

AD 2.1 AERODROMES
VQPR AD 2.1 AERODROME LOCATION INDICATOR AND NAME
VQPR - PARO/International

VQPR AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP co-ordinates and site at AD	272411.23N 0892529.30E Centre of RWY
2	Direction and distance from(city)	5 Km SE from Paro town
3	Elevation/Reference temperature	2 244.479M (7363.776ft) MSL/ 28°C
4	MAG VAR/Annual changes	0.10° East changing by 0.04 °E
5	AD Administration, address, telephone, telefax, telex. AFS	Department of Air Transport, Paro: Bhutan. Tel No.(975)-8- 271403,271751 Email: kwangchuk@doat.gov.bt
6	Type of traffic permitted (IFR/VFR)	VFR & IFR in VMC
7	Remarks	AD PPR

VQPR AD 2.3 OPERATIONAL HOURS

1	AD Administration	Available MON - FRI 0300 – 1100 (UTC)
2	Customs and immigration	Available during sked operations
3	Health and sanitation	Available during sked operation & as and when required
4	AIS Briefing Office	During Operational Hrs (HO)
5	ATS Reporting Office	During Operational Hrs (HO)
6	MET Briefing Office	During Operational Hrs (HO)
7	ATS	During Operational Hrs (HO)
8	Fuelling	Available during sked operations
9	Handling	Available during sked operations
10	Security	24 hours
11	De-icing	Not available
12	Remarks	Out side those hours, service available O/R. Request to be submitted to the AD 24hrs before intended operation.

VQPR AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	Available with airline operator, Druk-air
2	Fuel/oil types	Aviation Turbine Fuel only – Jet A1
3	Fuelling facilities/capacity	1 truck, 9000 litres, 500ltrs/Sec.
4	De-icing facilities	Manual by sweeping
5	Hanger space for visiting aircraft	Limited, by prior arrangement with operator, Druk-air.
6	Repair facilities for visiting A/C	Available by prior arrangement with operator, Druk-air.
7	Remarks	NIL

VQPR AD 2.5 PASSENGER FACILITIES

1	Hotels	Near AD and in the city.
2	Restaurants	At AD and in city.
3	Transportation	Taxi from the AD to Thimphu
4	Medical facilities	First aid at AD. Hospital in the Paro town 8 Km.
5	Bank and Post Office	Bank & Post office at AD. Open within AD HR
6	Tourist Office	Office in the city :Tel: 975 – 2- 323251,fax: 975-2- 323695
7	Remarks	Nil

VQPR AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	Within AD HR: CAT 6
2	Rescue equipment	Rescue Tools with CFT
3	Capability for removal of disabled aircraft	NIL
4	Remarks	NIL

VQPR AD 2.7 SEASONAL AVAILABILITY - CLEARING

1	Type of clearing equipment	Manually Sweeping
2	Clearance priorities	1. RWY 33/15 and associated TWY to Apron
3	Remarks	Information on snow clearance published from November - April through NOTAM . See also snow plan in section AD 1.2.2

VQPR AD 2.8 APRON, TAXIWAYS AND CHECK LOCATION DATA

1	<i>Apron surface and strength</i>	<p>1. Apron A Surface : Concrete, Strength: PCN 56/R/C/X/T Parking Bay No. 1 - 2</p> <p>2. Apron B Surface : Concrete, Strength: PCN 60/R/C/X/T Parking Bay No.3 - 5</p> <p>3. Apron C Surface : Concrete, Strength: PCN 56/R/C/X/T Parking Bay No. 6 - 8</p>
2	<i>Taxiway width, surface and strength</i>	<p>1. Taxiway A Width:15 M Surface: Concrete Strength: PCN 56/R/C/X/T</p> <p>2. Taxiway B Width: 18 M Surface: Concrete Strength: PCN 60/R/C/X/T</p> <p>3. Taxiway N Width: 18 M Surface: Asphalt Strength: PCN 50/F/B/W/T</p> <p>4. Taxiway S Width: 18 M Surface: Asphalt Strength: PCN 50/F/B/W/T</p> <p>5. Taxiway T Taxiway running parallel to runway Width: 18 M Surface: Asphalt. Length :1993.6M Strength: PCN 50/F/B/W/T Strip : 1460 X 26 M (till ceremonial lounge) Longitudinal slope 0.65% Transverse slope : 1.5%</p>
3	<i>ACL location and elevation</i>	Location: At Apron Elevation: 2 243.69M
4	<i>VOR checkpoints</i>	<p>Point A – Taxiway A Holding Points 272420.97N 0892520.84E DVOR 324.4° DME 7.7NM</p> <p>Point B – Threshold RWY15 272439.00N 0892511.00E DVOR 325.1° DME 8.2NM</p>
5	<i>INS check points</i>	-
6	<i>Remarks</i>	NIL

VQPR AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	<i>Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands</i>	Nose-in guidance at aircraft stand
2	<i>RWY and TWY markings and LGT</i>	Markings Available
3	<i>Stop bars</i>	Stop bars where appropriate.
4	<i>Remarks</i>	NIL.

VQPR AD 2.10 AERODROME OBSTACLES

<i>In Approach/TKOF Areas</i>						
<i>RWY/Area affected</i>	<i>Obstacle reference name</i>	<i>Obstacle type</i>	<i>altitude (ft)</i>	<i>Coordinates</i>	<i>Marking/LGT</i>	<i>Remarks</i>
RWY 33	PR8000	Tree	7401.6	272438.31N 0892515.64E	NIL	
RWY 33	PR9044	Tree	7406	272445.11N 892511.39E	NIL	
RWY 33	PR9095	Tree	7409.4	272451.42N 0892503.74E	NIL	
RWY 33	PR9103	Building	7451.3	272508.04N 0892502.48E	NIL	
RWY 33	PR102	Building	7455.7	272510.16N 0892501.50E	NIL	
RWY 33	PR8001	Building	7460.6	272521.81N 0892506.34E	NIL	
RWY 33	PR8002	Building	7473.8	272522.72N 0892504.35E	NIL	
RWY 33	PR8004	Building	7585.3	272547.38N 08924.58.75E	NIL	
RWY 33	PR2022	Terrain	7742.8	272620.21N 0892426.74E	NIL	
RWY 33	PR2035	Terrain	7821.5	272621.36N 0892424.73E	NIL	

RWY 33	PR9099	Pole	7967.9	272506.04N 0892448.62E	NIL	
RWY 33	PR8015	Terrain	8146.3	272656.26N 892306.24E	NIL	
RWY 33	PR8016	Terrain	8251.3	272620.71N 0892132.80E	NIL	
RWY 33	PR8017	Terrain	8415.4	272605.50N 0892143.14E	NIL	
RWY 33	PR8018	Terrain	8553.1	272558.46N 0892146.48E	NIL	
RWY 33	PR8019	Terrain	8694.2	272549.21N 0892155.09E	NIL	
RWY 15	PR9014	Tree	7343.8	272338.53N 0892551.99E	NIL	
RWY 15	PR1001	Building	7355.6	272338.13N 0892553.13E	NIL	
RWY 15	PR1002	Building	7365.5	272337.21N 0892554.11E	NIL	
RWY 15	PR1003	Building	7381.9	272334.19N 0892555.07E	NIL	
RWY 15	PR1004	Building	7385.2	272333.16N 892557.03E	NIL	
RWY 15	PR9069	Building	7403.5	272325.408 0892600.90E	NIL	
RWY 15	PR1007	Tree	7598.4	272247.23N 0892702.15E	NIL	
RWY 15	PR9002	Building	7669.5	272323.52N 0892611.89E	NIL	
RWY 15	PR1014	Tree	7821.5	272212.00N 0892752.94E	NIL	
RWY 15	PR2076	Tree	8179.1	272052.68N 0892734.13E	NIL	
RWY 15	PR2090	Terrain	8353	272027.28N 892728.55E	NIL	

<i>In Circling Area at AD</i>					
<i>Obstacle reference name</i>	<i>Obstacle Type</i>	<i>Coordinates</i>	<i>Altitude (m)</i>	<i>Marking/LGT</i>	<i>Remarks</i>
PR9000	Antenna Tower	272339.74N 0892529.98E	2306.027	NIL	
PR9001	Antenna Tower	272338.49N 0892522.51E	2352.833	NIL	
PR9002	Building	272323.52N 08926'11.89E	2337.665	NIL	
PR9003	Tree	272324.57N 0892613.60E	2357.651	NIL	
PR9004	Antenna Tower	272304.42N 0892554.23E	2323.565	NIL	
PR9005	Tree	272352.40N 0892500.41E	2573.614	NIL	
PR9006	Power Pole	272340.15N 0892513.74E	2392.788	NIL	
PR9007	Tree	272348.156 0892657.03E	2839.702	NIL	
PR9009	Building	272347.64N 08925'50.55E	2242.738	NIL	
PR9010	Building	272355.57N 0892555.45E	2295.709	NIL	
PR9012	Building	272350.89N 0892606.84E	2350.535	NIL	
PR9013	Building	272336.31N 0892606.38E	2283.729	NIL	
PR9014	Tree	272338.53N 0892551.99E	2238.379	NIL	
PR9015	Building	272332.87N 0892558.71E	2257.886	NIL	

PR9016	Tree	272315.28N 0892541.67E	2306.574	NIL	
PR9018	Tree	272315.24N 0892520.96E	2406.614	NIL	
PR9019	Tree	272340.63N 0892545.38E	2239.023	NIL	
PR9020	Windsock	272346.76N 0892542.48E	2238.494	NIL	
PR9022	Tree	272412.19N 0892600.88E	2610.327	NIL	
PR9027	Building	272331.97N 0892551.04E	2238.385	NIL	
PR9031	Building	272341.96N 0892554.25E	2251.653	NIL	
PR9032	Building	272431.59N 0892451.24E	2347.113	NIL	
PR9033	Building	272439.85N 0892451.76E	2321.109	NIL	
PR9034	Building	272443.76N 0892501.56E	2269.468	NIL	
PR9035	Power Pole	272426.62N 0892450.89E	2391.219	NIL	
PR9036	Power Pole	272443.26N 0892447.37E	2349.757	NIL	
PR9040	Tree	272452.32N 0892437.31E	2583.205	NIL	
PR9041	Tree	272458.21N 0892442.20E	2534.400	NIL	
PR9042	Building	272459.13N 0892527.15E	2304.051	NIL	
PR9043	Building	272456.80N 0892540.69E	2409.117	NIL	
PR9044	Tree	272445.11N 0892511.39E	2257.339	NIL	
PR9045	Building	272450.64N 0892531.64E	2333.328	NIL	
PR9046	Building	272439.39N 0892515.60E	2257.777	NIL	
PR9052	Tree	272457.41N 0892529.18E	2368.773	NIL	
PR9055	Building	272522.60N 0892507.36E	2273.714	NIL	
PR9057	Building	272527.51N 0892447.23E	2325.012	NIL	
PR9058	Building	2725'35.96N 0892523.18E	2357.676	NIL	
PR9059	Building	2725'43.28N 08925'31.58E	2447.703	NIL	
PR9060	Tree	2725'21.05N 0892539.16E	2549.848	NIL	
PR9062	Tree	272527.86N 0892448.03E	2342.520	NIL	
PR9063	Tree	272319.64N 0892552.72E	2267.320	NIL	
PR9064	Building	272330.46N 0892553.07E	2239.915	NIL	
PR9066	Tree	272323.57N 0892611.01E	2337.339	NIL	
PR9067	Tree	272316.28N 0892536.65E	2339.160	NIL	
PR9068	Building	272320.73N 0892559.31E	2244.324	NIL	
PR9069	Building	272325.48N 0892600.96E	2256.580	NIL	
PR9070	Building	272326.50N 0892603.41E	2260.669	NIL	
PR9072	Power Pole	272255.48N 0892625.05E	2295.882	NIL	

