e-ANP VOLUME III	5-4
E/CAR/CATG/7/04	CREATION OF AN AD HOC GROUP TO DEVELOP AN ADS-B IMPLEMENTATION PROJECT FOR THE E/CAR STATES	5-4
E/CAR/CATG/7/05	IMPROVE COMMUNICATION MECHANISM ON ICAO EVENT INFORMATION AND DOCUMENTATION TO THE PoC OF THE E/CAR STATES	5-5
E/CAR/CATG/7/06	SUPPORT TRAINING IN QMS OF THE AIM AND MET PERSONNEL OF THE EASTERN CARIBBEAN STATES	5-6
E/CAR/CATG/7/07	NEW ECAR/NTG, ECAR/RD RAPPORTEUR	5-6

ii.9 List of Working and Information Papers and Presentations

Refer to the Meeting web page:

<https://www.icao.int/NACC/Pages/meetings-2023-ecarxtg.aspx>

WORKING PAPERS				
Number	Agenda Item	Title	Date	Prepared and Presented by
WP/01	1	Provisional Agenda and Schedule of the Seventh Eastern Caribbean Civil Aviation Technical Group Meeting (E/CAR/CATG/7)	18/07/23	Secretariat
WP/02		Cancelled		
WP/03	2.2	Conclusions and Decisions of Previous Meetings that Impact the Activities of the E/CAR Meetings Secretariat	25/07/23	Secretariat
WP/04	3	Basic Building Blocks (BBB)	25/07/23	Secretariat
WP/05	3.2	Aviation System Block Upgrades (ASBU)	25/07/23	Secretariat
WP/06	3.3	Development of the CAR/SAM Electronic Air Navigation Plan (E-ANP) Volume III	25/07/23	Secretariat
WP/07	4	Update of E/CAR/NTG and E/CAR/RD Terms of Reference and Work Programme	25/07/23	Secretariat
WP/08	3.3	Key Performance Indicators (KPIs)	25/07/23	Secretariat
WP/09	4.1	Report of E/CAR/CATG AIM Committee	26/07/23	AIM Representative

WORKING PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
WP/10		Cancelled		
WP/11		Cancelled		
WP/12	4.1	Progress Report of the ATM Committee	19/07/23	E/CAR/CATG ATM Rapporteur
WP/13		Cancelled		
WP/14		Cancelled		
WP/15	4.1	Interregional SAREX Project (May 2024)	19/07/23	France
WP/16	4.1	Update on Piarco Airspace Optimization	19/07/23	Trinidad and Tobago
WP/17	5	Proposed Initiatives to Improve Information Sharing among the Eastern Caribbean Regions' Air Navigation Service Providers and Stakeholders	19/07/23	Trinidad and Tobago
WP/18		Cancelled		
WP/19	4.1	AIM Task Force Progress Report,	26/07/23	Secretariat

INFORMATION PAPERS

Number	Agenda Item	Title	Date	Prepared and Presented by
IP/01	--	List of working, information papers and presentations	28/07/23	Secretariat
IP/02		Cancelled.		
IP/03	3	Contingency Planning - Provision of NOTAM, Flight Planning and PIB Data for the PIARCO FIR (TTZP)	24/07/23	Trinidad and Tobago

PRESENTATIONS

Number	Agenda Item	Title	Presented by
1	3	Morcom International Inc. Presentation	Morcom
2	4.2	Progress report of the NACC/WG MET/Task Force	Secretariat

LIST OF PARTICIPANTS

ANTIGUA AND BARBUDA

1. Shenneth Phillips
2. Natasha Mussington
3. Audrey Lorraine Davis

ECCAA

4. Eloise D. Silston
5. Luana C. Lsaac
6. Trevor Davis

FRANCE

7. Frederic Danloux
8. Philippe Versi
9. Harry Asselin de Beauville

SAINT LUCIA

10. Kendell Peter
11. Lynden Heath Leonce

ST. KITTS AND NEVIS

12. Kenrick Duncan

TRINIDAD AND TOBAGO

13. Rupnarine Baboolal
14. Steve Saroop
15. Ian Raphael Gomez
16. Neil Ali
17. Steve Ramgoolam

UNITED STATES

18. Nigel Simmons
19. Al O'Neill
20. Will turner
21. Linda McCray
22. Jorge Chades
23. Rudolph E. Lawrence

ADACEL INC.

24. Marcelo del Valle Hiayes

COLLINS

25. Manny Gongora

MORCOM INTERNATIONAL INC.

26. Alejandra Bertrand

ICAO

27. Luis Sanchez (Online)
28. Mayda Avila
29. Eddian Mendez (Online)

CONTACT INFORMATION

Name / Position	Administration / Organization	Telephone / E-mail
Antigua and Barbuda		
Shenneth P Phillips Chief Air Traffic Services	CAA	Tel. 268 5620301/02 E-mail shenneth.phillips@ab.gov.ag
Natasha Mussington Coordinator of AIS (ag)	CAA	Tel. 12687219423 E-mail natasha.mussington@ab.gov.ag
Audrey Lorraine Davis Deputy Chief Air Traffic Services (Acting)	CAA	Tel. 268 562 5232 E-mail lorraine.davis@ab.gov.ag
ECCAA		
Eloise D. Silston Air Traffic Management Inspector	ECCAA	Tel. 268 462 0000 E-mail dsilston@eccaa.aero
Luana C. Isaac Aeronautical Information Management	ECCAA	Tel. 1268 462 0000 E-mail isaac@eccaa.aero
Trevor Davis CNS Manager	ECCAA	Tel. 268-462-0030 E-mail tdavis@eccaa.aero
France		
Frederic Danloux Deputy Head of SNA-AG	CAA	Tel. +596 696961107 E-mail frederic.danloux@aviation-civile.gouv.fr
Versi Philippe Director	CAA	Tel. +596696705147 E-mail philippe.versi@aviation-civile.gouv.fr
Harry Asselin de Beauville	CAA	Tel. +596696211345 E-mail harry.asselin-de-beauville@aviation-civile.gouv.fr
Saint Lucia		
Kendell Peter Manager - Air Navigation Services	SLASPA	Tel. 1758-7219336 E-mail kendell.peter@slaspa.com
Lynden Heath Leonce Technical Officer- ANS	SLASPA	Tel. +1(758) 457 6116 E-mail lynden.leonce@slaspa.com
St. Kitts and Nevis		
Kenrick Duncan Civil Aviation Safety officer	CAA	Tel. +1869 466-4334 E-mail kenrick.duncan@gov.kn

E/CAR/CATG/7
List of Participants – Contact Information

iv – 2

Name / Position	Administration / Organization	Telephone / E-mail
Trinidad and Tobago		
Rupnarine Baboolal CNS Engineer	CAA	Tel. 868-669-4806 E-mail rbaboolal@caa.gov.tt
Steve Saroop Manager CNS (Ag.)	CAA	Tel. 1 868 669 4302 Ext. 2502 E-mail ssaroop@caa.gov.tt
Ian Raphael Gomez Unit Chief ANS Safety	CAA	Tel. +(868)669-4806 Ext. 2504 E-mail igomez@caa.gov.tt
Neil Ali Manager - Aeronautical Information Management	CAA	Tel. 18686688222 ext. 2559 E-mail nali@caa.gov.tt
Steve Ramgoolam AIM Officer Technical Development and Training	CAA	Tel. 18686694128 E-mail sramgoolam@caa.gov.tt
United States		
Al O'Neill Telecommunications	FAA	Tel. 404-226-5363 E-mail al.o'neill@faa.gov
Will turner Telecommunications Engineer	FAA	Tel. 404-434-8187 E-mail will.ctr.turner@faa.gov
Linda McCray Air Traffic Control Specialist	FAA	Tel. 202-267-4099 E-mail lindaaurora@hotmail.com
Jorge Chades Oceanic & Offshore ATS SME	FAA	Tel. 202-267-1007 E-mail jachades63@aol.com
Rudolph (Rudy) Lawrence Air Traffic Control Specialist	FAA	Tel. 1 202-267-0116 E-mail rudolph.lawrence@faa.gov
Adacel Inc.		
Marcelo del Valle Hiayes Business Development Manager for Latin America and the Caribbean	Adacel Inc.	Tel. +44 7702 19 19 08 E-mail mhiayes@adacel.com
Collins		
Manny Gongora Account Manager, Latin America and Caribbean, Government Services	Collins	Tel. +1.786.266.1703 E-mail manuel.gongora@collins.com

E/CAR/CATG/7
List of Participants – Contact Information

iv – 3

Name / Position	Administration / Organization	Telephone / E-mail
MORCOM International Inc.		
Alejandra Bertrand Business Development Specialist	MORCOM International	Tel. +1 786 468 9457 E-mail abertrand@morcom.net
ICAO / OACI		
Luis Sánchez Aeronautical Meteorology and Environment Regional Officer	North American, Central American and Caribbean Office / Oficina para Norteamérica, Centroamérica y Caribe (NACC)	Tel. 5574741159 E-mail lsanchez@icao.int
Mayda Ávila Communications, Navigation and Surveillance Regional Officer	North American, Central American and Caribbean Office / Oficina para Norteamérica, Centroamérica y Caribe (NACC)	Tel. 5574741159 E-mail mavila@icao.int
Eddian Méndez Air Traffic Management and Search and Rescue Regional Officer	North American, Central American and Caribbean Office / Oficina para Norteamérica, Centroamérica y Caribe (NACC)	Tel. 5574741159 E-mail emendez@icao.int

Agenda Item 1: Adoption of the Provisional Agenda, Working Method and Schedule

1.1 The Secretariat presented WP/01 inviting the Meeting to approve the provisional agenda and schedule. The Meeting approved the agenda and schedule.

1.2 The documentation for the meeting is listed under IP/01.

Agenda Item 2: Review and follow-up to Conclusions/Decisions of E/CAR/CATG/5, NACC/WG and GREPECAS

2.1 Review and follow-up to Valid Conclusions/Decisions of the E/CAR/CATG

2.1.1 Under WP/02, the Secretariat reviewed with the different E/CAR/CATG Task Forces the decisions and conclusions of the previous E/CAR/CATG meetings.

2.1.2 According to the evaluation of the previous decisions and conclusion from the E/CAR/CATG/6 meeting, the following 4 decisions, and 1 conclusion were completed:

DECISION/CONCLUSION	NAME	STATUS
DECISION E/CAR/CATG/6/01	UPDATE OF E/CAR/COMMITTEE ACTIVITIES	COMPLETED
DECISION E/CAR/CATG/6/06	NEXT E/CAR/CATG/07 MEETING	COMPLETED
CONCLUSION E/CAR/CATG/5/04	EVALUATE NEEDS FOR BACKUP COMMUNICATION FOR the EASTERN CARIBBEAN STATES	COMPLETED
DECISION E/CAR/CATG/5/05	NEW RAPPORTEUR OF THE CATG AIM TASKS FORCE	COMPLETED
E/CAR/CATG/5/06	NEW RAPPORTEUR OF THE CATG AGA TASKS FORCE	COMPLETED

2.1.3 The following decisions are still valid:

DECISION/CONCLUSION	NAME	STATUS
DECISION E/CAR/CATG/6/02	COMPLETE A BASIC BUILDING BLOCKS (BBB) ASSESSMENT	VALID
DECISION E/CAR/CATG/6/03	DEVELOPMENT OF AN ASSESSMENT ON THE GLOBAL AIR NAVIGATION PLAN REGARDING ELEMENTS READY IN BLOCK 0 AND BLOCK 1	VALID
DECISION E/CAR/CATG/6/04	INFORMATION TO MEASURE AIR NAVIGATION IMPLEMENTATION IN EASTERN CARIBBEAN STATES ACCORDING TO THE REGIONAL DASHBOARD	VALID
DECISION E/CAR/CATG/6/05	UPDATE INFORMATION (TABLES) OF e-ANP VOLUME II	VALID

2.1.4 In addition, the need to update the work plan of each task force of the E/CAR CATG with the requirements of conclusions and decisions was discussed, especially the need to incorporate the E/CAR/CATG Task Forces into the for North America, Central America, and the Caribbean Working Group (NACC/WG).

2.2 Follow on Valid Conclusion and Decision of the NACC/WG, NACC/WG/RAP and GREPECAS

2.2.1 Under WP/03, the Secretariat summarized the status of all Decisions and Conclusions from previous meetings of the North American, Central American, and Caribbean Working Group (NACC/WG) and the Eleventh North American, Central American, and Caribbean Directors of Civil Aviation Meeting, information that has a direct impact over the E/CAR/CATG and their action plans.

2.2.2 **Appendix B** gathers the conclusions and decisions from other meetings that the E/CAR/CATG Task Forces must integrate under each action plan according to their area of expertise.

Agenda Item 3: Air Navigation Matters

3.1 Global/Regional Air Navigation Developments

3.1.1 Under WP/04 the Secretariat presented the Basic Building Blocks (BBBs) according to the new version of the Global Air Navigation Plan (GANP) Seventh Edition, their relationship with the ICAO Universal Safety Oversight Audit Programme (USOAP).

3.1.2 The BBBs outline the foundations of any robust air navigation system and identifies the essential services that must be provided to international civil aviation under ICAO standards. These essential services are defined in the areas of aerodromes, air traffic management, search and rescue, meteorology, and information management. In addition to essential services, the BBB framework identifies the end users of these services, as well as the assets (Communications, Navigation, and Surveillance [CNS] infrastructure) required to provide them.

3.1.3 As a regional strategy for the development of the air navigation plans of the CAR States and the identification of regional priorities, it is necessary to identify the implementation status of Air Navigation Services (ANS) through the evaluation of the BBB level of implementation. As a regional Working Group responsible for leading the implementation of ANS, the Eastern Caribbean Network Technical Group Meeting (E/CAR/NTG), Eastern Caribbean Regional Directors Meeting (E/CAR/RD) and Eastern Caribbean Civil Aviation Technical Group (E/CAR/CATG) must support the evaluation of the BBB through the different ANS committees.

3.1.4 The ICAO NACC Regional Office has developed a new format for the evaluation of these mandatory services, which can be found in WP/04. The format includes, in addition to ICAO documentation references, the USOAP Protocol Questions (PQs) related to the implementation of these services. Under **Appendix C** the new BBB evaluation document is provided.

3.2 New version of the Global Air Navigation Plan (GANP), 7th Edition

3.2.1 Under WP/05 the Secretariat presented information on Aviation System Block Upgrades (ASBU) elements and how they can help define the CAR Regional priorities and objectives and their operability with neighbouring States.

3.2.2 GANP is the tool to develop and prioritize the technical and operational work of the ICAO Programme; it is necessary that States, International Organizations, the industry, and all stakeholders utilize the GANP to plan and implement activities, establish priorities, targets, and indicators consistent with globally harmonized objectives, considering operational needs.

3.2.3 The Secretariat presented the ICAO NACC Strategy to develop regional and national objectives using the GANP Seventh Edition and indicated that the E/CAR subregion must develop an analysis of the implementation status of each ASBU element, which elements are currently operating, with their level of implementation, and the operationalization of each of their enablers. This analysis must be done for each ASBU element.

3.2.4 Appendix D shows the list of ASBU elements that need to be evaluated by the E/CAR States to complete the information on the status of ANS in this subregion.

3.3 Status of Air Navigation Services (ANS) implementation in the E/CAR States

3.3.1 Under WP/08, the Secretariat provided an evaluation of the Key Performance Indicators (KPIs) under the new GANP Seventh Edition that was approved in October 2022 at the 41st ICAO Assembly. The working paper provided an analysis, recommendations and suggested actions that will help establish the regional and national measurement mechanisms of the CAR States.

3.3.2 KPIs are quantitative means of measuring current/past performance, expected future performance as well as actual progress in achieving performance objectives. For ANS, they provide information to be reviewed by States on service performance and support decision-making for operational improvements. With the new version of the GANP, 23 different KPIs were defined, they can be found at this link: <https://www4.icao.int/ganpportal/ASBU/KPI>.

3.3.3 The Secretariat indicated that after evaluation of the BBBs and ASBU elements, it was necessary for the regional Working Group to establish regional requirements for obtaining this information in terms of the KPIs that are available and that can be assessed. In that sense, this area will be covered after ECCAA States complete the process of the evaluation of BBB and ASBU elements.

3.3.4 WP/06 presented information on the Decision of GREPECAS/20 which requested the evaluation of the actions required by the different NACC Task Forces to comply with the requirements of Volume III of the CAR/SAM Air Navigation Providers (ANP). The ICAO NACC and SAM Regional Offices carried out a series of guidance activities related to the project, intending to create awareness of the importance of the CAR/SAM ANP and to provide initial concepts that support the work for the establishment and start-up of a regional performance measurement system for ANS in the CAR/SAM Regions.

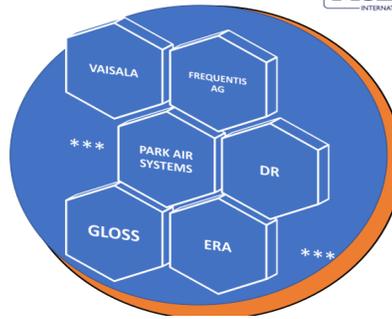
3.3.5 The implementation of Vol. III of the CAR/SAM ANP is a complex process that will bring significant benefits towards the transformation of the planning and implementation of the global air navigation system.

3.3.6 The initial version (0) of Vol. III of the CAR/SAM NPA is presented in the Appendix of WP/06, for States' evaluation. This process must be started by the E/CAR States at the same time as the evaluation of the KPI.

3.3.7 Under P/01, MORCOM International INC provided information on its projects, systems, and implementation in the air navigation area around the world, reporting that they have worked together with many different companies such as FREQUENTIS AG, FREQUENTIS-COMSOFT, and PARK AIR Systems and allowed to provide solutions for communications, air navigation data, MET and AIM Systems, also navigation and surveillance systems.

MORCOM PARTNERS

Leading manufactures in Aviation industry



Agenda Item 4: Follow-up of the Activities of the NACC/WG Task Forces

4.1 Progress reports of the AIM, AGA, ATM, CNS, MET and SAR Committees

4.1.1 Under WP/09 the Rapporteur of the AIM Committee reported the activities of this Group, indicating that the Committee had held virtual meetings with the States to discuss issues and challenges. The Committee updated the Points of Contact (POCs) of all the States

4.1.2 The Committee was informed that Trinidad and Tobago were experiencing an issue of unnecessary Filed Flight Plans (FPLs) being sent to their Flight Data Processor (FDP). It was indicated that this problem would be resolved in stages. Data was collected to determine the extent of the issue.

4.1.3 It was also noted that some States had had issues with missing FPLs and mailboxes were created that duplicated all FPLs entering the FDP and resending the FPLs mainly to the mailboxes of Barbados , French West Indies and Grenada. To resolve this issue, it was suggested that all FPLs going to the Piarco system be addressed solely to TTZPZQZX allowing them to go directly to the FDP. Departing flights transiting the Piarco FIR should also be addressed to the Control Centre.

4.1.4 The AIM Committee in their meeting informed the need to address the Quality management system (QMS) training among other training needs was identified.

4.1.5 Across the Eastern Caribbean there is a repeated occurrence of lack of human resources. Most, if not all the Aeronautical information service (AIS) Offices, are understaffed and would therefore be unable to address all the individual State's responsibilities, including developing all the necessary areas required to make a full transition to AIM.

4.1.6 Concerning ICAO documentation, some States do not have direct access to either the ICAO portal or the ICAO documents. In some instances, the documents are kept at the Ministry responsible for the Air Traffic Services. This situation needs to be addressed so that responsible operational officers including Air Traffic Controllers (ATCOs) and Aeronautical Information Service officers (AISOs) be able to access the documents, when necessary, to perform their functions efficiently.

4.1.7 The AIM Committee reported many different items that affect their activities. Actions were discussed during the final working session.

4.1.8 Under WP/19, the Secretariat provided information on the activities of the NACC/WG/AIM Task Force and indicated that additionally, the AIM Collaborative Plan for the CAR Region provided guidelines to the States for the implementation of the 21 steps of the roadmap, as well as the related requirements from Annex 15 and the PANS–AIM, which will be represented in the monitoring website (under development), through tables and graphs that express the progress of each State.

4.1.9 States that have not yet provided their information were encouraged to do so as soon as possible. The active participation of all States is expected to be reflected through the AIM website, which is to be deployed shortly. ICAO is in the process of releasing and publishing the following guides that complement some of the most important steps for the transition to AIM:

Manual Name	Availability
Quality management, incorporating the existing draft Guidance Manual Doc. 9839 (including Step-17 and Step-18)	Now available in draft version
AIM Training, incorporating the existing draft Orientation Manual Doc. 9991 (including Step-16)	
Aeronautical Information Exchange Model (including Step-08, Step -09, Step 10 and Step -19)	Pending by IM Panel
Electronic AIP, (including Step -11, which incorporates Step -15 and Step -20)	
SWIM Manual, Doc. 10039 - Draft, no Edited	Now available in draft version
Doc 9881 eTOD Manual has been canceled. Waiting for a new TOD Manual	Pending by IM Panel

4.1.10 Moreover, information was also provided on the progress in the AIS to AIM transition steps, and information was showed on the status of implementation of every State as follows:

Total Progress in the AIS to AIM Transition			
States	2020	2021	2022
Antigua and Barbuda	39%	39%	39%
Bahamas	42%	42%	42%
Barbados	51%	51%	51%
Belize	0%	0%	0%
Bermuda	0%	0%	75%
Canada	66%	66%	66%
Costa Rica	48%	48%	79%
Cuba	69%	69%	69%
Dominican Republic	79%	79%	79%
Dutch Caribbean: Curacao, BES, Aruba, Saint Martin	78%	86%	91%
El Salvador	0%	0%	0%
Grenada	0%	0%	0%
Guatemala	0%	0%	0%
Haiti	0%	0%	0%
Honduras	55%	64%	64%
Jamaica	52%	52%	52%
México	49%	49%	49%
Nicaragua	0%	0%	0%
St Kitts and Nevis	0%	0%	0%
St Lucia	0%	0%	0%
St Vincent and the Grenadines	0%	40%	40%
Trinidad and Tobago	64%	64%	77%
United States	85%	85%	85%
COCESNA	0%	0%	75%

4.1.11 Under P/02, the Secretariat presented the progress of the NACC/WG/MET Tak Force.

4.1.12 It was indicated that the general objectives of the NACC/WG/MET Task Force are:

- Promote the implementation of MET service for international air navigation as provided by Annex 3, included in the e-ANPs and under the BBBs and ASBU frameworks.

- Ensure the continuous and coherent development of the MET component of the NAM and CAR/SAM e-ANPs and their harmonized implementation within adjacent regions.
- Develop effective methods to determine the implementation status of the ASBU Block-0 and Block-1 elements and BBBs, to monitor the performance of the MET services on a cyclical annual basis.
- Enhance the States' capabilities concerning safety oversight of MET Service providers.
- Identify and support the resolution of air navigation deficiencies in the aeronautical meteorological (MET) services.

4.1.13 The preliminary results of the evaluation of the BBB in the MET area were presented.

4.1.14 the current SAR/TF rapporteur requested his replacement by another State in the region, but this proposal was not possible.

4.1.15 The Secretariat emphasized the need for Trinidad and Tobago to strengthen and provide greater leadership in SAR activities in the region.

4.1.16 Under WP/15, France presented information about SAR services in French Guiana and French West Indies and described a scenario for a regional exercise to be conducted in May 2024.

4.1.17 France indicated its areas of responsibilities: French Guiana, French West Indies, a Maritime Search and Rescue Region (SRR) under the responsibility of France has been established (red solid lines), the Maritime Rescue Coordination Centre (MRCC) is in Fort de France (Martinique - French West Indies). This centre is staffed with French Navy personnel who ensure permanent continuous watch.

4.1.18 ICAO and International Maritime Organization (IMO), both in Annex 12 and in the IAMSAR Manual, strongly emphasize the need for States to carry out SAR exercises and simulations, with which operations plans are tested and improved, as well as helping to highlight and evaluate the true effectiveness of the training, efficiency and competence of the SAR service in operations, highlighting the defects that the SAR plans may suffer, allowing identification and improvement.

4.1.19 The exercise consisted of One Airbus 320 departing from Cayenne, bound for Fort de France, then Pointe à Pitre crashes in FIR Cayenne (option 1), FIR Paramaribo (option 2), FIR Piarco (option 3-4), between TMA Martinique and TMA Guadeloupe (Option 5):

- Tabletop exercise: options 1-2-3-4
- Full-scale exercise: option 5

4.1.20 Under WP/16, Trinidad and Tobago presented information about PIARCO airspace optimization. Indicated that following the Fifth Eastern Caribbean Civil Aviation Technical Group Meeting (E/CAR/CATG/5), which took place online from 8-10 September 2021. The State provided comprehensive Performance Based Navigation (PBN) orientation training and briefings to those E/CAR States/Territories which requested assistance. Additional Information is provided in **Appendix F**.

4.1.21 This initiative forms part of the larger effort to optimize the lower airspace of the Piarco Flight Information Region (FIR) and promote seamless air traffic flow in the region. The primary objective of this exercise was to offer critical support to the E/CAR States, enabling them to address any challenges they may encounter with their individual airspace designs. By offering these tailored training sessions, Trinidad and Tobago aims to facilitate collaborative efforts that enhance the safety and efficiency of the regional airspace and promote a more harmonious air travel environment for all stakeholders involved.

4.2 E/CAR/NTG and E/CAR/RD Ad hoc Group Reports

4.2.1 The Rapporteur of the ECAR/NTG and ECAR/DR Task Force shared the scope of the last meeting of both groups, highlighting the need to work and evaluate the proper functioning of the E/CAR communications network and the development of a project proposal on surveillance.

Agenda Item 5: Other Business

5.1 Under WP/17, Trinidad and Tobago proposed an initiative to improve information sharing among the Eastern Caribbean Air Navigation Service Providers (ANSP) and stakeholders. The proposed initiatives to be undertaken to enhance the collaboration, coordination, and communication between Trinidad and Tobago's Piarco, the Terminal Control Areas (TMAs) of States within the E/CAR, States and Territories whose airspaces are adjacent to the Piarco FIR; during strategic, pre-tactical and tactical Air traffic flow management (ATFM) phases.

5.2 At the Third North American, Central American and Caribbean Working Group (NACC/WG) Air Traffic Flow Management Implementation Task Force (ATFM/TF) hybrid meeting, held in Mexico City and on-line, from 17 to 19 May 2022; the NACC/WG ATFM/TF approved the "ATFM Minimum Requirements for the Caribbean Region", and agreed that these requirements would be presented to GREPECAS. Part of these minimum requirements stated that all Area Control Centres (ACCs) of the CAR Region must provide ATFM services appropriate to the level of air traffic and suitable to meet the objectives of multilateral agreements.

5.3 At the Seventh North American, Central American and Caribbean Working Group Meeting (NACC/WG/7), held in Mexico City, 29 August to 1 September 2022, the Meeting agreed that, to ensure proper implementation and support for harmonized regional operations, the Secretariat would continue to develop the Proposal for Amendment, to include the minimum requirements for ATFM in the CAR Region into the CAR/SAM ANP.

5.4 Trinidad and Tobago proposes a Collaborative Decision Making (CDM) process that would promote an efficient flow of information between the Piarco Air Traffic Control Centre (ACC), the Terminal Control Areas (TMAs) of States within the E/CAR States and Territories, and other key organisations and stakeholders, during periods where there are imbalances between demand and capacity, and/or during Air Traffic Management (ATM) contingencies.

5.5 The initiative includes working with different information and providing this information to the different stakeholders to improve situational awareness in the ECAR subregion. This proposal was discussed during the working session.

