



**SCT**  
SECRETARÍA DE  
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Dirección General de  
Aeronáutica Civil

**ANÁLISIS DE IMPACTO REGULATORIO  
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**ADJUNTO 12.- PLAN REGIONAL  
NAM/CAR DE IMPLEMENTACIÓN DE  
NAVEGACIÓN AÉREA BASADO EN LA  
PERFORMANCE  
(NAM/CAR RPBANIP)**

## ADJUNTO 11. - PLAN REGIONAL NAM/CAR DE IMPLEMENTACIÓN DE NAVEGACIÓN AÉREA BASADO EN LA PERFORMANCE (NAM/CAR RPBANIP)

### Air Navigation Targets

#### Background

Following the ICAO Assembly Resolution A35-15, Appendix B, the States and ICAO adopted the concept of Performance Framework for Air Navigation Systems, as well as the development of timely performance objectives and targets for the future system. The Third Meeting of North American, Central American and Caribbean Directors of Civil Aviation (NACC/DCA/3), held in Punta Cana, Dominican Republic, in September 2008, approved the NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (NAM/CAR RPBANIP) and agreed that the RPBANIP would be the valid reference for air navigation implementation activities for the NAM and CAR Regions.

The RPBANIP was updated by the NAM/CAR Air Navigation Implementation Working Group (ANI/WG) in July 2013, aligning the activities and strategies of the RPBANIP with the ICAO Aviation System Block Upgrade (ASBU) methodology. The final version 3 was finalized by the Third Meeting of the North America, Central America and Caribbean Working Group (NACC/WG/03) in March 2014. The Fifth Meeting of North American, Central American and Caribbean Directors of Civil Aviation (NACC/DCA/5), held in Port of Spain, Trinidad and Tobago, in April 2014, approved the RPBANIP Version 3.

#### Introduction

The RPBANIP establishes the NAM/CAR regional priorities described as Regional Performance objectives (RPO) to be accomplished during the period 2013 to 2018, aligned with the global air navigation priorities, and agreed regional performance-based metrics and indicators, and the ICAO ASBU Air Navigation Reporting Forms (ANRFs).

The RPBANIP is a living document that can be reviewed every three years, allowing more periodic amendments in order to maintain the validity, accuracy, and applicability of the Plan. The NAM/CAR Regions adopted, in principle, the 18 Block 0 (B0) modules of the ASBU methodology.

The RPBANIP agreed regional performance-based metrics and indicators are shown in the table below.

If you require any further information, please contact Mr. Luis R. Sánchez, ICAO NACC Regional Officer, Aeronautical Meteorology/Environment (lsanchez@icao.int) or Ms. Sybil Gómez, Assistant, (sgomez@icao.int).

ASBU B0 Module	Element	Targets
<b>B0-FRTO:Improved Operations through Enhanced En-Route Trajectories</b>	1.- Airspace Planning	100% of States to have completed a PBN plan by Dec. 2018
	2.-Flexible Use Airspace	50% of selected segregated airspaces available for civil operations by Dec. 2016



<b>B0-RSEQ: Improve Traffic Flow Through Runway Sequencing (AMAN/DMAN)</b>	3. AMAN And Time-Based Metering	10% of selected aerodromes with AMAN and time based metering by Dec. 2016
	4. Departure Management (DMAN)	10% of selected aerodromes with DMAN by Dec. 2016
	5. Movement Area Capacity Optimization	20% of selected aerodromes with Airport-capacity calculated by Dec. 2016
<b>B0-TBO: Improved Safety and Efficiency through the initial application of En-Route Data Link</b>	6. ADS-C Over Oceanic and Remote Areas	80% of selected FIRs with ADS-C implemented by December 2016
	7. CPDLC	80% of selected FIRs with CPDLC implemented by June 2018
<b>B0-APTA: Optimization of Approach Procedures Including Vertical Guidance</b>	8. APV with Baro VNAV	80% of instrument runways to have APV with Baro VNAV implemented by December 2016 – Service Providers and users
	9. APV with SBAS (WAAS)	20% of instrument runways to have APV with SBAS/WAAS implemented by December 2018– Service Providers and users
	10. APV with GBAS	20% of instrument runways to have APV with GBAS by December 2018 – Initial implementation at some States (services providers)
	11. LNAV	60% of instrument runways to have LNAV procedure implemented by December 2016 – Service Providers and users as per Assembly Resolution A37-11
<b>B0-SURF Safety and Efficiency of Surface Operations (A-SMGCS Level 1-2)</b>	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
	13. On-board Surveillance Systems	20% of aircraft on the NAM/CAR State registries to have surveillance system on