PR9073	Power Pole	272251.87N 0892618.33E	2295.029	NIL	
PR9074	Power Pole	272248.81N 0892617.33E	2321.398	NIL	
PR9075	Power Pole	272250.67N 0892607.87E	2306.296	NIL	
PR9076	Tree	272219.58N 0892628.05E	2564.196	NIL	
PR9077	Tree	272248.17N 0892616.03E	2322.301	NIL	
PR9079	Power Pole	272241.26N 0892659.78E	2348.821	NIL	
PR9080	Power Pole	272239.09N 0892700.83E	2375.411	NIL	
PR9081	Power Pole	272242.45N 0892651.44E	2325.051	NIL	
PR9082	Power Pole	272241.02N 0892650.90E	2344.257	NIL	
PR9083	Tree	272238.47N 0892650.34E	2375.345	NIL	
PR9084	Tree	272245.56N 0892701.28E	2327.537	NIL	
PR9085	Tree	272249.83N 0892702.00E	2283.264	NIL	
PR9086	Tree	272309.99N 0892705.34E	2315.659	NIL	
PR9087	Building	272305.52N 0892651.13E	2239.651	NIL	
PR9088	Power Pole	272225.11N 0892711.66E	2325.449	NIL	
PR9089	Antenna Tower	272229.63N 0892718.71E	2278.901	NIL	
PR9090	Power Pole	272230.47N 0892716.08E	2307.551	NIL	
PR9091	Power Pole	272230.71N 0892710.62E	2356.341	NIL	
PR9092	Power Pole	272234.62N 0892712.01E	2299.188	NIL	
PR9093	Power Pole	272240.30N 0892703.39E	2363.815	NIL	
PR9094	Antenna Tower	272219.32N 0892731.52E	2258.061	NIL	
PR9095	Tree	272451.42N 0892503.74E	2258.375	NIL	
PR9096	Power Pole	272459.85N 0892458.27E	2277.524	NIL	
PR9097	Tree	272500.44N 0892457.77E	2287.295	NIL	
PR9098	Power Pole	272452.68N 0892450.57E	2399.396	NIL	
PR9099	Power Pole	272506.04N 0892448.62E	2428.634	NIL	
PR9100	Tree	272457.91N 0892442.78E	2521.492	NIL	
PR9101	Building	272515.92N 0892454.57E	2336.178	NIL	
PR9102	Building	272510.16N 0892501.50E	2272.486	NIL	
PR9103	Building	272508.04N 0892502.48E	2271.154	NIL	
PR9104	Building	272459.94N 0892521.24E	2269.219	NIL	
PR9105	Building	272455.55N 0892515.46E	2263.914	NIL	

VQPR AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	Paro Airport
2	Hours of service MET Office outside hours	During Flight operations only
3	Office responsible for TAF preparation Periods validity	TO BE DEVELOPED
4	Type of landing forecast Interval of issuance	Current Weather half hourly during flight operations (in Plain Language)
5	Briefing/consultation provided	Personal consultation During flight operation(on demand)
6	Flight documentation Language (s) used	TO BE DEVELOPED, English
7	Charts and other information available for briefing or consultation	TO BE DEVELOPED/ satellite images/significant WX chart/upper charts are downloaded and provided prior departure.
8	Supplementary equipment available for providing information	NIL
9	ATS unit provided with information	Paro Control Tower
10	Additional information (limitation of service, etc.)	Presently limited to providing METAR and local current valley WX in plain language only during flight operations.

VQPR AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE & MA BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates		THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5		6
15	150.38°	2265 X 30 M	PCN 56/F/C/X/T	272439.27N 0892511.44E		2 243.759 M AMSL
33	331.50°	2265 X 30 M		272343.20N 0892547.14E		2 227.812 M AMSL
Slope of RYW-SWY	SWY Dimensions (M)	CWY Dimensions (M)	Strip Dimensions (M)	OFZ	Displaced THR Dimensions (M)	Remarks
7	8	9	10	11	12	13
0.81%	NIL	NIL	2385 M X 30 M	NIL	160M X 30M 120M X 30M	End of RWY15 272443.78N 0892508.56E (2244.479 M) End of RWY33 272339.80N 0892549.30E (2226.805 M) RWY Turn pad available at the both end of RWY

VQPR AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
15	2265	2265	2265	2105	NIL
33	2265	2265	2265	2145	

VQPR AD 2.14 APPROACH RUNWAY LIGHTNING

RWY Designator	APCH LGT Type LEN INTST	THR LGT Colour WBAR	VASIS (MEHT) PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing, Colour, INTST	RWY edge LGT LEN, spacing colour INTST	RWY END LGT colour INTST	RWY END LGT Colour WBAR	Remarks
NIL									

VQPR AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	Not established
2	LDI location and LGT Anemometer location and LGT	LDI: 50 M NW and 700 M SW of ARP, unlighted Anemometer : 300 M from THR 15 and THR 33, unlighted
3	TWY edge and centre line lighting	NIL
4	Secondary power supply/switch-over time	Secondary power supply to all lighting at AD 500KVA Switch-over time : 60 sec
5	Remarks	NIL

VQPR AD 2.16 HELICOPTER LANDING AREA

1	Coordinates TLOF of THR of FATO	TO BE DEVELOPED
2	TLOF and/or FATO elevation M/FT	TO BE DEVELOPED
3	TLOF and FATO are dimensions, surface, strength, marking	TO BE DEVELOPED
4	True and MAG BRG of FATO	TO BE DEVELOPED
5	Declared distance available	TO BE DEVELOPED
6	APP and FATO lightning	TO BE DEVELOPED
7	Remarks	

VQPR AD 2.17 ATS AIRSPACE

1	Designation and lateral limits	Paro CTR : An area of a circle 10NM in radius of ARP (272411.23N 0892529.30E)
2	Vertical limits	14 500 ft AMSL GND
3	Airspace classification	Class "D" and outside CTR Class "G"
4	ATS unit call sign Language(s)	PARO Tower English
5	Transition altitude	18 000 ft AMSL
6	Remarks	Two ways communication

VQPR AD 2.18 ATS COMMUNICATION FACILITIES

Service Designation	Callsign	Frequency	Hours of operation	Remarks
TWR	Paro Tower	120.3 Mhz (EXTN) 120.3 Mhz (STBY) 121.5 EMER. Freq.	HO	As per sked flight operations
RADIO	Paro Radio	8921 Khz 13342 Khz	HO	-do-

VQPR AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid, CAT of ILS/MLS (for VOR/ILS/MLS, give VAR)	ID	Frequency	Hours of operation	Site of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
DVOR/DME	PRO	108.4 MHz	HO	7.7 NM south of aerodrome 271801.93N 0893018.19E	3 469M	DME Channel 21X

VQPR 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

- 1.1 At Paro Airport a number of local regulations apply, in accordance with ICAO Annex 2,11,14 Doc. 4444. See GEN 1.2.
- 1.2 Marshaller assistance can be requested.
- 1.3 When a local regulation is of importance for the safe operation of aircraft on the apron, the information will be given to each aircraft by the TWR on VHF R/T.

2. Taxiing to and from stands.

- 2.1 Arriving aircraft will be allocated a stand number by the TWR
- 2.2 Assistance from the “FOLLOW ME” vehicle can be requested from the TWR.
- 2.3 Departing flights shall contact the TWR to obtain ATC and ADC clearance before commencing Pushback & Start up. Request for ATC clearance may take place at the earliest 5 minutes prior to Pushback & start-up. Frequency 120.3Mhz is to be used. Departing aircraft shall obtain taxi instruction from Paro TWR on 120.3 Mhz.
- 2.4 Aircraft shall perform pushback & start up on Taxiway “T” facing either North or South depending on the runway in use.
- 2.6 In order to maintain Runway Occupancy Time (ROT), aircraft shall not be permitted to pushback & start up on runway.

3. Parking for small aircraft (General aviation)

General aviation small aircraft shall be guided by marshallers to the parking area.

4. Parking area for helicopters

The parking area for helicopters will always be guided by a marshaller on the stand or on R/T from TWR.

5. Apron Taxiing during winter conditions

“Follow me” vehicle can be provided on request.

6. Taxiing Limitations

No limitations

7. School and Training Technical test flight – use of runways

Subject to permission from tower

8 Helicopter traffic

- 8.1 Request ARO during the hours of service and, if possible, not later than 24 hrs before the flight is to be carried out.

- 8.2 Any request for approval of traffic shall contain the following information:

- a) Owner/Operator
- b) Type of helicopter, registration/call sign
- c) Date, arrival time/departure time, destination(s).

8.3 Helicopter Holding Area

Sl.	Radial from VQPR ARP	Visual reference point	Distance from VQPR ARP	Routing via	Holding Area Name
1	010	Shari	5NM	Thimphu and Linzhi	PAPA 1
2	320	Drugyel Dzong	10 NM	Gunitshawa, Damthang, seo,	PAPA 2
3	248	Haa	7 NM	Haa, Damthang	PAPA 3
4	150	Abeam Chapcha & Dawakha	9 NM	Chuka	PAPA 4
5	105	Abeam Sisina	7 NM	Thimphu	PAPA 5

9. Removal of disable aircraft from runways

- 9.1 When an aircraft is wrecked on a runway, it is the duty of the owner or user of such aircraft to have it removed from the runway as quickly as possible. If a wrecked aircraft is not removed from the runway as quickly as possible by the owner or user, the aircraft will be removed by the DoAT at owner's or user's expense.

VQPR AD 2.21 NOISE ABATEMENT PROCEDURES

TO BE DEVELOPED

VQPR AD 2.22 FLIGHT PROCEDURES

1 General

Flight within Paro air traffic circuit shall be in accordance with the Visual Meteorological Conditions (VMC).

- a) Prior operating into Paro airport the pilot in- command should be briefed and visit the aerodrome as an observer.
- or should Undertake instruction in a simulator approved by the authority for that purpose.
 - or Request guide pilot (navigator) from the Authorised Clearing Agent.
 - Clearances on behalf of private airlines and for additional logistics can be arrange by the Local Clearing Agent. For contact see GEN 1.1 para 7

Note:- Bhutan Air Services (BAS) is the authorized Clearing agent on behalf of Department of Air Transport responsible for coordinating and collecting document for onward submission to the DG BCAA for seeking approval of clearances for private aircraft/helicopter that fly to Bhutan. All fees and charges for Private flight operated at Paro Aerodrome are also collected by the Bhutan Air Service on Behalf of DoAT.