Working Session

5.6 In response to the information presented during the meeting, the different groups that make up the E/CAR/CATG had the opportunity to meet individually with the following objectives:

1. Review information from the decisions of the Directors' meeting, GREPECAS, and the NACC/WG Rapporteurs' Group meeting.
2. In response to the different study notes presented during the meeting, each Group analysed how the information impacted the work agenda of each Group.
3. Update each action plan.

Results of the Work Session

5.7 The Different Committees that integrate the E/CAR/CATG reviewed the information of the Decisions and Conclusions from previous, meetings of the North American, Central American and Caribbean Working Group (NACC/WG) and Eleventh North American, Central American and Caribbean Directors of Civil Aviation meeting, information that has a direct impact over the E/CAR Groups and their action plans and decided to integrate the actions that corresponded in their respective action plan.

5.8 Concerning Conclusion NACC/WG/RP/02/08 “NACC/WG Structure Change”, participants discussed the challenges and opportunities to effectively integrate the NACC/WG. The Secretariat indicated that all the E/CAR/CATG Task Forces would benefit from this integration, especially:

1. to work more actively
2. to understand and have more information about regional objectives
3. to integrate the objectives and activities of the E/CAR in a better way to the NACC/WG
4. to take advantage of lessons learned from other States for the benefit of the E/CAR States.

5.9 The Secretariat indicated that the NACC/WG Structure was approved by the Eleventh North American, Central American and Caribbean Directors of Civil Aviation Meeting (NACC/DCA/11).

5.10 According to the discussion the following decision was made:

DECISION	
E/CAR/CATG/7/01	INTEGRATION OF ECAR/NTG, ECAR/RD AND ECAR/CATG UNDER THE NACC/WG
<p>What: That, taking into consideration the benefits of working more actively under the guidance of the North American, Central American and Caribbean Working Group (NACC/WG) the E/CAR/CATG Task Force be governed under the authority and leadership of the NACC/WG, considering that,</p> <p>a) the E/CAR/CATG will maintain the way it has been working up to now, always seeking the benefit of the Eastern Caribbean subregion;</p> <p>b) the E/CAR/CATG will integrate the requirements of the NACC/WG into the action plans of the various E/CAR/CATG Task Forces; and</p> <p>each E/CAR/CATG Task Force will report to the NACC/WG.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input checked="" type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Operational/Technical</p>
<p>Why: Because the States of the CAR region must work in an integrated manner to obtain the expected regional benefits</p>	
<p>When: Immediately</p>	<p>Status: <input type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input checked="" type="checkbox"/> Completed</p>
<p>Who: <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:</p>	

5.11 E/CAR States started working on the evaluation of the BBB with version 6 of the GANP, as it is necessary to update the information and follow the ICAO NACC Regional Office’s strategy in the development of the ANP.

5.12 The strategy includes the following activities:

- a) assess the BBBs as a first step, to establish the baseline of the State in terms of its air navigation implementation
- b) assess the ASBU elements in their "Ready to be implemented" maturity state, this evaluation will provide information about the ANS status implementation in the E/CAR
- c) assess the KPIs in the areas of air traffic and airport operations. States should evaluate which KPIs they can assess
- d) the States should collect data that will support them in measuring their KPIs and identifying the data needed to support decision-making on future implementations.

5.13 The Meeting made the following decision:

DECISION	
E/CAR/CATG/7/02	ACTION PLAN TO COMPLETE EVALUATION OF THE E/CAR STATES ON THE STATUS OF AIR NAVIGATION SERVICES IMPLEMENTATION
<p>What:</p> <p>As the E/CAR States approved the action plan proposed by ICAO on the development and evaluation of the status of the air navigation services that are in operation in the E/CAR States:</p> <ul style="list-style-type: none"> a) all E/CAR States that are pending an evaluation of the BBB provide the information in the areas of MET, AIM, SAR, and ATM to the ICAO Secretariat by March 2024. b) E/CAR States define an aerodrome with a significant level of international operations and be certified to complete a case study of the BBB and ASBU implementation by 30 April 2024; c) ICAO support an aerodrome case study on the BBB and ASBU evaluation by 30 May 2024. d) E/CAR States complete the evaluation of the ASBU elements by 30 January 2024. e) E/CAR States define Key regional performance indicators by 30 June 2024 <p>E/CAR States work on the development/update of their National Air Navigation Plan during 2024, to complete the draft version before the next E/CAR/CATG meeting.</p>	<p>Expected impact:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input type="checkbox"/> Operational/Technical
<p>Why: establishing a foundation for the development of coherent planning for efficient and safe aviation development is a priority for the Eastern Caribbean.</p>	

5-4

When:	a) March 2024 b) 30 April 2024 c) 30 May 2024 d) January 2024 e) 30 June 2024 f) 2024 E/CAR/CATG Meeting	Status: <input checked="" type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed
Who:	<input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:	ECAR States, ICAO NACC

5.14 With regard to the e-ANP Volume III, the following decision was adopted:

DECISION	
E/CAR/CATG/7/03	SUPPORT TO THE DEVELOPMENT OF THE e-ANP VOLUME III
What:	Expected impact:
That: a) States provide the necessary information to ICAO by 30 July 2024 to begin updating the information required for the development of volume III of the electronic Air Navigation Plan : as per the format in Appendix D; and. b) ICAO integrate the information according to the e-ANP Volume III format and c) a) ICAO update the e-ANP Volume I and II during the process.	<input type="checkbox"/> Political / Global <input checked="" type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Operational/Technical
Why: it is important to update and provide information on the regional objectives.	
When: 30 July 2024	Status: <input type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed
Who: <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:	ECAR States, ICAO NACC

5.14 The Meeting endorsed the proposal of the E/CAR/NTG and ECAR/RD on the elaboration of a multi-regional project aimed at providing surveillance data to the areas in the E/CAR States lacking surveillance data, thus improving situational awareness. The Meeting recommended the creation of a Multi-regional Working Group composed of various stakeholders from the E/ CAR States. The Meeting adopted the following Decision:

DECISION	
E/CAR/CATG/7/04	CREATION OF AN AD HOC GROUP TO DEVELOP AN ADS-B IMPLEMENTATION PROJECT FOR THE E/CAR STATES
What:	Expected impact:
That, a regional ADS-B Adhoc Group be created to develop an ADS-B implementation project proposal that covers all airspace in the E/CAR States that do not have ATS surveillance coverage.	<input type="checkbox"/> Political / Global <input checked="" type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental

		<input checked="" type="checkbox"/> Operational/Technical
Why: Provision of information and to collaborate ADS-B information among all ECAR States.		
When: E/CAR/CATG/8	Status: <input checked="" type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed	
Who: <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:	ECAR States, ICAO NACC	

5.15 The Meeting highlighted that information from ICAO on air navigation issues, meetings, and others does not reach all the members of the E/CAR/CATG Working Group, including its rapporteurs, which prevents information sharing and often limits the participation of these personnel in the different activities. In that sense, the following decision was made:

DECISION E/CAR/CATG/7/5		IMPROVE COMMUNICATION MECHANISM ON ICAO EVENT INFORMATION AND DOCUMENTATION TO THE PoC OF THE E/CAR STATES
What: That, as the technical and operational points of contact do not receive information about ICAO events, documents, and important meetings in which the Eastern Caribbean States need to participate a) each Eastern Caribbean State send the aforementioned information to the official Point of Contact. b) ICAO update the E/CAR States distribution list.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input type="checkbox"/> Operational/Technical	
Why: It is important to ensure that all ICAO-related information is communicated to ECAR States promptly.		
When: 30 January, 2024	Status: <input type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed	
Who: <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:	ECAR States, ICAO NACC	

5.16 During the AIM session, the need to improve training in the personnel of that area including MET personnel was discussed. The Meeting indicated that it was needed to improve training at different levels especially to support QMS certification in the areas and agreed to the following Decision:

DECISION	
E/CAR/CATG/7/6	SUPPORT TRAINING IN QMS OF THE AIM AND MET PERSONNEL OF THE EASTERN CARIBBEAN STATES
What: <p>That, Personnel of the areas of AIM and MET have the necessary training to promote the implementation of a data quality certification system (QMS) in these areas. In this sense, the E/CAR AIM and MET Committees to work together with the NACC/WG/AIM and NACC/WG/MET Task Forces to develop a strategy to cover this need.</p>	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input type="checkbox"/> Operational/Technical
Why: <p>It is important to certify the quality of aeronautical information.</p>	
When: ECAR/CATG/8	Status: <input type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed
Who: <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:	ECAR States, ICAO NACC

5.17 Finally, due to the retirement of Mrs. Veronica Ramdath, Mr. Stevee Saroop was ratified as rapporteur of the E/CAR/NTG and E/CAR/RD and the following Decision was made:

DECISION	
ECAR/CATG/7/7	NEW ECAR/NTG, ECAR/RD RAPPORTEUR
What: <p>The Meeting approves Mr. Steve Saroop as the new Rapporteur of the CNS Group of the E/CAR/ NTG and E/CAR/RD.</p>	Expected impact: <input type="checkbox"/> Political / Global <input checked="" type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Operational/Technical
Why: CNS needs good leadership and coordination over all ECAR States.	
When: Immediately	Status: <input type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed
Who: <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:	E/CAR/States

DECISION E/CAR/CATG/7/01		INTEGRATION OF ECAR/NTG, ECAR/RD AND ECAR/CATG UNDER THE NACC/WG	
What: That, taking into consideration the benefits of working more actively under the guidance of the North America, Central America, and Caribbean Working Group (NACC/WG) the ECAR/CATG Task Force will be governed under the authority and leadership of the NACC/WG, and the following should be considered:		Expected impact: <input type="checkbox"/> Political / Global <input checked="" type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Operational/Technical	
a) ECAR/CATG will maintain the way it has been working up to now, always looking for the benefit of the eastern Caribbean region. b) It will integrate the requirements of the NACC/WG into the action plans of the various ECAR/CATG Task Forces. c) Each ECAR/CATG Task Force will report to the NACC/WG.			
Why: Because the States of the CAR region must work in an integrated manner to obtain the expected regional benefits			
When: Immediately		Status: <input type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input checked="" type="checkbox"/> Completed	
Who: <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:			

DECISION E/CAR/CATG/7/02		ACTION PLAN TO COMPLETE EVALUATION OF THE E/CAR STATES ON THE STATUS OF AIR NAVIGATION SERVICES IMPLEMENTATION	
What: That, ECAR States approved the action plan proposed by ICAO NACC on the development and evaluation of the Status of the Air Navigation Services that are in operation in the Eastern Caribbean States, in that sense, Status must complete the following actions:		Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input type="checkbox"/> Operational/Technical	
a) All States that are pending an evaluation of the BBB will provide the information in the areas of MET, AIM, S&R, and ATM by March 2024. b) ECAR States will define an aerodrome with a huge international operation and be certified to complete a case study of the BBB and ASBU implementation by 30 April 2024. c) ICAO NACC supports aerodrome case study on the BBB and ASBU evaluation by 30 May 2024. d) ECAR States complete the evaluation of the ASBU elements by 30 January 2024.			

<p>e) Define Key regional performance indicators by 30 June 2024</p> <p>f) And work on the development/update of their National Air Navigation Plan during 2024, to complete the draft version before the next ECAR/CATG meeting.</p>	
<p>Why: establishing a foundation for the development of coherent planning for efficient and safe aviation development is a priority for the eastern Caribbean region.</p>	
<p>When: 30 August 2024</p>	<p>Status: <input type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed</p>
<p>Who: <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:</p>	<p>ECAR States, ICAO NACC</p>

<p>DECISION E/CAR/CATG/7/03 SUPPORT TO THE DEVELOPMENT OF THE e-ANP VOLUME III</p>	
<p>What:</p> <p>That, States shall provide the necessary information from their States to begin updating the information required for the development of the electronic air navigation plan volume III. In that sense:</p> <p>a) States will work with ICAO NACC Regional Office according to Appendix D to update the State information.</p> <p>b) ICAO will integrate the information of the States according to the e-ANP Volume III format.</p> <p>c) The e-ANP Volume I and II will be updated during the process.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input checked="" type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Operational/Technical</p>
<p>Why: it is important to update and provide information on the regional objectives.</p>	
<p>When: July 30th, 2024</p>	<p>Status: <input type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed</p>
<p>Who: <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:</p>	<p>ECAR States, ICAO NACC</p>

<p>DECISION E/CAR/CATG/7/04 CREATION OF AN AD HOC GROUP TO DEVELOP AN ADS-B IMPLEMENTATION PROJECT FOR THE E/CAR STATES</p>	
<p>What:</p> <p>That, a regional ADS-B ad-hoc task force will be created to develop an ADS-B implementation projects team to development a project proposes to cover all areas in the ECAR States that do not have surveillance coverage.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global</p> <p><input checked="" type="checkbox"/> Inter-regional</p> <p><input type="checkbox"/> Economic</p> <p><input type="checkbox"/> Environmental</p> <p><input checked="" type="checkbox"/> Operational/Technical</p>

Why: It is important to provide information and to collaborate ADS-B information among all ECAR States.	
When: Report to ECAR/CATG/8	Status: <input type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed
Who: <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:	ECAR States, ICAO NACC

DECISION E/CAR/CATG/7/5		IMPROVE COMMUNICATION MECHANISM ON ICAO EVENT INFORMATION AND DOCUMENTATION TO THE PoC OF THE E/CAR STATES
What: That, the Technical and operational points of contact do not receive information about ICAO events, documents, and Important meetings in which the Eastern Caribbean States need to participate in. In that sense, after an evaluation was done, it was found that there is a need to improve communication with the Eastern Caribbean States. The following actions are recommended: a) Each Eastern Caribbean States will send the information of the Official Point of Contact. b) ICAO NACC will update the distribution list for ECAR States communication.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input type="checkbox"/> Operational/Technical	
Why: It is important to ensure that all ICAO-related information is communicated to ECAR States promptly.		
When: January 30th, 2024	Status: <input type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed	
Who: <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:	ECAR States, ICAO NACC	

DECISION E/CAR/CATG/7/6		SUPPORT TRAINING IN QMS OF THE AIM AND MET PERSONNEL OF THE EASTERN CARIBBEAN STATES
What: That, Personnel of the areas of AIM and MET have the necessary training to promote the implementation of a data quality certification system (QMS) in these areas. In this sense, the AIM and MET Task Group must work together with the NACC/WG/AIM and NACC/WG/MET Task Groups to develop a strategy to cover this need.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input type="checkbox"/> Operational/Technical	
Why:		

It is important to certify the quality of aeronautical information.	
When: ECAR/CATG/8	Status: <input type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed
Who: <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:	ECAR States, ICAO NACC

DECISION	
ECAR/CATG/7/7	NEW ECAR/NTG, ECAR/RD RAPPORTEUR
<p>What:</p> <p>That, due to the retirement of Mrs. Veronica Ramdath, it is necessary to have a person responsible for the Task Groups in the CNS area. In this sense, the meeting approved that Mr. Steve Saroop, as the new rapporteur of the CNS Groups of ECAR/ NTG and ECAR/RD.</p>	<p>Expected impact:</p> <p><input type="checkbox"/> Political / Global <input checked="" type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Operational/Technical</p>
Why: CNS needs good leadership and coordination over all ECAR States.	
When: Immediately	Status: <input type="checkbox"/> Valid / <input type="checkbox"/> Superseded / <input type="checkbox"/> Completed
Who: <input checked="" type="checkbox"/> States <input checked="" type="checkbox"/> ICAO <input type="checkbox"/> Other:	ECAR/States

ATTACHMENT E

TEMPLATE APPROVED BY THE COUNCIL

CAR/SAM AIR NAVIGATION PLAN

VOLUME III

INITIAL VERSION (VERSION 0)

CAR/SAM AIR NAVIGATION PLAN

VOLUME III

TABLE OF CONTENTS

PART 0 — Introduction	
PART I — General Planning Aspects (GEN)	
PART II – Performance Management Planning and ANS Implementation (PMP)	
Table PMP III-1 – Strengths, weakness, opportunities and threads in the (NAME) Region	
Table PMP III-2 – List of performance objectives by KPA for the (NAME) Region	
Table PMP III-3 – List of KPIs by performance objective and KPA for the (NAME) Region	
Table PMP III-4 – Performance baseline within the (NAME) Region	
Table PMP III-5 – Performance targets and needs within the (NAME) Region	
Table PMP III-6 – Selected ASBU Elements / Operational Improvements for the (NAME) Region	
Table PMP III-7 – Status of deployment of the selected operational improvements of the ASBU elements / Operational Improvements for the (NAME) Region	
Table PMP III-8 – Performance benefits accrued form the implementation of the selected ASBU elements / Operational Improvements for the (NAME) Region	
Table PMP III- (NAME Region) - 1 – List of CTA/TMA in the (NAME) Region	

CAR/SAM ANP, VOLUME III

PART 0 – INTRODUCTION

1. INTRODUCTION

1.1 The background to the publication of ANPs in three volumes is explained in the Introduction in Volume I. The procedure for amendment of Volume III is also described in Volume I. Volume III contains dynamic/flexible plan elements related to the application of a performance-based approach for a cost-effective and benefit-driven modernization of the air navigation system in line with the Global Air Navigation Plan (GANP).

1.2 Collaborative decision-making is key for a cost-effective modernization of the air navigation system and ensures that all concerned aviation stakeholders are involved and given the opportunity to influence decisions in order to reach defined performance objectives. Volume III guides the aviation community in the application of performance management process and identification of relevant and timely operational improvements to a given region's air navigation system including some within the Aviation System Block Upgrade (ASBU) framework.

1.3 The information contained in Volume III is, therefore, related to:

- Planning: objectives, priorities, targets and needs planned at regional or sub-regional levels;
- Monitoring and reporting: performance and implementation monitoring of the agreed targets. This information should be used as the basis for reporting purposes (i.e.: global and regional air navigation reports and performance dashboards); and/or
- Guidance: providing regional guidance material for the implementation of specific system/procedures in a harmonized manner.

1.4 GREPECAS is responsible for managing and updating Volume III on a regular basis.

CAR/SAM ANP, VOLUME III
PART I - GENERAL PLANNING ASPECTS (GEN)

1. PLANNING METHOD

1.1 A performance-based approach is results-oriented, helping decision makers set priorities and determine appropriate trade-offs that support optimum resource allocation while maintaining an acceptable level of safety performance and promoting transparency and accountability among stakeholders.

1.2 The Thirteenth Air Navigation Conference recommended the ICAO encourage the planning and implementation regional groups (PIRGs) to embrace a performance-based approach for implementation and adopt the six-step performance management process, as described in the Manual on Global Performance of the Air Navigation System (Doc 9883), by reflecting the process in Volume III of all regional air navigation plans. Recommendation 4.3/1 — Improving the performance of the air navigation system refers.

1.3 Although there are several ways to apply a performance-based approach, ICAO advocates for a globally harmonized performance management process based on six well-defined steps. The goal of this cyclic six-steps method is to identify optimum solutions based on operational requirements and performance needs so that the expectations of the aviation community can be met by enhancing the performance of the air navigation system and optimizing allocation and use of the available resources.

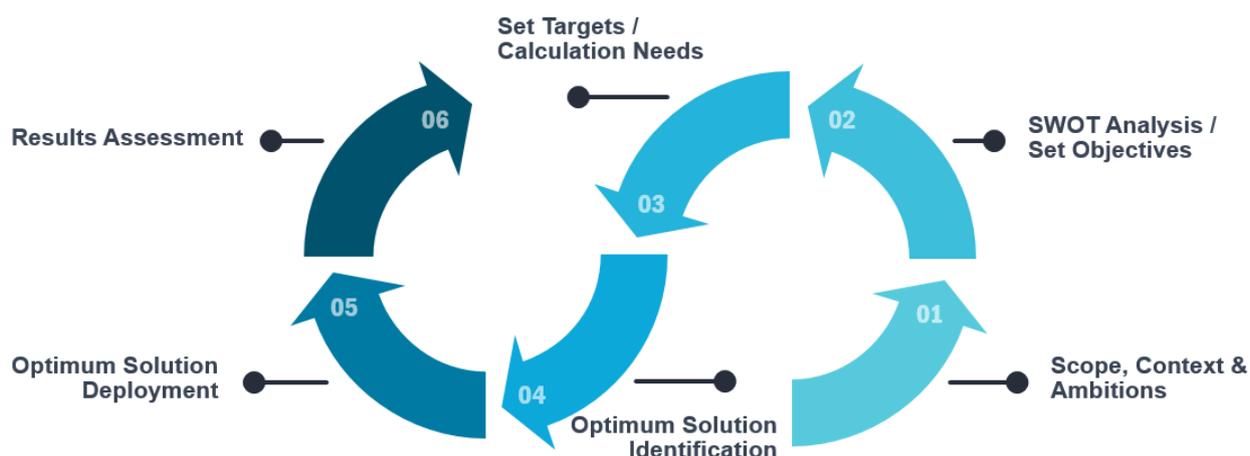


Figure 1 Six-step performance management process

1.4 Steps 1 and 2 serve to know your system, its strengths, weakness, opportunities and threats as well as how it is performing in order to set objectives. The catalogue of performance objectives that is part of the GANP global performance framework facilitates the definition of objectives.

1.5 Based on these objectives, targets can be set in step 3. An analysis of this data leads to the identification of potential solutions, in step 4, to achieve the targets by addressing the weakness and threats of the system. Once a set of potential solutions have been identified, a cost-benefits analysis, environmental impact assessment, safety assessment and human factor assessment should be performed to identify the optimum solution. In the GANP performance framework, a list of KPIs, linked to the relevant objectives in the performance objectives catalogue, is provided to set targets through the quantification of objectives (See list below). A list of potential solutions to be consider as part of step 4 is the ASBU framework with its functional description of the operational improvements and their associated performance benefits.

KPI01	Departure punctuality	KPI11	Airport throughput efficiency
KPI02	Taxi-out additional time	KPI12	Airport/Terminal ATFM delay
KPI03	ATFM Slot adherence	KPI13	Taxi-in additional time
KPI04	Filed flight plan en-route extension	KPI14	Arrival punctuality
KPI05	Actual en-route extension	KPI15	Flight time variability
KPI06	En-route airspace capacity	KPI16	Additional fuel burn
KPI07	En-route ATFM delay	KPI17	Level-off during climb
KPI08	Additional time in terminal airspace	KPI18	Level capping during cruise
KPI09	Airport peak capacity	KPI19	Level-off during descent
KPI10	Airport peak throughput		

1.6 Step 5 manages a coordinated deployment of the agreed solution by all stakeholders based on the previous steps. Regional plans might need to be developed for the deployment of solutions by drawing on supporting technology requirements.

1.7 Finally, step 6 consists of monitoring and reporting the performance of the system after the full deployment of the solution.

1.8 This is an iterative planning process, which may require repeating several steps until a final plan with specific regional targets is in place. This planning method requires full involvement of States, service providers, airspace users and other stakeholders, thus ensuring commitment by all for implementation.

Review and evaluation of air navigation planning

2.1. The progress and effectiveness against the priorities set out in the regional air navigation plans should be annually reported, using a consistent reporting format, to ICAO.

2.2. Performance monitoring requires a measurement strategy. Data collection, processing, storage and reporting activities supporting the identified global/regional performance metrics are fundamental to the success of performance-based approaches.

2.3. The air navigation planning and implementation performance framework prescribes reporting, monitoring, analysis and review activities being conducted on a cyclical, annual basis.

Reporting and monitoring results

2.4. Reporting and monitoring results will be analyzed by the PIRGs, States and ICAO Secretariat to steer the air navigation improvements, take corrective actions and review the allocated objectives, priorities and targets if needed. The results will also be used by ICAO and aviation partner stakeholders to develop the annual Global Air Navigation Report. The report results will provide an opportunity for the international civil aviation community to compare progress across different ICAO regions in the establishment of air navigation infrastructure and performance-based procedures.

2.5. The reports will also provide the ICAO Council with detailed annual results on the quality of service provided worldwide as well as the performance areas which require more attention. This will serve as input for the triennial policy adjustments to the GANP and its priorities.

CAR/SAM ANP, VOLUME III

PART II – PERFORMANCE MANAGEMENT PLANNING AND ANS IMPLEMENTATION (PMP)

1. STEP 1: DEFINE SCOPE, CONTEXT AND SET AMBITIONS

General

1.1 The purpose of Step 1 is to reach a common agreement on the scope and (assumed) context of the regional air navigation system on which the performance management process will be applied, as well as a common view on the general nature of the expected performance improvements.

Geographical scope

1.2 The geographical scope is defined in Volume I and in particular in the following tables:

- Table GEN I-1 — List of Flight Information Regions (FIR)/Upper Information Regions (UIR) in the Region
- Table ATM I-1 — Flight Information Regions (FIR)/Upper Flight Information Regions (UIR) of the Region
- Table SAR I-1 — Search and Rescue Regions (SRR) of the Region
- Table AOP I-1 — International aerodromes required in the Region (main City Pairs?)
- Table PMP III CAR/SAM - 1 – List of CTA/TMA in the Region

(Optional. Please note that, if it is decided that this level of granularity is required in the Region, the rest of the performance management process will be applied at this level of granularity for consistency purposes. If this table is not developed, the PMP will be applied at an FIR level)

Homogeneous areas and/or major traffic flows

1.3 The homogeneous ATM areas and major traffic flows/routing areas identified are given in:

- Table GEN II-1 — Homogeneous areas and major traffic flows identified in the Region

Time Horizon

1.4 Volume III of the CAR/SAM ANP provides short term (5 years) and medium term (10 years) implementation planning.

Traffic forecast

1.5 A uniform strategy has been adopted by ICAO for the purpose of preparing traffic forecasts and other planning parameters in support of the regional planning process.

- (include traffic forecast for the Region from ATB)

1.6 In the CAR/SAM Region, in addition to the ICAO forecast, the following forecast from (source) is used for planning purposes. (if applicable)

Political (high level) ambitions

1.7 The expectations of the global aviation community are defined in 11 Key Performance Areas (KPA). The GANP considers all these areas through the performance ambitions. Although all these areas are equally important, as they are interrelated and cannot be considered in isolation, some areas are more visible to society than others.

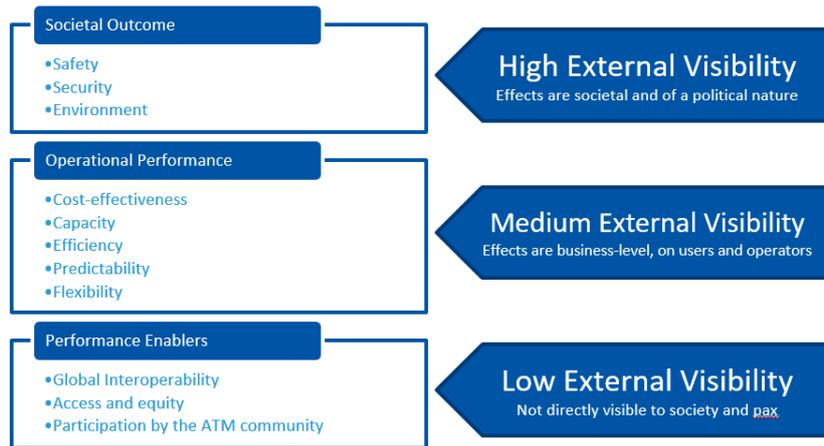


Figure 2 The 11 KPAs of the GANP

1.8 The regional air navigation plan public’s perception of safe air travel is key to the prosperity of the aviation sector, which is why, safety is critical when planning the implementation of air navigation operational improvements. To determine if these improvements can be implemented in a safe manner, a safety risk assessment provides information to identify hazards that may arise from, for example:

- a) any planned modifications in airspace usage;
- b) the introduction of new technologies or procedures; or
- c) the decommissioning of older navigational aids.

