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AIP Supplement

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SUB: RNP Approach Procedure for RWY32 at Hazrat Shahjalal International Airport,

Dhaka, Bangladesh.

1. INTRODUCTION:

- 1.1 The following RNP Approach (RNAV GNSS) Procedure is designed for VGHS in accordance with the criteria as stipulated in the ICAO PANS-OPS (DOC 8168) Vol. II and ICAO Manual of PBN (Doc 9613). This procedure can be flown as a Non-Precision Approach (NPA) down to LNAV minima or an Approach with Vertical Guidance (APV) using barometric vertical navigation (BaroVNAV) down to LNAV/VNAV minima.
- 1.2 This RNP Approach Procedure is designed to enhance the VGHS safety and efficiency of aircraft operations with an alternative approach procedure to access the airport.
- 1.3 This version to the RNP approach procedure for Runway 32 at Hazrat Shahjalal International Airport will be effective from 0000UTC, 11 OCT 2018.
- 1.4 The name of the approach chart is designated in accordance with the ICAO Cir 336 AN/195 and Amendment 6 to Doc8168, Procedures for Air Navigation Services-Aircraft Operations (PANS-OPS), Volumes I and II, where it states that "...... procedures that are currently named RNAV and meet the PBN specification of RNP APCH or RNP AR APCH will be designated RNP. This change will be fully implemented by 1 December 2022".
- 1.5 Details of the RNP Approach procedure for Runway 32 at Hazrat Shahjalal International Airport, Dhaka are given in the concern approach chart in the attachment with this cover page including Chart, Coding Table & procedure description. Attachment of this AIP Supplement as follows:

RNP Approach RWY 32 : Chart & Coding Table : Attachment A Procedure Description of RNP Approach RWY 32 : Attachment B

2. <u>APPROVALS</u>

- 2.1 Aircraft Operators and pilots must possess the necessary operational approvals to conduct RNP APCH (RNAV GNSS) and BaroVNAV operations from their respective State authorities to carry out this procedure.
- 2.2 The on-board performance monitoring and alerting criteria for specific navigation system and functional requirement must be in accordance to Volume II, Part C- Chapter 5 of the ICAO Manual on PBN (Doc 9613).
- 2.3 Before commencing the procedure, pilot in command must ensure that the navigation database is current and the aircraft's capability of conducting the procedure like GNSS availability system performance, etc.

3. CONTINGENCY PROCEDURES

3.1 The pilot must notify ATC of any loss of the RNP APCH capability, together with the proposed course of action. If unable to comply with the requirements of an RNP APCH procedure, ATC shall be informed as soon as possible for the alternate course of action from the pilots of the concerned aircraft. The loss of RNP APCH capability includes any failure or event causing the aircraft to no longer satisfy the RNP APCH requirements.

4. CANCELLATION

4.1 This AIP Supplement will be cancelled when the contents will be incorporated into the AIP Bangladesh.

Visibility Minima (m)

BALS

1400

2200

NALS

1800

2600

TYPE of Approach

LNAV/VNAV

LNAV

INSTRUMENT AD ELEV 27 (ft) OCH RELATED TO DHAKA, BANGLADESH HAZRAT SHAHJALAL INTERANTIONAL AIRPORT TWR: 118.3MHZ (PRI) 119.3MHZ(Stand by) SMC: 121.8MHZ APPROACH THR RWY 32-ELEV 27(ft) RNP RWY32 (LNAV/VNAV ONLY) **CHART - ICAO** 90°10'E 90°3'0'E 24°10'N RNP APCH 1. BARO-VNAV minimum Temp. 0°C 2. GNSS Required BEARING ARE MAGNETIC ALTITUDE ELEVATION AND HEIGHT IN FEET Mind Mark of Solo 24°0'N 24°0'N 105ء ^217 KAWLA 3000 10.0 NM ARP 1262 23°50'N 23°50'N 25NM TO BUXIL 23°40'N 23°40'N max he zokis SCALE 1:500000 90°20'E 90°30'E 90°50'E 90°10'E MISSED APPROACH: TRANSITION LEVEL FL 060 TRANSITION ALTITUDE 4000FT Climb on course 324° at or above 3000ft, then turn right direct to <u>KAWLA</u> for holding at 3000ft or as directed by ATC PIKUL 1800 NO TURN BEFORE MAPt. THR ELEV 27 TO THR 32 (NM) CATEGORY OF ACFT D В **CATEGORY OF ACFT** Α В C D SPEED KNOTS 90 120 150 180 RATE OF DESCENT/GS FT/MIN 478 637 796 955 OCA(OCH) LNAV/VNAV 334(307) FAF TO THR32 MIN:S 03:36 02:42 02:09 01:48 LNAV 470(443)