- b) In order to avoid unnecessary delay while departing from Paro, relevant clearances (**YANKEE ALPHA NUMBER**) from DGCA India and other relevant clearances from the respective authority must be obtained to over fly/transiting through the respective airspace.
- c) Specific date & time of arrival/departure or over flying/transiting should be clearly mentioned while obtaining such clearances.
- d) Last minute change in flight plan could lead to **DELAY OF FLIGHT TO OBTAIN NEW ADC/FIC**. Therefore, it is recommended that all flights are to adhere with planned flight plan or inform to ARO regarding the changes in flight plan at least one day prior. **DoAT Bhutan shall not be responsible for the delay of flight.**
- e) Flight wishing to depart early morning from Paro (BTN 0000–0400 UTC), is recommended to file the flight plan at least one day prior to departure from Paro to avoid delay in obtaining ADC/FIC from INDIA FIR/FIC.
- f) Flight plan can be filed during operational hours or during office hours (03:00 – 10:00 UTC) at the following address.

**ARO,
CONTROL TOWER,
1st FLOOR,
PARO AIRPORT. 272859
Tel No. 975-8-272306/272895
Fax No. 975272307
Email:- paro.aro@gmail.com
AFTN:- VQPRZPZX**

2 Radar Procedures

No Radar facilities are available at Paro Aerodrome.

3 **Communication failure**

In the event of a communication failure, the pilot shall act in accordance with the communication failure procedures in ICAO Annex 10 Vol. II and Annex 2 general rules para 3.6.52

4 **Procedures for IFR flights with in Paro air traffic circuit**

Due to high terrain and steep mountains adjacent to the aerodrome, only flight in VMC is permitted.

5 **Procedures for flights to/from Paro AD**

5.1 ATC clearance for flights will be given under the conditions described below:

- a) A flight plan containing items 7 to 18 and indicating the purpose of the flight, shall be submitted to Paro ATC.
- b) ATC and ADC/FIC clearance number shall be obtained before the aircraft Taxi out.
- c) Position reports shall be submitted in accordance with 3.6.3 of ICAO Annex 2.
- d) Deviation from the ATC clearance may only be made when prior permission has been obtained.
- e) Two-ways radio communication shall be maintained on the frequency 120.3 MHz.

5.2 With the high terrain and rapid phenomenon change of weather in and around the Paro aerodrome, all flights are operated in VMC, therefore any aircraft operating in Bhutanese territory are required to obtain weather information from Paro aerodrome at least one hour prior to departure.

5.3 Paro weather will available on HF Radio on freq. **8921Khz** and **13342Khz**, call sign Paro radio or can be requested on AFTN i.e. On **VQPRYMYX**, **VQPRZTZX**, **VQPRZPZX**.

5.4 **Arrival Instruction**

5.4.1 Flight plan should be filed on AFTN/Fax prior one hour departure followed by status of flight, in the event of any delay or cancellation of flight likely to occur.

5.4.2 **Airborne call is must** as soon as the aircraft departs from the departure aerodrome with the **ATD and ETA over Paro. Airborne time & ETA should be informed to Paro radio on HF.**

5.4.3 Entry/Exit from/to Bhutan to Indian airspace is on positive R/T contact with Hasimara (IAF 130.4MHz) Bagdogra (IAF 131.2MHz) and Guwahati (Civil ACC 120.5MHz or Civil APP 123.9MHz) as applicable (See AIP India for latest Frequency).

5.4.4 Entry/Exit into circuit area is via **Chhuzom** (*confluence of rivers Paro Thimphu*) at safety altitude. Descend below safety altitude only in VMC. All arriving aircraft to contact Paro tower atleast 38 NM before reaching confluence.

5.4.5 TA18,000, TL will be passed by ATC

- (a) Circuit area/pattern is generally to the west of airfield. Aircraft on circuit may not be visible to ATC, due to hills, descending circuit.
- (b) Towards North/North East of the airfield the *Dupshare* valley is **unsafe and not Permitted for** circuit.

5.4.6 Final approach track for both runway is curved due to hilly terrain, "**EXERCISE CAUTION**". Approach on final is above 3°GP. No visual guidance like VASI. PAPI. ILS, Runway lights e.t.c., available on final.

5.4.7 Surface winds conditions at different positions of runway can be requested. Surface winds increase in intensity usually in the afternoon hours.

5.4.8 Severe turbulence may experience when entering the valley.

5.4.9 Strong anabatic wind in the afternoon (Feb – May) may give raise to moderate to severe turbulence; it is recommended to restrict flight movement to the morning.

- 5.4.10 Holding point is over TAKTI 180°/15 NM from VOR/DME at altitude cleared by Paro ATC. Minimum *altitude* 16 000ft.
- 5.4.11 Helicopters operating as a domestic flight/mountain flight within Bhutan territory shall contact Paro tower on fixed line/mobile for Paro weather and the departure information (ETA/ETD). This shall be applied only to those helicopter not equipped with **HF radio facilities** on board
- 5.5 Departure Instruction**
- 5.5.1 **No SIDS** (Standard Instrument Departure) is established for Paro airport. Therefore, all aircraft shall strictly follow in visual meteorological conditions (VMC).
- 5.5.2 After departure climb initially 18 000ft on QNH maintaining visual to terrain/obstacle and report over Confluence/VOR"PRO". An estimates time over designated compulsory reporting points and destination shall be passed to TWR.
- 5.5.3 When reaching altitude 18 000 ft and/or before crossing Bhutan airspace, aircraft shall contact the following adjacent ACC/APP for higher level and position report.
- a) **BOGOP (R598)**
Contact Hashimara on freq 130.4mhz & also with Gauhati on freq 120.5 Mhz (Approach) 123.9 Mhz (Area)
- b) **SUBSU (G348)**
Contact Baghdora on freq 131.2Mhz & also with Gauhati on freq 120.5 Mhz (Approach) 123.9 Mhz (Area)
- c) For further Information and other Frequency see India AIP.
- 5.5.4 After establishing contact with the adjacent ACC, aircraft shall report back to Paro tower with their assigned level and position before leaving Bhutan airspace/crossing transfer point i.e. Over **BOGOP/SUBSU**
- 3 Communication failure**
- In the event of a communication failure, the pilot shall act in accordance with the communication failure procedures in ICAO Annex 10 Vol. II and Annex 2 general rules para 3.6.52
- 4 Procedures for IFR flights with in Paro air traffic circuit**
- Due to high terrain and steep mountains adjacent to the aerodrome, only flight in VMC is permitted.
- 5 Procedures for flights to/from Paro AD**
- 5.1 ATC clearance for flights will be given under the conditions described below:
- a) A flight plan containing items 7 to 18 and indicating the purpose of the flight, shall be submitted to Paro ATC.
- b) ATC and ADC/FIC clearance number shall be obtained before the aircraft Taxi out.
- d) Position reports shall be submitted in accordance with 3.6.3 of ICAO Annex 2.
- d) Deviation from the ATC clearance may only be made when prior permission has been obtained.
- e) Two-ways radio communication shall be maintained on the frequency 120.3 MHz.
- 5.2 With the high terrain and rapid phenomenon change of weather in and around the Paro aerodrome, all flights are operated in VMC, therefore any aircraft operating in Bhutan territory are required to obtain weather information from Paro aerodrome at least one hour prior to departure.
- 5.3 Paro weather will available on HF Radio on freq. **8921Khz** and **13342Khz**, call sign Paro radio or can be requested on AFTN i.e. On **VQPRYMYX**, **VQPRZTZX**, **VQPRZPZX**.

5.4 Arrival Instruction

- 5.4.1 Flight plan should be filed on AFTN/Fax prior one hour departure followed by status of flight, in the event of any delay or cancellation of flight likely to occur.
- 5.4.2 **Airborne call is must** as soon as the aircraft departs from the departure aerodrome with the **ATD and ETA over Paro. Airborne time & ETA should be informed to Paro radio on HF.**
- 5.4.3 Entry/Exit from/to Bhutan to Indian airspace is on positive R/T contact with Hasimara (IAF 130.4MHz) Bagdogra (IAF 131.2MHz) and Guwahati (Civil ACC 120.5MHz or Civil APP 123.9MHz) as applicable (See AIP India for latest Frequency).
- 5.4.4 Entry/Exit into circuit area is via **Chhuzom** (*confluence of rivers Paro Thimphu*) at safety altitude. Descend below safety altitude only in VMC. All arriving aircraft to contact Paro tower atleast 38 NM before reaching confluence.
- 5.4.5 TA18,000, TL will be passed by ATC
- (a) Circuit area/pattern is generally to the west of airfield. Aircraft on circuit may not be visible to ATC, due to hills, descending circuit.
- (b) Towards North/North East of the airfield the *Dupshare* valley is **unsafe and not Permitted for** circuit.
- 5.4.6 Final approach track for both runway is curved due to hilly terrain, “**EXERCISE CAUTION**”. Approach on final is above 3°GP. No visual guidance like VASI. PAPI. ILS, Runway lights e.t.c., available on final.
- 5.4.7 Surface winds conditions at different positions of runway can be requested. Surface winds increase in intensity usually in the afternoon hours.
- 5.4.8 Severe turbulence may experience when entering the valley.
- 5.4.9 Strong anabatic wind in the afternoon (Feb – May) may give raise to moderate to severe turbulence; it is recommended to restrict flight movement to the morning.
- 5.4.10 Holding point is over TAKTI 180°/15 NM from VOR/DME at altitude cleared by Paro ATC. Minimum **altitude** 16 000ft.
- 5.4.11 Helicopters operating as a domestic flight/mountain flight within Bhutan territory shall contact Paro tower on fixed line/mobile for Paro weather and the departure information (ETA/ETD). This shall be applied only to those helicopter not equipped with **HF radio facilities** on board

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- b) **SUBSU (G348)**
Contact Baghdora on freq 131.2Mhz & also with Gauwahati on freq 120.5 Mhz (Approach) 123.9 Mhz (Area)
- c) For further Information and other Frequency see India AIP.

- 5.5.4 After establishing contact with the adjacent ACC, aircraft shall report back to Paro tower with their assigned level and position before leaving Bhutan airspace/crossing transfer point i.e. Over **BOGOP/SUBSU**

6 RESTRICTION-

- a) Only Day operations in visual meteorological conditions (VMC) is permitted
- b) No night landing/bad weather facilities
- c) Altitudes to be maintained as per ICAO Annex 2 - Rules of the Air.
- d) Avoid flying over yellow rooftop i.e., (*dzongs, monastery, temples*)
- e) Flight shall be permitted *to take-off & land between sunrise & sunset for all types of flight operations.*

VQPR AD 2.23 ADDITIONAL INFORMATION

1. Bird concentrations in the vicinity of the airport

As far as practicable, Aerodrome Control will inform pilots of the bird activity and the estimated heights AGL, when situation warrants.

