



Agenda Item 2: Optimization of the SAM airspace

a) PBN regional implementation progress

UPDATE ON THE IMPLEMENTATION OF PBN IN PARAMARIBO FIR

(Presented by Suriname)

SUMMARY

The purpose of this paper is to inform the actions taken by Suriname according the PBN implementation progress, as well the updates on the procedures design by Suriname for the RNP approaches at the J. A. Pengel International Airport, as conceived by the PBN National Plan of Implementation of the Civil Aviation Department of paSuriname (CADSUR)

ICAO strategic objectives:

- A - Safety*
- B - Air navigation capacity and efficiency*
- C - Environmental protection*

1. Introduction

1.1 This information paper serves the purpose of providing an update on the known progress made by Suriname within the Paramaribo airspace and the TMA of Pengel Airport, with regards to the implementation of Performance Based Navigation (PBN) within the SAM Region.

1.2 Suriname has participated in several workshops/ meetings on PBN, that were organized by ICAO SAM regional office to support all SAM States on the PBN implementation in terminal areas (TMA) and enroute.

1.3 The results of our participation in these workshops/meetings has provided progressive results in the design of procedures for our main airport (SMJP) and the implementation of new and re-aligned routes in the Upper Controlled Area.

1.4 On the 17th August 2017 the implementation of 3 new and 1 re-aligned route with Brazil and Guyana, with the focus on the harmonization of the navigation specifications in the different airspaces in our Region, have taken place.

1.5 Suriname has adopted regulations for operations approval for the implementation of the (4) RNAV5 routes within the Paramaribo FIR (en-route airspace) using 40 NM longitudinal separation.

1.6 The Civil Aviation Department Suriname has committed to the reorganization of our airspace and implementation of Performance-Based Navigation (PBN), given the significant increase in international operations (arrivals, departures and especially overflights), that will only have positive results for the users in response to the efficiency in the provision of air traffic services (ATS), ensuring that this evolution is harmonious and integrated to ICAO planning.

1.7 Suriname has designed, in collaboration with a qualified airspace designer from Peru, procedures for the J.A. Pengel airport to implement PBN arrivals, departures (SID and STAR) and RNAV approaches that provide operational rewards for airspace users.

1.8 The designer, Mr. Tomas Macedo, has given a two (2) day teach-in to the ANS personnel about the previous concept of the procedures for the SMJP Aerodrome in February 2017. There were some small changes afterwards due to the fact that the ZY-VOR has been replaced and the installation of a new CAT-1 ILS at the SMJP aerodrome in July 2018.

1.9 Suriname's goal was to implement the above procedures in February 2018, but delayed it to the 3rd of January 2019 as the official implementation date of the RNP APCH RWY 11 and 29 for SMJP airport.

1.10 The updated procedures and charts have been flight checked and certified for operations. The publishing day of the AIRAC AIP SUP was on the 8th of November 2018 and will be implemented on the 3rd of January 2019 the following conventional and RNP approaches:

- ILS Z RWY 11
- ILS Y RWY 11
- VOR Z RWY 11
- VOR Y RWY 11
- VOR X RWY 11
- VOR Z RWY 29
- VOR Y RWY 29
- VOR X RWY 29
- RNP RWY 11 (LNAV, LNAV/VNAV only)
- RNP RWY 29 (LNAV, LNAV/VNAV only)

1.11 Letters of Agreement (LOA) has been signed with Guyana (signed 2017-08-21) and are being reviewed because of some changes in names of conflicting significant points. The LOA of Brazil and French Guyana are still being reviewed and will be signed in the near future.

1.12 Suriname's ANS, CNS, MET AIS/AIM, SAR personnel and the local airspace users participated, from the 29th of October till the 2nd of November 2018, in the workshop National Air Navigation Plan to develop Suriname's first draft NANP. This has been achieved through technical support to states from the ICAO hosted by Mr. Fernando Hermoza and Mr. Jorge Armoa.

1.13 The end product of the Suriname's NANP shall be handed to the policy makers so they can commit to and approve it so the necessary financial resources can be allocated in order to achieve our goals.

1.14 Suriname participated from the 19th till the 23rd of March 2018 in the RLA/06/901 - ATS meeting for contingency plans and letters of operational agreements and developed their ATS contingency plan. This contingency plan was reviewed afterwards, updated and published through AIC and took in effect on the 19th of July 2018.

2. **Discussion**

2.1 The PBN project considers all the technical and operational aspects with the necessary changes in the procedures applied in the airspace to be controlled and transparent to the users; that results on a new structure of more efficient routes, reducing the pilots and controller's workload.

2.2 The Civil Aviation Department of Suriname (CADSUR) requires to evaluate the current status of its PBN implementation and to define integrally a process that modernizes its airspace according to the demand and technology that allows improvement and reflects efficiency and operational safety in accordance with current regulations and the responsibility of protecting the environment.

2.3 Weather deviations by aircrafts are the most common difficulties when applying PBN in Suriname.

3. **Conclusion**

3.1 In order to carry out a harmonious transition for the implementation of RNAV-GNSS departures/ arrivals in the administrations of SAM Regions, procedures are designed in connection with the existing route network, independently if these are conventional radio-navigation or RNAV route radio-navigation, in the measure that aircrafts fleets modernize their navigation systems.
