OTBD — DOHA INTERNATIONAL

OTBD AD 2.1 AERODROME LOCATION INDICATOR AND NAME

OTBD — DOHA INTERNATIONAL

OTBD AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	*ARP coordinates and site at AD*	251539.81N 0513354.34E, Mid - point of RWY, on CL.
2	*Direction and distance from (city)*	3.5 NM SE from Doha City Centre
3	*Elevation/Reference temperature*	37 FT / 41° C
4	*Geoid undulation at AD ELEV PSN*	-98 FT
5	*MAG VAR/Annual change*	2.3˚E (JUN 2014) / 0.05˚E
6	*AD Operator, address, telephone, telefax, telex, AFS and website address*	Post: Chief Operating Office Hamad International Airport P.O. Box 24730 Doha State of Qatar Tel: (974) 4010 7715 / (974) 4010 3999 Fax: (974) 4010 1010 SITA: DOHAOXH
7	*Types of traffic permitted (IFR/VFR)*	IFR / VFR
8	*Remarks*	Airport Operations Control Centre Duty Manager (AOCC DM) 24/7: Tel: (974) 4010 3999

OTBD AD 2.3 OPERATIONAL HOURS

1	*AD Operator*	H24
2	*Customs and immigration*	H24
3	*Health and sanitation*	H24
4	*AIS Briefing Office*	H24
5	*ATS Reporting Office (ARO)*	H24
6	*MET Briefing Office*	H24
7	*ATS*	H24
8	*Fuelling*	On prior notification to fuel provider. See Item 10 of GEN 1.1
9	*Handling*	On prior notification to ground handler. See Item 9 of GEN1.1
10	*Security*	H24
11	*De-icing*	Not required due to local climate
12	*Remarks*	NIL

OTBD AD 2.4 HANDLING SERVICES AND FACILITIES

1	*Cargo-handling facilities*	Available. Cranes by prior arrangement only.
2	*Fuel/oil types*	Fuel: Jet A1 AVGAS 100 available only at Qatar Aeronautical College (QAC). Oil: NIL.
3	*Fuelling facilities/capacity*	On prior notification. See Item 10 of GEN 1.1

4	*De-icing facilities*	Not required due to local climate.
5	*Hangar space for visiting aircraft*	NIL
6	*Repair facilities for visiting aircraft*	Contact QAS, see Item 9 of GEN 1.1
7	*Remarks*	For handling facilities / services contact QAS, see Item 9 of GEN1.1

OTBD AD 2.5 PASSENGER FACILITIES

1	*Hotels*	Hotel accommodation available in Doha City.
2	*Restaurants*	NIL
3	*Transportation*	NIL
4	*Medical facilities*	Full medical facilities available in Doha
5	*Bank and Post Office*	NIL
6	*Tourist Office*	NIL
7	*Remarks*	NIL

OTBD AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	*AD category for fire fighting*	CAT 9 with CAT 10 available on request. Notification time to upgrade to CAT 10 will require a period of APRX 45 MIN.
2	*Rescue equipment*	As per ICAO Annex 14
3	*Capability for removal of disabled aircraft*	All aircraft types, Contact (974) 4018 4500 / 4018 4977
4	*Remarks*	Total number of trained personnel: 121 Communication with aircraft on ground available on 121.6 MHz

OTBD AD 2.7 SEASONAL AVAILABILITY - CLEARING

1	*Types of clearing equipment*	NIL
2	*Clearance priorities*	N/A
3	*Remarks*	Local climate precludes the requirement. Aerodrome is available in all seasons.

OTBD AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	*Designation, surface and strength of aprons*	MAIN APRON: concrete, PCN 70 / R / A / X / T VIP APRON : concrete, PCN 70 / R / A / X / T WESTERN APRON: asphalt, PCN 70 / F/ A / X / U EASTERN APRON (1): concrete, PCN 70 / R / B / W / U EASTERN APRON (2): concrete, PCN 68 / R / B / W / T EASTERN APRON (3): concrete, PCN 70 / R / B / W / U EASTERN APRON (4): concrete, PCN 79 / R / A / W / T EASTERN APRON EXTENSION: concrete, PCN 63 / R / A / X / T RIZON APRON: asphalt, PCN 40 / F / B / X / U ISOLATED PARKING: concrete, PCN 68 / R / B / W / T