1.9 A safety risk assessment also enables the assessment of potential consequences. Based on the results of a safety risk assessment, mitigation strategies may be implemented to ensure that an acceptable level of safety performance is maintained. Any operational improvement should be implemented only on the basis of a documented safety risk assessment.

1.10 Fatalities resulting from acts of unlawful interference also affect the public’s perception of aviation safety. The cumulative improvements to aviation security globally enhance the safety, facilitation and operational aspects of the international civil aviation system.

1.11 Some safety and environment considerations can be found in Volume I.

1.12 After political consultation the following set of performance ambitions have been prioritized within the (*NAME*) Region, (*DECLARATION*) refers.

- (*include the set of ambitions in a set of KPAs*)

2. STEP 2: KNOW YOUR SYSTEM – SWOT ANALYSIS AND REGIONAL OBJECTIVES

General

2.1 The purpose of Step 2 is to develop a detailed understanding of the performance behaviour of the system (this includes producing a list of opportunities and issues), and to decide which specific performance aspects are essential for meeting the general expectations. The essential performance aspects are those which need to be actively managed (and perhaps improved) by setting performance objectives.

SWOT analysis

2.2 A SWOT analysis allows the development of an inventory of present and future opportunities and issues (weaknesses, threats) that may require performance management attention.

2.3 A SWOT analysis, requires the identification of:

- Strengths: internal attributes of a system or an organization that can help in the realization of ambitions or in meeting expectations.

- Weaknesses: internal attributes of a system or an organization that are a detriment to realizing ambitions or meeting expectations.
- Opportunities: are external conditions that help in the realization of ambitions or in meeting expectations.
- Threats: external conditions that are a detriment or harmful to realizing ambitions or meeting expectations.

2.4 Once the strengths, weakness, opportunities and threats are identified, action can be taken to target and exploit or remove these factors. The SWOTs in the CAR/SAM Regions can be found in **Table PMP III-1**.

Regional objectives

2.5 The performance framework of the GANP includes a catalogue of performance objectives to facilitate the definition of objectives. Considering the objectives defined in the catalogue and based on the SWOT analysis, the CAR/SAM Regions defines, within the key performance areas prioritize in step 1, the objectives within **Table PMP III-2** to be pursued by the States within the Region.

3. STEP 3: QUANTIFY OBJECTIVES, SET TARGETS AND CALCULATE NEEDS

General

3.1 The purpose of Step 3 is to ensure that objectives are specific, measurable, achievable, relevant and time-bound (SMART) so that targets can be set and needs calculated.

List of regional indicators

3.2 The way to ensure that objectives are specific and measurable is by defining indicators. Indicators are the means to quantitatively express performance as well as actual progress in achieving performance objectives. Indicators need to be defined carefully:

- Since indicators support objectives, they should not be defined without having a specific performance objective in mind.
- Indicators are not often directly measures. They are calculated from supporting metrics according to clearly defined formulas. This leads to a requirement for cost data collection and flight data collection. If there is a problem with data availability to calculate these supporting metrics:
 - Set up the appropriate data reporting flows and/ or modelling activities, to ensure all supporting metrics are populated with data as required to calculate the indicator(s) associated with the objective; or
 - If this is not possible, aim for a different kind of performance improvement, by choosing a different performance objective, as constrained by data availability.



3.3 In order to facilitate this task, ICAO has defined a series of KPIs link to the catalogue of performance objectives within the 11KPA. The ICAO KPIs associated to the performance objectives in the CAR/SAM Regions are in **Table PMP III- 3**.

Performance baseline in the CAR/SAM Regions

3.4 The only way of knowing an operational environment and identifying the existence of a problem is by collecting, processing and analysing data. The value of these indicators would be your performance baseline. The performance baseline for the CAR/SAM Regions can be found in **Table PMP III-4**.

Regional targets and calculation of needs

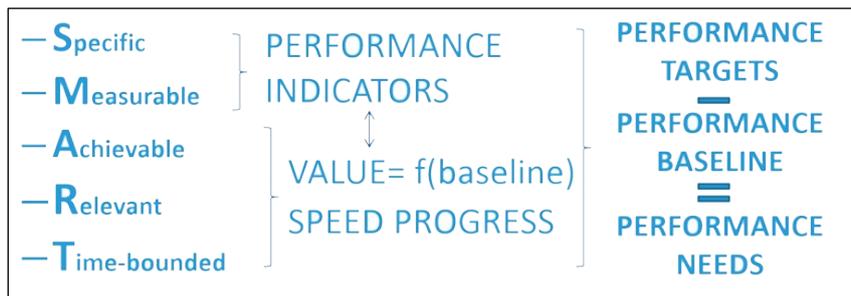
3.5 Performance targets are closely associated with performance indicators, they represent the values of performance indicators that need to be reached or exceeded to consider a performance objective as being fully achieved.

3.6 To understand how challenging it is to reach your target, you should know your performance baseline. The difference between the baseline and the target is called the needs/performance gap.

3.7 The time available to achieve performance objectives is always limited. Therefore, targets should always be time-bounded.

3.8 The target and the time available to reach the target determine the required speed of progress for the performance objective. Care should be taken to set target so that the required speed of progress is realistic.

3.9 Based on the information submitted and after consideration by all stakeholders, the targets and needs in **Table PMP III-5** have been agreed for the CAR/SAM Regions.



4. STEP 4: SELECT SOLUTIONS

General

4.1 The purpose of this step is to combine the knowledge of baseline performance, opportunities and issues with the performance objectives and targets, in order to make decisions in terms of priorities, trade-offs, selection of solutions and resource allocation. The aim is to optimize the decisions to maximize the achievement of the desired/required (performance) results.

Select solutions

4.2 Based on the agreed targets, States should perform a SWOT analysis at each operational environment to develop an inventory of present and future opportunities and issues that may require attention. The list then needs to be analyzed in a performance oriented way, to assess/ quantify the impact of drivers, constraints, impediments, etc. on the objectives under consideration. To what extent, when and under which conditions do these contribute to or prevent the required performance improvements.

4.3 States should consider the operational improvements (ASBU elements) within the ASBU framework as potential solutions to improve the selected objectives/KPIs in the operational environment under analysis. In order to help States with this task, ICAO has developed the Air Navigation System Performance Analysis (AN-SPA) tool, available for free at: <https://www4.icao.int/ganportal/ANSPA/Reports>

4.4 Please note that the ASBUs are a list of potential solutions and therefore it might happen that the optimum solution for the operational environment under analysis is not within this list.

4.5 Once a list of potential solutions has been developed, it is important to do a safety assessment and an environmental impact assessment to analyze the feasibility of implementing that specific solution in the operational environment under analysis. ICAO has developed the following guidance to assist States to perform a safety assessment and an environmental impact assessment:

4.5.1 Safety assessment:

4.5.1.1 The 4th edition of the Safety Management Manual (SMM), was updated and published in October 2018 to provide supporting guidance for Amendment 1 to Annex 19 – Safety Management, including:

- Upgraded provisions for the protection of safety data, safety information and related sources;
- Integration of the 8 critical elements into the State Safety Programme (SSP) components; and
- Enhanced provisions for Safety Management System (SMS).

4.5.1.2 It also provides expanded guidance on the scope of Annex 19 its applicability, including discretionary SMS applicability, as well as the development of safety intelligence. In addition, to address the needs of the diverse aviation community implementing safety management and following a recommendation stemming from the 2nd High-level Safety Conference (HLSC/2015), the Safety Management Implementation (SMI) public website (www.icao.int/SMI) has been launched to complement the SMM. The SMI website serves as a repository for the sharing of practical examples, tools and educational material, which are being collected, validated and posted on an ongoing basis to support the effective implementation of SSP and SMS. An e-book version of the SMM in all ICAO languages is also available on the website.

4.5.2 Environmental impact assessment guidance:

4.5.2.1 This guidance identifies high-level principles that facilitate the robust definition and application of specific assessment approaches, methodologies and their respective metrics. The focus of these principles is on changes that relate to aircraft and ATM operational initiatives and may involve all phases of flight (e.g. Gate-to-Gate). The general principles of this guidance can be applicable to air navigation aspects arising from infrastructure proposals and major changes to airspace capacity or throughput, as well as operational changes. While the boundaries of an air navigation services environmental analysis are based on the needs of the study, for the purposes of this guidance material “air navigation services environmental assessment” is to be interpreted in the broadest possible sense and refers to impacts arising from changes to where, when, and how aircraft are operated.

https://store.icao.int/catalogsearch/result/?category_id=2&q=10031

4.5.2.2 Once the feasibility study has been done, we will still need to do a cost-benefit analysis to identify the optimum solution/s. ICAO has developed some guidance and a tool to assist you on this task:

4.5.3 Cost-benefit analysis:

<https://data.icao.int/cba>

4.5.3.1 Once the optimum solution(s) has(ve) been identified, States should report them to ICAO and they are reflected in **Table PMP III-6**.

5. STEP 5: IMPLEMENT SOLUTIONS

General

5.1 Step 5 is the execution phase of the performance management process. This is where the changes and improvements that were decided upon during the previous step are organized into detailed plans, implemented, and begin delivering benefits.

Select solutions

5.2 Once the optimum solution/s has/have been identified, it is the moment to start the execution phase of the performance management process. This is where the changes and improvements that you decided were the optimum solution for your problem during the previous steps are organized into plans, implemented and begin delivering services to achieve the expected performance. During this execution phase, it is important to keep track of the project deployments (time, budget, ...).

5.3 Depending on the mature and magnitude of the change, this could mean:

- In the case of small-scale changes or day-to day management:
 - Assigning management responsibility for the implementation to an individual;
 - Assigning responsibility and accountability for reaching a performance target to an individual or organization
- In the case of major or multi-year changes:
 - Refining the roadmap of selected solutions into a detailed implementation plan, followed by the launching of implementation projects
 - Ensure that each individual implementation project is operated in accordance with the performance-based approach. This means launching and executing the performance management process at the level of individual projects. Each project derives its scope, context and expectations (see Step 1 of the process) from the overall implementation plan.

5.4 This can imply to overcome high-level political challenges, find funding and resources or look for external technical support.

5.5 In this step, States are expected to report on the status on the implementation by updating **Table PMP III-7**.

6. STEP 6: ASSESS ACHIEVEMENTS

General

6.1 The purpose of Step 6 is to continuously keep track of performance and monitor whether performance gaps are being closed as planned and expected.

Assess achievements

6.2 Once the project is implemented, it is time to assess the benefits from the implementation. This means measuring the performance of the operational environment under analysis once the solution/s has/have been deployed.

6.3 The purpose of this step is to continuously keep track of performance and monitor whether performance gaps are being closed as planned and expected.

6.4 First and foremost, this implies data collection to populate the supporting metrics with the data needed to calculate the performance indicators. The indicators are then compared with the targets defined during Step 3 to draw conclusions on the speed of progress in achieving the objectives.

6.5 This step also includes monitoring progress of the implementation projects, particularly in those cases where the implementation of solutions takes several years, as well as checking periodically whether all assumptions are still valid and the planned performance of the solutions is still meeting the (perhaps changed) requirements.

6.6 With regard to the review of actually achieved performance, the output of this step is simply an updated list of performance gaps and their causes. In practice, the scope of the activity is often interpreted as being much wider and includes recommendations to mitigate the gaps.

6.7 This is then called performance monitoring and review, which in addition to this step, includes step 1, 2 and 3.

6.8 For the purpose of organizing performance monitoring and review, the task can be broken down into five separate activities:

- Data collection
- Data publication
- Data analysis
- Formulation of conclusions; and
- Formulation of recommendations.

6.9 States should report on the benefits accrued from the implementation of the solutions in **Table PMP III-8**. This would constitute the baseline for the next iteration of the performance management process.

Table PMP III-CAR/SAM-1 – List of CTA/TMA in the CAR/SAM Region

EXPLANATION OF THE TABLE

Column

- 1 States in **Table GEN I-1**
- 2 List of FIRs by State within **Table ATM I-1**.
- 3 CTAs/TMAs
- 4 Remarks

Column		
1	STATE	Name of State
2	FIR/UIR	Name of FIR/UIR
3	CTA/TMA	Name of CTA/TMA
4	Remarks	Remarks, notes

STATE	FIR/UIR	UTA/CTA/TMA	Remarks
1	2	3	4
France – French Antilles (St Barthelemy)	San Juan FIR		
France – French Antilles (St Martin)			
Netherlands (Saba)			
Netherlands (Sint Eustatius)			
Sint Maarten (Kingdom of the Netherlands)			
United Kingdom (Anguilla)			
United Kingdom (British Virgin Islands)			
United States (Puerto Rico)			
United States (Virgin Islands)			
Antigua and Barbuda	Piarco FIR		
Barbados			
Dominica			
France – French Antilles (Guadeloupe)			
France – French Antilles (Martinique)			
Grenada			
Saint Kitts and Nevis			
Saint Lucia			
1. Saint Vincent and the Grenadines			
Trinidad and Tobago			
United Kingdom (British Virgin Islands)			
United Kingdom (Montserrat)			

STATE	FIR/UIR	UTA/CTA/TMA	Remarks
1	2	3	4
Argentina	Comodoro Rivadavia FIR	Comodoro Rivadavia North CTA	
		Comodoro Rivadavia South CTA	
		Comodoro Rivadavia TMA	
		Rio Gallegos TMA	
		Ushuaia TMA	
	Córdoba FIR	Córdoba North CTA	
		Córdoba South CTA	
		Cordoba TMA	
		Salta TMA	
	Ezeiza FIR	Ezeiza CTA I	
		Ezeiza CTA II	
		Ezeiza CTA III	
		Ezeiza CTA IV	
		Baires TMA	
		Mar del Plata TMA	
		Neuquen TMA	
		Rosario TMA	
	Mendoza FIR	San Carlos de Bariloche TMA	
		Mendoza CTA	
	Resistencia FIR	Mendoza TMA	
Resistencia CTA			
Resistencia TMA			
		Foz TMA	Tripartite Argentina-Brazil - Paraguay
Aruba (Kingdom of the Netherlands)	Curaçao FIR		
Curaçao (Kingdom of the Netherlands)			
Netherlands (Bonaire)			
Bahamas	Nassau FIR		
Belize	Central American FIR		
Costa Rica			
El Salvador			
Guatemala			
Honduras			
Nicaragua			
United Kingdom (Bermuda)	New York Oceanic West FIR		

STATE	FIR/UIR	UTA/CTA/TMA	Remarks
1	2	3	4
Bolivia	La Paz FIR	La Paz CTA	
		Cochabamba TMA	
		La Paz TMA	
		Santa Cruz TMA	
Brazil	Amazonica FIR	Amazonica CTA	
		Amazonica UTA	
		Rio Branco TMA	
		Porto Velho TMA	
		Boa Vista TMA	
		Manaus TMA	
		Belem TMA	
		Macapa TMA	
		Santarem TMA	
		Cuiabá TMA	
		Sao Luis TMA	
		Amazonica TMA	Bipartite Brazil - Colombia
	Atlantico FIR	Atlantico UTA	
	Brasilia FIR	Brasilia CTA	
		Brasilia UTA	
		Brasilia TMA	
		Belo Horizonte TMA	
	Curitiba FIR	Curitiba CTA	
		Curitiba UTA	
		Porto Alegre TMA	
		Foz TMA	Tripartite Argentina- Brazil - Paraguay
		Curitiba TMA	
		Florianópolis TMA	
		Campo Grande TMA	
		Rio de Janeiro TMA	
	Sao Paulo TMA		
	Recife FIR	Recife CTA	
Recife UTA			
Fortaleza TMA			
Natal TMA			
Recife TMA			
Maceio TMA			
Aracaju TMA			
Salvador TMA			
Porto Seguro TMA			
Vitoria TMA			
Jamaica	Kingston FIR		
United Kingdom (Cayman Islands)			

STATE	FIR/UIR	UTA/CTA/TMA	Remarks
1	2	3	4
Chile	Antofagasta FIR	Santiago Oceanic OCA*	*Oceanic ACC delivers ATC in Oceanic Control Area (OCA). see AIP-Chile Vol I
		Iquique UTA	
		Antofagasta TMA	
		Arica TMA	
		Iquique TMA	
		Calama TMA	
		Atacama TMA	
	Isla de Pascua FIR	Santiago Oceanic OCA*	
		Isla de Pascua TMA	
	Puerto Montt FIR	Santiago Oceanic OCA*	
		Puerto Montt UTA	
		Puerto Montt TMA	
		Temuco TMA	
	Punta Arenas FIR	Balmaceda TMA	
		Santiago Oceanic OCA*	
		Punta Arenas UTA	
		Punta Arenas TMA	
	Santiago FIR	Puerto Williams TMA	
		Isla Rey Jorge TMA	
		Santiago Oceanic OCA*	
Santiago UTA			
Santiago TMA			
Colombia	Barranquilla FIR	Concepcion TMA	
		La Serena TMA	
		Barranquilla UTA	
		Barranquilla CTA	
	Bogota FIR	Barranquilla TMA sector NORTE	
		Barranquilla TMA sector SUR	
		San Andrés TMA	To be analyzed
		Bogota UTA	
		Bogota TMA sector OESTE	
		Bogota TMA sector NORTE	
Bogota FIR	Bogota TMA sector SUR		
	Cali CTA		
	Medellin CTA		
	Amazonica TMA	Bipartite Brazil - Colombia	
Bogota FIR	Bucaramanga TMA		
	Cali TMA		

STATE	FIR/UIR	UTA/CTA/TMA	Remarks
1	2	3	4
		Cucuta TMA sector Sur Cucuta TMA sector Norte	
		Medellin TMA	
		Pereira TMA	
		Villavicencio TMA	
		Andes TMA	
		El Yopal TMA	
Cuba	Habana FIR		
Dominican Republic	Santo Domingo FIR		
Ecuador	Guayaquil FIR	Guayaquil UTA Guayaquil CTA Guayaquil TMA Manta TMA Quito TMA	
French Guiana	Cayenne FIR	Cayenne CTA Cayenne TMA	
Guyana	Georgetown FIR/UIR	Georgetown UTA Georgetown CTA Timehri TMA	
Haiti	Port Au Prince FIR		
Mexico	Mazatlán Oceanic FIR Mexico FIR		
Panama	Panama FIR	Panama CTA Panama TMA San Andres TMA*	*Under Colombia responsibility. TMA is within FIR/CTA Panama. To be analyzed
Paraguay	Asunción FIR/UIR	Asuncion TMA Foz TMA	Tripartite Argentina- Brazil - Paraguay
Peru	Lima FIR	Lima UTA Lima CTA Arequipa TMA Chiclayo TMA	

STATE	FIR/UIR	UTA/CTA/TMA	Remarks
1	2	3	4
		Cusco TMA	
		Iquitos TMA	
		Juliaca TMA	
		Lima TMA	
		Pisco TMA	
		Pucallpa TMA	
		Tacna TMA	
		Trujillo TMA	
Suriname	Paramaribo FIR	Paramaribo CTA	
		Pengel TMA	
United Kingdom (Turks and Caicos Islands)	Miami Oceanic FIR		
United States			
Uruguay	Montevideo FIR	Montevideo CTA	
		Carrasco TMA	
United States	Houston FIR		
	Houston Oceanic FIR		
	Miami FIR		
Venezuela	Maiquetia FIR	Maiquetia CTA	
		Barcelona TMA	
		Maiquetia TMA	
		Maracaibo TMA	
		Margarita TMA	

Table PMP III-1 – Strengths, weakness, opportunities and threads in the CAR/SAM Region

EXPLANATION OF THE TABLE

Item

- 1 Strengths: internal attributes of a system or an organization that can help in the realization of ambitions or in meeting expectations.
- 2 Weaknesses: internal attributes of a system or an organization that are a detriment to realizing ambitions or meeting expectations.
- 3 Opportunities: are external conditions that help in the realization of ambitions or in meeting expectations.
- 4 Threats: external conditions that are a detriment or harmful to realizing ambitions or meeting expectations.
- 5 Relationship of the SWOT attributes and conditions with the eleven Key performance area - KPAs.

(1) STRENGTHS	Remarks
<ul style="list-style-type: none"> • National Plans aligned with global plans and supporting regional implementation • Industry maturity and operating models (airlines, airports) • Potential human resources available • Robust regional infrastructure, implementation experience and harmonized services • Regional Integration and Harmonization with Horizontal Cooperation Mechanisms 	
(2) WEAKNESS	Remarks
<ul style="list-style-type: none"> • Gaps in plan implementation (ANS, CNS, Technology, Training, budgets) • Limited human talent management policies (hiring, training and retention of sufficient and competent human resources) • Difficulty in institutional communication, collaboration and alignment between CAR and SAM. • Different levels of maturity in the implementation of ANS and airport management models. • Weak alignment and little communication between global plans (GANP, GASP, GASEP). • Language and cultural barriers between regions. Lack of timely publication of ICAO Documents in all official languages 	<ul style="list-style-type: none"> •

(3) OPPORTUNITIES	Remarks
<ul style="list-style-type: none">• Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings.• Trend towards the automation of processes and services with a focus on innovation, sustainability and harmonization• The low transitory demand allows improving activities, focusing on innovation and better preparation to generate resilience (administration, procedures, ATM, etc.).• Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators.• Put civil aviation as a development engine on the State and Regional agenda.	<ul style="list-style-type: none">•
(4) THREADS	Remarks
<ul style="list-style-type: none">• Slow industry/airline recovery (> 2024). Reorganization of the aeronautical market, competition for markets.• Changes in passenger behavior• Negative impact on aviation due to political, environmental or economic changes (fuel, etc.)• New disruptions that may negatively affect aviation (natural disasters, climate change, outbreaks, war/conflict, cyber attacks, economic downturn)	<ul style="list-style-type: none">•

(5) Relationship of the SWOT attributes and conditions with the eleven Key performance areas

11 Key Performance Areas	STRENGTHS	WEAKNESS	OPPORTUNITIES	THREADS
Capacity	<ul style="list-style-type: none"> ○ Robust regional infrastructure, implementation experience and harmonized services ○ 	<ul style="list-style-type: none"> ○ Gaps in plan implementation (ANS, CNS, Technology, Training, budgets) ○ Limited human talent management policies (hiring, training and retention of sufficient and competent human resources) ○ 	<ul style="list-style-type: none"> ○ Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings. ○ Trend towards the automation of processes and services with a focus on innovation, sustainability and harmonization ○ The low transitory demand allows improving activities, focusing on innovation and better preparation to generate resilience (administration, procedures, ATM, etc.). ○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators. ○ Put civil aviation as a development engine on the State and Regional agenda. 	<ul style="list-style-type: none"> ○ Negative impact on aviation due to political, environmental or economic changes (fuel, etc.) ○ New disruptions that may negatively affect aviation (natural disasters, climate change, outbreaks, war/conflict, cyber attacks, economic downturn)

11 Key Performance Areas	STRENGTHS	WEAKNESS	OPPORTUNITIES	THREADS
Efficiency	<ul style="list-style-type: none"> ○ National Plans aligned with global plans and supporting regional implementation ○ Industry maturity and operating models (airlines, airports) ○ Potential human resources available ○ Robust regional infrastructure, implementation experience and harmonized services ○ Regional Integration and Harmonization with Horizontal Cooperation Mechanisms 	<ul style="list-style-type: none"> ○ Gaps in plan implementation (ANS, CNS, Technology, Training, budgets) ○ Limited human talent management policies (hiring, training and retention of sufficient and competent human resources) ○ Difficulty in institutional communication, collaboration and alignment between CAR and SAM. ○ Different levels of maturity in the implementation of ANS and airport management models. 	<ul style="list-style-type: none"> ○ Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings. ○ Trend towards the automation of processes and services with a focus on innovation, sustainability and harmonization ○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators. ○ Put civil aviation as a development engine on the State and Regional agenda 	<ul style="list-style-type: none"> ○ Slow industry/airline recovery (> 2024). Reorganization of the aeronautical market, competition for markets. ○ Negative impact on aviation due to political, environmental or economic changes (fuel, etc.) ○ New disruptions that may negatively affect aviation (natural disasters, climate change, outbreaks, war/conflict, cyber attacks, economic downturn)
Predictability	<ul style="list-style-type: none"> ○ Industry maturity and operating models (airlines, airports) 	<ul style="list-style-type: none"> ○ Gaps in plan implementation (ANS, CNS, Technology, Training, budgets) 	<ul style="list-style-type: none"> ○ Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings. ○ Timely availability of ICAO technical documentation in the official languages. New 	<ul style="list-style-type: none"> ○ Negative impact on aviation due to political, environmental or economic changes (fuel, etc.) ○ New disruptions that may negatively affect aviation (natural disasters, climate change, outbreaks, war/conflict, cyber attacks, economic downturn)

11 Key Performance Areas	STRENGTHS	WEAKNESS	OPPORTUNITIES	THREADS
			<p>GANP - ASBU four layers and indicators.</p> <ul style="list-style-type: none"> ○ Put civil aviation as a development engine on the State and Regional agenda 	
Safety	<ul style="list-style-type: none"> ○ National Plans aligned with global plans and supporting regional implementation ○ Regional Integration and Harmonization with Horizontal Cooperation Mechanisms 	<ul style="list-style-type: none"> ○ Gaps in plan implementation (ANS, CNS, Technology, Training, budgets) ○ Weak alignment and little communication between global plans (GANP, GASP, GASEP). ○ 	<ul style="list-style-type: none"> ○ Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings. ○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators. ○ Put civil aviation as a development engine on the State and Regional agenda 	<ul style="list-style-type: none"> ○ New disruptions that may negatively affect aviation (natural disasters, climate change, outbreaks, war/conflict, cyber attacks, economic downturn)
Security	<ul style="list-style-type: none"> ○ National Plans aligned with global plans and supporting regional implementation ○ Regional Integration and Harmonization with Horizontal Cooperation Mechanisms 	<ul style="list-style-type: none"> ○ Gaps in plan implementation (ANS, CNS, Technology, Training, budgets) ○ Weak alignment and little communication between global plans (GANP, GASP, GASEP). ○ 	<ul style="list-style-type: none"> ○ Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings. ○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators. 	<ul style="list-style-type: none"> ○ New disruptions that may negatively affect aviation (natural disasters, climate change, outbreaks, war/conflict, cyber attacks, economic downturn)

11 Key Performance Areas	STRENGTHS	WEAKNESS	OPPORTUNITIES	THREADS
			<ul style="list-style-type: none"> ○ Put civil aviation as a development engine on the State and Regional agenda 	
<p>Enviroment</p>	<ul style="list-style-type: none"> ○ 	<ul style="list-style-type: none"> ○ 	<ul style="list-style-type: none"> ○ Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings. ○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators. ○ Put civil aviation as a development engine on the State and Regional agenda 	<ul style="list-style-type: none"> ○ Negative impact on aviation due to political, environmental or economic changes (fuel, etc.) ○
<p>Cost effectiveness</p>	<ul style="list-style-type: none"> ○ Industry maturity and operating models (airlines, airports) ○ 	<ul style="list-style-type: none"> ○ 	<ul style="list-style-type: none"> ○ Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings. ○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators. ○ Put civil aviation as a development engine on the State and Regional agenda 	<ul style="list-style-type: none"> ○ Negative impact on aviation due to political, environmental or economic changes (fuel, etc.) ○

