ANI/WG/3 — WP/19
30/03/16

Third NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/3)
Mexico City, Mexico, 4 to 6 April 2016

Agenda Item 4:	**Follow-up, Performance Evaluation and Monitoring of the NAM/CAR Regional Performance Based Air Navigation Implementation Plan (NAM/CAR RPBANIP) Targets**
	4.2 Evaluation of the Progress Implementation on Port-of-Spain Declaration and RPBANIP Targets

PROGRESS ON RPBANIP TARGETS

(Presented by the Secretariat)

EXECUTIVE SUMMARY
This paper presents the results of the survey conducted for the air navigation target, the webpage prototype, the current report provided to CAR/SAM Planning and Implementation Regional Group (GREPECAS) and to ICAO; and invites the Meeting to take actions on implementing a periodic reporting and thorough analysis of the regional targets defined in the RPBANIP.

Action:	The suggested actions are presented in Section 3.
Strategic Objectives:	• Safety • Air Navigation Capacity and Efficiency • Environmental Protection
References:	• Second NAM/CAR Air Navigation Implementation Working Group Meeting (ANI/WG/2), Puntarenas, Costa Rica, 1 to 4 June 2015 • State Letter Ref: NACC59843 - Status of Implementation of the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP) Air Navigation Targets, 7 March 2016 • State Letter Ref: AN 13/54-15/77 - Proposed fifth edition of the Global Air Navigation Plan (GANP, Doc 9750), 1 December 2015

1.   Introduction

1.1   Since the adoption of the Performance-based improvements followed by the ICAO ASBU methodology, reference NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (RPBANIP) version 3.1, the NAM/CAR Air Navigation Implementation Group (ANI/WG) in coordination with the ICAO NACC Regional Office had been monitoring and tracking the progress of the Air Navigation targets agreed in the RPBANIP for its implementation in the NAM and CAR Regions. Also note that the main RPBANIP targets were also adopted as the air navigation targets in the Port-of-Spain Declaration (POS).

1.2   The Air Navigation Reporting Form (ANRF) was the format adopted when using the Aviation System Block Upgrade (ASBU) methodology. During the ANI/WG/2 Meeting, the Secretariat expressed the concern for the lack of use of the ANRFs adopted with the RPBANIP and proposed several ideas for review and improvements for this form to be implemented, including an analysis of the air navigation metrics. Conclusion ANI/WG/2/20 ADOPTION OF NEW ANRF AND REPORTING APPROACH TO ASBU IMPLEMENTATION was agreed.

1.3   Similarly during the ANI/WG/02 Meeting it was recalled the agreements achieved from the ANI/WG/01 and NACC/WG/04 meetings to monitor the implementation through the ANRF contained in the ICAO ASBU Modules, whose information is part of the regional input to the global follow-up made in the Annual Global Air Navigation Report (2015 and 2016 Annual Reports) and feedback for the global Air Navigation Plan (GANP) and the Regional dashboards.

2.   Discussion

Monitoring of Targets

2.1   The list of air navigation targets is shown in **Appendix A.** Several of the targets have been provided from the data collected by the different ANI/WG TFs as contained in the different Implementation Plans. Similarly some targets and metrics shall be reviewed in light of the update of ICAO Standards and Recommended Practices (SARPs), as for example the ACAS II implementation, in which January 2017 is the mandatory date for all aircrafts to be equipped (ICAO Annex 10 - *Aeronautical Telecommunications*, Amendment 85).

2.2   To support the monitoring and tracking of the progress toward these targets and provide a visual reference for all States/ANSPs and relevant users, ICAO developed a webpage under the ICAO NACC Regional Office website. This webpage is still a prototype (http://www.icao.int/NACC/Pages/Implementation-Targets.aspx). States/ANSPs and IATA were required through a survey to provide information on each target as to ensure that the data included is up-to-date and consistent with each State National Air Navigation Plan priorities**. Appendix B** presents the results of this survey.