2	*Designation, width, surface and strength of taxiways*	TWY A: 34 M, asphalt, PCN 60 / F / A / X / T TWY C: 23 M, asphalt, PCN 60 / F / A / X / T TWY D: 23 M, asphalt, PCN 60 / F / A / X / T TWY F: 26 M, asphalt, PCN 60 / F / A / X / T TWY P: 33 M, asphalt, PCN 70 / F / A / X / T TWY B, TWY E1, TWY E2, TWY G: 29 M, asphalt, PCN 60 / F / A / X / T TWY B1, TWY C1, TWY D1, TWY D3, TWY D4: 29 M, asphalt, PCN 70 / F / A / X / U TWY D2, TWY D2 EAST, TWY V, TWY Z: 23 M, asphalt, PCN 72 / F / B / W / T TWY D2C: 18 M, asphalt, PCN 46 / F / B / W / U TWY U: 18 M, asphalt, PCN 40 / F / B / X / U TWY H, TWY J, TWY K, TWY L, TWY M, TWY N, TWY Q, TWY R, TWY S, TWY T, TWY Y: 23 M, asphalt, PCN 60 / F / A / X / T TWY FA2: 25 M, asphalt, PCN 37 / F / A / X / U
3	*Altimeter checkpoint location and elevation*	VIP APRON – 36 FT MAIN APRON – 23 FT WESTERN APRON – 30 FT EASTERN APRON (1) – 29 FT EASTERN APRON (2) – 21 FT EASTERN APRON (3) – 18 FT EASTERN APRON (4) – 16 FT
4	*VOR checkpoints*	Holding point TWY A 335R DIA 2.56 NM Holding point TWY C 334R DIA 1.9 NM Holding point TWY G 329R DIA 0.55 NM
5	*INS checkpoints*	See ACFT PARKING / DOCKING CHART
6	*Remarks*	ACFT Stands E1 to E10 and E12 to E17 (including MARS Stands) restricted to daytime operations only.

OTBD AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	*Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system at aircraft stands*	Aircraft Stand ID Signs and Visual Docking Guidance System (VDGS) are not available in all MARS Stands at Eastern Apron 1, 2, 3, Main Apron, VIP Apron, Stands A1N, C1 to C9, G1, G2, G2P, G3, E1 to E10, E12, E25 to E31. Parking with Follow Me vehicle only. Aircraft Stand ID Signs and Visual Docking Guidance System (VDGS) are operationally available at Stands A1 to A6, A9 to A18, E11, E13 to E24, E32 to E37, W6 and W7 Taxiing guidance signs at all intersections with TWY and RWY at all holding positions For information on Visual Docking Guidance System (VDGS) see OTBD AD 2.23.1 Visual Docking Guidance System
2	*RWY and TWY markings*	RWY: designation, THR, displaced landing THR, TDZ, CL, edge, RWY end as appropriately marked TWY: Edge, CL, holding positions at all TWY / RWY intersections marked
3	*Stop bars*	Stop bars where appropriate.
4	*Remarks*	TWY G: RWY holding point CAT II hold markings only. No CAT I markings available. TWY D2C: Taxiing to/from stands will be via follow-me vehicle

OTBD AD 2.10 AERODROME OBSTACLES

1 OBSTACLES IN AREA 2

1.1 Obstacles in Area 2 are available in electronic format. Refer to GEN 3.1.6 Electronic terrain and obstacle data.

2 OBSTACLES IN AREA 3

2.1 Obstacles in Area 3 – Not Available.

OTBD AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	*Associated MET Office*	DOHA MET OFFICE
2	*Hours of service*	H24
	MET Office outside hours	NIL
3	*Office responsible for TAF preparation*	DOHA MET OFFICE
	Periods of validity	24 HR
4	*Type forecast*	TREND
	Interval of issuance	½ HR
5	*Briefing/consultation provided*	Personal consultation, partial self briefing, telephone to forecaster
6	*Flight documentation*	Charts, abbreviated plain language text
	Language(s) used	English
7	*Charts and other information available for briefing or consultation*	S, U_{25}, P_{25}, (other levels on request), T, SWH (East & West), SWM (MID), TB (Gulf sector winds)
8	*Supplementary equipment available for providing information*	Telefax
9	*ATS units provided with information*	DOHA TOWER, DOHA APPROACH
10	*Additional information (limitation of service, etc.)*	NIL

OTBD AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates, RWY end coordinates, THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
15	158.15˚	4 570 x 46	60 / F / A / X / T asphalt	251626.13N 0513333.92E 251430.88N 0513424.73E -98.23 FT	THR 34.75 FT TDZ 34.75 FT
33	338.16˚	4 570 x 46	60 / F / A / X / T asphalt	251430.88N 0513424.73E 251648.74N 0513323.95E -98.43 FT	THR 26.96 FT TDZ 27.32 FT