11 Key Performance Areas	STRENGTHS	WEAKNESS	OPPORTUNITIES	THREADS
Interoperability	<ul style="list-style-type: none"> ○ National Plans aligned with global plans and supporting regional implementation ○ Robust regional infrastructure, implementation experience and harmonized services ○ Regional Integration and Harmonization with Horizontal Cooperation Mechanisms 	<ul style="list-style-type: none"> ○ Gaps in plan implementation (ANS, CNS, Technology, Training, budgets) ○ Difficulty in institutional communication, collaboration and alignment between CAR and SAM. ○ Different levels of maturity in the implementation of ANS and airport management models. ○ Weak alignment and little communication between global plans (GANP, GASP, GASEP). ○ 	<ul style="list-style-type: none"> ○ Greater collaboration in Technology, ICAO Technical Cooperation, innovation-research-development (I+R+D), multilateral financing, training/joint virtual meetings. ○ Trend towards the automation of processes and services with a focus on innovation, sustainability and harmonization ○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators. ○ Put civil aviation as a development engine on the State and Regional agenda 	<ul style="list-style-type: none"> ○ Negative impact on aviation due to political, environmental or economic changes (fuel, etc.) ○
Access and equity	<ul style="list-style-type: none"> ○ 	<ul style="list-style-type: none"> ○ 	<ul style="list-style-type: none"> ○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators. ○ Put civil aviation as a development engine on the State and Regional agenda 	<ul style="list-style-type: none"> ○

11 Key Performance Areas	STRENGTHS	WEAKNESS	OPPORTUNITIES	THREADS
Participation by the ATM community	○	○	<ul style="list-style-type: none"> ○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators. ○ Put civil aviation as a development engine on the State and Regional agenda 	○
Flexibility	○	○	<ul style="list-style-type: none"> ○ Timely availability of ICAO technical documentation in the official languages. New GANP - ASBU four layers and indicators. ○ Put civil aviation as a development engine on the State and Regional agenda 	○

Table PMP III-2 – List of performance objectives by KPA for the CAR/SAM Region

EXPLANATION OF THE TABLE

Column

- (1) ICAO defined 11 Key Performance Areas. *Include the list of KPAs and its definition.*
- (2) Focus Areas. These focus areas have been selected from the catalogue of performance objectives.
- (3) Performance Objectives. These objectives have been selected from the catalogue of performance objectives.
- (4) Remarks

(1) KPA s	(2) Focus Areas	(3) Performance Objectives	(4) Remarks
Efficiency	Flight time & distance	Apply en-route speed reduction if traffic is already airborne	
Efficiency	Flight time & distance	Avoid taxi-out additional time resulting from adverse conditions	
Efficiency	Flight time & distance	Avoid taxi-in additional time resulting from adverse conditions	
Efficiency	Flight time & distance	Overcome route selection inefficiencies associated with route network design	
Efficiency	Flight time & distance	Facilitate direct routing of portions of the flight (if this does not cause network problems)	
Capacity	Capacity, throughput & utilization	Improve what's needed to reduce longitudinal separation minima	<i>PBN implementation in progress. PBCS when required</i>

(1) KPA s	(2) Focus Areas	(3) Performance Objectives	(4) Remarks
Capacity	Capacity, throughput & utilization	Overcome capacity limitations attributable to route network design	<i>PBN implementation in progress</i>
Capacity	Capacity, throughput & utilization	Take advantage of increased navigation precision (airspace with PBN operations) to implement route networks and airspace structures with smaller lateral and vertical safety buffers	<i>PBN implementation in progress</i>
Capacity	Capacity, throughput & utilization	Increase airport peak arrival capacity	<i>ACDM implementation project (to be analyzed)</i>
Capacity	Capacity, throughput & utilization	Equip additional RWY ends with instrument approaches	<i>PBN implementation in progress</i>
Capacity	Capacity, throughput & utilization	Reduce approach minima (ceiling & visibility)	<i>PBN implementation in progress</i>
Capacity	Capacity, throughput & utilization	Increase airport arrival rate	<i>PBN implementation in progress</i>
Capacity	Capacity, throughput & utilization	Apply merging & synchronisation of arrival flows	<i>Point merge implemented (Brazil, Colombia)</i>
Predictability	Punctuality	Increase the number (%) of flights adhering to the planned take-off time	
Predictability	Punctuality	Increase the number (%) of scheduled flights adhering to the scheduled ON-block time	
Predictability	Variability	Reduce gate-to-gate flight time variability of frequent scheduled flights	

(1) KPA s	(2) Focus Areas	(3) Performance Objectives	(4) Remarks
Safety	<i>To be incorporated</i>		
Security	<i>To be incorporated</i>		
Enviroment	<i>To be incorporated</i>		
Cost effectiveness	<i>To be incorporated</i>		
Interoperability	<i>To be incorporated</i>		
Access and equity	<i>To be incorporated</i>		
Participation by the ATM community	<i>To be incorporated</i>		
Flexibility	<i>To be incorporated</i>		

Table PMP III-3 – List of KPIs by performance objective and KPA for the CAR/SAM Region

EXPLANATION OF THE TABLE

Column

- 1 KPAs and Focus Areas from Table PMP III-2.
- 2 Performance Objectives from Table PMP III-2.
- 3 KPIs based on the ICAO list of KPIs. *If there is a KPI you would like to introduce, please submit it for coordination with the global performance expert group*
- 4 Remarks

(1) KPA & Focus area	(2) Performance objectives	(3) KPI s	(4) Remarks
Efficiency Flight time & distance	Apply en-route speed reduction if traffic is already airborne	KPI08	
Efficiency Flight time & distance	Avoid taxi-out additional time resulting from adverse conditions	KPI02	
Efficiency Flight time & distance	Avoid taxi-in additional time resulting from adverse conditions	KPI13	
Efficiency Flight time & distance	Overcome route selection inefficiencies associated with route network design	KPI04	
Efficiency Flight time & distance	Facilitate direct routing of portions of the flight (if this does not cause network problems)	KPI05	
Capacity Capacity, throughput & utilization	Improve what's needed to reduce longitudinal separation minima	KPI06	
Capacity	Overcome capacity limitations attributable to route network design	KPI06	

(1) KPA & Focus area	(2) Performance objectives	(3) KPI s	(4) Remarks
Capacity, throughput & utilization			
Capacity Capacity, throughput & utilization	Take advantage of increased navigation precision (airspace with PBN operations) to implement route networks and airspace structures with smaller lateral and vertical safety buffers	KPI06	
Capacity Capacity, throughput & utilization	Increase airport peak arrival capacity	KPI09	ASBU element impact non defined in GANP6
Capacity Capacity, throughput & utilization	Equip additional RWY ends with instrument approaches	KPI10	
Capacity Capacity, throughput & utilization	Reduce approach minima (ceiling & visibility)	KPI10	
Capacity Capacity, throughput & utilization	Increase airport arrival rate	KPI10	
Capacity Capacity, throughput & utilization	Apply merging & synchronisation of arrival flows	KPI10	
Predictability (Punctuality)	Increase the number (%) of flights adhering to the planned take-off time	KPI01	ASBU element impact non defined in GANP6
Predictability (Punctuality)	Increase the number (%) of scheduled flights adhering to the scheduled ON-block time	KPI14	ASBU element impact non defined in GANP6
Predictability (Variability)	Reduce gate-to-gate flight time variability of frequent scheduled flights	KPI15	ASBU element impact non defined in GANP6

Table PMP III-4 – Performance baseline within the CAR/SAM Region

EXPLANATION OF THE TABLE

Column

- 1 States in **Table GEN I-1**
- 2 List of FIRs/ CTAs/TMAs/Airports by State within **Table ATM I-1** or **Table PMP III-CAR/SAM-1** and **Table AOP I-1**.
- 3 Value for the list of KPIs in **Table PMP III-3**.
- 4 Remarks

Legend: -- KPI calculation is in progress

++ KPI is not yet developed

(1) STATE	(2) FIR/CTA/TMA /AIRPORT	(3) KPIs											(4) Remarks
		KPI01 (Var 2A)	KPI02	KPI04	KPI05	KPI06	KPI08	KPI09	KPI10	KPI13	KPI14	KPI15 (Var 1)	
BRAZIL	SBGR	83,8%	3,7					34	26	1,8	54,6%	5,9	BASELINE 2021 (average all flights > DEP+ARR in SBGR)
	SBBR	90,5%	3,1					48	26	1,6	65,0%	5,5	BASELINE 2021 (average all flights > DEP+ARR in SBBR)
	SBGL	80,0%	3,0					30	6	1,5	64,1%	5,9	BASELINE 2021
	TMA SAO PAULO			++	++	--	3,9						BASELINE 2021 (SBGR, SBKP, SBSP)
	TMA BRASILIA			++	++	--	3,6						BASELINE 2021 (SBBR)

	TMA Rio de JANEIRO			++	++	--	2,9							BASELINE 2021 (SBRJ, SBGL)
--	--------------------	--	--	----	----	----	-----	--	--	--	--	--	--	----------------------------

>>>>

(1) STATE	(2) FIR/CTA/TMA /AIRPORT	(3) KPIs											(4) Remarks
		KPI01 (2A)	KPI02	KPI04	KPI05	KPI06	KPI08	KPI09	KPI10	KPI13	KPI14	KPI15	
PERU	SPJC	87%	3.57					35	23	1.68	61%	++	
	SPZO	72.09%	3.78					6	5	0.85	69.65%	++	
	TMA LIMA			++	++	--	++						
	TMA CUSCO			++	++	11 (CHS)	++						CHS= hourly sector capacity
	FIR LIMA			++	++	++							

<<<<

(1) STATE	(2) FIR/CTA/TMA /AIRPORT	(3) KPIs											(4) Remarks
		KPI01 (2A)	KPI02	KPI04	KPI05	KPI06	KPI08	KPI09	KPI10	KPI13	KPI14	KPI15	
CHILE	SCEL	31.7%	++					++	++	++	++	++	
	SCIE	32.9%	++					+	++	++	++	++	
	SCFA	31.5%	++					++	++	++	++	++	
	TMA SANTIAGO			++	++	++	++						
	TMA CONCEPCION			++	++	++	++						
	TMA ANTOFAGASTA			++	++	++	++						

	FIR ++			++	++	++							
--	--------	--	--	----	----	----	--	--	--	--	--	--	--

<<<

(1) STATE	(2) FIR/CTA/TMA /AIRPORT	(3) KPIs											(4) Remarks
		KPI01	KPI02	KPI04	KPI05	KPI06	KPI08	KPI09	KPI10	KPI13	KPI14	KPI15	
ARGENTINA	SABE	73.7%	2.4					39	14	2.0	92.2%	5.7	2019 BASELINE
	SAEZ	57.9%	3.5					29	10	3.1	81.1%	5.7	2019 BASELINE
	TMA BAIRES			++	++	--	--						
	FIR TODAS			0.6%	0.84%	++						5.4	2019 BASELINE

Table PMP III-5 – Performance targets and needs within CAR/SAM Region

EXPLANATION OF THE TABLE

Column

- 1 States in **Table GEN I-1**
- 2 List of FIRs/CTAs/TMAs/Airports by State within **Table ATM I-1** or **Table PMP III-CAR/SAM- 1** and **Table AOP I-1**.
- 3 Targets for the list of KPIs in **Table PMP III-3**. *(include the value of the regional targets/needs for the different operational environments identified in step 1)*
- 4 Remarks

(1) STATE	(2) FIR/CTA/TMA /AIRPORT	(3) KPIs TARGETS											(4) Remarks
		KPI01 (Var 2A)	KPI02	KPI04	KPI05	KPI06	KPI08	KPI09	KPI10	KPI13	KPI14	KPI15 (Var 1)	
BRAZIL	SBGR	≥ 80%	≤3 min					--	--	≤3 min	--	≤ 10 min	
	SBBR	≥ 80%	≤3 min					--	--	≤3 min	--	≤ 10 min	
	SBGL	≥ 80%	≤3 min					--	--	≤3 min	--	≤ 10 min	
	TMA SAO PAULO			++	++	--	≤ 4 min						
	TMA BRASILIA			++	++	--	≤ 4 min						
	TMA Rio de JANEIRO			++	++	--	≤ 4 min						

>>>>

(1) STATE	(2) FIR/CTA/TMA /AIRPORT	(3) KPIs TARGETS											(4) Remarks
		KPI01 (2A)	KPI02	KPI04	KPI05	KPI06	KPI08	KPI09	KPI10	KPI13	KPI14	KPI15	
PERÚ	SPJC	≥ 80%	≤4 min					--	--	≤3 min	≥ 80%	++	
	SPZO	≥ 80%	≤4 min					--	--	≤3 min	≥ 80%	++	
	TMA LIMA			++	++	--	++						
	TMA CUSCO			++	++	--	++						
	FIR LIMA			++	++	++							

<<<<<

(1) STATE	(2) FIR/CTA/TMA /AIRPORT	(3) KPIs TARGETS											(4) Remarks
		KPI01 (2A)	KPI02	KPI04	KPI05	KPI06	KPI08	KPI09	KPI10	KPI13	KPI14	KPI15	
CHILE	SCEL	≥ 32%	++					++	++	++	++	++	
	SCIE	≥ 33%	++					+	++	++	++	++	
	SCFA	≥ 32%	++					++	++	++	++	++	
	TMA SANTIAGO			++	++	++	++						
	TMA CONCEPCION			++	++	++	++						
	TMA ANTOFAGASTA			++	++	++	++						
	FIR ++			++	++	++							

<<<

(1) STATE	(2) FIR/CTA/TMA /AIRPORT	(3) KPIs TARGETS											(4) Remarks
		KPI01	KPI02	KPI04	KPI05	KPI06	KPI08	KPI09	KPI10	KPI13	KPI14	KPI15	
ARGENTINA	SABE												
	SAEZ												
	TMA BAIRES												
	FIR TODAS												

<<<

Table PMP III-6 – Deployment planning: selected ASBU Elements / Operational Improvements for the CAR/SAM Region

EXPLANATION OF THE TABLE

Column

- 1 States in **Table GEN I-1**
- 2 List of FIRs/ CTAs/TMAs/Airports by State within **Table ATM I-1** or **Table PMP III-CAR/SAM - 1** and **Table AOP I-1**.
- 3 Selected ASBU elements /operational improvements for each operational environment.

Please note that the ASBU elements are a set of operational improvements, however, there could be other improvements outside of the ASBU framework that might address identified issues and opportunities and therefore contribute to achieve the pursued level of performance.

- 4 Dependencies and relations: see type description for each element in GANP Layer 2**
- 5 Year when implementation of the selected solution is planned to start.
- 6 Year when implementation of the selected solution is foreseen to be completed.
- 7 Remarks

(1) STATE	(2) FIR/CTA /TMA/AIRPORT	(3) ASBU Elements / Operational Improvements	(4) Dependencies and relations	(5) Start Year	(6) End Year	(7) Remarks
BRAZIL	SBGR SBBR SBGL	SURF-B0/1	---			KPI02, KPI13
	SBGR SBBR SBGL	APTA-B0/1	AMET-B0/1 AMET-B0/2 NAVS-B0/3			KPI10
	SBGR SBBR SBGL	APTA-B0/2	AMET-B0/1 AMET-B0/2			KPI10
	SBGR SBBR SBGL	TBD	TBD			KPI09
	SBGR SBBR SBGL	TBD	TBD			KPI01
	SBGR SBBR SBGL	TBD	TBD			KPI14
	SBGR SBBR SBGL	TBD	TBD			KPI15
	TMAs SAO PAULO, BRASILIA, RIO DE JANEIRO	RSEQ-B0/1	AMET-B0/1 AMET-B0/2 ACDM-B0/1 ACDM-B0/2			KPI08
	TMAs SAO PAULO, BRASILIA, RIO DE JANEIRO	FRTO-B1/2	APTA-B0/1 APTA-B1/1 SNET-B0/1			KPI06
	TMA SAO PAULO	RSEQ-B0/3	AMET-B0/1			KPI10
	FIR ATLANTICO	CSEP-B1/3	COMI-B0/3 COMI-B0/4 COMS-B0/1 COMS-B0/2 NAVS-B0/3			KPI06

<<<

(1) STATE	(2) FIR/CTA /TMA/AIRPORT	(3) ASBU Elements / Operational Improvements	(4) Dependencies and relations	(5) Start Year	(6) End Year	(7) Remarks
PERÚ	SPJC SPZO	SURF-B0/1	-----			KPI02, KPI13
	SPJC SPZO	TBD	TBD			KPI09
	SPJC SPZO	TBD	TBD			KPI01 KPI14
	TMA LIMA, CUSCO	FRTO-B1/2	APTA-B0/1 APTA-B1/1 SNET-B0/1			KPI06
	FIR LIMA	FRTO-B1/2	APTA-B0/1 APTA-B1/1 SNET-B0/1			KPI06

<<<

STATE	FIR /TMA/AIRPORT	ASBU Elements / Operational Improvements	Dependencies and relations	Start	End	KPI
CHILE	SCEL	RSEQ-B0/2 = Departure Management	AMET-B0/1 AMET-B0/2 ACDM-B0/1 ACDM-B0/2 SURF-B1/4 WAKE-B2/1 WAKE-B2/4 WAKE-B2/8 SURF-B0/2 APTA-B0/2 NOPS-B0/5	2022	2025	KPI02 - Taxi-out additional time
	SCEL	RSEQ-B0/1 = Arrival Management	AMET-B0/1 AMET-B0/2 WAKE-B2/1 WAKE-B2/4 WAKE-B2/7 SURF-B0/2 SURF-B1/4 ACDM-B0/1 ACDM-B0/2	2022	2025	KPI10: Airport peak throughput

STATE	FIR /TMA/AIRPORT	ASBU Elements / Operational Improvements	Dependencies and relations	Start	End	KPI
		APTA-B1/1 = PBN Approaches (with advanced capabilities)	APTA-B0/1 AMET-B0/1 AMET-B0/2	2023	2026	KPI10 - Airport peak throughput.
	SCEL	APTA-B1/2 = PBN SID and STAR procedures (with advanced capabilities)	APTA-B0/1 AMET-B0/1 AMET-B0/2	2023	2026	KPI11: Airport throughput efficiency
	SCEL	ACDM-B0/1 = Airport CDM Information Sharing (ACIS)	AMET-B0/1 AMET-B0/2 SURF-B0/2	2025	2027	No specific KPI available in GANP 6° Ed for intended performance
	SANTIAGO	FRTO-B0/1= Direct routing (DCT)	NOPS-B0/1 FRTO-B0/2 FRTO-B0/4 FICE-B0/1	2023	2027	KPI04: Filed flight plan en-route extension
	SANTIAGO	FRTO-B0/2 = Airspace planning and Flexible Use of Airspace (FUA)	FRTO-B0/1 NOPS-B0/1	2024	2027	KPI04: Filed flight plan en-route extension
	SCEL	NOPS-B0/1 = Initial integration of collaborative airspace management with air traffic flow management	AMET-B0/1 FRTO-B0/2	2024	2027	KPI05 - Actual en-route extension
	SCEZ/OCA	CSEP-B1/3 = Performance Based Longitudinal Separation Minima	COMI-B0/3 COMI-B0/4 COMS-B0/1 COMS-B1/1 COMS-B0/2 COMS-B1/2 NAVS-B0/3	2023	2026	KPI06: En-route airspace capacity
	SCEZ/OCA	CSEP-B1/4 = Performance Based Lateral Separation Minima	COMI-B0/3 COMI-B0/4 COMS-B0/1 COMS-B1/1 COMS-B0/2 COMS-B1/2 NAVS-B0/3	2023	2026	KPI06: En-route airspace capacity
	SCEZ/SANTIAGO/SCEL	TBD	TBD	2023	2025	KPI01: Departure punctuality

STATE	FIR /TMA/AIRPORT	ASBU Elements / Operational Improvements	Dependencies and relations	Start	End	KPI
CHILE	SCIE	APTA-B1/1 = PBN Approaches (with advanced capabilities)	APTA-B0/1 AMET-B0/1 AMET-B0/2	2023	2026	KPI10 - Airport peak throughput.
	SCIE	APTA-B1/2 = PBN SID and STAR procedures (with advanced capabilities)	APTA-B0/1 AMET-B0/1 AMET-B0/2	2023	2026	KPI11: Airport throughput efficiency
	SCEZ/CONCEPCIÓN	FRTO-B0/1= Direct routing (DCT)	NOPS-B0/1 FRTO-B0/2 FRTO-B0/4 FICE-B0/1	2023	2027	KPI04: Filed flight plan en-route extension
	SCEZ/CONCEPCIÓN	FRTO-B0/2 = Airspace planning and Flexible Use of Airspace (FUA)	FRTO-B0/1 NOPS-B0/1	2024	2027	KPI04: Filed flight plan en-route extension
	SCIE	NOPS-B0/1 = Initial integration of collaborative airspace management with air traffic flow management	AMET-B0/1 FRTO-B0/2	2024	2027	KPI05 - Actual en-route extension
	SCIE	TBD	TBD	2023	2025	KPI01: Departure punctuality
CHILE	SCFA	APTA-B1/1 = PBN Approaches (with advanced capabilities)	APTA-B0/1 AMET-B0/1 AMET-B0/2	2023	2026	KPI10 - Airport peak throughput.
	SCFA	APTA-B1/2 = PBN SID and STAR procedures (with advanced capabilities)	APTA-B0/1 AMET-B0/1 AMET-B0/2	2023	2026	KPI11: Airport throughput efficiency
	SCFZ/ANTOFAGAST A	FRTO-B0/1= Direct routing (DCT)	NOPS-B0/1 FRTO-B0/2 FRTO-B0/4 FICE-B0/1	2023	2027	KPI04: Filed flight plan en-route extension
	SCFZ/ANTOFAGAST A	FRTO-B0/2 = Airspace planning and Flexible Use of Airspace (FUA)	FRTO-B0/1 NOPS-B0/1	2024	2027	KPI04: Filed flight plan en-route extension

STATE	FIR /TMA/AIRPORT	ASBU Elements / Operational Improvements	Dependencies and relations	Start	End	KPI
	SCFA	NOPS-B0/1 = Initial integration of collaborative airspace management with air traffic flow management	AMET-B0/1 FRTO-B0/2	2024	2027	KPI05 - Actual en-route extension
	SCFA	TBD	TBD	2023	2025	KPI01: Departure punctuality

Table PMP III-7 – Implementation progress on the selected operational improvements of the ASBU elements / Operational Improvements for the (NAME) Region

EXPLANATION OF THE TABLE

Column

- 1 States in **Table GEN I-1**
- 2 List of FIRs/CTAs/TMAs/Airports by State within **Table ATM I-1** or **Table PMP III-(NAME Region) - 1** and **Table AOP I-1**.
- 3 Selected ASBU elements/operational improvement for each operational environment.

Please note that the ASBU elements are a set of operational improvements, however, there could be other improvements outside of the ASBU framework that might address identified issues and opportunities and therefore contribute to achieve the pursued level of performance.

- 4 Year when implementation of the selected solution is planned to start **PMP III-6**.
- 5 Year when implementation of the selected solution is foreseen to be completed **PMP III-6**.
- 6 Implementation progress:
 - Completed (100%): the development or improvement is reportedly fulfilled (it is either in operational use or there is reported on-going compliance)
 - Ongoing (1-99%): implementation is reported on-going, however not yet fully completed
 - Planned (0%): a planned schedule and proper (approved and committed budgeted) actions are specified within the agreed data for completion but implementation has not yet kicked off
 - Late (0-99%): part or all of the actions leading to completion are “planned” to be achieved after the end year date; or the implementation is ongoing but will be achieved later than that data or the end year date is already exceeded.
- 7 Remarks

STATE	FIR/CTA /TMA /AIRPORT	ASBU Elements / Operational Improvements	Start Year	End Year	Implementation progress	Remarks

Table PMP III-8 – Performance benefits accrued form the implementation of the selected ASBU elements / Operational Improvements for the (NAME) Region

EXPLANATION OF THE TABLE

Column

- 1 States in **Table GEN I-1**
- 2 List of FIRs/ CTAs/ TMAs/Airports by State within **Table ATM I-1** or **Table PMP III-(NAME Region) - 1** and **Table AOP I-1**.
- 3 Selected ASBU elements/operational improvements for each operational environment.

Please note that the ASBU elements are a set of operational improvements, however, there could be other improvements outside of the ASBU framework that might address identified issues and opportunities and therefore contribute to achieve the pursued level of performance.

- 4 Value after implementation for the list of KPIs in **Table PMP III-3**.
- 5 Remarks

STATE	FIR/CTA /TMA/AIRPORT	ASBU Elements/operational improvements	KPI s						Remarks

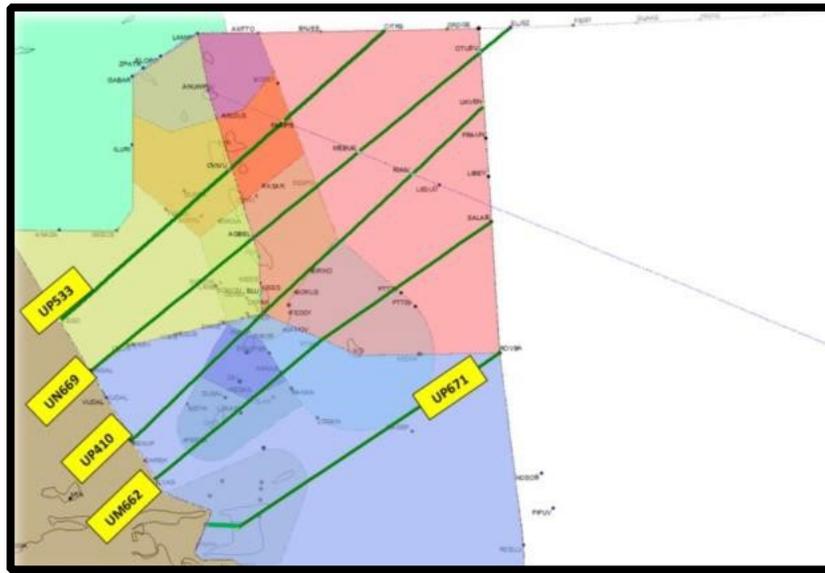
SUMMARY OF PBN TRAINING AND BRIEFINGS CONDUCTED BY TRINIDAD AND TOBAGO

1. The PBN orientation training/briefing session for Barbados took place on October 8, 2021. Representatives from the Piarco Airspace Design Team provided comprehensive PBN orientation training and briefings to Barbados Airspace Design Team
2. On December 2, 2021, PBN orientation training/briefing sessions were conducted for Grenada, St Lucia, and St Vincent and the Grenadines. Trinidad and Tobago's Subject Matter Experts (SMEs) engaged with representatives from these countries to offer guidance and support in optimizing their individual airspace designs, fostering a more efficient and harmonious air traffic environment in the E/CAR region.
3. Trinidad and Tobago is committed to continue to provide briefings as necessary towards the goal of the harmonization of the upper/lower airspace within the Piarco FIR leading to enhanced air traffic management in the Eastern Caribbean.
4. The Agenda for these briefings were as follows:
 - PBN Overview
 - ICAO/IATA Airspace Design Principles
 - Data Collection and Analysis Requirements
 - Collaborative Decision Making (CDM) requirements
 - Introduction to TMA Instrument Flight Procedures
 - Key Operational Responsibilities
 - ICAO Reference Documentation
 - Logistics for the delivery of Airspace Optimization/PBN Briefings to the E/CAR States
 - General Discussions (Questions and Answers)
 - i. Available Resources
 - ii. Constraints
 - iii. Operational needs
5. Feedback from the E/CAR Airspace teams indicated that the training sessions were informative and assisted them greatly in their understanding of the requirements of PBN implementation and airspace optimization.
6. Following the successful PBN orientation training and briefing sessions held in October 2021 and December 2021, Trinidad and Tobago continued its efforts to promote regional collaboration and cooperation in the optimization of the Eastern Caribbean airspace. On February 15, 2022, Trinidad and Tobago delivered an Airspace Optimization/PBN Briefing presentation to the airspace teams of Grenada, St Lucia, and St Vincent and the Grenadines. The objective of this presentation was to provide further support to the E/CAR states and enhance their understanding of the airspace optimization and PBN initiatives. Subsequently, on February 17, 2022, Trinidad and Tobago conducted another Airspace Optimization/PBN Briefing presentation for the Barbados Airspace Team. This presentation aimed to provide Barbados with critical support and insights into airspace optimization and PBN initiatives, enabling them to enhance their airspace designs and improve air traffic flow.