2.3   A proposed fifth edition of the Global Air Navigation Plan (GANP, Doc 9750) has been transmitted to Member States and appropriate international organizations for comments. This proposed fifth edition of the GANP was provided as an attachment to the electronic version of this State letter on the ICAO-NET (http://portal.icao.int). The proposed edition of the GANP is also available, along with other relevant documentation including an electronic copy of the Aviation System Block Upgrades (ASBUs) document, at: http://www.icao.int/airnavigation/Pages/GANP-Resources.aspx.

Reporting of Targets

2.4   Up-to-date the revised ANRF has not been implemented and the reporting of the progress toward the targets has been made by the Regional Offices to GREPECAS as shown in **Appendix C**. Even though the revised ANRF was proposed to the eANP CAR/SAM Volume III, due to the harmonization of this Volume by ICAO, the new Volume III will not be implemented until 2017.

2.5   The periodic reporting of the targets by each State/ANSP is key for the accurate presentation of the data and the identification of the operation benefits accompanying the progress.

2.6   Following ICAO commitment to assist and take the necessary actions to support the States in the completion of the reporting forms to ensure the proper understanding and appropriate provision of information for monitoring the implementation, an ASBU implementation workshop is scheduled for August 2016. This workshop looks to solve the difficulty for Regions/States to correlate their plans with the ICAO ASBU planning framework, using the ASBU working document and the elements for each module. The preliminary analysis conducted in the ANI/WG/02 Meeting for completing the air navigation targets would be an example to follow in this workshop- The objectives of this workshop are:

- Enable the participants to understand the air navigation performance planning process through the Fourth Edition of the Global Air Navigation Plan (GANP) and ASBU methodology.
- Provide participants with comprehensive knowledge on each of the ASBU block 0/block 1 modules priorities endorsed as part of the NAM/CAR Regional Air Navigation Implementation Group.
- Assist States in the development of their National performance action plans with a clearer vision on how to override the implementation challenges and roadblocks.
- Define the data/inputs to be provided by States and users for monitoring the agreed Key Performance Indicators (KPIs).
- Develop a monitoring/reporting framework and ensure the application of the revised Air Navigation Reporting Form (ANRF) proposed by the NAM/CAR Air Navigation Implementation Group.

Next steps in reporting and monitoring of targets

2.7　　　　The RPBANIP and PoS targets shall be reviewed by this ANI/WG Meeting and subsequently presented for the States in the upcoming NACC/DCA/6 Meeting in Bahamas in May 2016.

2.8　　　　The follow-up to these metrics/ targets will be an active activity of the ICAO NACC No Country Left Behind (NCLB) Strategy to ensure the appropriate and timely assistance to States for accomplishing the operational benefits foreseen in these targets.

3.　　　　Suggested Actions

3.1　　　　The Meeting is invited to:

　　a)　　revise the survey results presented in Appendix B and update/add any additional information to the data collected;

　　b)　　provide any comments on the webpage prototype as a tool to reflect the status of the achievement of the targets;

　　c)　　analyse the targets, status and formulation/criteria; as to propose changes or updates as needed;

　　d)　　propose new metrics/targets to reflect the operational benefits for the CAR/SAM and NAM regions; and

　　e)　　agree any other action as deemed appropriate by the Meeting.

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NAM/CAR RPBANIP AIR NAVIGATION TARGETS
Based on RPBANIP ver 3.1