RWY NR	Slope of RWY- SWY		SWY dimensions (M)	CWY dimensions (M)	Strip dimensions (M)	RESA dimensions (M)	Location and Arresting System	OFZ	Remarks
	RWY	SWY							
1	7		8	9	10	11	12	13	14
15	0.11% first 1 524 M then 0.62% next 762 M then 0.00% next 914 M then 0.48% next 427 M then 0.15% next 945 M	NIL	NIL	274 x 150	4 690 x 300	240 x 90	NIL	Yes	Non load bearing shoulders 15 M
33	0.15% first 945 M then 0.48% next 427 M then 0.00% next 914 M then 0.62% next 762 M then 0.11% next 1 524 M	NIL	NIL	183 x 150	4 690 x 300	240 x 90	NIL	Yes	Non load bearing shoulders 15 M

OTBD AD 2.13 DECLARED DISTANCES

RWY Designator	Intersection Departures	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6	7
15	Not applicable	4 570	4 844	4 570	3 820	Threshold Displacement 750 M
	TWY A	3 821	4 095	3 821	Not applicable	NIL
	TWY B	3 058	3 332	3 058	Not applicable	
	TWY B1	3 058	3 332	3 058	Not applicable	
	TWY C1	2 516	2 790	2 516	Not applicable	
	TWY C	2 490	2 764	2 490	Not applicable	
	TWY P	2 451	2 725	2 451	Not applicable	
	TWY E1	1 144	1 418	1 144	Not applicable	
	TWY N	1 144	1 418	1 144	Not applicable	
	TWY E2	706	980	706	Not applicable	
	TWY M	706	980	706	Not applicable	
33	Not applicable	4 570	4 753	4 570	4 570	NIL
	TWY F	4 126	4 309	4 126	Not applicable	
	TWY L	4 126	4 309	4 126	Not applicable	
	TWY K	4 024	4 207	4 024	Not applicable	
	TWY E2	3 890	4 073	3 890	Not applicable	
	TWY M	3 890	4 073	3 890	Not applicable	
	TWY E1	3 450	3 633	3 450	Not applicable	
	TWY N	3 450	3 633	3 450	Not applicable	
	LOOP	2 482	2 665	2 482	Not applicable	
	TWY C	2 145	2 328	2 145	Not applicable	
	TWY P	2 145	2 328	2 145	Not applicable	
	TWY B	1 542	1 725	1 542	Not applicable	
	TWY B1	1 542	1 725	1 542	Not applicable	
	TWY A	818	1 001	818	Not applicable	

Note: Intersection departures are allowed subject to the following:
a. Initiated by pilot and approved by ATC, subject to traffic.
b. ATC is able to keep aircraft visual at all times

OTBD AD 2.14 APPROACH AND RUNWAY LIGHTING

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
1	2	3	4	5	6
15	ICAO CAT I precision approach lighting system 900 M LIH	Green supplemented by green WBAR	PAPI 3.5˚ (73.4 FT)	NIL	Length: 4 570 M Spacing: 30 M Colour: fm 0 M to last 900 M White, last 900 M to last 300 M Red / White, last 300 M Red INTST: LIH
33	ICAO CAT II and III precision approach lighting system 900 M LIH	Green supplemented by green WBAR	PAPI 3˚ (65.7 FT)	900 M	Length: 4 570 M Spacing: 30 M Colour: fm 0 M to last 900 M White, last 900 M to last 300 M Red / White, last 300 M Red INTST: LIH

RWY Designator	RWY edge LGT LEN, spacing, colour, INTST	RWY End LGT colour, WBAR	SWY LGT LEN, colour	Remarks
1	7	8	9	10
15	Length: 4 570 M Spacing: 60 M Colour: fm 0 M to first 750 M Red, 750 M to last 600 M White, last 600 M Amber INTST: LIH	Red NIL	NIL	On full length departures, the first 750 M of edge lights are Red due to DTHR
33	Length: 4 570 M Spacing: 60 M Colour: fm 0 M to last 600 M White, last 600 M Amber INTST: LIH	Red NIL	NIL	NIL

OTBD AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	*ABN /IBN location, characteristics and hours of operation*	ABN: NIL IBN: NIL
2	*LDI location and LGT*	LDI: NIL
	Anemometer location and LGT	Anemometer: Located APRX at 117 M west of RCL ABM start of RWY 15 and 268 M east of RCL ABM turning pad in the middle of the RWY; Lighted.
3	*TWY edge and centre line lighting*	Edge: All taxiway edge-Blue. Centre line: Green.
4	*Secondary power supply/switch-over time*	Secondary power for CAT I / II / III Ops - on UPS immediate power and with battery backup for up to 30 minutes. Backup generator also available. Other lightings on backup generator. Switch-over time: Switch over time within 15 seconds. Stand - by generator on test 0530 - 0630 every WED.
5	*Remarks*	Blue - Apron edge lights.