VQPR AD 2.24 CHARTS RELATED TO AN AERODROME

	<i>page</i>
Aerodrome chart.....	AD 2.2-VQPR-1
Aerodrome Obstacle Chart - ICAO Type- A runway 15.....	AD 2.3-VQPR-1
Aerodrome Obstacle Chart - ICAO Type -A runway 33.....	AD 2.3 -VQPR-2
RNP-AR, Cloud break procedure for VQPR	AD 2.4 -VQPR-1
STAR (RNP) VQPR	AD 2.5-VQPR-1 to 2
RNAV (RNP) X RWY 15/33	AD 2.6-VQPR-1 to 3
RNAV (RNP) Y RWY 15/33	AD 2.7-VQPR-1 to 3
RNAV (RNP) Z RWY 15/33.....	AD 2.8-VQPR-1 to 4

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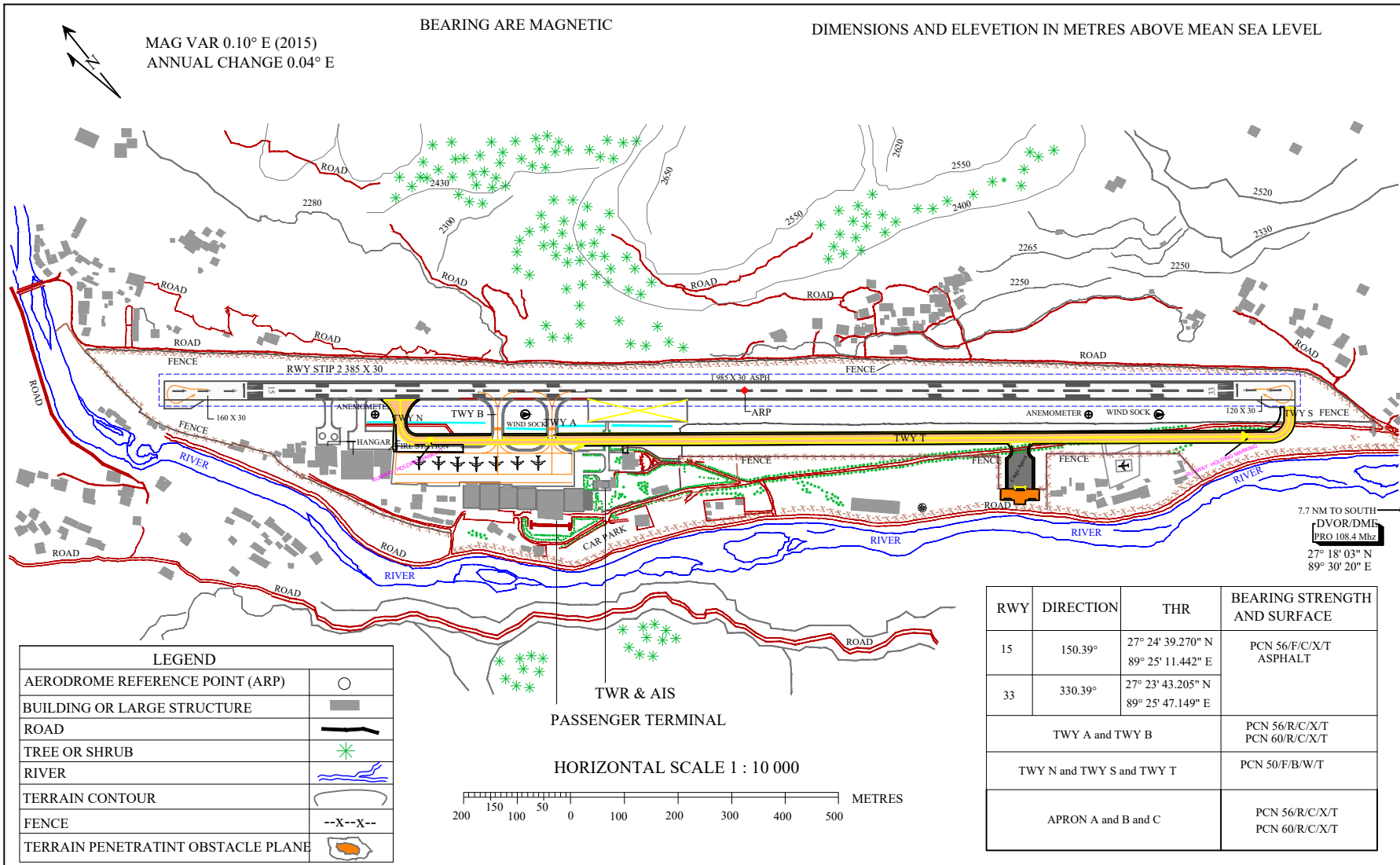
AERODROME CHART - ICAO

AERODROME ELEVATION 2244.47 m.

ARP 27° 24' 11.23" N
89° 25' 29.31" E

TWR 120.3 Mhz
EMER 121.5 Mhz

PARO / Paro International Airport

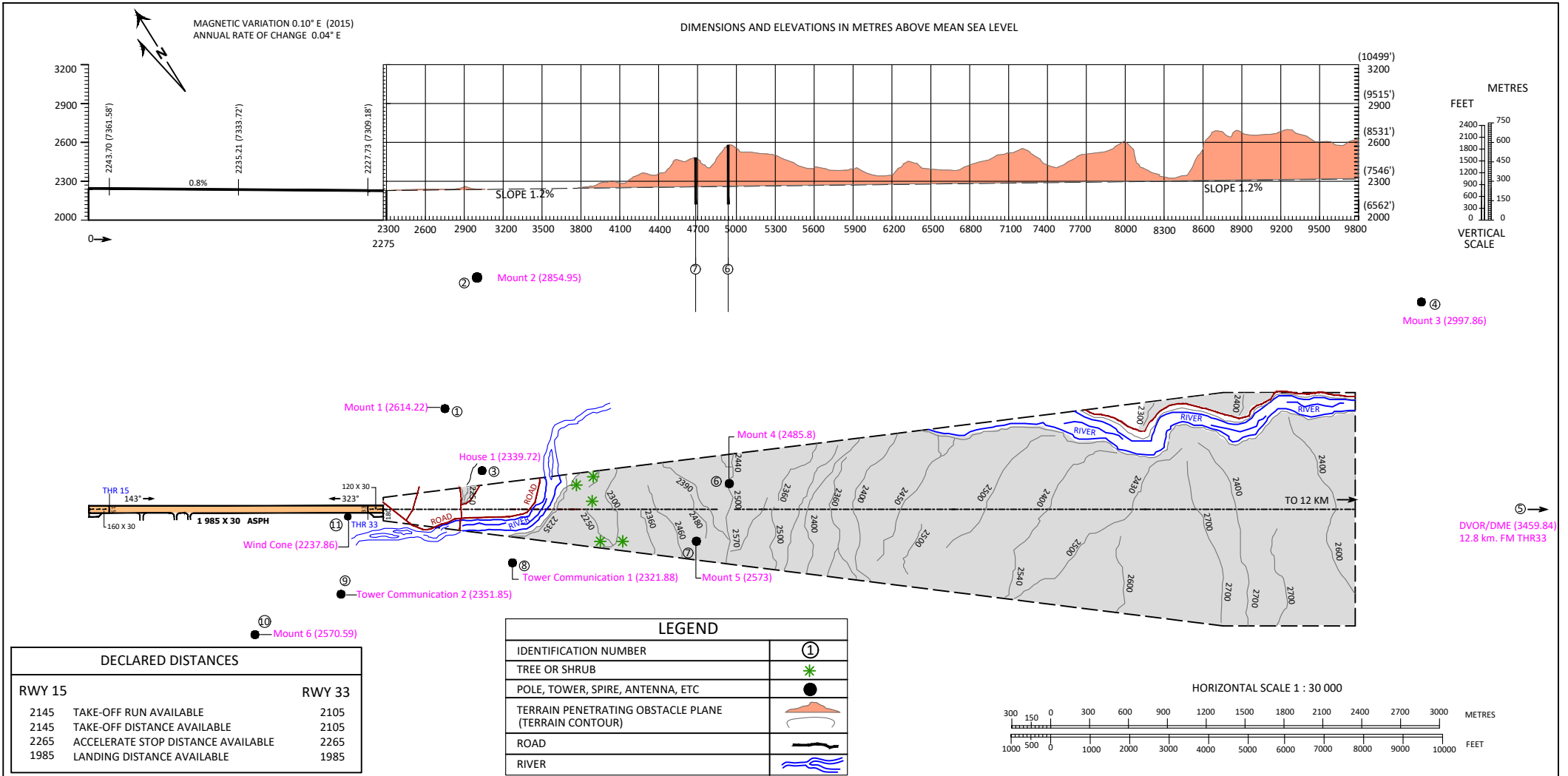


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AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

PARO / Paro International Airport
RUNWAY 15



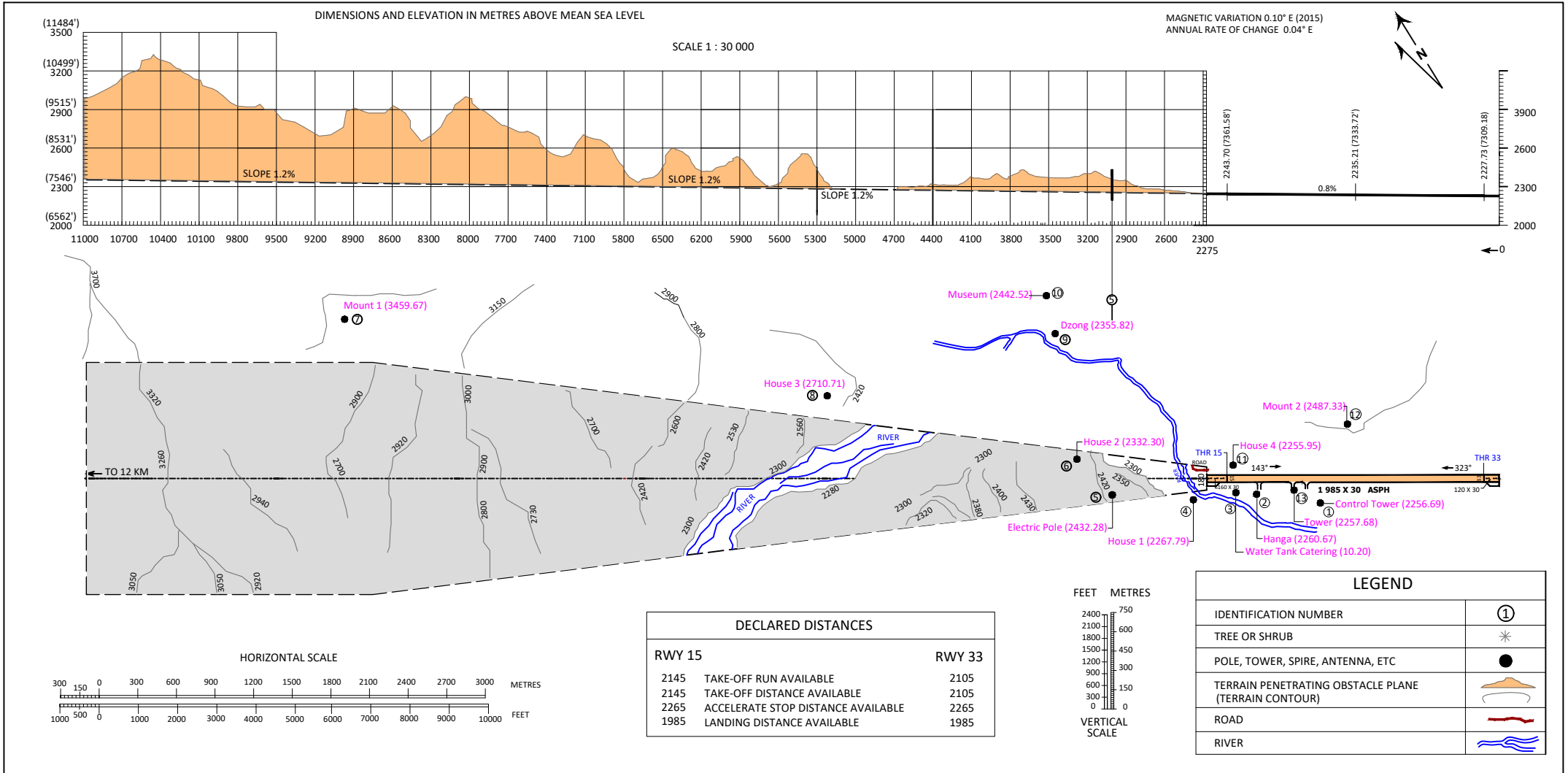
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AERODROME OBSTACLE CHART - ICAO

