## APPENDIX C – Revised

## NAM/CAR ATFM Task Force Work Programme

Updated March 2019

# **ATFM Mission Statement**

The ATFM Work Programme (WP) provides specific initiatives for the development of a regional concept of ATFM implementation in NAM/CAR Region. This is consistent with ICAO Doc. 9971 and other related global documents. It takes into consideration the execution of a simple, basic, and incremental approach of promoting, sharing and implementing a regional, interoperable ATFM framework for global harmonization.

### INTRODUCTION

People, automation, technology and collaboration with system stakeholders (inclusive of academia) will be the core principles of this project. The Work Programme seeks to:

- 1. Establish consistent regional ATFM planning and operating practices
- 2. Encourage a collaborative and harmonized approach to ATFM amongst States and Regions
- 3. Foster a systemic approach to ATFM, inclusive of all ATM community members

The document takes into consideration the diverse range of experience, technology and available resources.

Note 1: This document shall be a guideline for establishing ATFM NAM/CAR goals and reviewed periodically throughout the year. A formal review each calendar year shall be conducted during the ANI/WG and NACC/WG meeting, so as to update/revise/modify its content for currency and applicability.

			Date
<ul> <li>Trainings and Workshops</li> <li>Develop an ATFM Training Programme, including training requirements for each ATFM position. (ATFM/TF/CADENA/01a)</li> <li>Training Program should include every level of training and objectives in line with ICAO TRAINAIR Plus Methodology. (ATFM/TF)</li> <li>Training Program shall be included as Appendix to the CAR/SAM ATFM CONOPS. (ATFM/TF/CADENA/01c)</li> <li>Organize appropriate workshops as needed.</li> </ul>	Provide a core foundation to build upon for regional participants	Trainings and workshops	31 December 2020
Status/Remarks: • Much training work already accomplished (the course was delivered)	1.2 times in 2018)		
<ul> <li>Which training work aready accomplished (the course was derivered CAR/SAM ATFM Concept of Operation Document)</li> <li>Establish and include the minimum guideline of ATFM tools and automation technologies and include them in the CAR/SAM ATFM Concept of Operations Document. (ATFM/TF/CADENA/04a)</li> <li>Included the guideline for the ATFM Contingency Plan in the CAR/SAM ATFM Concept of Operations Document.</li> <li>Include agreed regional KPIs in the CAR/SAM ATFM Concept of Operations Document.</li> <li></li></ul>	Create the ATFM Concept of Operation (CONOPS) Document that encompasses CAR and SAM to improve safety and efficiency of traffic flow between two regions.	CAR/SAM CONOPS doc	31 December 2020
Status/Remarks: • Work initiated.			•
<ul> <li>Contingency Plans</li> <li>Develop guidelines for ATFM Contingency Plans to be included in the CAR/SAM ATFM Concept of Operations Document.</li> <li>Establish a clear differentiation between the ATM Contingency Plans and the ATFM Contingency Plans.</li> <li>Consider interoperability and seamless continuity plan into the ATFM Contingency Plans (from original ATFM Work Programme Work Item 9)</li> </ul>	This Work Item will provide an adequate regional response to contingencies, and will reduce the harmful impact of these contingencies to the continuous flow of air traffic.	Contingency Plans	31 December 2020
Status/Remarks: • Was original Work Item 9: Contingency Planning.			