OTBD AD 2.16 HELICOPTER LANDING AREA

1	*Coordinates TLOF or THR of FATO Geoid undulation.*	NIL
2	*TLOF and/or FATO elevation M/FT*	NIL
3	*TLOF and FATO area dimensions, surface, strength, marking*	NIL
4	*True BRG of FATO*	NIL
5	*Declared distance available*	NIL
6	*APP and FATO lighting*	NIL
7	*Remarks*	As directed by ATC

OTBD AD 2.17 ATS AIRSPACE

1	*Designation and lateral limits*	DOHA CTR: 253407N 0513740E - 253024N 0513919E then clockwise 20NM arc centred on 251020.2N 0513837.8E to 252815N 0514835E - 251254N 0515519E then clockwise 20NM arc centred on 251939.1N 0513431.6E to 250143N 0512437E - 245951N 0511930E - 250033.53N 0511911.22E then clockwise 5 NM arc centred on 250533.927N 0511933.084E to 250856.61N 0511528.58E - 251510N 0511243E - 251703N 0511750E then clockwise 20NM arc centred on 251020.2N 0513837.8E to 252425N 0512254E - 252808N 0512115E then clockwise 20NM arc centred on 251403.8N 0513659.4E to 253407N 0513740E
2	*Vertical limits*	SFC to 2 500 FT
3	*Airspace classification*	D
4	*ATS unit call sign* *Language(s)*	DOHA Tower English
5	*Transition altitude*	13 000 FT
6	*Hours of applicability*	H24
7	*Remarks*	NIL

OTBD AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequencies allocation (MHz)	Logon address	Hours of operation	Remarks
1	2	3	4	5	6
APP	Doha Radar	121.100	N/A	H24	Primary
	Doha Approach	119.725	N/A	H24	Primary
		120.600	N/A	H24	Secondary
	Doha Director	119.400	N/A	H24	Primary
		121.125	N/A	H24	Secondary
	-	121.500	N/A	H24	Emergency
	-	243.000	N/A	H24	Emergency
TWR	Doha Tower	118.900	N/A	H24	Primary
	-	119.025	N/A	H24	Secondary
	-	121.500	N/A	H24	Emergency
	-	243.000	N/A	H24	Emergency
GMC Vehicle	Doha Ground	121.800	N/A	H24	Vehicles only

Service designation	Call sign	Frequencies allocation (MHz)	Logon address	Hours of operation	Remarks
GMC	Doha Ground	121.925	N/A	Daily 0400 - 2200 during peak traffic conditions or may be changed according to ATC requirements	All TFC DEP OTBD for push back, start - up & taxi clearance
D-ATIS	Doha Information	126.450	DOHCAYA	H24	Data Link Service available. ATIS broadcast can also be obtained via hotline: (974) 44656213
Note: all departing aircraft shall immediately contact "Doha Approach" on 119.725 MHz					

OTBD AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of Aid, MAG VAR, Type of supported OPS (for VOR/ILS/MLS, give declination)	IDENT	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
DVOR/DME (2.3˚E/2014)	DIA	112.400 MHz Channel 71X	H24	251401.11N 0513437.85E	48.67 FT	NIL
LOC RWY 33 ILS CAT III	IBD	109.500 MHz	H24	251657.65N 0513320.01E		336˚ MAG 2.63 NM fm THR RWY 33, ELEV 40.39 FT
GP RWY 33		332.600 MHz	H24	251442.20N 0513424.44E		GP Angle 3˚ RDH 52 FT
ILS DME RWY 33	IBD	Channel 32X	H24	251442.22N 0513424.48E	47.40 FT	Co - located with GP, DIST zero TDZ
MM RWY 33		75 MHz	H24	251358.46N 0513439.02E		156˚ MAG 0.58 NM fm THR RWY 33
LOC RWY 15 ILS CAT I	AMD	108.500 MHz	H24	251419.23N 0513429.87E		LOC unreliable below 3 000 FT between 18 and 25 DME fm AMD to the W of the CL RWY 15, ELEV 34.94 FT
GP RWY 15		329.900 MHz	H24	251617.94N 0513342.11E		GP Angle 3.5˚ RDH 60 FT
ILS DME RWY 15	AMD	Channel 22X	H24	251617.95N 0513342.17E	90.52 FT	Co - located with GP, DIST zero TDZ
L	WK	323 KHz	H24	251053.05N 0513600.23E		156˚ MAG 3.90 NM fm THR RWY 33

OTBD AD 2.20 LOCAL AERODROME REGULATIONS

1 AIRPORT REGULATIONS

General

1. Flight over Doha City prohibited below 2 000 FT unless authorized by ATC.
2. Flight over QEAF Airbase below 1 500 FT prohibited at all times.