TYPE A (OPERATING LIMITATIONS)

PARO / Paro International Airport

RUNWAY 33



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RNP AR – CLOUD BREAK PROCEDURE at Paro International Airport (VQPR)

1. INTRODUCTION

- 1.1 This RNP AR – Cloud break procedure is designed for VQPR in accordance with the criteria as stipulated in the ICAO PANS-PS (Doc 8168) Vol.II and RNP AR Manual (DoC 9905).
- 1.2 A full arrival, approach and missed approach strategy have been designed for both Runway 33/15 by Navblue, airbus Company whose logo will appear on the STAR and RNP AR Cloud break procedure Chart.
- 1.3 The RNAV (RNP) Cloud break procedure to VQPR is designed to enhance the overall safety of the operation by facilitating the aircraft energy management and to increase the accessibility of the airport.

2. APPROVED USERS, EQUIPMENT AND OPERATIONS

- 2.1 For the VQPR RNAV (RNP) Cloud break procedure, the operators shall ensure that they hold all necessary operational approvals as a part of the operations Specifications of the AOC from its authority including the Baro VNAV Approval in order to conduct the RNAV (RNP) Cloud break procedure to VQPR. (Ref to ICAO PBN Manual , Doc 9613)
- 2.2 The operator must have a Special Authorization from its authority in order to use the RNP AR – Cloud break procedure to VQPR.
- 2.3 The operator shall seek authorization from Bhutan Civil Aviation Authority to conduct VQPR RNP AR – Cloud break procedure at Paro.
- 2.4 The operator is responsible of conducting a Flight Operational Safety Assessment (FOSA) including Flight Simulation of the procedure.
- 2.5 The RNP AR Approach procedure requires a navigation accuracy of RNP 0.3 and RF-leg capability.

3. NAMING OF RNP AR Cloud break procedure

There are three RNP AR Cloud procedure to RWY 15 and 33 . The new ICAO naming convention is used as RNAV (RNP) X RWY15/33

4. RAIM CHECK

During flight planning or before dispatching the aircraft, the pilot shall ensure a RAIM check with a mask angle appropriate to the terrain (Minimum mask angle 5°)

5. LIMITATION OF THE PROCEDURE

The procedure is designed for a temperature down to -10° C (temperature correction of the barometric altimeter is not required)

6. RNP CAPABILITY LOST

If the RNP capability is lost, ATC shall be informed as soon as possible the alternate course of the action from the pilots of the concerned aircraft.

List of waypoints:

Waypoint	Latitude	Longitude
BJENA TASHI	27°25'04.9000"N	090°03'04.5300"E
BOGOP	26°44'01.5000"N	089°44'49.5000"E
GTSHO	27°22'36.0000"N	089°47'54.0000"E
PR704	27°23'14.2470"N	089°26'10.5270"E
PR706	27°21'28.7330"N	089°26'49.9880"E
PR708	27°20'01.3390"N	089°28'15.5050"E
PR710	27°19'47.7700"N	089°29'56.1630"E
PR712	27°16'46.4090"N	089°32'21.1340"E
PR714	27°15'40.0700"N	089°31'41.7620"E
PR722	27°13'23.8860"N	089°28'25.9220"E
PR724	27°13'27.8130"N	089°25'46.3580"E
PR728	27°14'37.8510"N	089°21'27.4780"E
PR730	27°19'10.0600"N	089°18'20.1150"E
PR732	27°14'35.9090"N	089°31'03.6970"E
PR734	27°13'45.1210"N	089°30'27.7270"E
PR736	27°11'19.0580"N	089°26'20.8970"E
PR738	27°11'09.3070"N	089°25'14.5690"E
PR740	27°10'59.4240"N	089°23'06.7380"E
PR742	27°10'28.1180"N	089°16'24.5760"E
PR744	27°09'36.8360"N	089°13'17.2460"E
PR746	27°12'25.5210"N	089°30'59.5930"E
PR750	27°21'29.4940"N	089°19'24.5030"E
PR752	27°23'59.0900"N	089°25'13.1110"E
PR754	27°23'05.1580"N	089°40'03.3250"E
PR777	27°06'04.9130"N	089°31'44.3330"E
PR780	26°58'06.1780"N	089°32'40.4900"E
PR782	26°51'59.5000"N	089°40'05.0560"E
PR784	27°22'14.9030"N	089°53'30.1540"E
PR786	27°13'33.0220"N	089°54'51.9240"E
PR790	27°25'04.5560"N	089°32'35.6400"E
PR792	27°23'39.5750"N	089°33'04.9670"E
PR794	27°01'50.9250"N	089°35'32.0970"E
PR796	27°00'49.6000"N	089°30'01.5090"E
PR798	27°05'05.0720"N	089°31'51.3590"E
PR799	27°22'05.1840"N	089°17'39.0390"E
PR808	27°24'20.7330"N	089°25'45.6500"E
PR810	27°26'17.8700"N	089°23'26.1840"E
PR812	27°27'27.9730"N	089°21'43.7780"E
PR814	27°28'56.8980"N	089°18'24.3830"E
PR816	27°28'32.5620"N	089°17'04.6530"E

PR818	27°24'17.6560"N	089°16'00.2150"E
PR820	27°14'19.3030"N	089°30'28.5740"E
PR826	27°14'02.6900"N	089°23'37.5170"E
PR828	27°13'38.2240"N	089°24'42.3820"E
PR830	27°11'33.2210"N	089°28'55.6440"E
PR842	27°14'53.3100"N	089°17'29.4920"E
PR848	27°08'04.5940"N	089°31'30.2730"E
PR850	27°18'46.5160"N	089°36'26.1690"E
PR852	27°20'53.8040"N	089°39'16.7990"E
PR854	27°22'44.3760"N	089°45'39.5280"E
PR888	27°08'26.7280"N	089°10'56.1170"E
PRC51	27°17'44.7540"N	089°30'17.9720"E
PRC52	27°22'16.3380"N	089°29'29.8060"E
PRC53	27°23'23.5140"N	089°22'33.8460"E
PRC54	27°28'43.1610"N	089°24'09.8340"E
PRC55	27°25'57.6910"N	089°18'48.5830"E
PRC56	27°19'51.7590"N	089°13'54.7210"E
PRC57	27°18'28.2210"N	089°22'45.4530"E
PRC58	27°17'46.7660"N	089°27'14.1800"E
PRC60	27°17'38.9570"N	089°24'36.9270"E
PRC61	27°03'28.5270"N	089°17'05.5780"E
PRC62	27°13'00.9010"N	089°37'17.2650"E
PRC63	27°18'09.0210"N	089°24'46.9040"E
PRC64	27°16'11.3310"N	089°09'12.1410"E
PRC65	27°09'14.7770"N	089°21'59.9220"E
PRC66	27°07'36.1930"N	089°26'29.3160"E
PRC67	27°14'44.1970"N	089°45'01.9700"E
PRC68	27°24'11.3820"N	089°29'22.3580"E
PRC69	27°20'59.8620"N	089°23'25.3870"E
PRC70	27°06'36.2470"N	089°37'18.6820"E
PRC71	26°57'05.5770"N	089°33'45.6610"E
PRC72	27°04'33.5220"N	089°26'17.1100"E
PRC73	27°15'35.8410"N	089°47'21.1800"E
SUBSU	26°58'55.3000"N	088°51'49.8000"E

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STAR recommended coding table :

BJENA 1A :

Seq N°	PT	W/P ID	Overfly	CRS Val °T (°M)	DIST val	ALT ONE	SPD LMT	NAV PERF	RADIUS val	ARC CTR ID
10	IF	TASH/BJENA	-	-	-	-	-	1.000 NM	-	-
20	TF	PR784	-	251.7 (251.8)	8.977 NM	-	-	1.000 NM	-	-
30	TF	GTSHO	-	274.0 (274.2)	5.000 NM	+ 17500.00 FT	230 KT	1.000 NM	-	-

BOGOP1A :

Seq N°	PT	W/P ID	OverFly	CRS Val °T (°M)	DIST val	ALT ONE	SPD LMT	NAV PERF	RADIUS val	ARC CTR ID
10	IF	BOGOP	-	-	-	-	-	1.000 NM	-	-
20	TF	PR782	N	331.9 (332.0)	9.005 NM	-	-	1.000 NM	-	-
30	TF	PR780	N	312.6 (312.8)	9.000 NM	-	-	1.000 NM	-	-
40	TF	PR777	N	354.0 (354.1)	8.000 NM	+ 16000.00 FT	185 KT	1.000 NM	-	-

BOGOP1B :

Seq N°	PT	W/P ID	OverFly	CRS Val °T (°M)	DIST val	ALT ONE	SPD LMT	NAV PERF	RADIUS val	ARC CTR ID
10	IF	BOGOP	-	-	-	-	-	1.000 NM	-	-
20	TF	PR786	N	16.9 (017.0)	30.777 NM	-	250 KT	1.000 NM	-	-
30	RF	GTSHO	-	274.0 (274.1)	12.576 NM	+ 17500.00 FT	230 KT	1.000 NM	7.000 NM	PRC73