Red text: POS Declaration Targets   **Updated: Dec 2015 for Council WP**

ASBU B0 Module	Element	Targets	Progress up to December 2015
B0-10/FRTO: Improved Operations through Enhanced En-Route Trajectories	1. Airspace Planning	100% of States to have completed a PBN plan by Dec. 2018	90%
	2. Flexible Use Airspace	50% of selected segregated airspaces available for civil operations by Dec. 2016	40%
B0-15/RSEQ: Improve Traffic Flow Through Runway Sequencing (AMAN/DMAN)	3. AMAN And Time-Based Metering	10% of selected aerodromes with AMAN and time based metering by Dec. 2016	Not available- under development
	4. Departure Management (DMAN)	10% of selected aerodromes with DMAN by Dec. 2016	Not available- under development
	5. Movement Area Capacity Optimization	20% of selected aerodromes with Airport-capacity calculated by Dec. 2016	10%
B0-40/TBO: Improved Safety and Efficiency through the initial application of En-Route Data Link	6. ADS-C Over Oceanic and Remote Areas	80% of selected FIRs with ADS-C implemented by December 2016	38.5 %
	7. CPDLC	80% of selected FIRs with CPDLC implemented by June 2018	75 %
B0-65/APTA: Optimization of Approach Procedures Including Vertical Guidance	8. APV with Baro VNAV	80% of instrument runways to have APV with Baro VNAV implemented by December 2016 – Service Providers and users	65.2%
	9. APV with SBAS (WAAS)	20% of instrument runways to have APV with SBAS/WAAS implemented by December 2018– Service Providers and users	28.2%
	10. APV with GBAS	20% of instrument runways to have APV with GBAS by December 2018 – Initial implementation at some States (services providers)	28.2%
	11. LNAV	60% of instrument runways to have LNAV procedure implemented by December 2016 – Service Providers and users as per Assembly Resolution A37-11	79.9%
B0-75/SURF Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)	12. Surveillance System for Ground Surface Movement (PSR, SSR, ADS B or Multilateration)	30% of selected aerodromes with SMR/ SSR Mode S/ ADS-B/ Multilateration for ground surface movement by June 2018 States/airport operator	Not available- under development
	13. On-board Surveillance Systems (transponder with ADS-B capacity)	20% of aircraft on the NAM/CAR State registries to have surveillance system on board (SSR transponder, ADS B capacity) by June 2018 Aircraft operators	Not available- under development
	14. Vehicle Surveillance Systems	20% of vehicles at selected aerodromes with a cooperative transponder systems by June 2018 Vehicle operators	Not available- under development

ASBU B0 Module	Element	Targets	Progress up to December 2015
	15. Visual Aids for Navigation	70% of selected aerodromes complying with visual aid requirements as per Annex 14 by December 2015 States/Airport operators	Not available- under development
	16. Aerodrome Bird/Wildlife Organization and Control Programme	70% of selected airports with an aerodrome bird/wildlife organization and control programme by December 2018 Airport operators	Not available- under development
B0-80/ACDM Improved Airport Operations through Airport - CDM	17. Airport – CDM	60% of selected aerodromes with Airport-CDM by Dec. 2018 – Airport Operator, Stakeholders	Not available- under development
	18. Aerodrome Certification	48% of international aerodromes to be certified in the CAR Region by December 2016– State CAA	34.46%
	19. Heliport Operations	30% of selected Heliports with operational approval by Dec. 2018 – State CAA	Not available- under development
B0-84/ASUR: Initial Capability for Ground Surveillance	20. Implementation of ADS-B	30% of selected aerodromes with ADS-B implemented by Dec 2018	0 %
	21. Implementation of Multilateration	80% of multilateration system implemented in selected aerodromes by June 2018	0%
B0-101/ACAS: ACAS Improvements	22. ACAS II (TCAS Version 7.1)	10% of aircraft on NAM/CAR State registries equipped with ACAS II (TCAS Version 7.1) by Dec 2018	Not available- under development
B0-102/SNET: Increased Effectiveness of Ground-Based Safety Nets	23. Short-term Conflict Alert Implementation (STCA)	80% of selected ATS units with ground based safety nets (STCA) implemented by Dec 2015	Not available- under development
	24. Area Proximity Warning (APW)/ Minimum Safe Altitude Warning (MSAW)	70% of selected ATS units with ground based safety nets (APW) implemented / 70% of selected ATS units with ground based safety nets (MSAW) implemented by Dec 2015	Not available- under development
	25. Medium-term Conflict Alert (MTCA)	80% of selected ATS units with ground based safety nets (MTCA) implemented by Dec 2016	Not available- under development
B0-105/AMET: Meteorological Information Supporting Enhanced Operational Efficiency and Safety	26. WAFS	100% of States implementation of WAFS Internet File Service (WIFS) by December 2014	100 %
	27. IAVW	70% of MWOs with IAVW procedures implemented by December 2014. Volcanic Ash Advisory Centre, Washington USA and VAAC Montréal, Montréal, Canada	77.78 %
	28. Tropical Cyclone Watch	100% of MWOs with tropical cyclone watch procedures implemented by December 2014. Tropical Cyclone Advisory Centre, Miami, USA	100 %
	29. Aerodrome Warnings	50% of selected aerodromes/AMOs with Aerodrome warnings implemented by December 2014	Not available- under development
	30. Wind Shear Warnings and Alerts	20% of selected aerodromes/AMOs with wind shear warnings procedures implemented (MET provider services) by December 2015	Not available- under development