2 TAXIING TO AND FROM STANDS

2.1 Aircraft are restricted to push back from nose in parking stands. Exemptions will be granted to certain aircraft by the AD operator.

2.2 On taxiway D between parking stand A18 and taxiway E1, pilots of Code F aircraft need to exercise caution due to obstacle on the shoulder of taxiway D. Obstacle is marked and lit.

3 PARKING AREA FOR SMALL AIRCRAFT (GENERAL AVIATION)

General aviation aircraft shall be guided by marshallers to the parking area (Stands C1-C9) for small aircraft.

4 PARKING AREA FOR HELICOPTERS

(To be developed).

5 APRON — TAXIING DURING WINTER CONDITIONS

Not applicable.

6 TAXIING — LIMITATIONS

Insufficient safety distances restrict large aircraft's use of certain taxiways when using their own power. Further information will be given to each aircraft from the TWR or GMC.

7 SCHOOL AND TRAINING FLIGHTS — TECHNICAL TEST FLIGHTS — USE OF RUNWAYS

Training flights permitted.

8 HELICOPTER TRAFFIC — LIMITATION

(To be developed).

9 REMOVAL OF DISABLED AIRCRAFT FROM RUNWAYS

When an aircraft is wrecked on a runway, it is the duty of the owner or user of such aircraft to have it removed as soon 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 aerodrome authority at the owner's or user's expense.

OTBD AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

OTBD AD 2.22 FLIGHT PROCEDURES

1 SPECIAL PROCEDURES APPLICABLE TO ILS CATEGORY II / III OPERATIONS AT DOHA INTERNATIONAL

1.1 GENERAL

1.1.1 ILS Category II / III approach facilities are available at DOHA INTERNATIONAL airport as follows:

OTBD: RWY 33, CAT II or CAT III

1.1.2 Current information concerning surface wind and RVR is immediately available from ATC and significant changes will be reported in accordance with the provisions of PANS-ATM (DOC 4444).

1.1.3 Any Changes in the operational status expected to last more than one hour will be promulgated by NOTAM and pilots will be advised accordingly by ATIS or on initial contact with ATC.

1.2 MINIMA

See section OTBD AD 2.22.3 Aerodrome Operating Minima

1.3 AUTHORIZATION

Operators will be permitted to execute CAT II / III approaches and landings if they are legally authorized by their own state of registration to do so, and after having conveyed a copy of their relevant certification papers to the:

Post: Chairman
Civil Aviation Authority
P.O. Box 3000
Doha
State of Qatar
And obtaining endorsement of acceptance there from.

2 LOW VISIBILITY PROCEDURES (LVP)

2.1 As authorized by QCAA, Low Visibility Procedures (LVP) will be instituted at DOHA INTERNATIONAL airport whenever the official meteorological visibility condition is 1 500 M or less, or whenever the cloud base is 1 000 FT or less, or whenever conditions are such that all of the manoeuvring area cannot be seen from the control tower.

2.2 The procedures will ensure protection of the ILS localizer and glidepath signals to ILS CAT III limits, provide an effective surface movement guidance and control system, and ensure a safe ground environment for aircraft and vehicles.

2.3 LVP will not normally be introduced for aircraft carrying out practice CAT II or CAT III approaches although a request may be made to ATC for ILS signal protection.

2.4 ***Standard taxi routes during low visibility procedures***

Stand Number(s)	Departure / Arrival	Runway	Standard Taxi Route
A1 to A6, A1N	Departures	RWY 33	Taxi via TWY D and TWY G to ILS CAT II/III holding point for RWY 33.
	Arrivals	RWY 33	Vacate via TWY A and taxi via TWY D to their allocated stands. For aircraft unable to vacate via TWY A (see Note-3).
A9 to A18, A10L, A10R	Departures	RWY 33	Taxi via TWY D and TWY G to ILS CAT II/III holding point for RWY 33.
	Arrivals	RWY 33	Vacate via TWY B and taxi via TWY D to their allocated stands. Aircraft unable to turn onto TWY B will proceed to TWY A and then TWY D to their allocated stands. For aircraft unable to vacate via TWY A (see Note-3).
W6, W7, G1, G2, G2P, G3	Departures	RWY 33	Taxi via TWY Y, then TWY D and TWY G to ILS CAT II/III holding point for RWY 33.
	Arrivals	RWY 33	Vacate via TWY B and taxi via TWY D and TWY T to their allocated stands. Aircraft unable to turn onto TWY B will taxi to TWY A, TWY D and TWY T to their allocated stands. For aircraft unable to vacate via TWY A (see Note-3).

