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**INTRODUCTION OF FREE ROUTE AIRSPACE (FRA) AND DIRECT ROUTING OPERATIONS (DRO)
WITHIN WINDHOEK FLIGHT INFORMATION REGION (FYWF)**

Effective date: 09 July 2026

Validity of trial period: 09 July 2026 to 09 January 2027

1. INTRODUCTION

- 1.1 Free Route Airspace (FRA) and Direct Routing Operations (DRO) constitute transformative air traffic management concepts that enable Airspace Users to design flight trajectories without reference to conventional fixed route structures. Under FRA/DRO, users may plan the most efficient route between defined entry and exit FIR waypoints. This concept came about in response of the 22nd AFI Planning and Implementation Group (APIRG) Conclusion 22/36.
- 1.2 The planned implementation within Windhoek FIR (FYWF) will occur in the upper airspace between FL290 and FL460, limited to overflying traffic in Class A airspace.

2. FRA/DRO DEFINITIONS

- 2.1 **What is Free Route Airspace (FRA)** - it is a specified volume of airspace within which users may freely plan a route between defined entry and exit waypoints, with the possibility to route via intermediate (published or unpublished) waypoints, without reference to the ATS route network, subject to airspace availability. Within this airspace, flights remain subject to air traffic control.
- 2.2 **Direct Routing Operations (DRO)** - Referred to operations in airspaces where air traffic controllers are able to provide flights with direct routings between waypoints to reduce track miles or at times to reduce the complexity of traffic and to safe on track miles, time and fuel.

3. FREE ROUTE AIRSPACE (FRA) GENERAL PROCEDURES

3.1 AREA OF APPLICABILITY

Windhoek FIR is implementing FRA/DRO in class A airspace to be used by overflights.

- a) Vertical limits: FL290 to FL460
- b) Time of applicability - H24

3.2 FLIGHT PROCEDURES

- 3.2.1 All traffic, other than State aircraft, in Namibia AIP ENR 1.3 INSTRUMENT FLIGHT RULES: (4. Reduced Vertical Separation Minima) shall comply with the aircraft equipment requirements as published in Namibia AIP ENR 1.3.
- 3.2.2 The Airspace user will be able to flight plan direct routes using significant waypoints published in Namibia AIP ENR 4.4 NAME-CODE DESIGNATORS FOR SIGNIFICANT POINTS).
- 3.2.3 Flight plannable segments between significant waypoints will be defined by DCT (direct) description field in item 15 of ICAO FPL.
- 3.2.4 Use of available flight plannable DCT route portions will be subject to airspace availability, and may be restricted to specific hours of operation, specific routes, portions of airspace and/or flight levels. Where such restrictions are required, a NOTAM will be issued to provide conditions for use or otherwise, as necessary to maintain safety of flight.
- 3.2.5 Direct routing shall not be permitted through restricted airspace unless prior civil-military coordination has been undertaken as per flexible use of airspace (FUA) conditions.
- 3.2.6 The maximum length of DCT segment is 200NM (ICAO Doc.4444). Where the DCT route exceeds 200NM, an intermediate waypoint shall be selected and filled under item 15 of ICAO FPL. Intermediate waypoints shall also be selected whenever there is change of level or speed.
- 3.2.7 Filing, as FRA/DRO intermediate Point of an unpublished waypoint, defined by geographical (LAT/LONG) is allowed along the trajectory between two FRA significant FIR waypoints to indicate changes of level and speed.

3.3 OVERFLYING TRAFFIC

- 3.3.1 Entry and Exit waypoints into Windhoek FIR shall be planned on existing significant waypoints published in the Namibian AIP ENR 3.3.
- 3.3.2 ENTRY, EXIT waypoints into or out of Windhoek FIR shall comply with existing route networks of adjacent FIRs.
- 3.3.3 All traffic shall be established at the correct semi-circular flight level applicable to the FIR exit point upon crossing 21°30' South. Any required level change shall be subject to ATC clearance. All intended cruising level changes shall be clearly indicated in the flight plan (FPL) by means of the appropriate waypoint(s) as indicated in par 3.2.6 and 3.2.7.

3.4 CROSS BORDER DCT APPLICATION

FRA-DRO will only apply within Windhoek FIR (FYWF).

3.5 AIRCRAFT EQUIPAGE

- 3.5.1 Both TCAS II ver.7.1 and Mode S Transponder as primary equipage (mandatory).
- 3.5.2 ADS-B-Out (DO260/260A) or ADS-C and CPDLC as added equipage.
Aircraft that are not equipped shall only use the published fixed route network.

3.6 ADDITIONAL DIRECT ROUTING PROCEDURES

3.6.1 Flight planning procedures

- 3.6.1.1 Air Navigation Service Provider (ANSP) will invalidate/reject FPLs with direct routings, failing to comply with direct routing limitations defined in paragraphs above, 3.2.1 to 3.2.6.
- 3.6.1.2 In case of rejection of a flight plan, ANSP will provide the reason of the rejection to Aircraft Operators (AOs).
- 3.6.1.3 AOs are required to file their FPLs at least 3 hours before EOBT and not more than 120 hours prior to EOBT.
- 3.6.1.4 Direct routes are available for flight planning making use of the following FIR ENTRY/EXIT waypoints.

Appendix 1
 Free Route Airspace Waypoints

FIR ENTRY/EXIT WAYPOINT	CO-ORDINATES
ABAPU	174938.36S 0190201.59E
ANTEP	240000.00S 0133604.00E
ANVAG	172330.12S 0154922.08E
APDOV	244218.80S 0195959.18E
AVOGU	200107.67S 0210000.88E
BOPAN	222412.00S 0200000.00E
DIMIX	174648.00S 0103000.00E
DULGO	250000.00S 0135908.00E
DUMPO	184248.00S 0210000.00E
DUPKI	214300.60S 0210000.50E
EPNON	175242.00S 0201806.00E
ETUDU	214000.00S 0124321.18E
EVUVI	172410.17S 0142122.15E
GABSI	241947.05S 0200005.54E
GUBAG	180000.00S 0094000.00E
IBNEV	184706.00S 0114005.00E
IMLAN	245907.98S 0201941.19E
KEBAT	273000.00S 0181800.00E
NETEN	181106.00S 0210000.00E
NEVAR	273048.34S 0174957.79E
NEVEP	202000.00S 0121404.44E
NIBEK	225831.00S 0131254.00E
NIGAM	263356.20S 0143710.00E
ODOTU	171000.00S 0115800.00E
OKDOL	170748.00S 0124442.00E
TAVAS	210100.00S 0210000.00E

FIR ENTRY/EXIT WAYPOINT	CO-ORDINATES
TIMED	201848.00S 0210000.00E
UMTOL	272955.15S 0203940.57E
UNLOK	172330.00S 0165108.09E
USUNO	232906.00S 0200000. 00E
UTANI	271346.73S 0210034.80E
XABLO	212524.08S 0210000.00E
XAMGA	231005.28S 0200014.62E
XORAK	235111.24S 0200010.25E
XUDAN	273041.21S 0161006.65E

Remarks: For any clarification please contact: edpa@ncaa.na