ASBU B0 Module	Element	Targets	Progress up to December 2015
	31. SIGMET	90% of selected aerodromes/MWOs with SIGMET procedures implemented (MET provider services) by Dec. 2014	87.50 %
B0-25/FICE: Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration	32. MEVA III IP Network Implementation	100% implementation of MEVA III IP Network by MEVA Member States by August 2015	9.33%
	33. AMHS Implementation	4 States with Air Traffic Services Message Handling Services (AMHS) interconnected with other AMHS by December 2014	3
	34. AIDC Implementation	50% of FIRs within which all applicable ACCs have implemented at least one interface to use AIDC/OLDI with a neighbouring ACC by December 2016	81.82% (NAM/CAR)

42.86% (CAR) |
	35. ATN Router Structure Implementation	70% of ATN router structure implemented by June 2016	50 %
B0-30/DAIM: Service Improvement through Digital Aeronautical Information Management	36. QMS - AIM	100 % of States QMS Certified by Dec.2016	35.89%
	37. e.TOD Implementation	10 % of States e-TOD Implemented by Dec.2018	Not available- under development
	38. AIXM 5.1 Implementation	40 % of States with AIXM 5.1 implemented by Dec.2018	18 %
	39. e-AIP Implementation	45 % of States with e-AIP implemented by Dec.2018	10.3%
	40. Digital NOTAM	35 % of States with Digital NOTAM implemented by Dec. 2018	2.56 %
B0-35/NOPS: Improved Flow Performance through Planning Based on a Network-Wide View	41. Air Traffic Flow Management	100% of FIRs within which all ACCs have ATFM measures available by Dec. 2018	Not available- under development
B0-05/CDO: Improved Flexibility and Efficiency in Continuous Descent Operations (CDOs)	42. CDO implementation	50% of selected. Aerodromes with continuous descent operations (CDO) implemented by Dec.2016	30%
	43. PBN STARs	80% of selected. Aerodromes with PBN STARs implemented by Dec.2016	60%
B0-20/CCO: Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCOs)	44. CCO Implementation	60 % of selected aerodromes with continuous climb operations (CCO) implemented by Dec.2016	30%
	45. PBN SIDs Implementation	60% of selected aerodromes with PBN SIDs implemented by Dec.2016	60%

ASBU B0 Module	Element	Targets	Progress up to December 2015
	Results from 36-40	100% of Aeronautical Information Services (AIS) to implement AIM Roadmap – Phase I required elements by December 2016	79.49%
PBN related- RPBANIP environmental target	Result form PBN- IFSET	Reduce Regional CO2 emissions by 40,000 tons per year through PBN implementation by December 2016	Not available- under review in PBN implementation