Stand Number(s)	Departure / Arrival	Runway	Standard Taxi Route
E1 to E3	Departures	RWY 33	Taxi via TWY D1, TWY D4, TWY D3, TWY D2, TWY D2 EAST, TWY P and TWY Z to holding point Z1 short of TWY N. Subject to ATC discretion aircraft may be authorised to taxi via TWY D1, TWY D4, TWY D3, TWY D2, TWY D1, TWY P and TWY Z to holding point Z1 short of TWY N. Subject to ATC discretion, aircraft may be authorised to taxi via TWY D1, TWY P and TWY Z to holding point Z1 short of TWY N. Also see Note-1.
	Arrivals	RWY 33	Follow the Standard taxi routes for aircraft landing RWY 33 and proceeding to the Eastern Apron stated in Note-2. Turn left after TWY B1 and taxi via TWY D1 to their allocated stands. For aircraft unable to vacate via TWY A (see Note-3).
E4 to E5	Departures	RWY 33	Taxi via TWY D1, TWY P and TWY Z to holding point Z1 short of TWY N. Also see Note1.
	Arrivals	RWY 33	Follow the Standard taxi routes for aircraft landing RWY 33 and proceeding to the Eastern Apron stated in Note-2. Turn right after TWY B1 and taxi via TWY D1 to their allocated stands. For aircraft unable to vacate via TWY A (see Note-3).
E6 to E10, E6L, E6R, E7L, E7R, E9L, E9R, E10L, E10R	Departures	RWY 33	Taxi via TWY D3, TWY D2, TWY D2 EAST, TWY P and TWY Z to holding point Z1 short of TWY N. Subject to ATC discretion, aircraft may be authorised to taxi via TWY D3, TWY D2, TWY D1, TWY P and TWY Z to holding point Z1 short of TWY N. Also see Note-1.
	Arrivals	RWY 33	Follow the Standard taxi routes for aircraft landing RWY 33 and proceeding to the Eastern Apron stated in Note-2. Turn left after TWY B1 and taxi via TWY D1, TWY D4 and TWY D3 to their allocated stands. For aircraft unable to vacate via TWY A (see Note-3).
E11 to E13, E13L, E13R	Departures	RWY 33	Taxi via TWY D2, TWY D2 EAST, TWY P and TWY Z to holding point Z1 short of TWY N. Subject to ATC discretion, aircraft may be authorised to taxi via TWY D2, TWY D1, TWY P and TWY Z to holding point Z1 short of TWY N. Also see Note-1.
	Arrivals	RWY 33	Follow the Standard taxi routes for aircraft landing RWY 33 and proceeding to the Eastern Apron stated in Note-2. Turn right after TWY B1 and proceed via TWY D1 and TWY D2 to their allocated stands. For aircraft unable to vacate via TWY A (see Note-3).

Stand Number(s)	Departure / Arrival	Runway	Standard Taxi Route
E14 to E17, E14L, E14R, E15L, E15R, E16L, E16R, E17L, E17R	Departures	RWY 33	Taxi via TWY D2, TWY D2 EAST, TWY P and TWY Z to holding point Z1 short of TWY N. Subject to ATC discretion, aircraft may be authorised to taxi via TWY D2, TWY D1, TWY P and TWY Z to holding point Z1 short of TWY N. Also see Note-1.
	Arrivals	RWY 33	Follow the Standard taxi routes for aircraft landing RWY 33 and proceeding to the Eastern Apron stated in Note-2. Turn left after TWY B1 and taxi via TWY D1, TWY D4, TWY D3 and TWY D2 to their allocated stands. For aircraft unable to vacate via TWY A (see Note-3).
E18 to E24, E18L, E18R, E19L, E19R, E20L, E20R, E21L, E21R, E22L, E22R, E23L, E23R E24L, E24R	Departures	RWY 33	Taxi via TWY P and TWY Z to holding point Z1 short of TWY N. Also see Note-1.
	Arrivals	RWY 33	Follow the standard taxi routes for aircraft landing RWY 33 and proceeding to the Eastern Apron stated in Note-2. Turn left after TWY B1 and proceed via TWY D1, TWY D4, TWY D3, TWY D2, TWY D2 East and then right onto TWY P to their allocated stands. For aircraft unable to vacate via TWY A (see Note-3).
E25 to E31, E27L	Departures	RWY 33	Taxi via TWY P and TWY Z to holding point Z1 short of TWY N. Also see Note-1.
	Arrivals	RWY 33	Follow the standard taxi routes for aircraft landing RWY 33 and proceeding to the Eastern Apron stated in Note-2. Turn left after TWY B1 and proceed via TWY D1, TWY D4, TWY D3, TWY D2 and hold on TWY D2 EAST for the "FOLLOW ME" vehicle to escort them to their allocated stands. For aircraft unable to vacate via TWY A (see Note-3).
E32 to E37	Departures	RWY 33	Taxi via TWY P and TWY Z to holding point Z1 short of TWY N. Also see Note-1.
	Arrivals	RWY 33	Follow the Standard taxi routes for aircraft landing RWY 33 and proceeding to the Eastern Apron stated in Note-2. Turn left after TWY B1 and proceed via TWY D1, TWY D4, TWY D3, TWY D2, TWY D2 EAST and then right onto TWY P to their allocated stands. For aircraft unable to vacate via TWY A (see Note-3).
C1 to C9	Departures	RWY 33	Taxi via TWY D2C, TWY D2 EAST, TWY P and TWY Z to holding point Z1 short of TWY N. Subject to ATC discretion, aircraft may be authorised to taxi via TWY D2, TWY D1, TWY P and TWY Z to holding point Z1 short of TWY N. Also see Note-1.
	Arrivals	RWY 33	Follow the standard taxi routes for aircraft landing RWY 33 and proceeding to the Eastern Apron stated in Note-2. Turn left after TWY B1 and taxi via TWY D1, TWY D4, TWY D3, TWY D2, TWY D2 EAST and then TWY D2C to their allocated stands. For aircraft unable to vacate via TWY A (see Note-3).