	<ul> <li>Training Program should include every level of training and objectives in line with ICAO TRAINAIR Plus Methodology. (ATFM/TF)</li> <li>Training Program shall be included as Appendix to the CAR/SAM ATFM CONOPS. (ATFM/TF/CADENA/01c)</li> <li>Organize appropriate workshops as needed.</li> <li>Status/Remarks: <ul> <li>Much training work already accomplished (the course was delivered</li> </ul> </li> <li>CAR/SAM ATFM Concept of Operation Document</li> <li>Establish and include the minimum guideline of ATFM tools and automation technologies and include them in the CAR/SAM ATFM Concept of Operations Document. (ATFM/TF/CADENA/04a)</li> <li>Included the guideline for the ATFM Contingency Plan in the CAR/SAM ATFM Concept of Operations Document.</li> <li>Include agreed regional KPIs in the CAR/SAM ATFM Concept of Operations Document.</li> </ul> <li>Status/Remarks: <ul> <li>Work initiated.</li> </ul> </li> <li>Contingency Plans</li> <li>Develop guidelines for ATFM Contingency Plans to be included in the CAR/SAM ATFM Concept of Operations Document.</li> <li>Establish a clear differentiation between the ATM Contingency Plans and the ATFM Contingency Plans.</li> <li>Consider interoperability and seamless continuity plan into the ATFM Contingency Plans (from original ATFM Work Programme Work Item 9)</li>	<ul> <li>Training Program should include every level of training and objectives in line with ICAO TRAINAIR Plus Methodology. (ATFM/TF)</li> <li>Training Program shall be included as Appendix to the CAR/SAM ATFM CONOPS. (ATFM/TF/CADENA/01c)</li> <li>Organize appropriate workshops as needed.</li> <li>Status/Remarks:</li> <li>Much training work already accomplished (the course was delivered 2 times in 2018)</li> <li>CAR/SAM ATFM Concept of Operation Document         <ul> <li>Establish and include the minimum guideline of ATFM tools and automation technologies and include them in the CAR/SAM ATFM Concept of Operations Document. (ATFM/TF/CADENA/04a)</li> <li>Included the guideline for the ATFM Contingency Plan in the CAR/SAM ATFM Concept of Operations Document.</li> <li>Include agreed regional KPIs in the CAR/SAM ATFM Concept of Operations Document.</li> </ul> </li> <li>Include agreed regional KPIs in the CAR/SAM ATFM Concept of Operations Document.</li> <li>Work initiated.</li> <li>Contingency Plans</li> <li>Develop guidelines for ATFM Contingency Plans to be included in the CAR/SAM ATFM Concept of Operations Document.</li> <li>Establish a clear differentiation between the ATM Contingency Plans and the ATFM Contingency Plans.</li> <li>Consider interoperability and seamless continuity plan into the ATFM Contingency Plans (from original ATFM Work Programme Work Item 9)</li> <li>Status/Remarks:</li> </ul>	<ul> <li>Training Program should include every level of training and objectives in line with ICAO TRAINAIR Plus Methodology. (ATFM/TF)</li> <li>Training Program shall be included as Appendix to the CAR/SAM ATFM CONOPS. (ATFM/TF/CADENA/01c)</li> <li>Organize appropriate workshops as needed.</li> <li>Status/Remarks:</li> <li>Much training work already accomplished (the course was delivered 2 times in 2018)</li> <li>CRR/SAM ATFM Concept of Operation Document automation technologies and include them in the CAR/SAM ATFM Concept of Operations Document. (ATFM/TF/CADENA/04a)</li> <li>Include agreed regional KPIs in the CAR/SAM ATFM Concept of Operations Document.</li> <li>Include agreed regional KPIs in the CAR/SAM ATFM Concept of Operations Document.</li> <li>Include agreed regional KPIs in the CAR/SAM ATFM Concept of Operations Document.</li> <li>Work initiated.</li> <li>Contingency Plans</li> <li>Work initiated.</li> <li>Consider interoperability and seamless continuity plan into the ATFM Contingency Plans. and the ATFM Contingency Plans.</li> <li>Consider interoperability and seamless continuity plan into the ATFM Contingency Plans (from original ATFM Work Programme Work Item 9)</li> <li>Status/Remarks:</li> </ul>