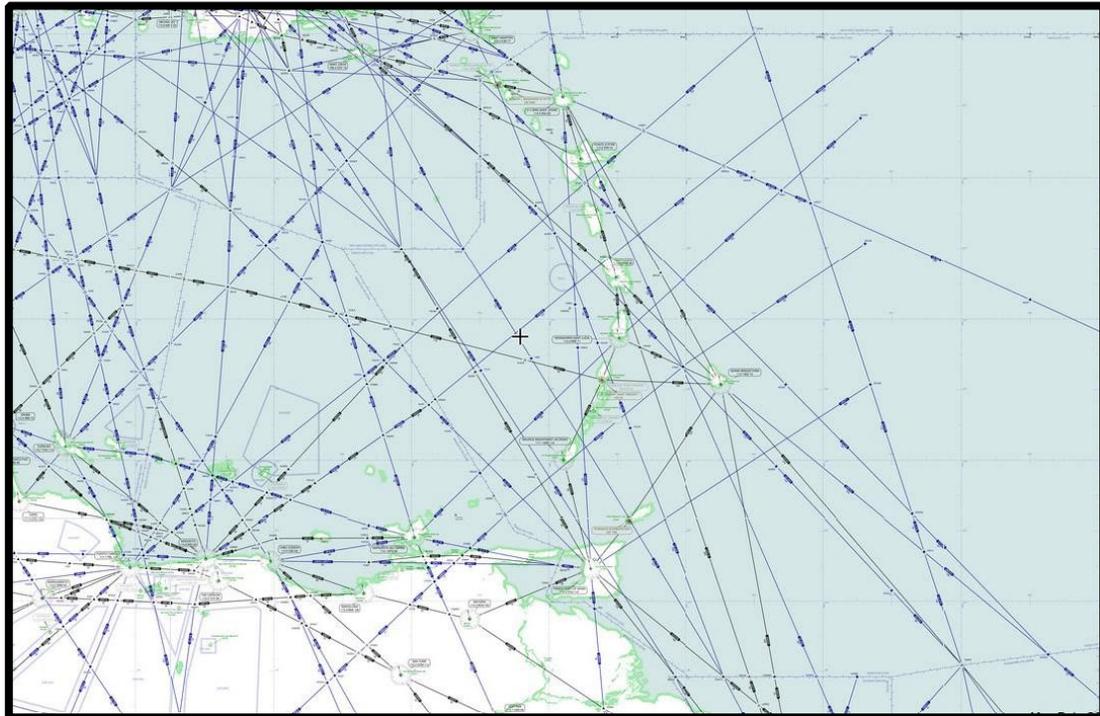
7. The Agenda for these briefings were as follows:

- Introduction to ICAO Global Air Navigation Plan (GANP)
- Understanding the ICAO Aviation System Block Upgrades (ASBUs)
- Introduction to PBN Concepts and Applications
- Piarco FIR PBN Redesign Plan
- Review of RNAV Instrument Approach Procedures (IAPs)
- Review of RNAV Standard Instrument Departures (SIDs)
- Review RNAV Standard Instrument Arrivals (STARs)
- Discussions, Questions and Answers

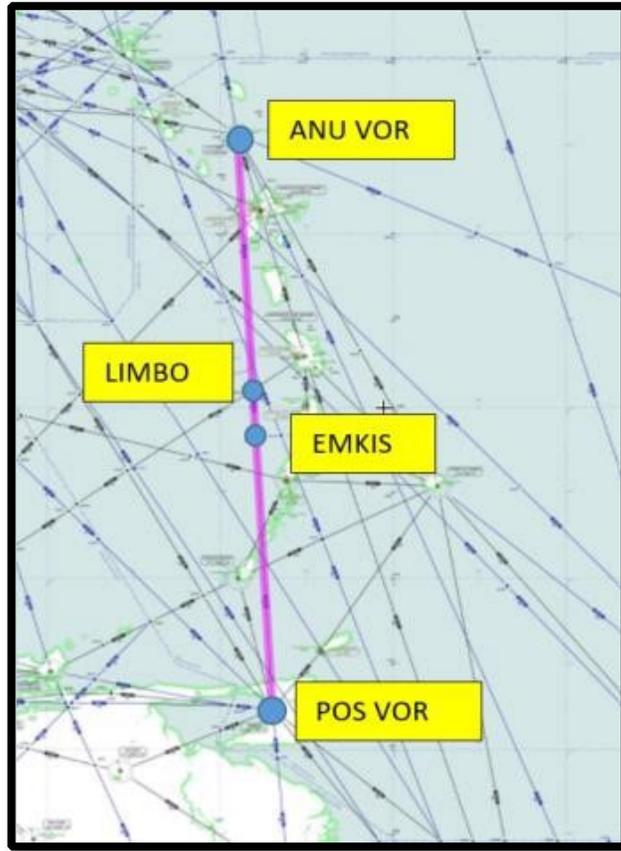
8. Trinidad and Tobago received positive feedback from the E/CAR airspace teams regarding the effectiveness, subject knowledge, and engagement of the presentation. Such feedback is valuable in ensuring continuous improvement and maintaining high-quality training sessions in the future.



NEW EAST WEST RNAV 5 ROUTES IN THE PIARCO FIR
Source : IDS Airspace Designer



CONNECTIVITY OF THE NEW RNAV 5 ROUTES IN THE PIARCO AND MAIQUETIA FIRS
Source : SkyVector

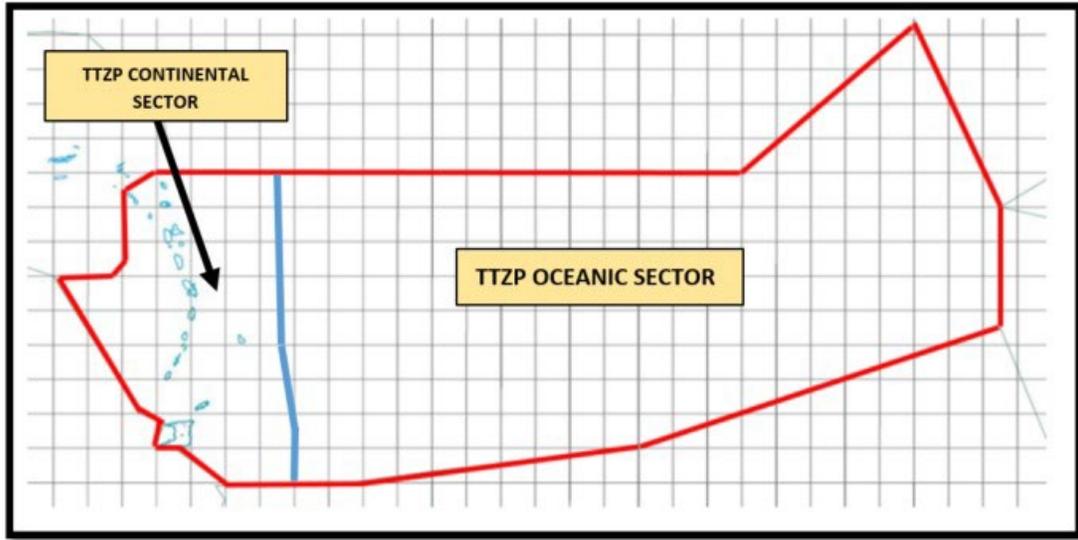


REPLACEMENT OF THE UL205 BY EXTENDING THE UM402 POS VOR EMKIS LIMBO ANU VOR
Source image: SkyVector

A SUMMARY OF CDM MEETINGS WITH E/CAR STATES

1. Details of the meetings between the E/CAR TMAs and Piarco are as follows:
 - a) Meeting with St Vincent and the Grenadines: The meeting took place on October 4, 2022. This meeting would have provided an opportunity for Trinidad and Tobago and the TMA of St Vincent and the Grenadines to discuss the integration of the new Upper Level routes and ensure effective coordination between the two entities.
 - b) Meeting with Grenada: The meeting was held on October 6, 2022. The purpose of this meeting was to discuss the integration of the new Upper Level routes within the Piarco FIR with the Grenada TMA. It allowed for productive discussions and coordination between the two entities.
 - c) Meeting with Martinique: The meeting took place on October 6, 2022. The primary agenda of this meeting was to connect the new Upper Level routes within the Piarco FIR to the Martinique TMA. It provided an opportunity for Trinidad and Tobago and the TMA of Martinique to collaborate and ensure seamless integration.
 - d) Meeting with Barbados: The meeting occurred on October 7, 2022. This meeting would have focused on connecting the new Upper Level routes within the Piarco FIR to the Barbados TMA. It provided a platform for Trinidad and Tobago and the TMA of Barbados to collaborate and address any relevant concerns.
 - e) Meeting with St Lucia: The meeting occurred on October 13, 2022. The focus of this meeting was to connect the new Upper Level routes within the Piarco FIR to the St Lucia TMA. It facilitated discussions and coordination between Trinidad and Tobago and the TMA of St Lucia.
 - f) Joint meeting with Martinique and St Lucia: This meeting was held on October 26, 2022. It involved both Martinique and St Lucia TMAs and aimed to address the integration of the new Upper Level routes within the Piarco FIR to these respective TMAs. The joint meeting allowed for efficient coordination and collaboration between Trinidad and Tobago and the TMAs of Martinique and St Lucia.
 - g) Meeting with Guadeloupe: The meeting took place on April 19, 2023. The purpose of this meeting was to connect the new Upper Level routes within the Piarco FIR to the Guadeloupe TMA. It provided an opportunity for Trinidad and Tobago and the Guadeloupe TMA to discuss the integration process and ensure effective coordination.
 - h) Note: A meeting with the TMA of Antigua and Barbuda is still outstanding.

— — — — —

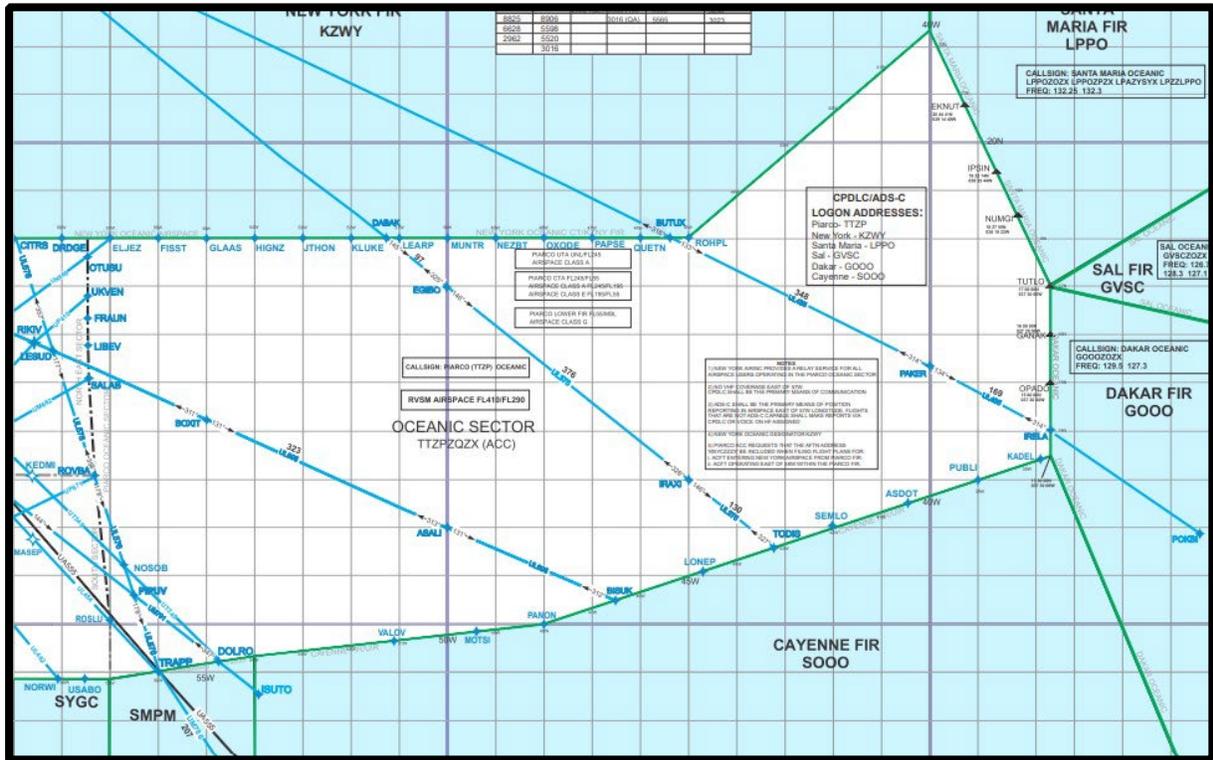


INTERNAL BOUNDARIES OF THE PIARCO CONTINENTAL AND OCEANIC SECTORS

PIARCO (TTZP) OPTIMIZED ROUTES – END TO END

For overall situational awareness, the optimized routes in the table below are predefined routes from origin to destination and have been coordinated, reviewed, and approved by all of the ANSPs along the route. Coordination of the following routes apply to Brazil, Guyana, Trinidad and Tobago and United States.

Optimized Routes	Predefined Routes - Origin to Destination
TTPP - KMIA	TTPP DCT ANADA DCT MUNOZ DCT HARBG Y330 FODED DCT MADIZ DCT FOXID DCT FLIPR FLIPR7 KMIA
KMIA - TTPP	KMIA SKIPS2 SKIPS Y290 HAGIT Y421 HARBG L452 ANADA UG449 PERGA ITRAK NAPKO LEXOR TALUS TTPP
KATL - SBGR	KATL VRSTY2 MCN DCT YANTI Q89 MANLE Y185 RENAH Y355 FIPEK Y294 GESSO L467 ANADA DCT KORTO DCT SUMVA SBGR
SBGR - KATL	SBGR SUMVA DCT KORTO DCT ANADA L452 HARBG Y421 HAGIT Y306 VENDS Y185 MANLE Q89 SHRKS DCT LAIRI DCT LARZZ JJEDI2 KATL



WAYPOINTS ON THE COMMON BOUNDARY BETWEEN THE PIARCO UTA/FIR AND CAYENNE UTA/FIR
Source: ECAR eAIP 7th Edition

APPENDIX B

Seventh Eastern Caribbean Civil Aviation Technical Group (E/CAR/CATG/7) Meeting
Miami, United States, 26-28 July 2023

CONCLUSIONS AND DECISIONS OF PREVIOUS MEETINGS THAT IMPACT THE ACTIVITIES OF THE E/CAR MEETINGS

1. North American, Central American and Caribbean Working Group (NACC/WG/RAP/2):

Number	Conclusion/Decision	Information to be integrated under:
DECISION NACC/WG/RAP/02/01	ASSESSMENT OF THE BASIC BUILDING BLOCKS (BBB)	ECAR/NTG, ECAR/RD, ECAR/CATG
DECISION NACC/WG/RAP/02/02	REGIONAL ASSESSMENT OF AVIATION SYSTEM BLOCK UPGRADE (ASBU) ELEMENTS	ECAR/NTG, ECAR/RD, ECAR/CATG
DECISION NACC/WG/RAP/02/03	CREATION OF AN AD-HOC GROUP TO CARRY OUT AN ANALYSIS OF THE ASBU ELEMENTS OF THE NAVIGATION AREA	ECAR/NTG, ECAR/RD, ECAR/CATG
DECISION NACC/WG/RAP/02/04	MEASUREMENT OF KEY PERFORMANCE INDICATORS (KPIs) OF REGIONAL PERFORMANCE	ECAR/NTG, ECAR/RD, ECAR/CATG
DECISION NACC/WG/RAP/02/05	SUPPORT THE DEVELOPMENT OF THE e-ANP VOLUME III	ECAR/NTG, ECAR/RD, ECAR/CATG
DECISION NACC/WG/RAP/02/06	CREATION OF A STRATEGY AND ROADMAP FOR THE IMPLEMENTATION OF AIR NAVIGATION FOR THE CAR REGION	ECAR/NTG, ECAR/RD, ECAR/CATG
DECISION NACC/WG/RAP/02/07	UPDATE OF INFORMATION ON INDICATORS THAT MEASURE THE LEVEL OF IMPLEMENTATION OF AIR NAVIGATION SERVICE	ECAR/NTG, ECAR/RD, ECAR/CATG
CONCLUSION NACC/WG/RAP/02/08	NACC/WG STRUCTURE CHANGE	ECAR/NTG, ECAR/RD, ECAR/CATG

2. Eleventh North American, Central American and Caribbean Directors of Civil Aviation Meeting (NACC/DCA/11):

Number	Conclusion/Decision	Information to be integrated under:
CONCLUSION NACC/DCA/11/5	APPROVAL OF NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN WORKING GROUP (NACC/WG) STRUCTURE AND 2023 WORKPLAN	ECAR/NTG, ECAR/RD, ECAR/CAT
CONCLUSION NACC/DCA/11/6	STATE SUPPORT FOR POPULATING THE CAR/SAM AIR NAVIGATION PLAN (ANP) VOLUME III	ECAR/NTG, ECAR/RD, ECAR/CATG
CONCLUSION NACC/DCA/11/7	ENHANCING CONTINGENCY AND EMERGENCY RESPONSE IN THE CAR REGION	ECAR/NTG, ECAR/RD, ECAR/CATG
CONCLUSION NACC/DCA/11/8	SUPPORT AIR TRAFFIC FLOW MANAGEMENT (ATFM) AND AIRSPACE OPTIMIZATION INITIATIVES	ECAR/NTG, ECAR/RD, ECAR/CATG



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

ICAO NACC REGIONAL OFFICE

ASBU TASK FORCE (NACC/WG/ASBU)¹

Introduction

The Basic Building Block (BBB) framework outlines the foundation of any robust air navigation system. It is nothing new but the identification of the essential services to be provided for international civil aviation in accordance with ICAO Standards. These essential services are defined in the areas of aerodromes, air traffic management, search and rescue, meteorology and information management. In addition to essential services, the BBB framework identifies the end users of these services as well as the assets (communications, navigation, and surveillance (CNS) infrastructure) that are necessary to provide them.

The BBB is considered an independent framework and not a block of the ASBU framework as they represent a baseline rather than an evolutionary step. This baseline is defined by essential services recognized by ICAO Member States as necessary for international civil aviation to develop in a safe and orderly manner. Once these essential services are provided, they constitute the baseline for any operational improvement.

The BBB framework will be updated every two years taking into account amendments to ICAO provisions. Although an initial draft of the BBB framework is presented online in the GANP Portal (<https://www4.icao.int/ganportal/BBB>), the BBBs will be included in a web-based application in a format similar to the ASBU framework.

The present document contains a series of tables of the five-air navigation areas integrated in the basic building blocks, with the objective that the tables serve as

¹ Document created by the CNS area of the ICAO NACC Regional Office.



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

an evaluation of the implementation status of the services integrated therein and identify opportunities for improvement in each of the areas.

How to integrate the data in the table?

To be completed by the State.				ICAO USOAP relate PQ	ICAO Evaluation	
Elements	Description	Reference/Guidance	State Observation	7	To be completed by ICAO NACC	
	3	4	5		Satisfactory	Deficiency
Comments: 6						

La tabla contiene 8 diferentes áreas:

1	2	3	4	5	6	7	8
Service are the elements to be evaluated according to the area of air navigation, which can be: <ul style="list-style-type: none"> – Meteorologic al services – Aeronautical information services – Search and rescue services – ATM services – Aerodrome operation services – CNS Infrastructure 	Describe the element to be assessed	Guidance and information concerning the item to be assessed in accordance with the ICAO Annexes.	Provides information from the Annex and other ICAO guidance material regarding the service requirement to be assessed.	Evaluation criteria: <ul style="list-style-type: none"> – Yes: implemented and operational – NO: not implemented – N/A: not applicable – TBD: in process of implementation 	Information to be provided by the State to certify the status of service implementation	Informative data	The last two columns will be the information completed by ICAO according to the evaluation of the information submitted by the State. Sat <ul style="list-style-type: none"> – Satisfactory : the State has correctly implemented the service. – Deficiency: It is a mandatory service that is not operating.



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

Basic Building Block (BBB) Framework

MET BASIC ELEMENTS/REFERENCES ICAO SARPs

1. MET References

- Annex 3: Meteorological Service for International Air Navigation
- Doc 8896: Manual of Aeronautical Meteorological Practice
- Doc 9873: Manual on the Quality Management System for the Provision of Meteorological Service to International Air Navigation
- Doc 9837: Manual on Automatic Meteorological Observing Systems at Aerodromes
- Doc 10003: Manual on the Digital Exchange of Aeronautical Meteorological Information
- Doc 9817: Manual on Low-level Wind Shear
- Doc 9691: Manual on Volcanic Ash, Radioactive Material and Toxic Chemical Clouds
- Doc 9328: Manual of Runway Visual Range Observing and Reporting Practices
- Doc 9377: Manual on Coordination between Air Traffic Services, Aeronautical Information Services and Aeronautical Meteorological Services
- Doc 9766: Handbook on the International Airways Volcano Watch (IAVW) — Operational Procedures and Contact List



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

1. Meteorological Services					ICAO USOAP relate PQ		ICAO Evaluation	
To be completed by the State.					CE	PQ	To be completed by ICAO NACC	
Elements	Description	Reference /Guidance	State Observation				Satisfactory	Deficiency
1.1 Flight Briefing Service	Provide meteorological information for Flight Services. See Annex 3, Appendix 8, to do review the BBB requirement. 1.1 Meteorological information shall be supplied to operators and flight crew members by one or more mechanisms as agreed between the meteorological authority and the operator concerned, and with the order shown below not implying priorities.	A3: Ch.:9; App.:8 Doc 8896, Doc 9873, Doc 10003	YES:	NO:	CE-6	7.412		
			N/A:	TBD:				
			Provide Information how State provide Satisfactorily fulfilling this requirement State comments:				CE-6	7.459



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

1.2 Meteorological Observation and Reports Service	Meteorological Office, Watch Office and other meteo services according with weather.	A3: Ch.:3,4; App.:2,3 Doc 8896, Doc 9873, Doc 9837, Doc 10003, Doc 9328, Doc 9377	YES:	NO:	CE-6	7.467		
	See Annex 3, Chapter 3.4 Meteorological watch Offices: 3.4.1 A Contracting State, having accepted the responsibility for providing air traffic services within a flight information region (FIR) or a control area (CTA), shall establish, in accordance with regional air navigation agreement, one or more MWOs, or arrange for another Contracting State to do so.		N/A:	TBD:	CE-7	7.465		
	See Annex 3, APPENDIX 2. Technical specifications related to global systems, supporting centres and meteorological offices. See Annex 3, APPENDIX 3 Technical specifications related to meteorological observations and reports.							
	Provide Information how State provide Satisfactorily fulfilling this requirement				CE-7	7.451		
	State comments:							



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

1.3 Aeronautical Meteorological Forecast Service	Meteorological Office, Watch Office and other meteo services according with weather. See Annex 3, CHAPTER 3. Global systems, supporting centres and meteorological offices. See Annex 3, CHAPTER 6. Forecasts. APPENDIX 2. Technical specifications related to global systems, supporting centres and meteorological offices. APPENDIX 5. Technical specifications related to forecasts	A3: Ch.:3,6; App.:2,5 Doc 8896, Doc 9873, Doc 10003, Doc 9377	YES:	NO:	CE-7	7.461		
			N/A:	TBD:	CE-7	7.463		
	Provide Information how State provide Satisfactorily fulfilling this requirement State comments:					CE-7	7.475	
1.4 Aeronautical Meteorological Warnings Service	Meteorological Office, Watch Office and other meteo services according with weather. See Annex 3 CHAPTER 8. Aeronautical climatological information. General provisions, climatological tables of aerodromes, data from meteorological observations.	A3: Ch.:7; App.:6 Doc 8896, Doc 9873, Doc 9817, Doc 9377	YES:	NO:	CE-7	7.476		
			N/A:	TBD:	CE-7	7.477		
	Provide Information how State provide Satisfactorily fulfilling this requirement State comments:							
1.5	SIGMET and AIRMET information, aerodrome warnings and wind shear warnings and alerts.	A3: Ch.:8; App.:7	YES:	NO:				



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

<p>Aeronautical Climatological Information Service</p>	<p>See Annex 3 CHAPTER 7. SIGMET and AIRMET information, aerodrome warnings and wind shear warnings and alerts. APPENDIX 6. Technical specifications related to SIGMET and AIRMET information, aerodrome warnings and wind shear warnings and alerts</p>	<p>Doc 8896, Doc 9873</p>	<p>N/A:</p>	<p>TBD:</p>			
<p>Provide Information how State provide Satisfactorily fulfilling this requirement State comments:</p>							
<p>1.6 SIGMET Service</p>	<p>Provide SIGMET Service. See Annex 3 CHAPTER 3. Global systems, supporting centres and meteorological offices. CHAPTER 7. SIGMET and AIRMET information, aerodrome warnings and wind shear warnings and alerts. APPENDIX 6. Technical specifications related to SIGMET and AIRMET information, aerodrome warnings and wind shear warnings and alerts APPENDIX 6-1 Specifications related to SIGMET information.</p>	<p>A3: Ch.:3,7; App.:6 Doc 8896, Doc 9873, Doc 10003, Doc 9377</p>	<p>YES:</p>	<p>NO:</p>			
<p>Provide Information how State provide Satisfactorily fulfilling this requirement State comments:</p>							



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

1.7 AIRMET Service	<p>Provide AIRMET Service See Annex 3 CHAPTER 3. Global systems, supporting centres and meteorological offices. CHAPTER 7. SIGMET and AIRMET information, aerodrome warnings and wind shear warnings and alerts. APPENDIX 6. Technical specifications related to SIGMET and AIRMET information, aerodrome warnings and wind shear warnings and alerts APPENDIX 6-2 Specifications related to AIRMET information.</p>	<p>A3: Ch.:3,7; App.:6 Doc 8896, Doc 9873, Doc 10003, Doc 9377</p>	YES:	NO:		
			N/A:	TBD:		
<p>Provide Information how State provide Satisfactorily fulfilling this requirement State comments:</p>						
1.8 GAMET Service	<p>Provide GAMET service See Annex 3 CHAPTER 6. Forecasts APPENDIX 5. Technical specifications related to forecasts. Criteria related to TAF, Criteria related to trend Definitions of AIRMET information, long-range flight, GAMET area forecast, operations control and tropical cyclone; amendment of provisions for horizontal and key resolution to be used for gridded forecasts of winds and temperatures at altitude prepared by the world</p>	<p>A3: Ch.:6; App.:5 Doc 8896, Doc 9873, Doc 9377</p>	YES:	NO:		
			N/A:	TBD:		