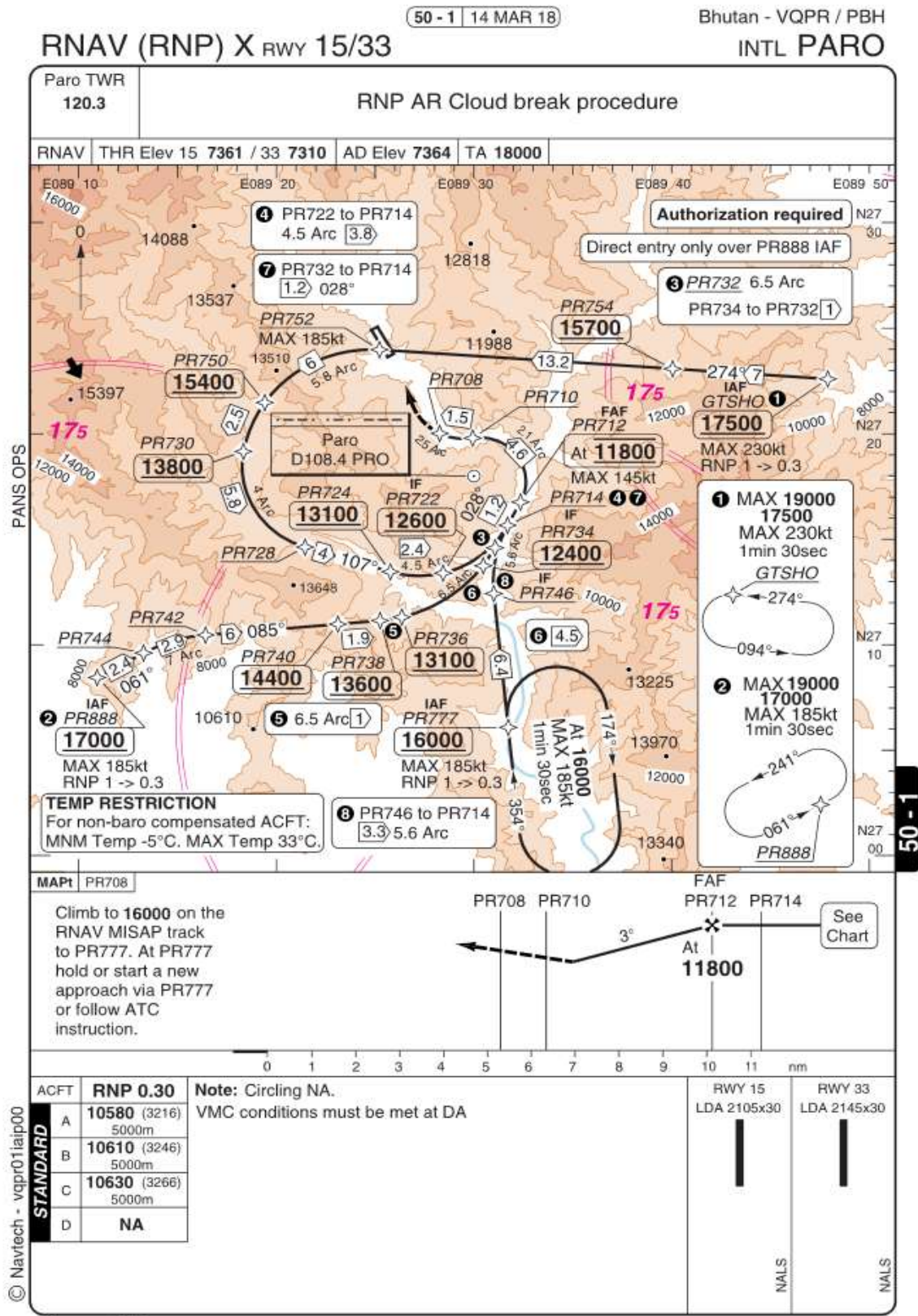
SUBSU1A :

Seq N°	PT	W/P ID	OverFly	CRS Val °T (°M)	DIST val	ALT ONE	SPD LMT	NAV PERF	RADIUS val	ARC CTR ID
10	IF	SUBSU	-	-	-	-	-	1.000 NM	-	-
20	TF	PR888	N	060.9 (060.9)	19.522 NM	+ 17000.00 FT	185 KT	1.000 NM	-	-

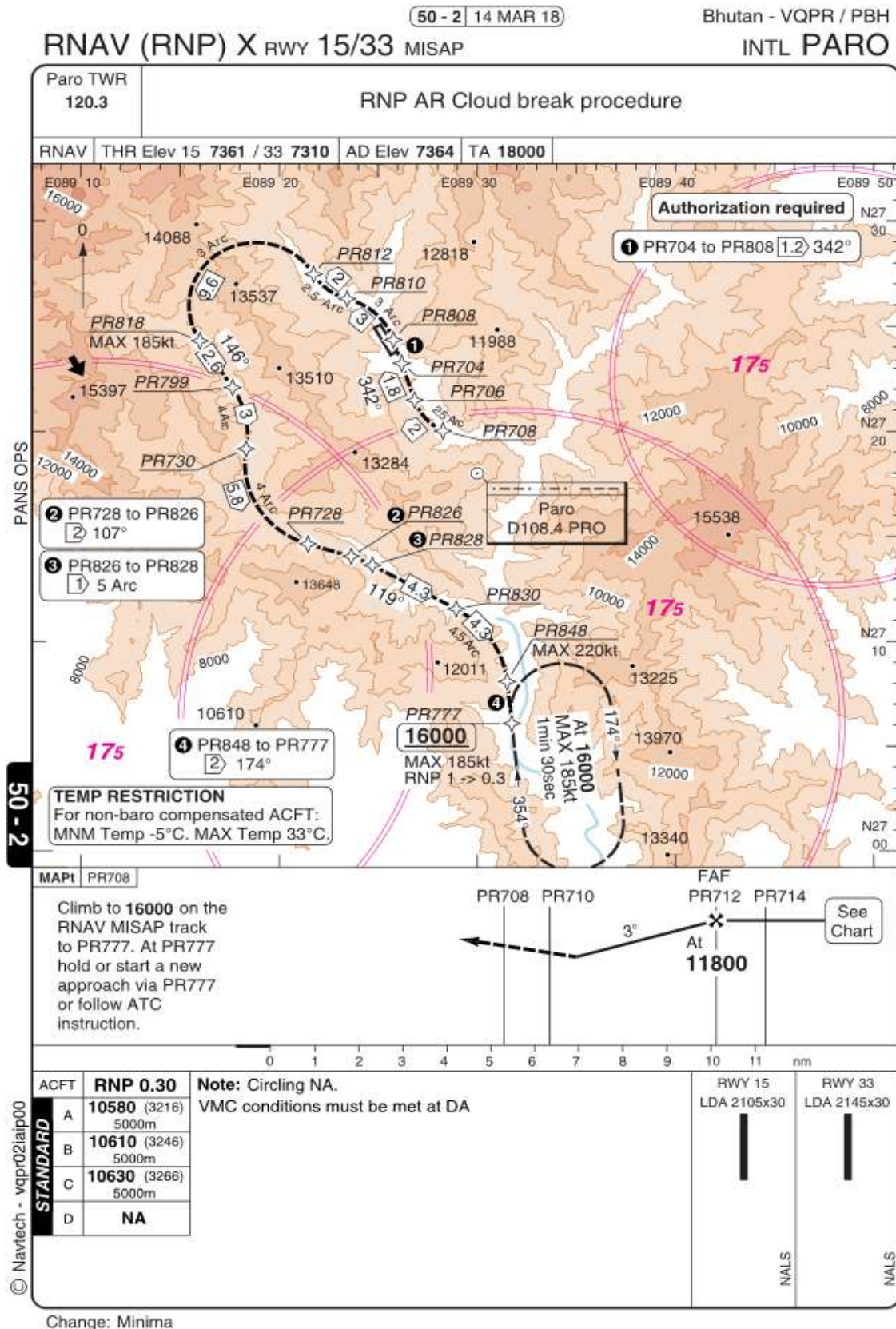
NEW IFR HOLDINGS

HLDG ID/FIX/WPT COORDINATES	INBD TR (°MAG)	DIRECTION OF PTN	MAX IAS (KTS)	MNM-MAX HLDG LVL (FL/FT MSL)	TIME (MIN) DIS OUBD	Controlling Unit and Frequency
PR777 27°06'04.9130"N 089°31'44.3330"E	354	Right	185	16 000ft	90 sec	PARO TWR 120.3 Mhz
PR888 27°08'26.7280"N 089°10'56.1170"E	061	Left	185	17 000ft	90 sec	
GTSHO 27°22'36.0000"N 089°47'54.0000"E	Left	230	230	17 500ft	90 sec	

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Recommended coding table RNAV(RNP) X RWY 15/33:

Seq N°	PT	W/P ID	OverFly	Fix role	TD	CRS Val °T (°M)	DIST val (NM)	ALT ONE	SPD LMT (KT)	VRT ANG	NAV PERF	RADIUS val (NM)	ARC CTR ID
10	IF	GTSHO		IAF				+ 17500 FT	230		0.3NM		
20	TF	PR754	N			274.000 (274.1)	7.000	+ 15700 FT			0.3 NM		
30	TF	PR752	N			273.940 (274.060)	13.237		185		0.3 NM		
40	RF	PR750			L	214.827 (214.947)	6.000	+ 15400 FT			0.3 NM	5.831	PRC63
50	RF	PR730			L	189.994 (190.114)	2.526	+ 13800 FT			0.3 NM	5.831	PRC63
60	RF	PR728			L	106.823 (106.943)	5.808				0.3 NM	4.000	PRC57
70	TF	PR724	N			106.823 (106.943)	4.018	+ 13100 FT			0.3 NM		
80	RF	PR722		IF	L	76.298 (076.418)	2.400	+ 12600 FT			0.3NM	4.497	PRC58
90	RF	PR714			L	028.057 (028.057)	3.798				0.3 NM	4.497	PRC58
100	TF	PR712	N			27.936 (028.056)	1.248	@ 11800 FT	145		0.3 NM		
10	IF	PR888		IAF				+ 17000 FT	185		0.3 NM		
20	TF	PR744	N			60.947 (061.067)	2.400				0.3 NM		
30	RF	PR742			R	85.000 (085.120)	2.934				0.3 NM	7.000	PRC61
40	TF	PR740	N			85.000 (085.120)	6.000	+ 14400 FT			0.3 NM		
50	TF	PR738	N			85.051 (085.171)	1.907	+ 13600 FT			0.3NM		
60	RF	PR736			L	76.261 (076.381)	1.000	+ 13100 FT			0.3 NM	6.500	PRC60
70	RF	PR734		IF	L	36.742 (036.862)	4.487	+ 12400 FT			0.3 NM	6.500	PRC60
80	RF	PR732			L	27.931 (028.051)	1.000				0.3 NM	6.500	PRC60
90	TF	PR714	N			27.931 (028.051)	1.207				0.3 NM		
100	TF	PR712	N			27.936 (028.056)	1.248	@ 11800 FT	145		0.3 NM		
10	IF	PR777		IAF				+ 16000 FT	185		0.3NM		
20	TF	PR746	N	IF		354.000 (354.120)	6.360				0.3 NM		
30	RF	PR714			R	27.936 (028.056)	3.342				0.3 NM	5.643	PRC62
40	TF	PR712	N			27.936 (028.056)	1.248	@ 11800 FT	145		0.3 NM		
10	IF	PR712		FAF				@ 11800 FT	145		0.3 NM		
20	RF	PR710			L	261.000 (261.120)	4.585			-3	0.3 NM	2.070	PRC51
30	RF	PR708		MAPT	R	296.167 (296.287)	1.535	@ 9850 FT		-3	0.3 NM	2.500	PRC52
40	RF	PR706			R	341.540 (341.660)	1.980				0.3NM	2.500	PRC52
50	TF	PR704	N			341.539 (341.659)	1.849				0.3NM		
60	TF	PR808	N			341.534 (341.654)	1.165				0.3 NM		
70	RF	PR810			L	285.000 (285.120)	2.959				0.3 NM	3.000	PRC53
80	RF	PR812			R	330.000 (330.120)	1.964				0.3 NM	2.500	PRC54
90	RF	PR818			L	146.334 (146.454)	9.614		185		0.3 NM	3.000	PRC55
100	TF	PR799	N			146.334 (146.454)	2.645				0.3 NM		
110	RF	PR730			R	189.994 (190.114)	3.047				0.3 NM	4.000	PRC56
120	RF	PR728			L	106.823 (106.943)	5.808				0.3NM	4.000	PRC57
130	TF	PR826				106.942 (106.942)	2.018				0.3 NM		
140	RF	PR828			R	118.885 (119.005)	1.048				0.3 NM	5.000	PRC65
150	TF	PR830				118.885 (119.005)	4.299				0.3 NM		
160	RF	PR848			R	173.998 (174.118)	4.325		220		0.3 NM	4.500	PRC66
170	TF	PR777				173.998 (174.118)	2.000	+ 16000 FT	185		0.3 NM		