Stand Number(s)	Departure / Arrival	Runway	Standard Taxi Route
All stands in the Rizon Apron	Departures	RWY 33	Taxi via TWY U to holding point on TWY U. When instructed by ATC, the aircraft will backtrack on the runway and vacate via TWY A. Once aircraft vacates TWY A the aircraft will proceed via TWY D and TWY G to ILS CAT II/III holding point for RWY 33.
	Arrivals	RWY 33	In the event that aircraft will proceed directly to the Rizon Apron after landing, the aircraft will vacate RWY 33 via TWY U. OR Aircraft will vacate RWY 33 via TWY B and proceed via TWY D to holding point at TWY A. Once instructed by ATC, aircraft will enter the runway and proceed to TWY U and aircraft should report to ATC when the runway is vacated.
All stands in the Eastern Apron Extension	Departures	RWY 33	Taxi via TWY D2 EAST, turn left into TWY P and then TWY Z to CAT II/III ILS holding point Z1 on TWY Z. See Note-1.
	Arrivals	RWY 33	Follow the standard taxi routes for aircraft landing RWY 33 and proceeding to the Eastern Apron as stated in Note-2. Turn left after TWY B1 and proceed via TWY D1, TWY D4, TWY D3, TWY D2 and to TWY D2 EAST for the "FOLLOW ME" vehicle to escort to the corresponding stands. For aircraft unable to vacate via TWY A, (see Note-3).

Note-1: On reaching TWY N the aircraft will either:
Depart from TWY N
or
Aircraft requiring maximum take-off distance will cross the runway, when instructed by ATC and taxi via TWY E1, TWY D and TWY G to ILS CAT II/III holding point.

Note-2: Standard taxi routes for aircraft landing RWY 33 and proceeding to the Eastern Apron
All aircraft landing RWY 33 and bound for the Eastern Apron will vacate the runway via TWY B1 and proceed according to the standard taxi routes for Eastern Apron.
Aircraft unable to vacate the runway via TWY B1 will vacate via TWY A and taxi via TWY D to hold short of TWY B and standby for permission to cross via TWY B and TWY B1.

Note-3: Standard taxi routes for aircraft landing RWY 33 and that are unable to vacate via TWY A
In the event that an aircraft cannot vacate via TWY A due to an unusual situation, the aircraft will continue to the end, use the loop and backtrack on the runway to vacate via TWY A

If any assistance is required the aircraft will stop on the runway and the "FOLLOW ME" vehicle will be sent to assist the aircraft.

Radar Control should be advised immediately because the passing of TWY A may result in a missed approach for the succeeding aircraft. Standard missed approach procedures will then be followed.

3 AERODROME OPERATING MINIMA

3.1 LANDING OPERATING MINIMA

Straight-in RWY	Aircraft Category				
	A	B	C	D	E
RWY 15					
ILS	DA (H) 245 FT (210 FT) RVR 550 M	DA (H) 254 FT (219 FT) RVR 550 M	DA (H) 263 FT (228 FT) RVR 550 M	DA (H) 272 FT (237 FT) RVR 550 M	DA (H) 322 FT (287 FT) RVR 650 M
ALS out	RVR 1 200 M	RVR 1 200 M	RVR 1 200 M	RVR 1 200 M	RVR 1 400 M