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	area forecast centres; issuance of special reports on temperature changes at aerodromes.						
	Provide Information how State provide Satisfactorily fulfilling this requirement						
	State comments:						
1.9 AIREP	Provide AIREP service See Annex 3, CHAPTER 5. Aircraft observations and reports. APPENDIX 4. Technical specifications related to aircraft observations and reports APPENDIX 6. Technical specifications related to SIGMET and AIRMET information, aerodrome warnings and wind shear warnings and alerts <i>Note: - Details of the AIREP form is presented in the PANS-ATM (Doc. 4444).</i>	A3: Ch.:5; App.:4,6 Doc 8896, Doc 9873, Doc 9377	YES:	NO:			
			N/A:	TBD:			
	Provide Information how State provide Satisfactorily fulfilling this requirement						
	State comments:						
1.10 WAFS Service	Provide WAFS Service See Annex 3 CHAPTER 3. Global systems, supporting centres and meteorological offices 3.1 World area forecast system The objective of the world area forecast system (WAFS) shall be to supply meteorological authorities and other users with global aeronautical meteorological en-route forecasts in digital	A3: Ch.:3; App.:2 Doc 8896, Doc 9873, Doc 10003	YES:	NO:			
			N/A:	TBD:			



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	form. This objective shall be achieved through a comprehensive, integrated, worldwide and, as far as practicable, uniform system, and in a cost-effective manner, taking full advantage of evolving technologies. APPENDIX 2. Technical specifications related to global systems, supporting centres and meteorological offices.						
	Provide Information how State provide Satisfactorily fulfilling this requirement State comments:						
1.11 IAVW Service	Provide IAVW Service See Annex 3 CHAPTER 3. Global systems, supporting centres and meteorological offices APPENDIX 2. Technical specifications related to global systems, supporting centres and meteorological offices. Note: - IAVW relies on the cooperation of aviation and non-aviation operational units using information obtained from observation sources and networks provided by States. ICAO coordinates surveillance with the cooperation of other interested international organisations.	A3: Ch.:3; App.:2 Doc 8896, Doc 9873, Doc 10003, Doc 9691, Doc 9377, Doc 9766	YES: N/A:	NO: TBD:			
	Provide Information how State provide Satisfactorily fulfilling this requirement State comments:						
1.12 TCAC Service	Provide TCAC Service	A3: Ch.:3; App.:2	YES:	NO:			



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>See Annex 3 CHAPTER 3. Global systems, supporting centres and meteorological offices APPENDIX 2. Technical specifications related to global systems, supporting centres and meteorological offices 3.7 Tropical cyclone advisory centres A Contracting State having accepted the responsibility for providing a tropical cyclone advisory centre (TCAC) shall arrange for that centre <i>(see Annex 3, point 3.7 in full)</i>.</p>	<p>Doc 8896, Doc 9873, Doc 10003, Doc 9377</p>	<p>N/A:</p>	<p>TBD:</p>				
	<p>Provide Information how State provide Satisfactorily fulfilling this requirement State comments:</p>							
<p>1.13 RMM Service</p>	<p>Provide RMM Service See Annex 3 CHAPTER 3. Global systems, supporting centres and meteorological offices APPENDIX 2. Technical specifications related to global systems, supporting centres and meteorological offices</p>	<p>A3: Ch.:3; App.:2 Doc 8896, Doc 9873, Doc 9691, Doc 9377</p>	<p>YES: N/A:</p>	<p>NO: TBD:</p>				
	<p>Provide Information how State provide Satisfactorily fulfilling this requirement State comments:</p>							



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

Aeronautical Information Services (5 services)

AIS References

- Annex 15: Aeronautical Information Services
- Annex 4: Aeronautical Charts
- PANS-AIM (Doc 10066): Aeronautical Information Management
- PANS-OPS (Doc 8168): Aircraft Operations
- Doc 8126: Aeronautical Information Services Manual

2. Aeronautical Information Services					ICAO USOAP relate PQ		ICAO Evaluation	
To be completed by the State.							To be completed by ICAO NACC	
Elements	Description	Reference/ Guidance	State Observation		CE	PQ	Satisfactory	Deficiency
2.1 Aeronautical data Originators	Aeronautical data Originators See Annex 15, CHAPTER 3. Aeronautical information management Information management requirements, validation, verification, data quality, metadata, data protection, automation, quality management and human factors.	A15: Ch.:3	YES:	NO:	CE-6	7.288		
			N/A:	TBD:				
							CE-6	7.321
	Provide Information how State provide Satisfactorily fulfilling this requirement State comments:				CE-6	7.291		



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

2.2 Aeronautical data Originators Aeronautical Information service	Pre-Flight Briefing Service NOTAM Service See Annex 15, CHAPTER 5. NOTAM Initiation, general specifications, distribution.	A15: Ch.:5 Doc 8126: Ch. 8	YES:	NO:	CE-7	7.303				
			N/A:	TBD:			CE-7	7.267		
Provide Information how State provide Satisfactorily fulfilling this requirement State comments:					CE-7	7.311				
2.3 Aeronautical data Originators Aeronautical Information service	Cartographic Service Flight Operations See Annex 15, CHAPTER 5. NOTAM	A15: Ch.:5 Doc 8126: Specimen AIP and Doc 8697: all	YES:	NO:			CE-7	7.309		
			N/A:	TBD:			CE-7	7.363		
Provide Information how State provide Satisfactorily fulfilling this requirement State comments:							CE-7	7.311		
2.4 Aeronautical data Originators Aeronautical Information service	Aeronautical Information Publication Service See Annex 15, CHAPTER 5. NOTAM	A15: Ch.:5 Doc 8126: Ch. 5 and its App., Specimen AIP	YES:	NO:						
			N/A:	TBD:						
Provide Information how State provide Satisfactorily fulfilling this requirement State comments:										



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

2.5 Aeronautical data Originators	Post-Flight Briefing Service See Annex 15, CHAPTER 5. NOTAM	PANS-AIM: Ch.5	YES:	NO:			
		Doc 8126: Ch. 8	N/A:	TBD:			
Aeronautical Information service	Provide Information how State provide Satisfactorily fulfilling this requirement State comments:						



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

Search and Rescue services (9 services)

SAR References

- Annex 11: Air Traffic Services
- Annex 12: Search and Rescue
- PANS-ATM (Doc 4444): Air Traffic Management
- Doc 9731: IAMSAR Manual - International Aeronautical and Maritime Search and Rescue Manual

3. Search and Rescue Services					ICAO USOAP relate PQ		ICAO Evaluation	
To be completed by the State.							To be completed by ICAO NACC	
Elements	Description	Reference/Guidance	State Observation		CE	PQ	Satisfactory	Deficiency
3.1 Alert Service	Receive emergency notification See Annex 11, CHAPTER 2. General. CHAPTER 5. Alerting service Alerting service. A service provided to notify relevant agencies of aircraft in need of search and rescue assistance and to assist such agencies as appropriate.	A11: Ch.:2,5 PANS-ATM: Ch. 9.2 and Ch. 10.2 IAMSAR Vol 1	YES:	NO:	CE-6	7.481		
			N/A:	TBD:				
					CE-6	7.513		
	Provide Information how State provide Satisfactorily fulfilling this requirement				CE-6	7.517		



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	State comments:						
3.2 INCERFA Coordination	INCERFA. The code word used to designate an uncertainty phase.	A12: Ch.:5	YES:	NO:	CE-6	7.525	
			N/A:	TBD:			
	Coordination See Annex 12, CHAPTER 5. Operating procedures See complete chapter, emergency information, coordination centres, coordination, etc.						
	Provide Information how State provide Satisfactorily fulfilling this requirement				CE-7	7.529	
	State comments:						
3.3 INCERFA Emergency Report	Evaluation-Emergency report See Annex 12, CHAPTER 5. Operating procedures See complete chapter, emergency information, coordination centres, coordination, etc.	A12: Ch.:5	YES:	NO:	CE-7	7.543	
			N/A:	TBD:			
	See complete chapter, emergency information, coordination centres, coordination, etc.						
	Provide Information how State provide Satisfactorily fulfilling this requirement				CE-7	7.545	
	State comments:						
3.4 ALERFA		A12: Ch.:3,5 and A11: Ch.:5	YES:	NO:			



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

Alert To Be Prepared	<p>ALERFA. The code word used to designate an alert phase.</p> <p>Alert To Be Prepared See Annex 12, CHAPTER 3. Cooperation Mechanism to do a coordination CHAPTER 5. Operating procedures.</p> <p>Annex 11,</p>	IAMSAR Vol 1 and IAMSAR Vol 2 Ch.:2,3	N/A:	TBD:			
<p>Provide Information how State provide Satisfactorily fulfilling this requirement</p> <p>State comments:</p>							
3.5 ALERFA Design Search Plan	Design Search Plan See Annex 12, CHAPTER 3. Cooperation Indicate cooperation mechanics Annex 11, CHAPTER 5. Alerting service	A12: Ch.:3,5 and A11: Ch.:5 IAMSAR Vol 1 and IAMSAR Vol 2 Ch.:5,6,7,8,9	YES:	NO:			
<p>Provide Information how State provide Satisfactorily fulfilling this requirement</p> <p>State comments:</p>							
3.6 DETRESFA Develop SAR Plan for Incident	<p>DETRESFA. The code word used to designate a distress phase.</p> <p>Develop SAR Plan for Incident See Annex 12, CHAPTER 3. Cooperation Indicate cooperation mechanics</p>	A12: Ch.:3,5 and A11: Ch.:5 IAMSAR Vol 1 and IAMSAR Vol 2 Ch.:5,6,7,8,9	YES:	NO:			
<p>Provide Information how State provide Satisfactorily fulfilling this requirement</p> <p>State comments:</p>							
			N/A:	TBD:			



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	Annex 11, CHAPTER 5. Alerting service						
	Provide Information how State provide Satisfactorily fulfilling this requirement						
	State comments:						
3.7 DETRESFA Implement SAR Plan for Incident Task	Implement SAR Plan for Incident Task See Annex 12, CHAPTER 3. Cooperation Indicate cooperation mechanics Annex 11, CHAPTER 5. Alerting service	A12: Ch.:3,5 and A11: Ch.:5 IAMSAR Vol 1 and IAMSAR Vol 2 Ch.:6,7,9	YES:	NO:			
			N/A:	TBD:			
	Provide Information how State provide Satisfactorily fulfilling this requirement						
	State comments:						
3.8 DETRESFA Implement SAR Plan for Incident Request	Implement SAR Plan for Incident Request See Annex 12, CHAPTER 3. Cooperation Indicate cooperation mechanics Annex 11, CHAPTER 5. Alerting service	A12: Ch.:3,5 and A11: Ch.:5 IAMSAR Vol 1 and IAMSAR Vol 2 Ch.:6,7,9	YES:	NO:			
			N/A:	TBD:			
	Provide Information how State provide Satisfactorily fulfilling this requirement						
	State comments:						
3.9 DETRESFA Implement SAR Plan for	Implement SAR Plan for Incident Notify See Annex 12, CHAPTER 3. Cooperation Indicate cooperation mechanics Annex 11, CHAPTER 5. Alerting service	A12: Ch.:3,5 and A11: Ch.:5 IAMSAR Vol 1 and IAMSAR Vol 2 Ch.:6,7,9	YES:	NO:			
			N/A:	TBD:			



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

Incident Notify	Provide Information how State provide Satisfactorily fulfilling this requirement State comments:			
--------------------	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

Air Traffic Management services (20 services)

ATM References

- Annex 11: Air Traffic Services
- Annex 4: Aeronautical Charts
- PANS-ATM (Doc 4444): Air Traffic Management
- PANS-OPS (Doc 8168): Aircraft Operations

4. Air Traffic Management Services					ICAO USOAP relate PQ		ICAO Evaluation	
To be completed by the State.							To be completed by ICAO NACC	
Elements	Description	Reference/ Guidance	State Observati on		CE	PQ	Satisfactory	Deficiency
4.1 ATM AIR TRAFFIC SERVICE AFIS (Alert Flight Information Service)	ALR See Annex 11, CHAPTER 2. General CHAPTER 5. Alerting service	A11: Ch.:2,5 PANS-ATM: Ch.:4,7,9,1 0	YES:	NO :	CE-6	7.075		
			N/A:	TB D:	CE-6	7.085		
	Provide Information how State provide Satisfactorily fulfilling this requirement State comments:					CE-7	7.109	



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

4.2 AIR TRAFFIC SERVICE TWR	ATC GND CTTRL See Annex 11, CHAPTER 2. General CHAPTER 6. Air traffic services requirements for communications CHAPTER 7. Air traffic services requirements for information	A11: Ch.:2,6,7 PANS-ATM: Ch.:4,5,6,1 0,11	YES: N/A:	NO : TB D:	CE-6	7.110		
					CE-6	7.111		
	Provide Information how State provide Satisfactorily fulfilling this requirement State comments:					CE-6	7.121	
4.3 AIR TRAFFIC SERVICE TWR	ATC DEP CLR See Annex 11, CHAPTER 2. General CHAPTER 6. Air traffic services requirements for communications CHAPTER 7. Air traffic services requirements for information	A11: Ch.:2,6,7 PANS-ATM: Ch.:4,5,6,1 0,11	YES: N/A:	NO : TB D:	CE-6	7.131		
					CE-6	7.133		
	Provide Information how State provide Satisfactorily fulfilling this requirement State comments:					CE-6	7.153	
4.4 AIR TRAFFIC SERVICE TWR	ATC LDG CLR See Annex 11, CHAPTER 2. General CHAPTER 6. Air traffic services requirements for communications CHAPTER 7. Air traffic services requirements for information	A11: Ch.:2,6,7 PANS-ATM: Ch.:4,5,6,1 0,11	YES: N/A:	NO : TB D:	CE-6	7.151		
					CE-6	7.155		
	Provide Information how State provide Satisfactorily fulfilling this requirement State comments:					CE-6	7.158	



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

4.5 AIR TRAFFIC SERVICE TWR	ATC SEP See Annex 11, CHAPTER 2. General CHAPTER 6. Air traffic services requirements for communications CHAPTER 7. Air traffic services requirements for information	A11: Ch.:2,6,7 PANS-ATM: Ch.:4,5,6,1 0,11	YES:	NO	CE-6	7.159		
			:	:				
			N/A:	TB D:			CE-6	7.162
Provide Information how State provide Satisfactorily fulfilling this requirement State comments:					CE-6	7.189		
4.6 AIR TRAFFIC SERVICE TWR	ATC COORD See Annex 11, CHAPTER 2. General CHAPTER 7. Air traffic services requirements for information	A11: Ch.:7 PANS-ATM: Ch.:6,10,11 ,16	YES:	NO	CE-7	7.081		
			:	:				
			N/A:	TB D:	CE-7	7.087		
Provide Information how State provide Satisfactorily fulfilling this requirement State comments:					CE-7	7.101		
4.7 AIR TRAFFIC SERVICE APP	ATC ARR CLR See Annex 11, CHAPTER 2. General CHAPTER 6. Air traffic services requirements for communications CHAPTER 7. Air traffic services requirements for information	A11: Ch.:2,6,7 PANS-ATM: Ch.:4,5,6	YES:	NO	CE-7	7.117		
			:	:				
			N/A:	TB D:	CE-7	7.119		
Provide Information how State provide Satisfactorily fulfilling this requirement					CE-7	7.135		



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

		State comments:						
4.8 AIR TRAFFIC SERVICE APP	ATC APCH CLR	A11: Ch.:2,6,7	YES:	NO :	CE-7	7.137		
	See Annex 11, CHAPTER 2. General CHAPTER 6. Air traffic services requirements for communications	PANS-ATM: Ch.:4,5,6	N/A:	TB D:	CE-7	7.139		
	CHAPTER 7. Air traffic services requirements for information	Provide Information how State provide Satisfactorily fulfilling this requirement			CE-7	7.177		
State comments:								
4.9 AIR TRAFFIC SERVICE APP	ATC SEP	A11: Ch.:2,6,7	YES:	NO :	CE-7	7.183		
	See Annex 11, CHAPTER 2. General CHAPTER 6. Air traffic services requirements for communications	PANS-ATM: Ch.:4,5,6	N/A:	TB D:	CE-7	7.185		
	CHAPTER 7. Air traffic services requirements for information	Provide Information how State provide Satisfactorily fulfilling this requirement			CE-7	7.187		
State comments:								
4.10 AIR TRAFFIC SERVICE APP	ATC COORD	A11: Ch.:7	YES:	NO :	CE-7	7.195		
	See Annex 11, CHAPTER 2. General CHAPTER 7. Air traffic services requirements for information	PANS-ATM: Ch.:6,10,11 ,16	N/A:	TB D:	CE-6	7.229		
	Provide Information how State provide Satisfactorily fulfilling this requirement				CE-6	7.253		



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

		State comments:								
4.11 AIR TRAFFIC SERVICE ACC	ATC ENR CLR See Annex 11, CHAPTER 2. General CHAPTER 6. Air traffic services requirements for communications CHAPTER 7. Air traffic services requirements for information	A11: Ch.:2,6,7	YES:	NO :	CE-6	7.247				
		PANS-ATM: Ch.:4,5	N/A:	TB D:			CE-6	7.249		
		Provide Information how State provide Satisfactorily fulfilling this requirement						CE-7	7.234	
		State comments:								
4.12 AIR TRAFFIC SERVICE ACC	ATC SEP See Annex 11, CHAPTER 2. General CHAPTER 6. Air traffic services requirements for communications CHAPTER 7. Air traffic services requirements for information	A11: Ch.:2,6,7	YES:	NO :	CE-7	7.243				
		PANS-ATM: Ch.:4,5	N/A:	TB D:			CE-7	7.255		
		Provide Information how State provide Satisfactorily fulfilling this requirement								
		State comments:								
4.13 AIR TRAFFIC SERVICE ACC	ATC COORD See Annex 11, CHAPTER 2. General CHAPTER 6. Air traffic services requirements for communications CHAPTER 7. Air traffic services requirements for information	A11: Ch.:2,6,7	YES:	NO :						
		PANS-ATM: Ch.:6,10,11 ,16	N/A:	TB D:						



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	Provide Information how State provide Satisfactorily fulfilling this requirement					
	State comments:					
4.14 AIR TRAFFIC SERVICE ACC	Flight Information Service (FIS) Traffic Information See Annex 11, CHAPTER 2. General CHAPTER 4. Flight information service CHAPTER 6. Air traffic services requirements for communications CHAPTER 7. Air traffic services requirements for information	A11: Ch.:2,4,6,7 PANS-ATM: Ch.:4,7,9,1 0	YES:	NO		
			N/A:	TB D:		
	Provide Information how State provide Satisfactorily fulfilling this requirement					
	State comments:					
4.15 AIR TRAFFIC SERVICE ACC	Flight Information Service (FIS) MET information See Annex 11, CHAPTER 2. General CHAPTER 7. Air traffic services requirements for information	A11: Ch.:2,7 PANS-ATM: Ch.:6,10	YES:	NO		
			N/A:	TB D:		
	Provide Information how State provide Satisfactorily fulfilling this requirement					
	State comments:					
4.16 AIR TRAFFIC SERVICE	Flight Information Service (FIS) Operational information See Annex 11, CHAPTER 2. General CHAPTER 7. Air traffic services requirements for information	A11: Ch.:2,7 PANS-ATM: Ch.:6,10	YES:	NO		
			N/A:	TB D:		



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

ACC FIS OPR INF							
	Provide Information how State provide Satisfactorily fulfilling this requirement State comments:						
4.17 AIR TRAFFIC SERVICE ACC	Flight Information Service (FIS) Coordination See Annex 11, CHAPTER 2. General CHAPTER 7. Air traffic services requirements for information	A11: Ch.:2,7 PANS-ATM: Ch.:6,10	YES: N/A:	NO : TB D:			
	Provide Information how State provide Satisfactorily fulfilling this requirement State comments:						
4.18 Airspace Management Procedure Design	Airspace Management Procedure Design See Annex 11, CHAPTER 2. General CHAPTER 6. Air traffic services requirements for communications Annex 4	A11: Ch.:2,6 and A4: Ch.: 1 PANS-OPS Vol. 2: Part I: Sec.: 2, Ch.: 4	YES: N/A:	NO : TB D:			
	Provide Information how State provide Satisfactorily fulfilling this requirement State comments:						
4.19	Airspace Management Route Structure		YES:	NO :			



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

Airspace Management Route Structure	See Annex 11, CHAPTER 2. General CHAPTER 6. Air traffic services requirements for communications Annex 4	A11: Ch.:2,6 and A4: Ch.: 1 PANS-OPS Vol. 2: Part I: Sec.: 2, Ch.: 4	N/A:	TB D:		
	Provide Information how State provide Satisfactorily fulfilling this requirement State comments:					
4.20 Airspace Management Segment Airspace	Airspace Management Segment Airspace See Annex 11, CHAPTER 2. General CHAPTER 6. Air traffic services requirements for communications Annex 4	A11: Ch.:2,6 and A4: Ch.: 1 PANS-OPS Vol. 2: Part I: Sec.: 2, Ch.: 4	YES: N/A:	NO : TB D:		
	Provide Information how State provide Satisfactorily fulfilling this requirement State comments:					



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

Aerodrome Operation Services (17 services)

AO References

- Annex 14: Aerodromes Volume I — Aerodrome Design and Operations
- Annex 10: Aeronautical Telecommunications Volume I — Radio Navigation Aids
- Doc 9157: Aerodromes Design Manual
- Doc 9184: Airport Planning Manual
- Doc 9137: Airport Services Manual
- Doc 9476: Manual of Surface Movement Guidance and Control Systems (SMGCS)
- Doc 9830: Advanced Surface Movement Guidance and Control Systems (A-SMGCS) Manual
- Doc 9870: Manual on the Prevention of Runway Incursions
- Doc 8071: Manual on Testing of Radio Navigation Aids
- Doc 9774: Manual on Certification of Aerodromes
- PANS-Aerodromes (Doc 9981): Aerodromes



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

5. Aerodrome Operation Services					ICAO USOAP relate PQ		ICAO Evaluation	
Name of international aerodrome: (ICAO COD.)							To be completed by ICAO NACC	
To be completed by the State.								
Elements	Description of Annexes:	Reference / Guidance	State Observation		CE	PQ	Sat.	Def.
5.1 Runways	Annex 14 Vol 1. 2.3.2 For an aerodrome used by international civil aviation for non-precision approaches, the elevation and geoid undulation of each threshold, the elevation of the runway end and any significant high and low intermediate points along the runway shall be measured to the accuracy of one-half metre or foot and reported to the aeronautical information services authority. 2.3.3 For precision approach runway, the elevation and geoid undulation of the threshold, the elevation of the runway end and the highest elevation of the touchdown zone shall be measured to the accuracy of one-quarter metre or foot and reported to the aeronautical information services authority. 2.5.1 The following data shall be measured or described, as appropriate, for each facility provided on an aerodrome:	A14 Vol 1: Ch.: 2, 3	YES:	NO:	CE6	8.137		
		Doc 9157, Doc 9137:	N/A:	TBD:	CE6	8.163		
		Part 2, Doc 9184:			CE6	8.191		
		Part 1, Doc 9870,			CE6	8.227		
		Doc 9774, Doc 9981:			CE6	8.145		
		Part 1, 2			CE7	8.147		



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>a) runway — true bearing to one-hundredth of a degree, designation number, length, width, displaced threshold location to the nearest metre or foot, slope, surface type, type of runway and, for a precision approach runway category I, the existence of an obstacle free zone when provided;</p> <p>b) strip, runway end safety area, stopway — length, width to the nearest metre or foot, surface type; and arresting system — location (which runway end) and description;</p> <p>f) clearway — length to the nearest metre or foot, ground profile;</p> <p>g) visual aids for approach procedures, marking and lighting of runways, taxiways and aprons, other visual guidance and control aids on taxiways and aprons, including taxi-holding positions and stopbars, and location and type of visual docking guidance systems;</p> <p>j) distances to the nearest metre or foot of localizer and glide path elements comprising an instrument landing system (ILS) or azimuth and elevation antenna of a microwave landing system (MLS) in relation to the associated runway extremities.</p> <p>2.5.2 The geographical coordinates of each threshold shall be measured and reported to the aeronautical information services authority in degrees, minutes, seconds and hundredths of seconds.</p> <p>2.6.1 The bearing strength of a pavement shall be determined.</p> <p>2.6.2 The bearing strength of a pavement intended for aircraft of apron (ramp) mass greater than 5 700 kg shall be made available using the aircraft classification number-pavement classification number (ACN-PCN) method by reporting all of the following information:</p> <p>a) pavement classification number (PCN);</p> <p>b) pavement type for ACN-PCN determination;</p>							
--	--	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>c) subgrade strength category; d) maximum allowable tire pressure category or maximum allowable tire pressure value; and e) evaluation method.</p> <p>2.6.3 The PCN reported shall indicate that aircraft with an aircraft classification number (ACN) equal to or less than the reported PCN can operate on the pavement subject to any limitation on the tire pressure or aircraft all-up mass for specified aircraft type(s).</p> <p>2.6.4 The ACN of an aircraft shall be determined in accordance with the standard procedures associated with the ACN-PCN method.</p> <p>2.6.5 For the purposes of determining the ACN, the behaviour of a pavement shall be classified as equivalent to a rigid or flexible construction.</p> <p>2.6.6 Information on pavement type for ACN-PCN determination, subgrade strength category, maximum allowable tire pressure category and evaluation method shall be reported using the following codes: (see Annex 14).</p> <p>2.8 Declared distances The following distances shall be calculated to the nearest metre or foot for a runway intended for use by international commercial air transport: a) take-off run available; b) take-off distance available; c) accelerate-stop distance available; and d) landing distance available.</p> <p>2.9.1 Information on the condition of the movement area and the operational status of related facilities shall be provided to the</p>							
--	--	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>appropriate aeronautical information services units, and similar information of operational significance to the air traffic services units, to enable those units to provide the necessary information to arriving and departing aircraft. The information shall be kept up to date and changes in conditions reported without delay.</p> <p>2.9.2 The condition of the movement area and the operational status of related facilities shall be monitored, and reports on matters of operational significance affecting aircraft and aerodrome operations shall be provided in order to take appropriate action, particularly in respect of the following: (see Annex 14)</p> <p>2.9.3 As of 4 November 2021, to facilitate compliance with 2.9.1 and 2.9.2, the following inspections shall be carried out each day:</p> <p>a) for the movement area, at least once where the aerodrome reference code number is 1 or 2 and at least twice where the aerodrome reference code number is 3 or 4; and</p> <p>b) for the runway(s), inspections in addition to a) whenever the runway surface conditions may have changed significantly due to meteorological conditions.</p> <p>2.9.4 As of 4 November 2021, personnel assessing and reporting runway surface conditions required in 2.9.2 and 2.9.5 shall be trained and competent to perform their duties.</p> <p>2.9.5 The runway surface condition shall be assessed and reported through a runway condition code (RWYCC) and a description using the following terms: (see Annex 14).</p> <p>2.9.6 Whenever an operational runway is contaminated, an assessment of the contaminant depth and coverage over each third of the runway shall be made and reported.</p>							
--	---	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>2.9.7 When friction measurements are used as part of the overall runway surface assessment on compacted snow- or ice-covered surfaces, the friction measuring device shall meet the standard set or agreed by the State.</p> <p>2.9.9 Information that a runway or portion thereof is slippery wet shall be made available.</p> <p>2.9.10 Notification shall be given to relevant aerodrome users when the friction level of a paved runway or portion thereof is less than the minimum friction level specified by the State in accordance with 10.2.3.</p> <p>3.1.22 The surface of a runway shall be constructed without irregularities that would impair the runway surface friction characteristics or otherwise adversely affect the take-off or landing of an aeroplane.</p> <p>3.1.23 A paved runway shall be so constructed or resurfaced as to provide surface friction characteristics at or above the minimum friction level set by the State.</p> <p>3.3.1 Where the end of a runway is not served by a taxiway or a taxiway turnaround and where the code letter is D, E or F, a runway turn pad shall be provided to facilitate a 180-degree turn of aeroplanes.</p> <p>3.3.6 The design of a runway turn pad shall be such that, when the cockpit of the aeroplane for which the turn pad is intended remains over the turn pad marking, the clearance distance between any wheel of the aeroplane landing gear and the edge of the turn pad shall be not less than that given by the following tabulation: (see table on pag 3-9 of Annex 14).</p>							
--	--	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>3.3.9 The surface of a runway turn pad shall not have surface irregularities that may cause damage to an aeroplane using the turn pad.</p> <p>3.4.1 A runway and any associated stopways shall be included in a strip.</p> <p>3.4.2 A strip shall extend before the threshold and beyond the end of the runway or stopway for a distance of at least:</p> <ul style="list-style-type: none"> — 60 m where the code number is 2, 3 or 4; — 60 m where the code number is 1 and the runway is an instrument one; and — 30 m where the code number is 1 and the runway is a non-instrument one. <p>3.4.3 A strip including a precision approach runway shall, wherever practicable, extend laterally to a distance of at least:</p> <ul style="list-style-type: none"> — 140 m where the code number is 3 or 4; and — 70 m where the code number is 1 or 2; <p>on each side of the centre line of the runway and its extended centre line throughout the length of the strip.</p> <p>3.4.7 No fixed object, other than visual aids required for air navigation or those required for aircraft safety purposes and which must be sited on the runway strip, and satisfying the relevant frangibility requirement in Chapter 5, shall be permitted on any part of a runway strip of a precision approach runway delineated by the lower edges of the inner transitional surfaces. No mobile object shall be permitted on this part of the runway strip during the use of the runway for landing or take-off.</p>							
--	---	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>3.4.10 The surface of that portion of a strip that abuts a runway, shoulder or stopway shall be flush with the surface of the runway, shoulder or stopway.</p> <p>3.5.1 A runway end safety area shall be provided at each end of a runway strip where:</p> <ul style="list-style-type: none"> — the code number is 3 or 4; and — the code number is 1 or 2 and the runway is an instrument one. <p>3.5.3 A runway end safety area shall extend from the end of a runway strip to a distance of at least 90 m where:</p> <ul style="list-style-type: none"> — the code number is 3 or 4; and — the code number is 1 or 2 and the runway is an instrument one. <p>If an arresting system is installed, the above length may be reduced, based on the design specification of the system, subject to acceptance by the State.</p> <p>3.5.5 The width of a runway end safety area shall be at least twice that of the associated runway.</p> <p>3.7.1 A stopway shall have the same width as the runway with which it is associated.</p> <p>3.7.4 The surface of a paved stopway shall be so constructed or resurfaced as to provide surface friction characteristics at or above those of the associated runway.</p>							
	<p>Provide Information how State provide Satisfactorily fulfilling this requirement State comments:</p>							