	(transponder with ADS-B capacity)	board (SSR transponder, ADS B capacity) by June 2018 Aircraft operators
	14. Vehicle Surveillance Systems	20% of vehicles at selected aerodromes with a cooperative transponder systems by June 2018 Vehicle operators
	15. Visual Aids for Navigation	70% of selected aerodromes complying with visual aid requirements as per Annex 14 by December 2015. States/Airport operators
	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
<b>B0-ACDM</b> <b>Improved Airport Operations through Airport - CDM</b>	17. Airport – CDM	60% of selected aerodromes with Airport-CDM by Dec. 2018 – Airport Operator, Stakeholders
	18. Aerodrome Certification	48% of international aerodromes to be certified in the CAR Region by December 2016– State CAA
	19. Heliport Operations	30% of selected Heliports with operational approval by Dec. 2018 – State CAA
<b>B0-ASUR</b> <b>Initial Capability for Ground Surveillance</b>	20. Implementation of ADS-B	30% of selected aerodromes with ADS-B implemented by Dec 2018
	21. Implementation of Multilateration	80% of multilateration system implemented in selected aerodromes by June 2018
<b>B0-ACAS: ACAS Improvements</b>	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



<b>B0-SNET Increased Effectiveness of Ground-Based Safety Nets</b>	23. Short-term Conflict Alert Implementation (STCA)	80% of selected ATS units with ground based safety nets (STCA) implemented by Dec 2015
	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
	25. Medium-term Conflict Alert (MTCA)	80% of selected ATS units with ground based safety nets (MTCA) implemented by Dec 2016
<b>B0-AMET: Meteorological Information Supporting Enhanced Operational Efficiency and Safety</b>	26. WAFS	100% of States implementation of WAFS Internet File Service (WIFS) by December 2014
	27. IAVW	70% of MWOs with IAVW procedures implemented by December 2014. Volcanic Ash Advisory Centre, Washington USA and VAAC Montréal, Montréal, Canada
	28. Tropical Cyclone Watch	100% of MWOs with tropical cyclone watch procedures implemented by December 2014. Tropical Cyclone Advisory Centre, Miami, USA
	29. Aerodrome Warnings	50% of selected aerodromes/AMOs with Aerodrome warnings implemented by December 2014
	30. Wind Shear Warnings and Alerts	20% of selected aerodromes/AMOs with wind shear warnings procedures implemented (MET provider services) by December 2015
	31. SIGMET	90% of selected aerodromes/MWOs with SIGMET procedures implemented (MET provider services) by Dec. 2014



<b>B0-FICE:</b> <b>Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration</b>	32. MEVA III IP Network Implementation	100% implementation of MEVA III IP Network by MEVA Member States by August 2015
	33. AMHS Implementation	4 States with Air Traffic Services Message Handling Services (AMHS) interconnected with other AMHS by December 2014
	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
	35. ATN Router Structure Implementation	70% of ATN router structure implemented by June 2016
<b>B0-DAIM:</b> <b>Service Improvement through Digital Aeronautical Information Management</b>	36. QMS - AIM	100 % of States QMS Certified by Dec.2016
	37. e.TOD Implementation	10 % of States e-TOD Implemented by Dec.2018
	38. AIXM 5.1 Implementation	40 % of States with AIXM 5.1 implemented by Dec.2018
	39. e-AIP Implementation	45 % of States with e-AIP implemented by Dec.2018
	40. Digital NOTAM	35 % of States with Digital NOTAM implemented by Dec. 2018
<b>B0-NOPS:</b> <b>Improved Flow Performance through Planning Based on a Network-Wide View</b>	41. Air Traffic Flow Management	100% of FIRs within which all ACCs have ATFM measures available by Dec. 2018
<b>B0-CDO:</b> <b>Improved Flexibility and Efficiency in</b>	42. CDO implementation	50% of selected. Aerodromes with continuous descent operations (CDO) implemented by Dec.2016



<b>Continuous Descent Operations (CDOs)</b>	43. PBN STARS	80% of selected. Aerodromes with PBN STARS implemented by Dec.2016
<b>B0-CCO: Improved Flexibility and Efficiency Departure Profiles - Continuous Climb Operations (CCOs)</b>	44. CCO Implementation	60 % of selected aerodromes with continuous climb operations (CCO) implemented by Dec.2016
	45. PBN SIDs Implementation	60% of selected aerodromes with PBN SIDs implemented by Dec.2016
<b>AIM Phase I</b>	46. Results from 36-40	100% of Aeronautical Information Services (AIS) to implement AIM Roadmap – Phase I required elements by December 2016

Fuente: <https://www.icao.int/NACC/Pages/Implementation-Targets.aspx>