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	Target	COCESNA		CUBA		República Dominicana		Trinidad y Tobago		French West Indies	
1. Airspace Planning	100% of States to have completed a PBN plan by Dec. 2018	YES		YES		YES	Completed	Yes		YES	LPV implementation on the 2 airports tfff and tffr in 2016. Review of the SID STAR RNAV organisation. Participation with PIARCO new airways organisation
2. Flexible Use Airspace	50% of selected segregated airspaces available for civil operations by Dec. 2016			YES		NO	Ongoing, Dec 2016	Not mentioned	Not applicable within state of Trinidad and Tobago.	no	no military zones
3. AMAN And Time-Based Metering	10% of selected aerodromes with AMAN and time based metering by Dec. 2016			NO	NO SELECCIONADO POR CUBA	NO	Completed	Not mentioned	Trinidad and Tobago has acquired an ATFM system which provides arrival demand information. At this point in time an arrival metering system is not required.	no	
4. Departure Management (DMAN)	10% of selected aerodromes with DMAN by Dec. 2016			NO	NO SELECCIONADO POR CUBA	NO	Completed	Not mentioned	Trinidad and Tobago has acquired an ATFM system which provides departure demand information. At this point in time a departure metering system is not required	no	
5. Movement Area Capacity Optimization	20% of selected aerodromes with Airport-capacity calculated by Dec. 2016			NO	NO SELECCIONADO POR CUBA	NO	Ongoing. Dec 2016	Not mentioned	At this point this is not required.	no	Not necessary at this time
6. ADS-C Over Oceanic and Remote Areas	80% of selected FIRs with ADS-C implemented by December 2016	YES		NO	NO APLICA	NO	N/A	No	Information to be updated. Trinidad and Tobago will meet this requirement by December 2016	no	TMA
7. CPDLC	80% of selected FIRs with CPDLC implemented by June 2018	YES		NO	NO APLICA	NO	Ongoing June 2018	No	Information to be updated. Trinidad and Tobago will meet this requirement by December 2016	no	TMA
8. APV with Baro VNAV	80% of instrument runways to have APV with Baro VNAV implemented by December 2016 – Service Providers and users			YES		NO	Ongoing Dic.2018	Not mentioned	Information to be updated TTPP – LNAV Approaches for both runway ends (10/28) are implemented. BARO-VNAV Approaches to be implemented by December 2016. TTCP – LNAV Approaches for both runway ends (11/29) are implemented. BARO-VNAV Approaches to be implemented by December 2016.	YES	In progress

	Target	COCESNA		CUBA		República Dominicana		Trinidad y Tobago		French West Indies	
9. APV with SBAS (WAAS)	20% of instrument runways to have APV with SBAS/WAAS implemented by December 2018– Service Providers and users			NO	WAAS NOT AVAILABLE LEGALLY	NO	[Ongoing Dic.2018	Not mentioned	At this point in time this is not required.	no	
10. APV with GBAS	20% of instrument runways to have APV with GBAS by December 2018 – Initial implementation at some States (services providers)			NO	NO REQUIREMENT OPERATIONAL	NO	Ongoing Punta Cana Airport.Dic.2016	Not mentioned	At this point in time this is not required.	no	
11. LNAV	60% of instrument runways to have LNAV procedure implemented by December 2016 – Service Providers and users as per Assembly Resolution A37-11			YES		NO	Completed	Not mentioned	Information to be updated. TTPP – LNAV Approaches for both runway ends (10/28) are implemented. TTCP – LNAV Approaches for both runway ends (11/29) are implemented.	yes	1
12. Surveillance System for Ground Surface Movement (PSR, SSR, ADS B or Multilateration)	30% of selected aerodromes with SMR/ SSR Mode S/ ADS-B/ Multilateration for ground surface movement by June 2018 States/airport operator			YES		NO	N/A	Not mentioned	At this point in time this is not required.	no	Not planified French over seas
13. On-board Surveillance Systems (transponder with ADS-B capacity)	20% of aircraft on the NAM/CAR State registries to have surveillance system on board (ADS B capacity) by June 2018 Aircraft operators			DIA	[Add the % of registered aircraft that is equipped with ADS-B capacity]	YES	Ongoing Regulation. Dic 2018 No		Caribbean Airlines have taken steps to have 10% of their fleet ADS-B compliant by June 2018 in accordance with the TTCAA instructions. Caribbean Airlines have indicated that they are still putting their plan in place for ADS-B out on the ATR but will comply with the TTCAA mandate for the fleet. Bristow Caribbean fleet are ABS-B compliant.	yes	More than 50%
14. Vehicle Surveillance Systems	20% of vehicles at selected aerodromes with a cooperative transponder systems by June 2018 Vehicle operators			NO	NO SELECCIONADO POR CUBA	YES	N/A	Not mentioned	At this point in time this is not required.	no	airport operator