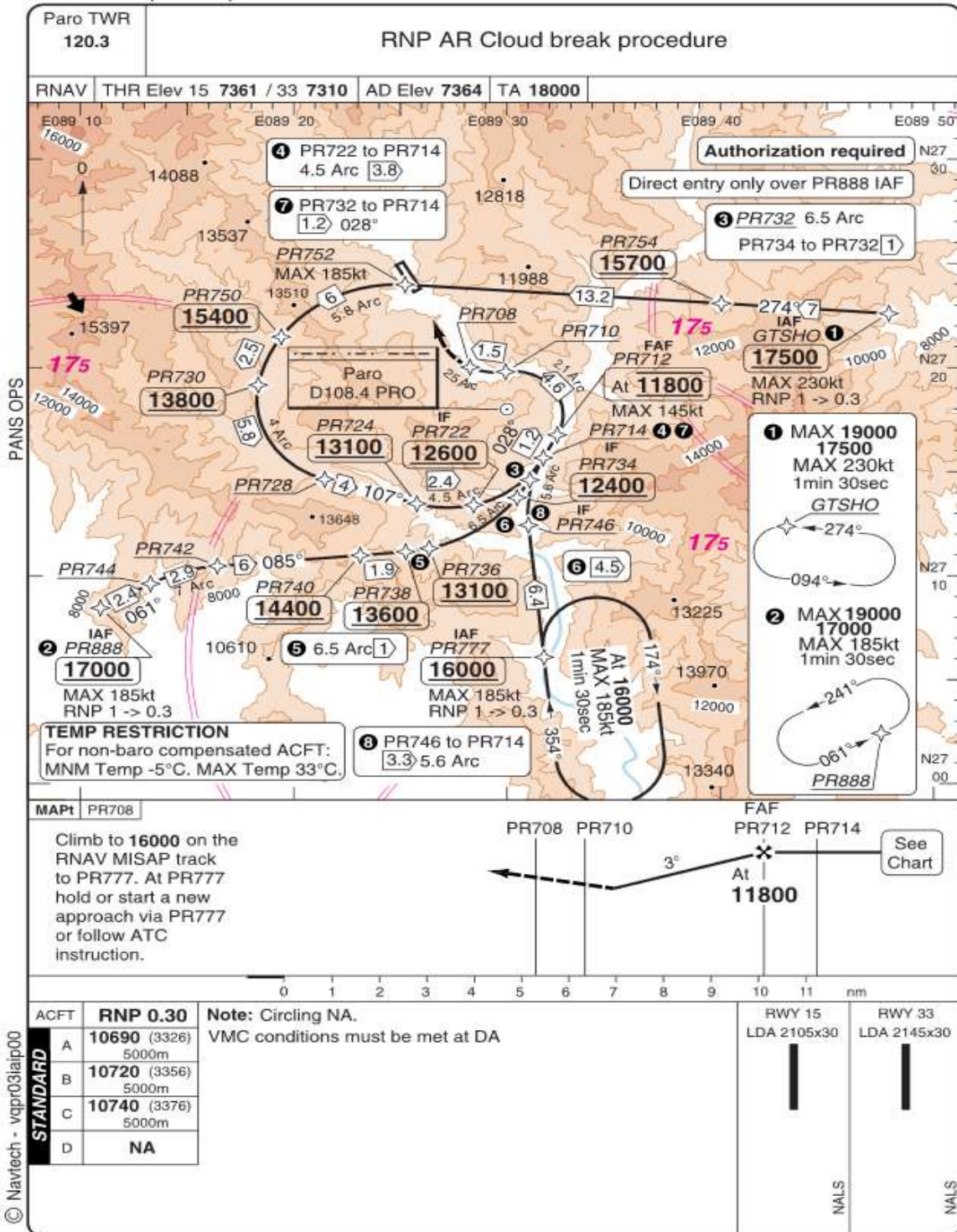
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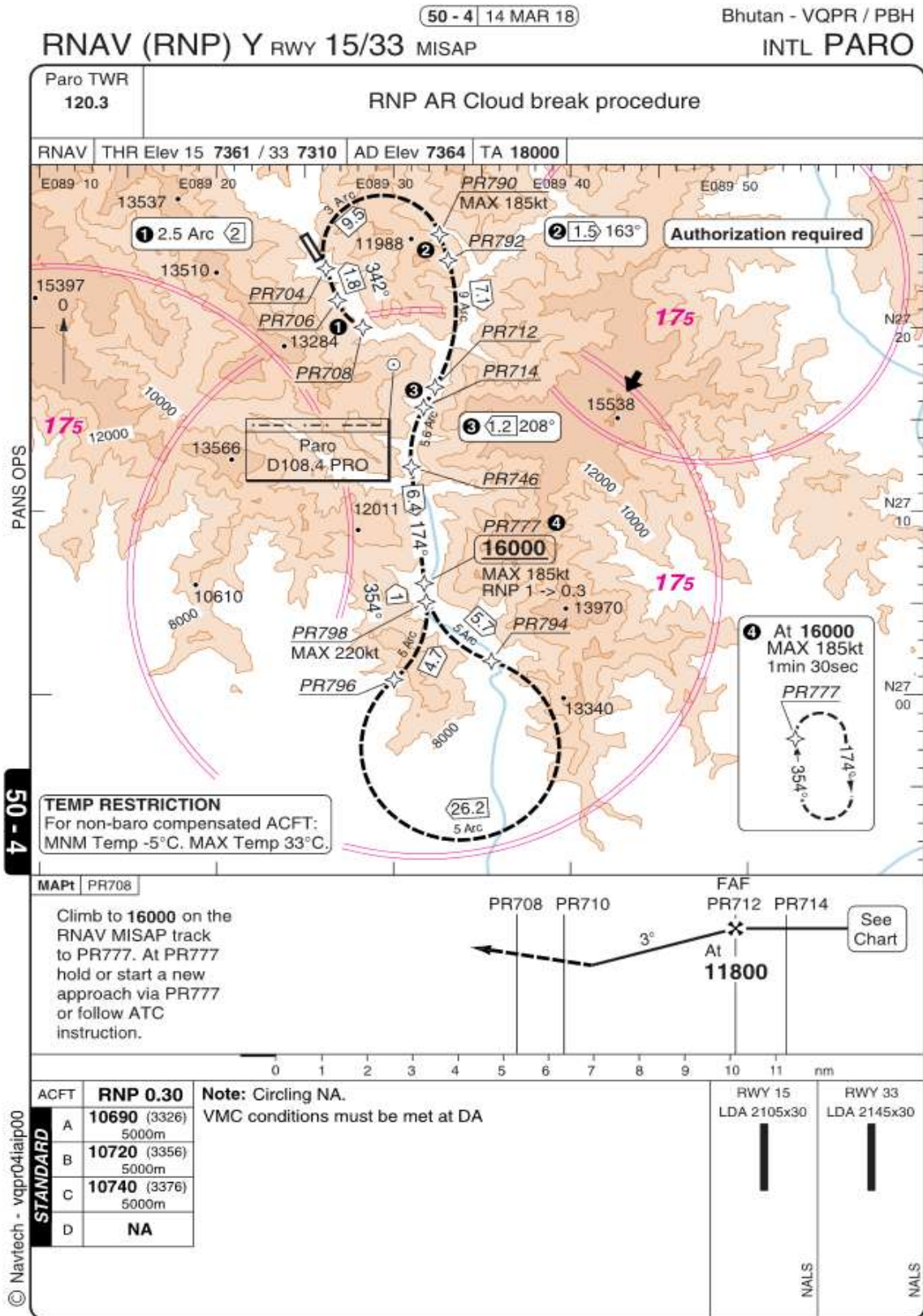
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RNAV (RNP) Y RWY 15/33