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

5.2 Taxiways	<p><u>Annex 14 Vol 1.</u></p> <p>2.5.1 The following data shall be measured or described, as appropriate, for each facility provided on an aerodrome:</p> <p>c) taxiway — designation, width, surface type;</p> <p>g) visual aids for approach procedures, marking and lighting of runways, taxiways and aprons, other visual guidance and control aids on taxiways and aprons, including taxi-holding positions and stopbars, and location and type of visual docking guidance systems;</p> <p>i) location and designation of standard taxi-routes;</p> <p>2.5.3 The geographical coordinates of appropriate taxiway centre line points shall be measured and reported to the aeronautical information services authority in degrees, minutes, seconds and hundredths of seconds.</p> <p>2.6.1 The bearing strength of a pavement shall be determined.</p> <p>2.6.2 The bearing strength of a pavement intended for aircraft of apron (ramp) mass greater than 5 700 kg shall be made available using the aircraft classification number-pavement classification number (ACN-PCN) method by reporting all of the following information:</p> <p>a) pavement classification number (PCN);</p> <p>b) pavement type for ACN-PCN determination;</p> <p>c) subgrade strength category;</p> <p>d) maximum allowable tire pressure category or maximum allowable tire pressure value; and</p> <p>e) evaluation method.</p> <p>2.6.3 The PCN reported shall indicate that aircraft with an aircraft classification number (ACN) equal to or less than the reported PCN can</p>	A14 Vol 1: Ch.: 2, 3 Doc 9157, Doc 9137: Part 2, Doc 9184: Part 1, Doc 9870, Doc 9774, Doc 9981: Part 1, 2	YES:	NO:	CE6 -	8.227		
			N/A:	TBD:				



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>operate on the pavement subject to any limitation on the tire pressure or aircraft all-up mass for specified aircraft type(s).</p> <p>2.6.4 The ACN of an aircraft shall be determined in accordance with the standard procedures associated with the ACN-PCN method.</p> <p>2.6.5 For the purposes of determining the ACN, the behaviour of a pavement shall be classified as equivalent to a rigid or flexible construction.</p> <p>2.6.6 Information on pavement type for ACN-PCN determination, subgrade strength category, maximum allowable tire pressure category and evaluation method shall be reported using the following codes: (see Annex 14).</p> <p>2.6.8 The bearing strength of a pavement intended for aircraft of apron (ramp) mass equal to or less than 5 700 kg shall be made available by reporting the following information:</p> <p>a) maximum allowable aircraft mass; and</p> <p>b) maximum allowable tire pressure.</p> <p>2.9.1 Information on the condition of the movement area and the operational status of related facilities shall be provided to the appropriate aeronautical information services units, and similar information of operational significance to the air traffic services units, to enable those units to provide the necessary information to arriving and departing aircraft. The information shall be kept up to date and changes in conditions reported without delay.</p> <p>2.9.2 The condition of the movement area and the operational status of related facilities shall be monitored, and reports on matters of operational significance affecting aircraft and aerodrome operations</p>							
--	---	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>shall be provided in order to take appropriate action, particularly in respect of the following: (see Annex 14)</p> <p>2.9.3 As of 4 November 2021, to facilitate compliance with 2.9.1 and 2.9.2, the following inspections shall be carried out each day:</p> <p>a) for the movement area, at least once where the aerodrome reference code number is 1 or 2 and at least twice where the aerodrome reference code number is 3 or 4;</p> <p>3.9.3 The design of a taxiway shall be such that, when the cockpit of the aeroplane for which the taxiway is intended remains over the taxiway centre line markings, the clearance distance between the outer main wheel of the aeroplane and the edge of the taxiway shall be not less than that given by the following tabulation: (see table pag 3-19 of Annex 14)</p> <p>3.9.19 The width of that portion of a taxiway bridge capable of supporting aeroplanes, as measured perpendicularly to the taxiway centre line, shall not be less than the width of the graded area of the strip provided for that taxiway, unless a proven method of lateral restraint is provided which shall not be hazardous for aeroplanes for which the taxiway is intended.</p> <p>3.11.1 A taxiway, other than an aircraft stand taxilane, shall be included in a strip.</p> <p>3.12.2 A runway-holding position or positions shall be established:</p> <p>a) on the taxiway, at the intersection of a taxiway and a runway; and</p> <p>b) at an intersection of a runway with another runway when the former runway is part of a standard taxi-route.</p> <p>3.12.3 A runway-holding position shall be established on a taxiway if the location or alignment of the taxiway is such that a taxiing aircraft</p>							
--	---	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>or vehicle can infringe an obstacle limitation surface or interfere with the operation of radio navigation aids.</p> <p>3.12.5 A road-holding position shall be established at an intersection of a road with a runway.</p> <p>3.12.6 The distance between a holding bay, runway-holding position established at a taxiway/runway intersection or road-holding position and the centre line of a runway shall be in accordance with Table 3-2 and, in the case of a precision approach runway, such that a holding aircraft or vehicle will not interfere with the operation of radio navigation aids or penetrate the inner transitional surface.</p> <p>3.12.9 The location of a runway-holding position established in accordance with 3.12.3 shall be such that a holding aircraft or vehicle will not infringe the obstacle free zone, approach surface, take-off climb surface or ILS/MLS critical/ sensitive area or interfere with the operation of radio navigation aids.</p>								
	<p>Provide Information how State provide Satisfactorily fulfilling this requirement State comments:</p>								
<p>5.3 Aerodrome Design and Certificatio n - Aprons</p>	<p>Annex 14 Vol 1. 2.5.1 The following data shall be measured or described, as appropriate, for each facility provided on an aerodrome: d) apron — surface type, aircraft stands; g) visual aids for approach procedures, marking and lighting of runways, taxiways and aprons, other visual guidance and control aids</p>	<p>A14 Vol 1: Ch.: 2, 3 Doc 9157, Doc 9137: Part 2, Doc 9184:</p>	<p>YES: N/A:</p>	<p>NO: TBD:</p>	<p>CE6</p>	<p>8.227</p>			



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>on taxiways and aprons, including taxi-holding positions and stopbars, and location and type of visual docking guidance systems;</p> <p>2.5.4 The geographical coordinates of each aircraft stand shall be measured and reported to the aeronautical information services authority in degrees, minutes, seconds and hundredths of seconds.</p> <p>2.6.1 The bearing strength of a pavement shall be determined.</p> <p>2.6.2 The bearing strength of a pavement intended for aircraft of apron (ramp) mass greater than 5 700 kg shall be made available using the aircraft classification number-pavement classification number (ACN-PCN) method by reporting all of the following information:</p> <ul style="list-style-type: none"> a) pavement classification number (PCN); b) pavement type for ACN-PCN determination; c) subgrade strength category; d) maximum allowable tire pressure category or maximum allowable tire pressure value; and e) evaluation method. <p>2.6.3 The PCN reported shall indicate that aircraft with an aircraft classification number (ACN) equal to or less than the reported PCN can operate on the pavement subject to any limitation on the tire pressure or aircraft all-up mass for specified aircraft type(s).</p> <p>2.6.4 The ACN of an aircraft shall be determined in accordance with the standard procedures associated with the ACN-PCN method.</p> <p>2.6.5 For the purposes of determining the ACN, the behaviour of a pavement shall be classified as equivalent to a rigid or flexible construction.</p> <p>2.6.6 Information on pavement type for ACN-PCN determination, subgrade strength category, maximum allowable tire pressure</p>	<p>Part 1, Doc 9774, Doc 9981: Part 1, 2</p>						
--	---	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>category and evaluation method shall be reported using the following codes: (see Annex 14).</p> <p>2.6.8 The bearing strength of a pavement intended for aircraft of apron (ramp) mass equal to or less than 5 700 kg shall be made available by reporting the following information:</p> <p>a) maximum allowable aircraft mass; and b) maximum allowable tire pressure.</p> <p>2.9.1 Information on the condition of the movement area and the operational status of related facilities shall be provided to the appropriate aeronautical information services units, and similar information of operational significance to the air traffic services units, to enable those units to provide the necessary information to arriving and departing aircraft. The information shall be kept up to date and changes in conditions reported without delay.</p> <p>2.9.2 The condition of the movement area and the operational status of related facilities shall be monitored, and reports on matters of operational significance affecting aircraft and aerodrome operations shall be provided in order to take appropriate action, particularly in respect of the following: (see Annex 14)</p> <p>2.9.3 As of 4 November 2021, to facilitate compliance with 2.9.1 and 2.9.2, the following inspections shall be carried out each day:</p> <p>a) for the movement area, at least once where the aerodrome reference code number is 1 or 2 and at least twice where the aerodrome reference code number is 3 or 4;</p> <p>3.14.1 An isolated aircraft parking position shall be designated or the aerodrome control tower shall be advised of an area or areas suitable for the parking of an aircraft which is known or believed to be the</p>							
--	--	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	subject of unlawful interference, or which for other reasons needs isolation from normal aerodrome activities.								
	<p>Provide Information how State provide Satisfactorily fulfilling this requirement</p> <p>State comments:</p>								
5.4 Aerodrome Design and Certificatio n - Visual Aids	<p><u>Annex 14 Vol 1.</u></p> <p>2.5.1 The following data shall be measured or described, as appropriate, for each facility provided on an aerodrome:</p> <p>g) visual aids for approach procedures, marking and lighting of runways, taxiways and aprons, other visual guidance and control aids on taxiways and aprons, including taxi-holding positions and stopbars, and location and type of visual docking guidance systems;</p> <p>2.12 Visual approach slope indicator systems</p> <p>The following information concerning a visual approach slope indicator system installation shall be made available:</p> <p>a) associated runway designation number;</p> <p>b) type of system according to 5.3.5.2. For an AT-VASIS, PAPI or APAPI installation, the side of the runway on which the lights are installed, i.e. left or right, shall be given;</p> <p>c) where the axis of the system is not parallel to the runway centre line, the angle of displacement and the direction of displacement, i.e. left or right, shall be indicated;</p>	A14 Vol 1: Ch.: 2, 5, 6, 7 Doc 9157: Part 4, 5, 6, Doc 9184: Part 1, Doc 9476, Doc 9830, Doc 9870, Doc 9774, Doc 9981: Part 1	YES: N/A:	NO: TBD:	CE6 CE6 CE6 CE6 CE6 CE7 CE6 CE6	8.157 8.179 8.191 8.201 8.211 8.215 8.223 8.235 8.239			



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

<p>d) nominal approach slope angle(s). For a T-VASIS or an AT-VASIS this shall be angle Θ according to the formula in Figure 5-18 and for a PAPI and an APAPI this shall be angle $(B + C) \div 2$ and $(A + B) \div 2$, respectively as in Figure 5-20; and</p> <p>e) minimum eye height(s) over the threshold of the on-slope signal(s). For a T-VASIS or an AT-VASIS this shall be the lowest height at which only the wing bar(s) are visible; however, the additional heights at which the wing bar(s) plus one, two or three fly-down light units come into view may also be reported if such information would be of benefit to aircraft using the approach. For a PAPI this shall be the setting angle of the third unit from the runway minus 2', i.e. angle B minus 2', and for an APAPI this shall be the setting angle of the unit farther from the runway minus 2', i.e. angle A minus 2'.</p> <p>5.1 Indicators and signalling devices</p> <p>5.1.1 Wind direction indicator</p> <p>5.1.2 Landing direction indicator</p> <p>5.1.3 Signalling lamp</p> <p>5.1.4 Signal panels and signal area</p> <p>5.2 Markings</p> <p>5.2.1 General</p> <p>5.2.2 Runway designation marking</p> <p>5.2.3 Runway centre line marking</p> <p>5.2.4 Threshold marking</p> <p>5.2.5 Aiming point marking</p> <p>5.2.6 Touchdown zone marking</p> <p>5.2.7 Runway side stripe marking</p>					CE6	8.245			
						CE6	8.259		
						CE7	8.279		



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>5.2.8 Taxiway centre line marking 5.2.9 Runway turn pad marking 5.2.10 Runway-holding position marking 5.2.11 Intermediate holding position marking 5.2.12 VOR aerodrome checkpoint marking 5.2.13 Aircraft stand marking 5.2.14 Apron safety lines 5.2.15 Road-holding position marking 5.2.16 Mandatory instruction marking 5.2.17 Information marking 5.3 Lights 5.3.1 General 5.3.2 Emergency lighting 5.3.3 Aeronautical beacons 5.3.4 Approach lighting systems 5.3.5 Visual approach slope indicator systems 5.3.6 Circling guidance lights 5.3.7 Runway lead-in lighting systems 5.3.8 Runway threshold identification lights 5.3.9 Runway edge lights 5.3.10 Runway threshold and wing bar lights 5.3.11 Runway end lights 5.3.12 Runway centre line lights 5.3.13 Runway touchdown zone lights 5.3.14 Simple touchdown zone lights 5.3.15 Rapid exit taxiway indicator lights 5.3.16 Stopway lights</p>							
--	--	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>5.3.17 Taxiway centre line lights 5.3.18 Taxiway edge lights 5.3.19 Runway turn pad lights 5.3.20 Stop bars 5.3.21 Intermediate holding position lights 5.3.22 De-icing/anti-icing facility exit lights 5.3.23 Runway guard lights 5.3.24 Apron floodlighting 5.3.25 Visual docking guidance system 5.3.26 Advanced visual docking guidance system 5.3.27 Aircraft stand manoeuvring guidance lights 5.3.28 Road-holding position light 5.3.29 No-entry bar 5.3.30 Runway status lights 5.4 Signs 5.4.1 General 5.4.2 Mandatory instruction signs 5.4.3 Information signs 5.4.4 VOR aerodrome checkpoint sign 5.4.5 Aerodrome identification sign 5.4.6 Aircraft stand identification signs 5.4.7 Road-holding position sign 5.5 Markers 5.5.1 General 5.5.2 Unpaved runway edge markers 5.5.3 Stopway edge markers 5.5.4 Edge markers for snow-covered runways</p>							
--	--	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>5.5.5 Taxiway edge markers 5.5.6 Taxiway centre line markers 5.5.7 Unpaved taxiway edge markers 5.5.8 Boundary markers 6.1 Objects to be marked and/or lighted 6.2 Marking and/or lighting of objects 7.1 Closed runways and taxiways, or parts thereof 7.2 Non-load-bearing surfaces 7.3 Pre-threshold area 7.4 Unserviceable areas</p>							
	Comments:							
<p>5.5 Aerodrome Design and Certificatio n - Radio Navigation Aids</p>	<p>Annex 10 Vol 1: Ch 03. 3.1 Specification for ILS 3.1.2 Basic requirements 3.1.3 VHF localizer and associated monitor 3.1.4 Interference immunity performance for ILS localizer receiving systems 3.1.5 UHF glide path equipment and associated monitor 3.1.6 Localizer and glide path frequency pairing 3.1.7 VHF marker beacons 3.2 Specification for precision approach radar system 3.3 Specification for VHF omnidirectional radio range (VOR) 3.3.1 General 3.3.2 Radio frequency 3.3.3 Polarization and pattern accuracy 3.3.4 Coverage</p>	<p>A10 Vol 1: Ch.: 3 Doc 9157: Part 6, Doc 8071, Doc 9774, Doc 9981: Part 1</p>	<p>YES: N/A:</p>	<p>NO: TBD:</p>				



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>3.3.5 Modulations of navigation signals 3.3.6 Voice and identification 3.3.7 Monitoring 3.3.8 Interference immunity performance for VOR receiving systems 3.4 Specification for non-directional radio beacon (NDB) 3.4.2 Coverage 3.4.3 Limitations in radiated power 3.4.4 Radio frequencies 3.4.5 Identification 3.4.6 Characteristics of emissions 3.4.8 Monitoring 3.5 Specification for UHF distance measuring equipment (DME) 3.5.2 General 3.5.3 System characteristics 3.5.4 Detailed technical characteristics of transponder and associated monitor 3.5.5 Technical characteristics of interrogator 3.6 Specification for en-route VHF marker beacons (75 MHz) 3.7 Requirements for the Global Navigation Satellite System (GNSS) 3.9 System characteristics of airborne ADF receiving systems 3.11 Microwave landing system (MLS) characteristics</p>							
	<p>Comments:</p>							
<p>5.6 Aerodrome Design and Certificatio</p>	<p>Annex 14 Vol 1. 8.1 Electrical power supply systems for air navigation facilities 8.2 System design 8.3 Monitoring</p>	<p>A14 Vol 1: Ch.: 8 Doc 9157: Part 5, 6,</p>	<p>YES: N/A:</p>	<p>NO: TBD:</p>	<p>CE6</p>	<p>8.173</p>		



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

n Electrical Systems		Doc 9774, Doc 9981: Part 1			CE6	8.175		
					CE6	8.177		
					CE6	8.179		
					CE6	8.201		
					CE6	8.235		
					CE6	8.239		
	<p>Provide Information how State provide Satisfactorily fulfilling this requirement</p> <p>State comments:</p>							
5.7 Aerodrome Design and Certificatio	<p>Annex 14 Vol 1.</p> <p>1.5.1 Recommendation.— A master plan containing detailed plans for the development of aerodrome infrastructure should be established for aerodromes deemed relevant by States.</p> <p>1.5.2 Recommendation.— The master plan should:</p>	A14 Vol 1: Ch.: 1 Doc 9137: Part 9, Doc 9184:	YES: N/A:	NO: TBD:				



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

<p>n Terminals</p>	<p>a) contain a schedule of priorities including a phased implementation plan; and b) be reviewed periodically to take into account current and future aerodrome traffic. 1.5.3 Recommendation.— Aerodrome stakeholders, particularly aircraft operators, should be consulted in order to facilitate the master planning process using a consultative and collaborative approach. 1.5.4 Architectural and infrastructure-related requirements for the optimum implementation of international civil aviation security measures shall be integrated into the design and construction of new facilities and alterations to existing facilities at an aerodrome.</p>	<p>Part 1, Doc 9774, Doc 9981: Part 1</p>							
	<p>Provide Information how State provide Satisfactorily fulfilling this requirement State comments:</p>								
<p>5.8 Aerodrome Design and Certificatio n - Fencing</p>	<p><u>Annex 14 Vol 1.</u> 9.10.1 A fence or other suitable barrier shall be provided on an aerodrome to prevent the entrance to the movement area of animals large enough to be a hazard to aircraft. 9.10.2 A fence or other suitable barrier shall be provided on an aerodrome to deter the inadvertent or premeditated access of an unauthorized person onto a non-public area of the aerodrome. 9.10.3 Suitable means of protection shall be provided to deter the inadvertent or premeditated access of unauthorized persons into ground installations and facilities essential for the safety of civil aviation located off the aerodrome.</p>	<p>A14 Vol 1: Ch.: 9 Doc 9157: Part 6, Doc 9774, Doc 9981: Part 1</p>	<p>YES:</p>	<p>NO:</p>	<p>CE6</p>	<p>8.133</p>			
			<p>N/A:</p>	<p>TBD:</p>					



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>9.10.4 The fence or barrier shall be located so as to separate the movement area and other facilities or zones on the aerodrome vital to the safe operation of aircraft from areas open to public access.</p>							
	<p>Provide Information how State provide Satisfactorily fulfilling this requirement State comments:</p>							
<p>5.9 Aerodrome Operation and Certificatio n - Emergency Planning</p>	<p>Annex 14 Vol 1. 9.1.1 An aerodrome emergency plan shall be established at an aerodrome, commensurate with the aircraft operations and other activities conducted at the aerodrome. 9.1.2 The aerodrome emergency plan shall provide for the coordination of the actions to be taken in an emergency occurring at an aerodrome or in its vicinity. 9.1.3 The plan shall coordinate the response or participation of all existing agencies which, in the opinion of the appropriate authority, could be of assistance in responding to an emergency. 9.1.5 Recommendation.— The aerodrome emergency plan document should include at least the following: a) types of emergencies planned for; b) agencies involved in the plan; c) responsibility and role of each agency, the emergency operations centre and the command post, for each type of emergency; d) information on names and telephone numbers of offices or people to be contacted in the case of a particular emergency; and</p>	<p>A14 Vol 1: Ch.: 9 Doc 9137: Part 7, 8, Doc 9774, Doc 9981: Part 1</p>	<p>YES: N/A:</p>	<p>NO: TBD:</p>	<p>CE6 CE7 CE6 CE6 CE6</p>	<p>8.291 8.293 8.297 8.299 8.313</p>		



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>e) a grid map of the aerodrome and its immediate vicinity.</p> <p>9.1.6 The plan shall observe human factors principles to ensure optimum response by all existing agencies participating in emergency operations.</p> <p>9.1.7 Recommendation.— A fixed emergency operations centre and a mobile command post should be available for use during an emergency.</p> <p>9.1.8 Recommendation.— The emergency operations centre should be a part of the aerodrome facilities and should be responsible for the overall coordination and general direction of the response to an emergency.</p> <p>9.1.9 Recommendation.— The command post should be a facility capable of being moved rapidly to the site of an emergency, when required, and should undertake the local coordination of those agencies responding to the emergency.</p> <p>9.1.10 Recommendation.— A person should be assigned to assume control of the emergency operations centre and, when appropriate, another person the command post.</p> <p>9.1.11 Recommendation.— Adequate communication systems linking the command post and the emergency operations centre with each other and with the participating agencies should be provided in accordance with the plan and consistent with the particular requirements of the aerodrome.</p> <p>9.1.12 The plan shall contain procedures for periodic testing of the adequacy of the plan and for reviewing the results in order to improve its effectiveness.</p> <p>9.1.13 The plan shall be tested by conducting:</p>							
--	---	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>a) a full-scale aerodrome emergency exercise at intervals not exceeding two years and partial emergency exercises in the intervening year to ensure that any deficiencies found during the full-scale aerodrome emergency exercise have been corrected; or b) a series of modular tests commencing in the first year and concluding in a full-scale aerodrome emergency exercise at intervals not exceeding three years; and reviewed thereafter, or after an actual emergency, so as to correct any deficiency found during such exercises or actual emergency.</p> <p>9.1.14 The plan shall include the ready availability of, and coordination with, appropriate specialist rescue services to be able to respond to emergencies where an aerodrome is located close to water and/or swampy areas and where a significant portion of approach or departure operations takes place over these areas.</p>								
	<p>Provide Information how State provide Satisfactorily fulfilling this requirement State comments:</p>								
<p>5.10 Aerodrome Operation and Certificatio n - Rescue</p>	<p><u>Annex 14 Vol 1.</u> 2.11.1 Information concerning the level of protection provided at an aerodrome for aircraft rescue and firefighting purposes shall be made available. 2.11.3 Changes in the level of protection normally available at an aerodrome for rescue and firefighting shall be notified to the appropriate air traffic services units and aeronautical information</p>	<p>A14 Vol 1: Ch.: 2, 9 Doc 9137: Part 1, 8, Doc 9774, Doc 9981: Part 1</p>	<p>YES: N/A:</p>	<p>NO: TBD:</p>	<p>CE6 CE7 CE6 CE7 CE7</p>	<p>8.153 8.155 8.297 8.301 8.305</p>			