	Target	COCESNA		CUBA		República Dominicana		Trinidad y Tobago		French West Indies	
15. Visual Aids for Navigation	70% of selected aerodromes complying with visual aid requirements as per Annex 14 by December 2015 States/Airport operators			DAD	[Add aerodromes that should be included in this target]	NO	Completed	Yes	Both international airports comply. Approach lights for RWY 10 in TTPP (Piarco) and RWY29 in TTCP(Robinson) not available. PAPIS not available RWY 29 TTCP. PAPIS on test RWY 28 TTPP	yes	100% PAPI
16. Aerodrome Bird/Wildlife Organization and Control Programme	70% of selected airports with an aerodrome bird/wildlife organization and control programme by December 2018 Airport operators			YES	[Add airports that should be included in this target]	NO	Completed	No	No Wildlife/Bird strike plan in place. Plans are in draft form. Adhoc wildlife/bird strike management is done. May 2017 should be effective date.	yes	100% airport operator
17. Airport – CDM	60% of selected aerodromes with Airport-CDM by Dec. 2018 – Airport Operator, Stakeholders			NO	NO SE HA INICIADO	YES	Ongoing. ACDM process of Implementation along with ATFM. Dic 2018	Not mentioned	Trinidad and Tobago not listed on dashboard however, CDM established at both international airports. (Airport Safety Management/Operations Committee Meeting)	no	
18. Aerodrome Certification	48% of international aerodromes to be certified in the CAR Region by December 2016– State CAA			YES		NO	Ongoing. 5 out of 8 in Certification Process. Dic 2016.	Yes	Both international airports certified annually.	yes	Civil aviation authorities
19. Heliport Operations	30% of selected Heliports with operational approval by Dec. 2018 – State CAA			NO	NO APLICA	NO	Completed	No	All operational heliports/helipads certified annually. Average 65 per year.	YES	Civil aviation authorities
20. Implementation of ADS-B	30% of selected aerodromes with ADS-B implemented by Dec 2018			YES		NO	Ongoing. Dic. 2018	Not mentioned		yes	Trials in 2017
21. Implementation of Multilateration	80% of Multilateration system implemented in selected aerodromes by June 2018			YES		NO	N/A	Not mentioned		no	Not planified French over seas
22. ACAS II (TCAS Version 7.1)	10% of aircraft on NAM/CAR State registries equipped with ACAS II (TCAS Version 7.1) by Dec 2018			DIA		NO	Ongoing. Dic. 2018	No	Caribbean Airlines have TCAS II installed on all B737 aircraft and have taken steps to have 10% of the 737 version 7.1 compliant by June 2018 in accordance with the TTCAA regulations. Currently all ATR are in compliance with the TTCAA instructions and TCAS11version 7.1		Civil aviation authorities

	Target	COCESNA		CUBA		República Dominicana		Trinidad y Tobago		French West Indies	
23. Short-term Conflict Alert Implementation (STCA)	80% of selected ATS units with ground based safety nets (STCA) implemented by Dec 2015	YES		YES		NO	Completed	Yes		yes	1
24. Area Proximity Warning (APW)/ Minimum Safe Altitude Warning (MSAW)	70% of selected ATS units with ground based safety nets (APW) implemented / 70% of selected ATS units with ground based safety nets (MSAW) implemented by Dec 2015			YES		NO	Completed	Yes		yes	1
25. Medium-term Conflict Alert (MTCA)	80% of selected ATS units with ground based safety nets (MTCA) implemented by Dec 2016	YES		YES		NO	Completed	Yes		no	Not planified French over seas
26. WAFS	100% of States implementation of WAFS Internet File Service (WIFS) by December 2014			YES		YES	Completed	Yes		?	
27. IAVW	70% of MWOs with IAVW procedures implemented by December 2014. Volcanic Ash Advisory Centre, Washington USA and VAAC Montréal, Montréal, Canada			YES		YES	Completed	Yes		yes	
28. Tropical Cyclone Watch	100% of MWOs with tropical cyclone watch procedures implemented by December 2014. Tropical Cyclone Advisory Centre, Miami, USA			YES		YES	Completed	Yes		yes	MET services
29. Aerodrome Warnings	50% of selected aerodromes/AMOs with Aerodrome warnings implemented by December 2014			YES		YES		Not mentioned	The Trinidad and Tobago Meteorological Service will be taking action for full Implementation of the provision of aerodrome warnings by 1st of June 2016.	yes	MET services
30. Wind Shear Warnings and Alerts	20% of selected aerodromes/AMOs with wind shear warnings procedures implemented (MET provider services) by December 2015			YES		YES	Possible implementation in Punta Cana Airport. Dec 2018	Not mentioned	Wind shear alerts to be provided with the implementation of the AWOS (Automatic Weather Observing System). Work is in progress.	no	AIREP

