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### Revised RNP Approach Procedures for Windhoek International Airport (FYWH) and Ondangwa (FYOA)

1. This AIC comes in force on 13<sup>th</sup> November 2023 and shall remain in force until it is cancelled or replaced. The expected date of cancellation will be in March 2024 once the information contained in S03/2023 and S04/2023 is incorporated into the AIP.
2. This AIC details some explanatory information on the reviewed RNP approach flight procedures for FYWH and FYOA.
3. NAMCAR Part 173.02.1(7) requires a periodic review of flight procedures for aerodromes and airspace under the authority of Namibia and that such reviews must be conducted at intervals of periods not exceeding five years.
4. The first RNP Approach Procedures for FYWH and FYOA were designed and published between 2015 and 2016, hence, all of them exceeded their validity period as per the requirement of NAMCAR Part 173.
5. The review of procedures was done by NCAA approved design organisation between December 2022 and February 2023 and the flight procedures were also approved by the regulator.
6. Two AIRAC AIP Supplements namely, S03/2023 for FYWH and S04/2023 for FYOA were issued to introduce the reviewed RNP approach flight procedures.
7. One of the main amendments on all the revised procedures are the changes of all the Initial Approach Fix (IAF) waypoints to comply with ICAO requirements on the 5LNCs, hence all the waypoints that were not compliant were changed to the ICAO approved ones as per table 1 and 2.

8. All the parts in the AIP that bears the old waypoints must be amended to reflect their corresponding replacements new waypoints as per tables 1 and 2 below. Four hand amendment NOTAM were also issued.

### Main Changes Related to FYWH RNP Approaches

9. The table below shows the old noncompliant 5LNC waypoints (column 2) associated with FYWH RNP approach procedure that will be replaced by the new ICAO approved 5LNCs (column 4):

No.	Previous Noncompliant Name Code Designator	Coordinates	Approved replacement 5LNC's from ICARD
<b>FYWH RWY 08</b>			
12	OLLIE	223948.57S 0171546.04E	XABUS
13		223239.16S 0171017.90E	IBSAD
<b>FYWH RWY 26</b>			
14	FRITZ	222325.18S 0173953.96E	IMPEP
<b>Please note:</b> <ol style="list-style-type: none"> <li>1. that the waypoint <b>APNUL</b> is already compliant to ICAO 5LNC requirement</li> <li>2. Waypoint <b>OOVER</b> is discontinued permanently.</li> <li>3. Waypoint <b>IBSAD</b> is introduced.</li> </ol>			

Table 1: 5LNC for Initial Approach Way Points for FYWH RNP Approaches

10. To comply with the design criteria, the waypoint OOVER cannot be retained, because a new position that is about 0.4NM from OOVER is introduced to align the procedure with the requirement of PANS-OPS ICAO Doc 8168 Vol 2, hence the waypoint OOVER is permanently withdrawn and a new waypoint IBSAD is introduced.
11. It was erroneously stated in the AIRAC AIP SUP S03/2023 that IBSAD was replacing IAWP3, which was never published in the AIP. Disregard that statement and consider IBSAD as a new waypoint and that OOVER is permanently withdrawn.
12. The waypoint **APNUL** was already compliant with the ICARD requirement, thus it was the only waypoint that was retained.
13. The waypoint WH08F (FAF) was changed to WH08A, but the chart erroneously still depicts WH08F. This will be amended at least 28 days after the effective date of the AIRAC AIP SUP S03/2023 as per the standards of ICAO, however the coding table is correct.
14. The waypoint FRITZ that is replaced by IMPEP is appearing in other Instrument Approach Charts for FYWH namely **ILS or LOC RWY 26** and **CIRCLING VOR RWY 26**, these charts will also

be amended in January 2024, however a hand amendment NOTAM A0448/23 is issued in the meantime to amend these charts.

15. All the parts in the AIP where FRITZ appears will be amended to reflect the new waypoint IMPEP.

### Main Changes Related to FYOA RNP Approaches

16. The table below shows the old noncompliant 5LNC waypoints (column 2) associated with FYOA RNP approach procedure that will be replaced by the new ICAO approved 5LNCs (column 4):

No	Previous Noncompliant Name Code Designator	Coordinates	Approved replacement 5LNC's from ICARD
<b>FYOA RWY 08</b>			
1	KUDOO	180144.91S 0154900.53E	IBMUX
2	ORIKS	175914.99S 0154203.83E	ESVAB
3	JAKAL	175236.32S 0154440.53E	EGVEM
<b>FYOA RWY 26</b>			
4	LYONZ	174338.51S 0160518.45E	UNBIT
5	ZEBRA	174608.34S 0161214.57E	IBLAS
6	RHYNO	175247.10S 0160938.23E	IMTES

Table 2: 5LNC for Initial Approach Way Points for FYOA RNP Approaches

17. All the old Initial Approach waypoints for FYOA were replaced by the new ones as per the table 2, above to comply with the ICAO 5LNC requirements.
18. Queries were received regarding FYOA RNP RWY 08 FAF altitude of 5270ft being higher than 5000ft (from EGVEM, ESVAB and IBMUX). The explanation is that 5270ft is the **procedure altitude** at FAF to be able to execute the 3° (5.2%) descent gradient in the final approach segment of the procedure, while 5000ft is the **MOCA** of the initial approach segment. Refer to ICAO definitions below:

**Procedure Altitude/Height.** A published altitude/height used in defining the vertical profile of a flight procedure, at or above the minimum obstacle clearance altitude/height where established.

***Minimum Obstacle Clearance Altitude (MOCA)***. The minimum altitude for a defined segment that provides the required obstacle clearance.