Activity	Objective	Deliverable	Date
<ul> <li>ATFM Regional Performance Measurement</li> <li>Establish Key Performance Indicators (KPIs) to be measured. For example, take-off time, off-block time and filed versus flown time.</li> <li>Identify when and how the KPIs will be measured, and with whom the information will be shared.</li> <li>Establish the guidelines of KPIs.</li> <li>Include the KPIs and associated guidelines into the CAR/SAM ATFM Concept of Operations Document.</li> </ul>	Understand operational performance and develop means and methods to improve performance.	KPI identification, definition, and associated guidelines	31 December 2020
Status/Remarks:			
<ul> <li>Supporting ICAO NACC Regional Work Associated with ATFM</li> <li>Support RPBANIP revision in the areas of ATFM including Regional Performance Objective (RPO), Implementation of Flexible Use Airspace and DCB</li> <li>Request States to consider implementing automated ATFM tools to predict demand and support demand and capacity balancing (DCB).</li> </ul>	Support ICOA NACC RO to accomplish ATFM related tasks	Necessary inputs, letters, papers, and documents.	31 December 2020
Status/Remarks: • States will report to ICAO NACC during CY 2019 on their completic	n of RPOs related to ATFM imple	mentation	
<ul> <li>Flexible Use Airspace</li> <li>Update Regional Performance Objective, Implementation of Flexible Use Airspace (FUA)</li> <li>Perform assessment of where FUA can be utilized/benefit</li> <li>Identify civil/military coordination entities</li> <li>Arrange for permanent liaison and cooperation between civil ATS and air defence units</li> <li>Conduct regional review of SUA</li> <li>Assess use of airspace management processs</li> <li>Review use of dynamic airspace processes</li> <li>Institute dynamic ATC sectorization and notification for demand and capacity</li> <li>Develop performance measurement programme</li> <li>Review/establish LOAs between FMUs /Military</li> <li>Data sharing between civil and military units</li> </ul>	Identify and facilitate the cooperation between Civil/Military Organizations for the movement of air traffic	Develop training, formalize LOAs, and pre- tactical coordination between organizations	31 December 2020
Status/Remarks: •		1	1
<ul> <li>ANI/WG Decision and ATFM TF Organization</li> <li>Provide progress report/update for Chairperson reference NACC/WG</li> <li>Keep this Work Programme updated</li> <li>Keep ATFM TF PoC list updated</li> <li>Facilitate ATFM TF Web Conferences as needed</li> <li>Facilitate ATFM TF Meeting as needed</li> <li>Coordinate ATFM matters with CADENA and stakeholders as needed</li> </ul>	Liaison with regional coordination group	Work Programme and ToR to ICAO RO	Permanen t (ANI/WG Meetings)
	<ul> <li>ATFM Regional Performance Measurement</li> <li>Establish Key Performance Indicators (KPIs) to be measured. For example, take-off time, off-block time and filed versus flown time.</li> <li>Identify when and how the KPIs will be measured, and with whom the information will be shared.</li> <li>Establish the guidelines of KPIs.</li> <li>Include the KPIs and associated guidelines into the CAR/SAM ATFM Concept of Operations Document.</li> <li>Status/Remarks: <ul> <li>Supporting ICAO NACC Regional Work Associated with ATFM</li> <li>Support RPBANIP revision in the areas of ATFM including Regional Performance Objective (RPO), Implementation of Flexible Use Airspace and DCB</li> <li>Request States to consider implementing automated ATFM tools to predict demand and support demand and capacity balancing (DCB).</li> </ul> </li> <li>Status/Remarks: <ul> <li>Status/Remarks:</li> <li>States will report to ICAO NACC during CY 2019 on their completion Flexible Use Airspace</li> <li>Update Regional Performance Objective, Implementation of Flexible Use Airspace (FUA)</li> <li>Perform assessment of where FUA can be utilized/benefit</li> <li>Identify civil/military coordination entities</li> <li>Arrange for permanent liaison and cooperation between civil ATS and air defence units</li> <li>Conduct regional Parce management process</li> <li>Review use of dynamic airspace processes</li> <li>Institute dynamic ATC sectorization and notification for demand and capacity</li> <li>Develop performance measurement programme</li> <li>Review/establish LOAs between FMUS /Military</li> <li>Data sharing between civil and military units</li> </ul> </li> <li>Status/Remarks: <ul> <li>MINWG Decision and ATFM TF Organization</li> <li>Provide progress report/update for Chairperson reference NACC/WG</li> <li>Keep this Work Programme updated</li> <li>Keep ATFM TF Web Conferences as needed</li> <li>Facilitate ATFM TF Meeting as needed</li> <li>Coordinate ATFM TF Meeting as needed</li> </ul> </li> </ul>	<b>ATFM Regional Performance Measurement</b> Understand operational performance indicators (KPIs) to be measured. For example, take-off time, off-block time and filed versus flown time.       