	Target	COCESNA		CUBA		República Dominicana		Trinidad y Tobago		French West Indies	
31. SIGMET	90% of selected aerodromes/MWOs with SIGMET procedures implemented (MET provider services) by Dec. 2014			YES		NO	Completed	Yes		Yes	1
32. MEVA III IP Network Implementation	100% implementation of MEVA III IP Network by MEVA Member States by August 2015	YES		YES		YES	Completed	Not mentioned	Not applicable	?	
33. AMHS Implementation	4 States with Air Traffic Services Message Handling Services (AMHS) interconnected with other AMHS by December 2014	PROJECT IN PROGRESS	Probably will ready for Central America States and COCESNA, December 2016.	NO	Since the beginning of 2014 Cuba and the United States conducted tests for the implementation of the AMHS. It must be concluded the pre-operational test on september 2016	YES	Completed	Yes	Trinidad and Tobago and the United States are currently engaged in interoperability message set testing. To be completed by July 2016.	no	2018 comsoft
34. AIDC Implementation	50% of FIRs within which all applicable ACCs have implemented at least one interface to use AIDC/OLDI with a neighbouring ACC by December 2016	YES		YES		NO	Ongoing. Testing with FAA. Dic. 2016	Yes	Trinidad and Tobago and the United States (New York Oceanic) will be engaged in testing of AIDC messages and it should be implemented by December 2016	no	2018 new ATM system
35. ATN Router Structure Implementation	70% of ATN router structure implemented by June 2016			YES		YES	Completed	No	ECAR AFS network 100% ATN/IP implemented.		
36. QMS - AIM	100 % of States QMS Certified by Dec.2016	YES		YES		YES	Completed	Yes		yes	
37. e.TOD Implementation	10 % of States e-TOD Implemented by Dec.2018			YES		YES	Ongoing Dec.2018	Yes		yes	
38. AIXM 5.1 Implementation	40 % of States with AIXM 5.1 implemented by Dec.2018	PROJECT IN PROGRESS	Probably will ready for Central America States and COCESNA, December 2016.	YES		YES	Ongoing. Dec 2018	No	Trinidad and Tobago is compliant.	yes	
39. e-AIP Implementation	45 % of States with e-AIP implemented by Dec.2018	PROJECT IN PROGRESS	Probably will ready for Central America States and COCESNA, December 2016.	YES		YES	Ongoing. Dec 2018	No	Trinidad and Tobago is compliant.	yes	1
40. Digital NOTAM	35 % of States with Digital NOTAM implemented by Dec. 2018			NO	DIGITAL NOTAM IN PLANNING FOR NOVEMBER 2020	YES	Ongoing. Dec 2018	Yes	Compliance by December 2018	no	
41. Air Traffic Flow Management	100% of FIRs within which all ACCs have ATFM measures available by Dec. 2018	YES		YES		NO	Ongoing. Dic 2016	No	ATFM procedures utilized in the Piarco FIR. An ATFM system will be in place by July 2016.	yes	