DISTANCE

ALTITUDE

(HEIGHT)

5 NM

1670

(1643)

4 NM

1360

(1333)

3 NM

1040

(1013)

2NM

720

(693)

1NM

400

(373)

CODING TABLE

TABULAR DESCRIPTION

SL NO	Path Descriptor	Waypoint Ident	Fly Over	Course M (T)	Turn	DST (NM)	Altitude (FT)	Speed Limit	VPA/TCH	NAV SPEC
10	IF	TUMPA	-	-	-	-	+3000	-230	-	RNP APCH
20	TF	PIKUL	-	324°(323.90°)	-	6.0	+1800	-200	-	RNP APCH
10	IF	PADMA	=	-	-	-	+3000	-230	-	RNP APCH
20	TF	PIKUL	-	054°(053.48°)	-	6.0	+1800	-200	-	RNP APCH
10	IF	BUXIL	-	-	-	-	+4000	-230	-	RNP APCH
20	TF	PIKUL	=	234°(233.90°)	-	6.0	+1800	-200	-	RNP APCH
10	IF	PIKUL	-	-	-	-	+1800	-200	-	RNP APCH
20	TF	MEGHA	-	324°(323.90°)	-	3.8	@1800	-	-	RNP APCH
30	TF	RW32	Y	324°(323.90°)	-	5.4	@77	-	-3.0/50	RNP APCH
40	CA	RW32	-	324°(323.90°)	-	-	+3000	-	-	RNP APCH
50	DF	KAWLA	Υ	-	R	-	-	-230	-	RNP APCH
60	НМ	KAWLA	Υ	230° (229.50°)	R	-	3000	-230	-	RNP APCH

WAYPOINT LIST

RNP RWY32 (LNAV/VNAV only)				
WAYPOINT (FIX)	COORDINATES			
BUXIL(IAF)	23:45:58.81N90:35:37.06E			
PADMA(IAF)	23:38:51.06N 90:25:05.41E			
TUMPA(IAF)	23:37:34.19N 90:34:11.47E			
PIKUL (IF)	23:42:26.09N 90:30:20.51E			
MEGHA (FAF)	23:45:30.91N 90:27:54.09E			
RW32 (MAPt)	23:49:54.00N 90:24:25.40E			
KAWLA (MAHF)	23:56:02.19N090:33:00.88E			

Attachment B to AIP SUP 07/18

Procedure Description:

(i) From IAF (Right): BUXIL

The aircraft approaching to IAF (Right) will descend at or above 4000ft till reaching the BUXIL and join the procedure on track 234⁰ (Mag). Then descend to 1800ft and execute a Fly-by turn at IF (PIKUL), it will join the intermediate track of 324⁰ (Mag). Aircraft will reach 1800ft before reaching FAF (MEGHA). The intermediate segment length is 3.8NM and the FAF (MEGHA) is placed at a distance of 5.4NM from THR32.

Note: No Holding over BUXIL.

(ii) From IAF (Center): TUMPA

The aircraft approaching to IAF (Center) will descend at or above 3000ft till reaching the TUMPA and join the procedure on track 324⁰ (Mag), Then descend to 1800ft before reaching FAF (MEGHA)). The intermediate segment length is 3.8NM and the FAF (MEGHA) is placed at a distance of 5.4 NM from THR32.

For Holding over TUMPA:

IAS	Inbound track	Turn direction	Timing	Minimum Holding Altitude
230 kts	324 ⁰ (Mag)	Right hand pattern	1 min O/B	3000ft

(iii) From IAF (Left): PADMA

The aircraft approaching to IAF (PADMA) will descend at or above 3000ft till reaching the PADMA and join the procedure on track 054⁰ (Mag). Then descent to 1800ft and execute a Fly-by turn at IF (PIKUL), it will join the intermediate segment on track 324⁰ (Mag). Aircraft will reach 1800ft before reaching FAF (MEGHA). The intermediate segment length is 3.8NM and the FAF (MEGHA) is placed at a distance of 5.4NM from THR32.

For Holding over PADMA:

IAS	Inbound track	Turn direction	Timing	Minimum Holding Altitude
230 kts	054 ⁰ (Mag)	Right hand pattern	1 min O/B	3000 ft

Missed Approach procedure:

In case of missed approach, aircraft will climb on course 324⁰ at or above 3000ft, then turn right and follow DF leg to join the holding waypoint KAWLA at 3000ft or as directed by ATC. No turn before MAPt.

- Note i) For commencing approach aircraft will join IAF direct from the CTR point of respective route, unless otherwise directed by ATC or provided RADAR vector.
- Note ii) Simultaneous holding over PADMA, TUMPA and KAWLA shall be kept vertically separated.