Understand operational performance and develop means and methods to improve performance.         Identify when and how the KPIs will be measured, and with whom the information will be shared.       Establish the guidelines of KPIs.         Include the KPIs and associated guidelines into the CAR/SAM ATFM Concept of Operations Document.       Support ICOA NACC Ro to accomplish ATFM related tasks <b>Support IPBANIP revision in the areas of ATFM including Regional Performance Objective (RPO), implementation of Flexible Use Airspace and DCB</b> Support ICOA NACC Ro to accomplish ATFM related tasks         Request States to consider implementing automated ATFM tools to predict demand and support demand and capacity balancing (DCB).       Support ICOA NACC Ro to accomplish ATFM related to ATFM including Regional Performance Objective, Implementation of Flexible Use Airspace (FUA)       Identify and facilitate the cooperation between Civil ATS and air defence units <b>Status/Remarks:</b> Identify civil/military coordination entities       Identify and facilitate the cooperation between civil ATS and air defence units         • Update Regional Performance Bauer Programme       Assess use of airspace processes       Identify civil/Military Cognizations for the movement of air traffic         • Develop performance measurement programme       Review use of dynamic airspace processes       Liaison with regional cordination group         • Nevelop performance measureme	ATEM Regional Performance Measurement         Understand operational         KPI           Establish Key Performance and develop means and methods to improve performance and develop means and methods to improve performance.         KPI           identify when and how the KPIs will be measured, and with whom the information will be shared.         Establish the guidelines of KPIs.         Include the KPIs and associated guidelines into the CAR/SAM ATFM Concept of Operations Document.         Support ICOA NACC Regional Work Associated with ATFM Representation of Flexible Use Airspace and DCB         Support RDANP revision in the areas of ATFM including Regional Performance and States to consider implementation of Flexible Use Airspace and DCB         Necessary inputs, letters, pagers, and documents.           Status/Remarks:         •         Support ICOA NACC Regional Work Associated with ATFM tools to predict demand and support demand and capacity balancing (DCB).         Support ICOA NACC RO to accomplish ATFM related tasks         Necessary inputs, letters, pagers, and documents.           Status/Remarks:         •         Support ICOA NACC do to and CCA UNACC during CY 2019 on their completion of RPOs related to ATFM implementation of Flexible Use Airspace (FUA)         Identify and facilitate the cooperation between Civil ATS and air defined on the and and capacity balancing to the imprement liaison and cooperation between civil ATS and air defined on the and and capacity         Develop training, training

#### References:

- Manual on Collaborative Air Traffic Flow Management (Doc 9971)
- Caribbean/South American Air Traffic Flow Management Concept of Operation (CAR/SAM CONOPS ATFM)
- Global Air Traffic Management Operational Concept (Doc 9854)
- Manual on Air Traffic Management System Requirements (Doc 9882)
- Manual on Global Performance of the Air Navigation System (Doc 9883)
- Manual on Flight and Flow Information for a Collaborative Environment (Doc 9965)
- Civil/Military Cooperation in Air Traffic Management (Cir 330-AN/189)
- Procedures for Air Navigation Services Air Traffic Management (PANS-ATM, Doc 4444)

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