	Target	COCESNA		CUBA		República Dominicana		Trinidad y Tobago		French West Indies	
42. CDO implementation	50% of selected. Aerodromes with continuous descent operations (CDO) implemented by Dec.2016			YES		No	Completed	Not mentioned	CDOs will be implemented at TTPP and TTCP by December 2017.	no	In progress for 2017	
43. PBN STARs	80% of selected. Aerodromes with PBN STARs implemented by Dec.2016			YES		NO	Completed	Not mentioned	PBN STARs will be implemented at TTPP and TTCP by December 2017.	no	In progress for 2017	
44. CCO Implementation	60 % of selected aerodromes with continuous climb operations (CCO) implemented by Dec.2016			YES		NO	Completed	Not mentioned	CCOs will be implemented at TTPP and TTCP by December 2017.	no		
45. PBN SIDs Implementation	60% of selected aerodromes with PBN SIDs implemented by Dec.2016			YES		NO	Completed	Not mentioned	PBN SIDs will be implemented at TTPP and TTCP by December 2017.	no	In progress for 2017	
Results from 36-40	100% of Aeronautical Information Services (AIS) to implement AIM Roadmap – Phase I required elements by December 2016	YES	Excluding eTOD implementation because is a State´s responsibility.	YES		YES	Completed	Yes		yes	100% Phase 1	
Result form PBN-IFSET	Reduce Regional CO2 emissions by 40,000 tons per year through PBN implementation by December 2016	YES	To be calculated based on PBN improvements	YES	To be calculated based on PBN improvements	YES	Ongoing. To be calculated. Dec. 2016		Trinidad and Tobago is in the process of implementing a PBN Redesign of the Upper Level /Lower Level of the Piarco FIR airspace. This may be only partially implemented by September 2016. Trinidad and Tobago has also submitted an environmental action plan to ICAO and is currently in the process of collecting data to analyse.	yes	calculated by Eurocontrol	

APPENDIX C

**FORM TO FOLLOW UP ON THE PROGRESS ON INDICATORS AND TARGETS FOR THE
CAR/SAM REGIONS BY GREPECAS**
Revision: July 2015

Indicators		CAR		SAM	
		Current Value	**Goal December 2016**	**Current Value**	**Goal December 2016**
1. PBN TERMINAL	% of runways with APV instrument approach with Baro VNAV, in accordance with Resolution A-37/11	84.8%	80%	65.88%	100%
2. PBN EN-ROUTE	% of ATS routes with PBN	N/A	N/A	58%	60%
	% of international aerodromes with PBN SIDs/STARs	N/A	N/A	64.29%	60%
3. CDO	% of international aerodromes/TMAs with CDO	N/A	N/A	4,52%	40%
4. CCO	% of international aerodromes/TMAs with CCO	N/A	N/A	4,52%	40%
5. Fuel / C02 savings	Reduction of emissions based on IFSET	Not available	Annual reduction of 40,000 Tons of CO2	2014-51,132 Tons of CO2	Annual reduction of 40,000 Tons of CO2
6. ATFM	% of Area Control Centres (ACCs) providing Air Traffic Flow Management (ATFM) service	60%	100% (by December 2018)	52%	100%
7. AIM	% of elements (AIS to AIM roadmap) required for AIS-to-AIM transition that have been implemented in Phase I	80%	100% Goal of the Phase 1 composed of 4 elements	84%	100%
8. AMHS interconnection	% of AMHS interconnections at regional level	N/A	N/A	20%	100%
9. Interconnection of automated systems (ATS inter-facility data communications – AIDC)	% of automated system interconnections	81.82% (NAM/CAR)	50% of ACCs with at least 1 interface (AIDC/OLDI)	12%	100%

	Indicators	CAR		SAM	
		Current Value	**Goal December 2016**	**Current Value**	**Goal December 2016**
10. Implementation of domestic IP networks	% of SAM States with IP communication networks implemented	N/A	N/A	40%	80%
*11. Aerodrome Certification (*)	% certified aerodromes	35%	48%	12%	20%

(*) Safety oversight issued but managed by GREPECAS

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