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

and Firefighting	<p>services units to enable those units to provide the necessary information to arriving and departing aircraft. When such a change has been corrected, the above units shall be advised accordingly.</p> <p>9.2.1 Rescue and firefighting equipment and services shall be provided at an aerodrome when serving commercial air transport operations.</p> <p>9.2.2 Where an aerodrome is located close to water/swampy areas, or difficult terrain, and where a significant portion of approach or departure operations takes place over these areas, specialist rescue services and firefighting equipment appropriate to the hazard and risk shall be available.</p> <p>9.2.3 The level of protection provided at an aerodrome for rescue and firefighting shall be appropriate to the aerodrome category determined using the principles in 9.2.5 and 9.2.6, except that, where the number of movements of the aeroplanes in the highest category normally using the aerodrome is less than 700 in the busiest consecutive three months, the level of protection provided shall be not less than one category below the determined category.</p> <p>9.2.4 Recommendation.— The level of protection provided at an aerodrome for rescue and firefighting should be equal to the aerodrome category determined using the principles in 9.2.5 and 9.2.6.</p> <p>9.2.5 The aerodrome category shall be determined from Table 9-1 and shall be based on the longest aeroplanes normally using the aerodrome and their fuselage width.</p> <p>9.2.6 If, after selecting the category appropriate to the longest aeroplane's overall length, that aeroplane's fuselage width is greater than the maximum width in Table 9-1, column 3, for that category,</p>				CE7 CE6 CE7 CE7 CE7 CE7	8.307 8.309 8.311 8.315 8.317 8.319		
---------------------	---	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>then the category for that aeroplane shall actually be one category higher.</p> <p>9.2.7 During anticipated periods of reduced activity, the level of protection available shall be no less than that needed for the highest category of aeroplane planned to use the aerodrome during that time irrespective of the number of movements.</p> <p>9.2.11 The amounts of water for foam production and the complementary agents to be provided on the rescue and firefighting vehicles shall be in accordance with the aerodrome category determined under 9.2.3, 9.2.4, 9.2.5, 9.2.6 and Table 9-2, except that for aerodrome categories 1 and 2 up to 100 per cent of the water may be substituted with complementary agent. For the purpose of agent substitution, 1 kg of complementary agent shall be taken as equivalent to 1.0 L of water for production of a foam meeting performance level A.</p> <p>9.2.12 At aerodromes where operations by aeroplanes larger than the average size in a given category are planned, the quantities of water shall be recalculated and the amount of water for foam production and the discharge rates for foam solution shall be increased accordingly.</p> <p>9.2.13 The quantity of foam concentrates separately provided on vehicles for foam production shall be in proportion to the quantity of water provided and the foam concentrate selected.</p> <p>9.2.17 The discharge rate of the foam solution shall not be less than the rates shown in Table 9-2. 9.2.18 The complementary agents shall comply with the appropriate specifications of the International Organization for Standardization (ISO).*</p>							
--	--	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>9.2.25 Recommendation.— Rescue equipment commensurate with the level of aircraft operations should be provided on the rescue and firefighting vehicle(s).</p> <p>9.2.26 The operational objective of the rescue and firefighting service shall be to achieve a response time not exceeding three minutes to any point of each operational runway, in optimum visibility and surface conditions.</p> <p>9.2.30 Any vehicles, other than the first responding vehicle(s), required to deliver the amounts of extinguishing agents specified in Table 9-2 shall ensure continuous agent application and shall arrive no more than four minutes from the initial call.</p> <p>9.2.36 Recommendation.— All rescue and firefighting vehicles should normally be housed in a fire station. Satellite fire stations should be provided whenever the response time cannot be achieved from a single fire station.</p> <p>9.2.37 Recommendation.— The fire station should be located so that the access for rescue and firefighting vehicles into the runway area is direct and clear, requiring a minimum number of turns.</p> <p>9.2.38 Recommendation.— A discrete communication system should be provided linking a fire station with the control tower, any other fire station on the aerodrome and the rescue and firefighting vehicles.</p> <p>9.2.39 Recommendation.— An alerting system for rescue and firefighting personnel, capable of being operated from that station, should be provided at a fire station, any other fire station on the aerodrome and the aerodrome control tower.</p>							
--	--	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>9.2.40 Recommendation.— The minimum number of rescue and firefighting vehicles provided at an aerodrome should be in accordance with the following tabulation: (see Annex 14)</p> <p>9.2.41 All rescue and firefighting personnel shall be properly trained to perform their duties in an efficient manner and shall participate in live fire drills commensurate with the types of aircraft and type of rescue and firefighting equipment in use at the aerodrome, including pressure-fed fuel fires.</p> <p>9.2.42 The rescue and firefighting personnel training programme shall include training in human performance, including team coordination.</p> <p>9.2.45 All responding rescue and firefighting personnel shall be provided with protective clothing and respiratory equipment to enable them to perform their duties in an effective manner.</p>								
	<p>Provide Information how State provide Satisfactorily fulfilling this requirement State comments:</p>								
<p>5.11 Aerodrome Operation and Certificatio n - Disable Aircraft Removal</p>	<p>Annex 14 Vol 1. 2.10.1 Recommendation.— <i>The telephone/telex number(s) of the office of the aerodrome coordinator of operations for the removal of an aircraft disabled on or adjacent to the movement area should be made available, on request, to aircraft operators.</i> 2.10.2 Recommendation.— <i>Information concerning the capability to remove an aircraft disabled on or adjacent to the movement area should be made available.</i></p>	<p>A14 Vol 1: Ch.: 2, 9 Doc 9137: Part 5, 8, 9, Doc 9774, Doc 9981: Part 1</p>	<p>YES:</p>	<p>NO:</p>	<p>CE6 CE6</p>	<p>8.151 8.321</p>			



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>9.3.1 Recommendation.— A plan for the removal of an aircraft disabled on, or adjacent to, the movement area should be established for an aerodrome, and a coordinator designated to implement the plan, when necessary.</p> <p>9.3.2 Recommendation.— The disabled aircraft removal plan should be based on the characteristics of the aircraft that may normally be expected to operate at the aerodrome, and include among other things:</p> <p>a) a list of equipment and personnel on, or in the vicinity of, the aerodrome which would be available for such purpose; and</p> <p>b) arrangements for the rapid receipt of aircraft recovery equipment kits available from other aerodromes.</p>								
	<p>Provide Information how State provide Satisfactorily fulfilling this requirement</p> <p>State comments:</p>								
<p>5.12 Aerodrome Operation and Certificatio n - Wildlife Strike Hazard Reduction</p>	<p>Annex 14 Vol 1.</p> <p>9.4.1 The wildlife strike hazard on, or in the vicinity of, an aerodrome shall be assessed through:</p> <p>a) the establishment of a national procedure for recording and reporting wildlife strikes to aircraft;</p> <p>b) the collection of information from aircraft operators, aerodrome personnel and other sources on the presence of wildlife on or around the aerodrome constituting a potential hazard to aircraft operations; and</p>	<p>A14 Vol 1: Ch.: 9 Doc 9137: Part 3, 8, Doc 9774, Doc 9981: Part 1</p>	<p>YES: N/A:</p>	<p>NO: TBD:</p>	<p>CE6</p>	<p>8.331</p>			



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>c) an ongoing evaluation of the wildlife hazard by competent personnel.</p> <p>9.4.2 Wildlife strike reports shall be collected and forwarded to ICAO for inclusion in the ICAO Bird Strike Information System (IBIS) database.</p> <p>9.4.3 Action shall be taken to decrease the risk to aircraft operations by adopting measures to minimize the likelihood of collisions between wildlife and aircraft.</p> <p>9.4.4 The appropriate authority shall take action to eliminate or to prevent the establishment of garbage disposal dumps or any other source which may attract wildlife to the aerodrome, or its vicinity, unless an appropriate wildlife assessment indicates that they are unlikely to create conditions conducive to a wildlife hazard problem. Where the elimination of existing sites is not possible, the appropriate authority shall ensure that any risk to aircraft posed by these sites is assessed and reduced to as low as reasonably practicable.</p> <p>9.4.5 Recommendation.— States should give due consideration to aviation safety concerns related to land developments in the vicinity of the aerodrome that may attract wildlife.</p>							
	<p>Provide Information how State provide Satisfactorily fulfilling this requirement</p> <p>State comments:</p>							
<p>5.13 Aerodrome Operation and</p>	<p>Annex 14 Vol 1. 2.9.1 Information on the condition of the movement area and the operational status of related facilities shall be provided to the appropriate aeronautical information services units, and similar</p>	<p>A14 Vol 1: Ch.: 2, 9 Doc 9137: Part 8,</p>	<p>YES: N/A:</p>	<p>NO: TBD:</p>	<p>CE6 CE6 CE7 CE7</p>	<p>8.087 8.111 8.113 8.115</p>		



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

Certification - Operational Area Management	<p>information of operational significance to the air traffic services units, to enable those units to provide the necessary information to arriving and departing aircraft. The information shall be kept up to date and changes in conditions reported without delay.</p> <p>2.9.2 The condition of the movement area and the operational status of related facilities shall be monitored, and reports on matters of operational significance affecting aircraft and aerodrome operations shall be provided in order to take appropriate action, particularly in respect of the following:</p> <ul style="list-style-type: none"> a) construction or maintenance work; b) rough or broken surfaces on a runway, a taxiway or an apron; c) water, snow, slush, ice, or frost on a runway, a taxiway or an apron; d) anti-icing or de-icing liquid chemicals or other contaminants on a runway, taxiway or apron; e) snow banks or drifts adjacent to a runway, a taxiway or an apron; f) other temporary hazards, including parked aircraft; g) failure or irregular operation of part or all of the aerodrome visual aids; and h) failure of the normal or secondary power supply. <p>2.9.3 To facilitate compliance with 2.9.1 and 2.9.2, the following inspections shall be carried out each day:</p> <ul style="list-style-type: none"> a) for the movement area, at least once where the aerodrome reference code number is 1 or 2 and at least twice where the aerodrome reference code number is 3 or 4; and b) for the runway(s), inspections in addition to a) whenever the runway surface conditions may have changed significantly due to meteorological conditions. 	Doc 9870, Doc 9774, Doc 9981: Part 1			CE6	8.133		
					CE7	8.143		
					CE6	8.144		
					CE6	8.145		
					CE7	8.147		
					CE6	8.157		
					CE6	8.179		
					CE6	8.209		
					CE6	8.215		
					CE6	8.221		
					CE6	8.225		
					CE6	8.287		
					CE7	8.341		
					CE6	8.345		
CE6	8.347							



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>2.9.4 Personnel assessing and reporting runway surface conditions required in 2.9.2 and 2.9.5 shall be trained and competent to perform their duties.</p> <p>2.13.1 To ensure that aeronautical information services units obtain information to enable them to provide up-to-date pre-flight information and to meet the need for in-flight information, arrangements shall be made between aeronautical information services and aerodrome authorities responsible for aerodrome services to report to the responsible aeronautical information services unit, with a minimum of delay:</p> <ul style="list-style-type: none"> a) information on the status of certification of aerodromes and aerodrome conditions (ref. 1.4, 2.9, 2.10, 2.11 and 2.12); b) the operational status of associated facilities, services and navigation aids within their area of responsibility; c) any other information considered to be of operational significance. <p>2.13.2 Before introducing changes to the air navigation system, due account shall be taken by the services responsible for such changes of the time needed by aeronautical information services for the preparation, production and issue of relevant material for promulgation. To ensure timely provision of the information to aeronautical information services, close coordination between those services concerned is therefore required.</p> <p>2.13.3 Of a particular importance are changes to aeronautical information that affect charts and/or computer-based navigation systems which qualify to be notified by the aeronautical information regulation and control (AIRAC) system, as specified in Annex 15, Chapter 6. The predetermined, internationally agreed AIRAC effective</p>							
--	---	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>dates shall be observed by the responsible aerodrome services when submitting the raw information/data to aeronautical information services.</p> <p>9.5.3 An apron management service shall be provided with radiotelephony communications facilities.</p> <p>9.5.4 Where low visibility procedures are in effect, persons and vehicles operating on an apron shall be restricted to the essential minimum.</p> <p>9.5.5 An emergency vehicle responding to an emergency shall be given priority over all other surface movement traffic.</p> <p>9.5.6 A vehicle operating on an apron shall:</p> <ul style="list-style-type: none"> a) give way to an emergency vehicle; an aircraft taxiing, about to taxi, or being pushed or towed; and b) give way to other vehicles in accordance with local regulations. <p>9.5.7 An aircraft stand shall be visually monitored to ensure that the recommended clearance distances are provided to an aircraft using the stand.</p> <p>9.7.1 A vehicle shall be operated:</p> <ul style="list-style-type: none"> a) on a manoeuvring area only as authorized by the aerodrome control tower; and b) on an apron only as authorized by the appropriate designated authority. <p>9.7.2 The driver of a vehicle on the movement area shall comply with all mandatory instructions conveyed by markings and signs unless otherwise authorized by:</p> <ul style="list-style-type: none"> a) the aerodrome control tower when on the manoeuvring area; or b) the appropriate designated authority when on the apron. 							
--	---	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>9.7.3 The driver of a vehicle on the movement area shall comply with all mandatory instructions conveyed by lights.</p> <p>9.7.4 The driver of a vehicle on the movement area shall be appropriately trained for the tasks to be performed and shall comply with the instructions issued by:</p> <ul style="list-style-type: none"> a) the aerodrome control tower, when on the manoeuvring area; and b) the appropriate designated authority, when on the apron. <p>9.7.5 The driver of a radio-equipped vehicle shall establish satisfactory two-way radio communication with the aerodrome control tower before entering the manoeuvring area and with the appropriate designated authority before entering the apron. The driver shall maintain a continuous listening watch on the assigned frequency when on the movement area.</p> <p>9.8.1 A surface movement guidance and control system (SMGCS) shall be provided at an aerodrome.</p> <p>9.8.6 Where an SMGCS is provided by selective switching of stop bars and taxiway centre line lights, the following requirements shall be met:</p> <ul style="list-style-type: none"> a) taxiway routes which are indicated by illuminated taxiway centre line lights shall be capable of being terminated by an illuminated stop bar; b) the control circuits shall be so arranged that when a stop bar located ahead of an aircraft is illuminated, the appropriate section of taxiway centre line lights beyond it is suppressed; and c) the taxiway centre line lights are activated ahead of an aircraft when the stop bar is suppressed. <p>9.9.1 Unless its function requires it to be there for air navigation or for aircraft safety purposes, no equipment or installation shall be:</p>							
--	---	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>a) on a runway strip, a runway end safety area, a taxiway strip or within the distances specified in Table 3-1, column 11, if it would endanger an aircraft; or</p> <p>b) on a clearway if it would endanger an aircraft in the air.</p> <p>9.9.2 Any equipment or installation required for air navigation or for aircraft safety purposes which must be located:</p> <p>a) on that portion of a runway strip within:</p> <p>1) 75 m of the runway centre line where the code number is 3 or 4; or</p> <p>2) 45 m of the runway centre line where the code number is 1 or 2; or</p> <p>b) on a runway end safety area, a taxiway strip or within the distances specified in Table 3-1; or</p> <p>c) on a clearway and which would endanger an aircraft in the air; shall be frangible and mounted as low as possible.</p> <p>9.9.4 Unless its function requires it to be there for air navigation or for aircraft safety purposes, no equipment or installation shall be located within 240 m from the end of the strip and within:</p> <p>a) 60 m of the extended centre line where the code number is 3 or 4; or</p> <p>b) 45 m of the extended centre line where the code number is 1 or 2; of a precision approach runway category I, II or III.</p> <p>9.9.5 Any equipment or installation required for air navigation or for aircraft safety purposes which must be located on or near a strip of a precision approach runway category I, II or III and which:</p> <p>a) is situated within 240 m from the end of the strip and within:</p> <p>1) 60 m of the extended runway centre line where the code number is 3 or 4; or</p>							
--	---	--	--	--	--	--	--	--



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>2) 45 m of the extended runway centre line where the code number is 1 or 2; or b) penetrates the inner approach surface, the inner transitional surface or the balked landing surface; shall be frangible and mounted as low as possible. 9.12 Autonomous runway incursion warning system 9.12.1 Where an ARIWS is installed at an aerodrome: a) it shall provide autonomous detection of a potential incursion or of the occupancy of an active runway and a direct warning to a flight crew or vehicle operator; b) it shall function and be controlled independently of any other visual system on the aerodrome; c) its visual aid components, i.e. lights, shall be designed to conform with the relevant specifications in 5.3; and d) failure of part or all of it shall not interfere with normal aerodrome operations. To this end, provision shall be made to allow the ATC unit to partially or entirely shut down the system. 9.12.2 Where an ARIWS is installed at an aerodrome, information on its characteristics and status shall be provided to the appropriate aeronautical information services for promulgation in the AIP with the description of the aerodrome surface movement guidance and control system and markings as specified in Annex 15.</p>							
	<p>Provide Information how State provide Satisfactorily fulfilling this requirement State comments:</p>							
5.14	<u>Annex 14 Vol 1.</u>	A14 Vol 1: Ch.: 9	YES:	NO:	CE7	8.349		



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

<p>Aerodrome Operation and Certification - Ground Servicing of Aircraft</p>	<p>9.6.1 Fire extinguishing equipment suitable for at least initial intervention in the event of a fuel fire and personnel trained in its use shall be readily available during the ground servicing of an aircraft, and there shall be a means of quickly summoning the rescue and firefighting service in the event of a fire or major fuel spill. 9.6.2 When aircraft refuelling operations take place while passengers are embarking, on board or disembarking, ground equipment shall be positioned so as to allow: a) the use of a sufficient number of exits for expeditious evacuation; and b) a ready escape route from each of the exits to be used in an emergency.</p>	<p>Ground Handling Manual (To be prepared)</p>	<p>N/A:</p>	<p>TBD:</p>					
	<p>Provide Information how State provide Satisfactorily fulfilling this requirement State comments:</p>								
<p>5.15 Aerodrome Operation and Certification - Control of Obstacles</p>	<p>Annex 14 Vol 1. 4.1 Obstacle limitation surfaces 4.2 Obstacle limitation requirements 4.3 Objects outside the obstacle limitation 4.4 Other objects 6.1 Objects to be marked and/or lighted 6.2 Marking and/or lighting of objects</p>	<p>A14 Vol 1: Ch.: 4, 6 Doc 9137: Part 6, Doc 9774, Doc 9981: Part 1</p>	<p>YES: N/A:</p>	<p>NO: TBD:</p>	<p>CE6 CE7 CE6 CE7 CE7 CE7 CE7 CE7</p>	<p>8.191 8.223 8.259 8.273 8.277 8.279 8.385 8.387</p>			
	<p>Provide Information how State provide Satisfactorily fulfilling this requirement State comments:</p>								



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

5.16 Aerodrome Operation and Certificatio n - Aerodrome Maintenan ce	<u>Annex 14 Vol 1.</u> 10.1 General 10.2 Pavements 10.3 Removal of contaminants 10.4 Runway pavement overlays 10.5 Visual aids.	A14 Vol 1: Ch.: 10 Doc 9137: Part 2, 8, 9, Doc 9774, Doc 9981: Part 1	YES:	NO:	CE6	8.087		
					CE7	8.113		
			N/A:	TBD:	CE7	8.143		
					CE6	8.173		
					CE6	8.175		
					CE6	8.251		
					CE6	8.253		
					CE7	8.257		
					CE6	8.259		
					CE6	8.323		
	Provide Information how State provide Satisfactorily fulfilling this requirement State comments:							
5.17 Aerodrome Operation and Certificatio n - Safety Managemen t	<u>Annex 14 Vol 1.</u> 1.4.1 States shall certify aerodromes used for international operations in accordance with the specifications contained in this Annex as well as other relevant ICAO specifications through an appropriate regulatory framework. 1.4.3 The regulatory framework shall include the establishment of criteria and procedures for the certification of aerodromes. 1.4.4 As part of the certification process, States shall ensure that an aerodrome manual which will include all pertinent information on the aerodrome site, facilities, services, equipment, operating procedures, organization and management including a safety management system, is submitted by the applicant for approval/acceptance prior to granting the aerodrome certificate.	A14 Vol 1: Ch.: 1 Doc 9774, Doc 9981: Part 1, Doc 9870	YES:	NO:	CE6	8.085		
					CE6	8.091		
			N/A:	TBD:	CE6	8.093		
					CE6	8.111		
					CE7	8.143		
					CE6	8.144		
					CE6	8.145		
					CE7	8.147		
					CE6	8.153		
					CE7	8.155		
					CE6	8.163		
					CE7	8.171		
					CE6	8.204		
					CE7	8.223		



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

	<p>1.7.1 When the aerodrome accommodates an aeroplane that exceeds the certificated characteristics of the aerodrome, the compatibility between the operation of the aeroplane and aerodrome infrastructure and operations shall be assessed and appropriate measures developed and implemented in order to maintain an acceptable level of safety during operations.</p> <p>1.7.2 Information concerning alternative measures, operational procedures and operating restrictions implemented at an aerodrome arising from 1.7.1 shall be promulgated.</p>				<p>CE6 CE7 CE6 CE7 CE7</p>	<p>8.225 8.233 8.365 8.375 8.385</p>		
	<p>Provide Information how State provide Satisfactorily fulfilling this requirement State comments:</p>							

ASBU ELEMENTS ELEMENTS READY FOR IMPLEMENTATION

ACAS (Airborne Collision Avoidance System)

B0	B1	B2
	ACAS-B1/1 ACAS Improvements Operational	

ACDM (Airport Collaborative Decision Making)

B0	B1	B2
ACDM-B0/1 Airport CDM Information Sharing (ACIS) Operational		
ACDM-B0/2 Integration with ATM Network function Operational		

AMET (Advanced Meteorological Information)

B0	B1	B2
AMET-B0/1 Meteorological observations products Information		
AMET-B0/2 Meteorological forecast and warning products Information		
AMET-B0/3 Climatological and historical meteorological products Information		
AMET-B0/4 Dissemination of meteorological products Information		

APTA (Airport Accessibility)

B0	B1	B2
APTA-B0/1 PBN Approaches (with basic capabilities) Operational		
APTA-B0/2 PBN SID and STAR procedures (with basic capabilities) Operational		
B0	B1	B2
APTA-B0/3 SBAS/GBAS CAT I precision approach procedures Operational		
APTA-B0/4 CDO (Basic) Operational		
APTA-B0/5 CCO (Basic) Operational		

ASBU ELEMENTS ELEMENTS READY FOR IMPLEMENTATION

B0	B1	B2
APTA-B0/6 PBN Helicopter Point in Space (PinS) Operations Operational		
APTA-B0/7 Performance based aerodrome operating minima – Advanced aircraft Operational		
APTA-B0/8 Performance based aerodrome operating minima – Basic aircraft		

ASUR (Alternative Surveillance)

B0	B1	B2
ASUR-B0/1 Automatic Dependent Surveillance – Broadcast (ADS-B) Technology	ASUR-B1/1 Reception of aircraft ADS-B signals from space (SB ADS-B) Technology	
ASUR-B0/2 Multilateration cooperative surveillance systems (MLAT) Technology		
ASUR-B0/3 Cooperative Surveillance Radar Downlink of Aircraft Parameters (SSR-DAPS) Technology		

COMI (Communication infrastructure)

B0	B1	B2
COMI-B0/1 Aircraft Communication Addressing and Reporting System (ACARS) Technology		
COMI-B0/2 Aeronautical Telecommunication Network/Open System Interconnection (ATN/OSI) Technology	COMI-B1/2 VHF Data Link (VDL) Mode 2 Multi- Frequency Technology	
COMI-B0/3 VHF Data Link (VDL) Mode 0/A Technology	COMI-B1/3 SATCOM Class B Voice and Data Technology	
COMI-B0/4 VHF Data Link (VDL) Mode 2 Basic Technology	COMI-B1/4 Aeronautical Mobile Airport Communication System (AeroMACS) Ground-Ground Technology	
B0	B1	B2

ASBU ELEMENTS ELEMENTS READY FOR IMPLEMENTATION

COMI-B0/5 Satellite communications (SATCOM) Class C Data Technology		
COMI-B0/6 High Frequency Data Link (HF DL) Technology		
COMI-B0/7 ATS Message Handling System (AMHS) Technology		

COMS (ATS Communication service)

B0	B1	B2
COMS-B0/1 CPDLC (FANS 1/A & ATN B1) for domestic and procedural airspace Technology	COMS-B1/1 PBCS approved CPDLC (FANS 1/A+) for domestic and procedural airspace Technology	
COMS-B0/2 ADS-C (FANS 1/A) for procedural airspace Technology	COMS-B1/2 PBCS approved ADS-C (FANS 1/A+) for procedural airspace Technology	
	COMS-B1/3 SATVOICE (incl. routine communications) for procedural airspace Technology	

CSEP (Cooperative Separation)

B0	B1	B2
	CSEP-B1/1 Basic airborne situational awareness during flight operations (AIRB) Operational	
	CSEP-B1/2 Visual Separation on Approach (VSA) Operational	

DAIM (Digital Aeronautical Information Management)

B0	B1	B2
	DAIM-B1/2 Provision of digital Aeronautical Information Publication (AIP) data sets Information	
	DAIM-B1/3 Provision of digital terrain data sets Information	
B0	B1	B2
	DAIM-B1/4 Provision of digital obstacle data sets Information	

ASBU ELEMENTS ELEMENTS READY FOR IMPLEMENTATION

	DAIM-B1/5 Provision of digital aerodrome mapping data sets Information	
	DAIM-B1/6 Provision of digital instrument flight procedure data sets Information	
	DAIM-B1/7 NOTAM improvements Information	

DATS (Digital Aerodrome Air Traffic Services)

B0	B1	B2

FICE (Flight and Flow Information for a Collaborative Environment (FF-ICE))

B0	B1	B2
FICE-B0/1 Automated basic inter facility data exchange (AIDC) Information		

FRTO (Improved operations through enhanced en-route trajectories)

B0	B1	B2
FRTO-B0/1 Direct routing (DCT) Operational		
FRTO-B0/2 Airspace planning and Flexible Use of Airspace (FUA) Operational		
B0	B1	B2
FRTO-B0/3 Pre-validated and coordinated ATS routes to support flight and flow Operational		
FRTO-B0/4 Basic conflict detection and conformance monitoring Operational		

GADS (Global Aeronautical Distress and Safety System (GADSS))

B0	B1	B2
	GADS-B1/1 Aircraft Tracking Operational	GADS-B2/1 Location of an aircraft in Distress Operational

ASBU ELEMENTS ELEMENTS READY FOR IMPLEMENTATION

	GADS-B1/2 Operational Control Directory Operational	GADS-B2/2 Distress tracking information management Operational
		GADS-B2/4 Flight Data Recovery Operational

NAVS (Navigation systems)

B0	B1	B2
NAVS-B0/1 Ground Based Augmentation Systems (GBAS) Technology		
NAVS-B0/2 Satellite Based Augmentation Systems (SBAS) Technology		
NAVS-B0/3 Aircraft Based Augmentation Systems (ABAS) Technology		
NAVS-B0/4 Navigation Minimal Operating Networks (Nav. MON) Technology		

NOPS (Network Operations)

B0	B1	B2
NOPS-B0/1 Initial integration of collaborative airspace management with air traffic flow management Operational		
NOPS-B0/2 Collaborative Network Flight Updates Operational		
NOPS-B0/3 Network Operation Planning basic features Operational		
NOPS-B0/4 Initial Airport/ATFM slots and A-CDM Network Interface Operational		
NOPS-B0/5 Dynamic ATFM slot allocation Operational		

OPFL (Improved access to optimum flight levels in oceanic and remote airspace)

B0	B1	B2
----	----	----

ASBU ELEMENTS ELEMENTS READY FOR IMPLEMENTATION

OPFL-B0/1 In Trail Procedure (ITP) Operational		OPFL-B2/1 Separation minima using ATS surveillance systems where VHF voice communications are not available Operational
--	--	---

RSEQ (Improved traffic flow through runway sequencing)

B0	B1	B2
RSEQ-B0/1 Arrival Management Operational		
RSEQ-B0/2 Departure Management Operational		
RSEQ-B0/3 Point merge Operational		

SNET (Ground-based Safety Nets)

B0	B1	B2
SNET-B0/1 Short Term Conflict Alert (STCA) Operational	SNET-B1/1 Enhanced STCA with aircraft parameters Operational	
SNET-B0/2 Minimum Safe Altitude Warning (MSAW) Operational	SNET-B1/2 Enhanced STCA in complex TMAs Operational	
SNET-B0/3 Area Proximity Warning (APW) Operational		
SNET-B0/4 Approach Path Monitoring (APM) Operational		

SURF (Surface operations)

B0	B1	B2
SURF-B0/1 Basic ATCO tools to manage traffic during ground operations Operational		
SURF-B0/2 Comprehensive situational awareness of surface operations Operational	SURF-B1/2 Comprehensive pilot situational awareness on the airport surface Operational	
B0	B1	B2

ASBU ELEMENTS ELEMENTS READY FOR IMPLEMENTATION

SURF-B0/3 Initial ATCO alerting service for surface operations Operational		
--	--	--

SWIM (System Wide Information Management)

B0	B1	B2
		SWIM-B2/3 SWIM registry Information

TBO (Trajectory-based operations)

B0	B1	B2
TBO-B0/1 Introduction of time-based management within a flow centric approach. Operational		

WAKE (Wake Turbulence Separation)

B0	B1	B2