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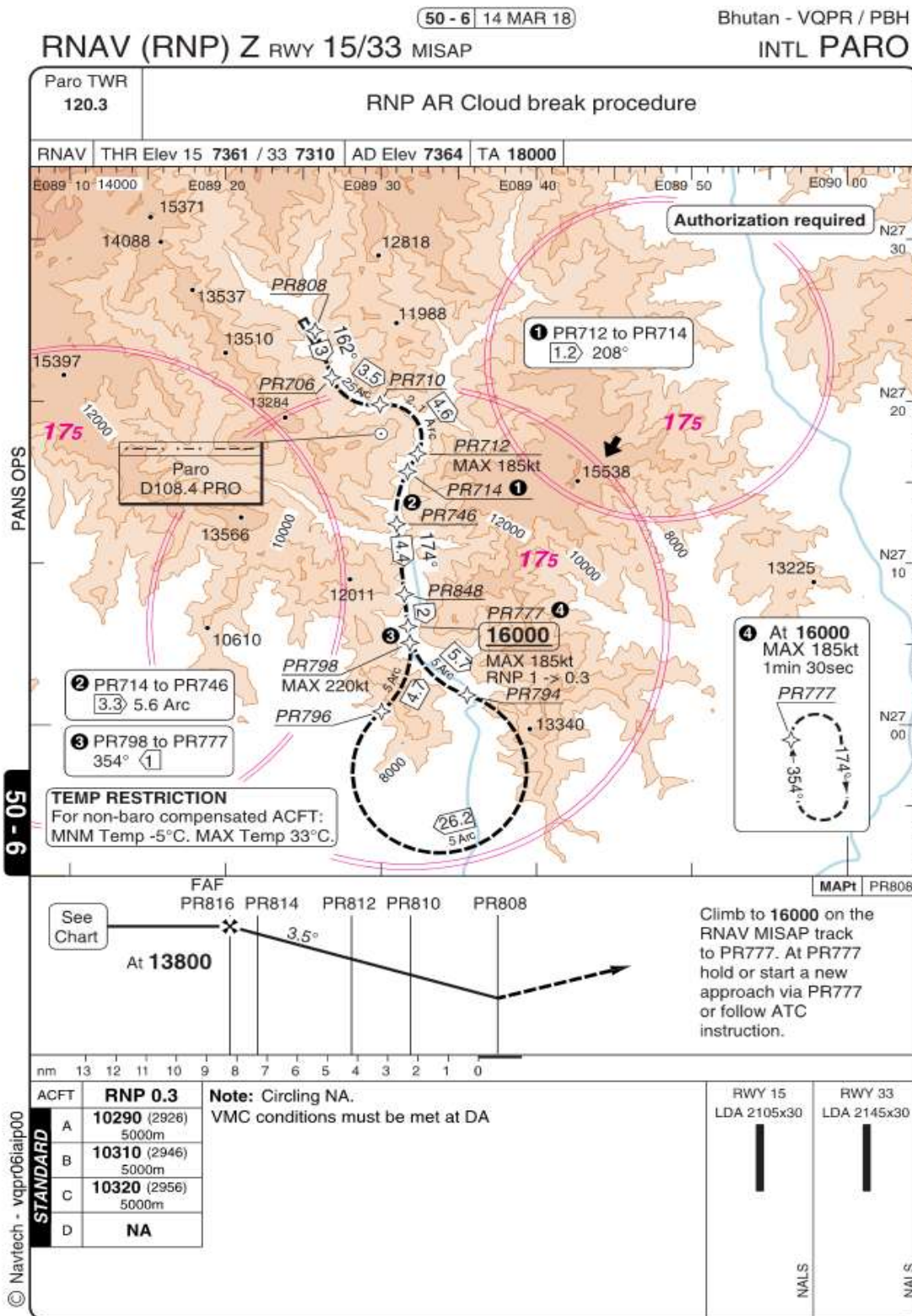
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Recommended coding table RNAV(RNP) Y RWY 15/33:

Seq N°	PT	W/P ID	OverFly	Fix role	TD	CRS Val °T (°M)	DIST val (NM)	ALT ONE	SPD LMT (KT)	VRT ANG	NAV PERF	RADIUS val (NM)	ARC CTR ID
10	IF	GTSHO		IAF				+ 17500 FT	230		0.3 NM		
20	TF	PR754	N			274.000 (274.120)	7.000	+ 15700 FT			0.3 NM		
30	TF	PR752	N			273.940 (274.060)	13.237		185		0.3 NM		
40	RF	PR750			L	214.827 (214.947)	6.000	+ 15400 FT			0.3 NM	5.831	PRC63
50	RF	PR730			L	189.994 (190.114)	2.526	+ 13800 FT			0.3 NM	5.831	PRC63
60	RF	PR728			L	106.823 (106.943)	5.808				0.3 NM	4.000	PRC57
70	TF	PR724	N			106.823 (106.943)	4.018	+ 13100 FT			0.3 NM		
80	RF	PR722		IF	L	76.298 (076.418)	2.400	+ 12600 FT			0.3 NM	4.497	PRC58
90	RF	PR714			L	27.937 (028.057)	3.798				0.3 NM	4.497	PRC58
100	TF	PR712	N			27.936 (028.056)	1.248	@ 11800 FT	145		0.3 NM		
10	IF	PR888		IAF				+ 17000 FT	185		0.3 NM		
20	TF	PR744	N			60.947 (061.067)	2.400				0.3 NM		
30	RF	PR742			R	85.000 (085.120)	2.934				0.3 NM	7.000	PRC61
40	TF	PR740	N			85.000 (085.120)	6.000	+ 14400 FT			0.3 NM		
50	TF	PR738	N			85.051 (085.171)	1.907	+ 13600 FT			0.3 NM		
60	RF	PR736			L	76.261 (076.381)	1.000	+ 13100 FT			0.3 NM	6.500	PRC60
70	RF	PR734		IF	L	36.742 (036.862)	4.487	+ 12400 FT			0.3 NM	6.500	PRC60
80	RF	PR732			L	27.931 (028.051)	1.000				0.3 NM	6.500	PRC60
90	TF	PR714	N			27.931 (028.051)	1.207				0.3 NM		
100	TF	PR712	N			27.936 (028.056)	1.248	@ 11800 FT	145		0.3 NM		
10	IF	PR777		IAF				+ 16000 FT	185		0.3 NM		
20	TF	PR746	N	IF		354.000 (354.120)	6.360				0.3 NM		
30	RF	PR714			R	27.936 (028.056)	3.342				0.3 NM	5.643	PRC62
40	TF	PR712	N			27.936 (028.056)	1.248	@ 11800 FT	145		0.3 NM		
10	IF	PR712		FAF				@ 11800 FT	145		0.3 NM		
20	RF	PR710			L	261.000 (261.120)	4.585			-3	0.3 NM	2.070	PRC51
30	RF	PR708		MAPT	R	296.167 (296.287)	1.535	@ 9850 FT		-3	0.3 NM	2.500	PRC52
40	RF	PR706			R	341.540 (341.660)	1.980				0.3 NM	2.500	PRC52
50	TF	PR704	N			341.539 (341.659)	1.849				0.3 NM		
60	RF	PR790			R	162.880 (163.000)	9.493		185		0.3 NM	3.000	PRC68
70	TF	PR792	N			162.880 (163.000)	1.478				0.3 NM		
80	RF	PR712			R	207.941 (208.061)	7.079				0.3 NM	9.000	PRC69
90	TF	PR714	N			207.941 (208.061)	1.248				0.3 NM		
100	RF	PR746			L	173.994 (174.114)	3.342				0.3 NM	5.643	PRC62
110	TF	PR777	N			173.995 (174.115)	6.360				0.3 NM		
120	RF	PR794			L	108.484 (108.604)	5.720				0.3 NM	5.000	PRC70
130	RF	PR796			R	48.112 (048.232)	26.151				0.3 NM	5.000	PRC71
140	RF	PR798			L	354.002 (354.122)	4.723		220		0.3 NM	5.000	PRC72
150	TF	PR777	N			354.001 (354.121)	1.000	+ 16000 FT	185		0.3 NM		

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Recommended coding table RNAV(RNP) Z RWY 15/33:

Seq N°	PT	W/P ID	OverFly	Fix role	TD	CRS Val °T (°M)	DIST val (NM)	ALT ONE	SPD LMT (KT)	VRT ANG	NAV PERF	RADIUS val (NM)	ARC CTR ID
10	IF	PR888		IAF				+ 17000 FT	185		0.3 NM		
20	TF	PR744	N			60.947 (061.067)	2.400				0.3 NM		
30	RF	PR842			L	9.988 (010.108)	6.677	+ 15200 FT			0.3 NM	7.500	PRC64
40	TF	PR730	N			9.988 (010.108)	4.333				0.3 NM		
50	RF	PR799			L	326.466 (326.466)	3.047				0.3 NM	4.000	PRC56
60	TF	PR818	N	IF		326.346 (326.466)	2.645				0.3 NM		
70	RF	PR816			R	59.086 (059.206)	4.856	@ 13800 FT	145		0.3 NM	3.000	PRC55
10	IF	PR777		IAF				+ 16000 FT	185		0.3 NM		
20	TF	PR848	N			354.000 (354.120)	2.000				0.3 NM		
30	RF	PR830			L	298.917 (299.037)	4.325				0.3 NM	4.500	PRC66
40	TF	PR828	N			298.917 (299.037)	4.299				0.3 NM		
50	RF	PR826			L	286.869 (286.989)	1.048				0.3 NM	5.000	PRC65
60	TF	PR728	N			286.839 (286.959)	2.018				0.3 NM		
70	RF	PR730			R	09.994 (010.114)	5.808				0.3 NM	4.000	PRC57
80	RF	PR799			L	326.346 (326.466)	3.047				0.3 NM	4.000	PRC56
90	TF	PR818	N	IF		326.346 (326.466)	2.645				0.3 NM		
100	RF	PR816			R	59.086 (059.206)	4.856	@ 13800 FT	145		0.3 NM	3.000	PRC55
10	IF	GTSHO		IAF				+ 17500 FT	230		0.3 NM		
20	TF	PR854	N			274.000 (274.120)	2.000				0.3 NM		
30	RF	PR852			L	230.139 (230.259)	6.117	+ 16100 FT			0.3 NM	8.000	PRC67
40	TF	PR850	N			230.139 (230.259)	3.300	+ 15300 FT			0.3 NM		
50	TF	PR820	N			230.118 (230.238)	6.923		18		0.3 NM		
60	RF	PR724			R	286.855 (286.975)	4.460				0.3 NM	4.497	PRC58
70	TF	PR826	N			286.856 (286.976)	2.000				0.3 NM		
80	TF	PR728	N			286.839 (286.959)	2.018				0.3 NM		
90	RF	PR730			R	09.994 (010.114)	5.808				0.3 NM	4.000	PRC57
100	RF	PR799			L	326.346 (326.466)	3.047				0.3 NM	4.000	PRC56
110	TF	PR818	N	IF		326.346 (326.466)	2.645				0.3 NM		
120	RF	PR816			R	59.086 (059.206)	4.856	@ 13800 FT	145		0.3 NM	3.000	PRC55
10	IF	PR816		FAF				@ 13800 FT	145		0.3 NM		
20	RF	PR814			R	83.130 (083.250)	1.258			-3.5	0.3 NM	3.000	PRC55
30	RF	PR812			R	150.000 (150.120)	3.500			-3.5	0.3 NM	3.000	PRC55
40	RF	PR810			L	105.000 (105.120)	1.964			-3.5	0.3 NM	2.500	PRC54
50	RF	PR808		MAPT	R	161.531 (161.651)	2.959	@ 10200 FT		-3.5	0.3 NM	3.000	PRC53
60	TF	PR706	N			161.531 (161.651)	3.014				0.3 NM		
70	RF	PR710			L	81.000 (081.120)	3.515				0.3 NM	2.500	PRC52
80	RF	PR712			R	207.941 (208.061)	4.585		185		0.3 NM	2.070	PRC51
90	TF	PR714	N			207.941 (208.061)	1.248				0.3 NM		
100	RF	PR746			L	173.994 (174.114)	3.342				0.3 NM	5.643	PRC62
110	TF	PR848	N			173.995 (174.115)	4.360				0.3 NM		
120	TF	PR777	N			173.998 (174.118)	2.000				0.3 NM		

130	RF	PR794			L	108.484 (108.604)	5.720				0.3 NM	5.000	PRC70
140	RF	PR796			R	48.112 (048.232)	26.151				0.3 NM	5.000	PRC71
150	RF	PR798			L	354.002 (354.122)	4.723		220		0.3 NM	5.000	PRC72
160	TF	PR777	N			354.001 (354.121)	1.000	+ 16000 FT	185		0.3 NM		