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**PERFORMANCE BASED NAVIGATION (PBN) IMPLEMENTATION
IN THE WINDHOEK FIR**

INTRODUCTION

1. This AIC updates the status of PBN implementation in the Windhoek FIR.

BACKGROUND

2. ICAO resolution A37/11 called on member States to implement PBN as a matter of urgency. As a member State, Namibia commenced the implementation in 2015.

NAVIGATION SPECIFICATION

3. PBN Navigation Specifications being implemented will be RNAV 5, RNAV 1 and RNP 1 and RNP APCH.
4. *Given the lack of ground based navigation aids in Namibia, all PBN operations will require GNSS.*

STATUS

5. Implementation commenced 15 September 2015 with the introduction of RNAV 5 upper air routes FL245 to F460. This process will soon be completed with the remaining upper air routes being published as RNAV 5 routes in September 2016 (AIP SUP S13/2016 refers)
6. RNP APCH procedures have been implemented at the following aerodromes:
 - Hosea Kutako International (FYWH)
 - Rundu (FYRU)
 - Ondangwa (FYOA)
 - Oranjemund (FYOG)

It is anticipated that Eros (FYWE), Walvis Bay (FYWB) and Luderitz (FYLZ) will be completed prior to end 2016.

OPERATIONAL APPROVALS

7. Operators will require the following operational approvals:

Navigation Specification	Required Date
RNP 1	15 October 2015
RNAV 1	15 October 2015
RNAV 5	17 September 2015
RNP APCH	

FLIGHT PLANNING REQUIREMENTS

8. Operators shall indicate the appropriate PBN capability in the flight plan:

Navigation Specification	Required Field 18 entry for PBN/
RNP 1	O1 or O2
RNAV 1	D1 or D2
RNAV 5	B1 or B2
RNP APCH	S1
RNP APCH with BARO VNAV	S2

9. If an aircraft is not able to comply with a Navigation Specification as a result of in-flight failure or RNAV/RNP degradation, ATC shall be informed immediately by the phrase "UNABLE RNAV" or "UNABLE RNP" and the reason (e.g. Loss of RAIM or RAIM ALERT)
10. Operators not able to comply with a Navigation Specification can expect ATC radar services especially in the Terminal area. Operators should notify their inability to comply, with an entry in flight plan Field 18 RMK/NIL RNAV5 or as appropriate.
11. Operators should refer to ICAO Doc 9613, *Performance Based Navigation (PBN) Manual*, ICAO Doc 9997 *Performance Based Navigation (PBN) Operational Approval Manual*, and DCA Operational Directive No 5 for further guidance.
12. This AIC will be canceled after sufficient promulgation.