Straight-in RWY	Aircraft Category				
	A	B	C	D	E
LOC	MDA (H) 520 FT (483 FT) RVR 1 500 M	MDA (H) 520 FT (483 FT) RVR 1 500 M	MDA (H) 520 FT (483 FT) RVR 1 500 M	MDA (H) 520 FT (483 FT) RVR 1 500 M	MDA (H) 520 FT (483 FT) RVR 1 500 M
ALS out	RVR 2 300 M	RVR 2 300 M	RVR 2 300 M	RVR 2 300 M	RVR 2 300 M
RNP (LNAV)	MDA (H) 520 FT (483 FT) RVR 1 500 M	MDA (H) 520 FT (483 FT) RVR 1 500 M	MDA (H) 520 FT (483 FT) RVR 1 500 M	MDA (H) 520 FT (483 FT) RVR 1 500 M	MDA (H) 520 FT (483 FT) RVR 1 500 M
ALS out	RVR 2 300 M	RVR 2 300 M	RVR 2 300 M	RVR 2 300 M	RVR 2 300 M
VOR/DME	MDA (H) 540 FT (503 FT) RVR 1 600 M	MDA (H) 540 FT (503 FT) RVR 1 600 M	MDA (H) 540 FT (503 FT) RVR 1 600 M	MDA (H) 540 FT (503 FT) RVR 1 600 M	MDA (H) 540 FT (503 FT) RVR 1 600 M
ALS out	RVR 2 400 M	RVR 2 400 M	RVR 2 400 M	RVR 2 400 M	RVR 2 400 M
RWY 33					
CAT 3B ILS	RVR 50 M	RVR 50 M	RVR 50 M	RVR 50 M	RVR 50 M
CAT 3A ILS	RA 50 FT RVR 200 M	RA 50 FT RVR 200 M	RA 50 FT RVR 200 M	RA 50 FT RVR 200 M	RA 50 FT RVR 200 M
CAT 2 ILS	DA (H) 147 FT (120 FT) RA 126 FT	DA (H) 160 FT (133 FT) RA 139 M	DA (H) 171 FT (144 FT) RA 150 M	DA (H) 185 FT (158 FT) RA 163 M	DA (H) 245 FT (218 FT) NA
ALS out	RVR 300 M	RVR 400 M	RVR 450 M	RVR 450 M	RVR 450 M
ILS	DA (H) 233 FT (206 FT) RVR 550 M	DA (H) 243 FT (216 FT) RVR 550 M	DA (H) 255 FT (228 FT) RVR 550 M	DA (H) 266 FT (239 FT) RVR 550 M	DA (H) 314 FT (287 FT) RVR 650 M
ALS out	RVR 1 200 M	RVR 1 200 M	RVR 1 200 M	RVR 1 200 M	RVR 1 400 M
LOC	MDA (H) 420 FT (393 FT) RVR 1 100 M	MDA (H) 420 FT (393 FT) RVR 1 100 M	MDA (H) 420 FT (393 FT) RVR 1 100 M	MDA (H) 420 FT (393 FT) RVR 1 100 M	MDA (H) 420 FT (393 FT) RVR 1 100 M
ALS out	RVR 1 800 M	RVR 1 800 M	RVR 1 800 M	RVR 1 800 M	RVR 1 800 M
RNP (LNAV/VNAV)	DA (H) 390 FT (363 FT) RVR 1 000 M	DA (H) 390 FT (363 FT) RVR 1 000 M	DA (H) 390 FT (363 FT) RVR 1 000 M	DA (H) 390 FT (363 FT) RVR 1 000 M	DA (H) 390 FT (363 FT) RVR 1 000 M
ALS out	RVR 1 700 M	RVR 1 700 M	RVR 1 700 M	RVR 1 700 M	RVR 1 700 M
RNP (LNAV)	MDA (H) 420 FT (393 FT) RVR 1 100 M	MDA (H) 420 FT (393 FT) RVR 1 100 M	MDA (H) 420 FT (393 FT) RVR 1 100 M	MDA (H) 420 FT (393 FT) RVR 1 100 M	MDA (H) 420 FT (393 FT) RVR 1 100 M
ALS out	RVR 1 800 M	RVR 1 800 M	RVR 1 800 M	RVR 1 800 M	RVR 1 800 M
VOR/DME	MDA (H) 420 FT (393 FT) RVR 1 100 M	MDA (H) 420 FT (393 FT) RVR 1 100 M	MDA (H) 420 FT (393 FT) RVR 1 100 M	MDA (H) 420 FT (393 FT) RVR 1 100 M	MDA (H) 420 FT (393 FT) RVR 1 100 M
ALS out	RVR 1 800 M	RVR 1 800 M	RVR 1 800 M	RVR 1 800 M	RVR 1 800 M
VOR	MDA (H) 470 FT (443 FT) RVR 1 400 M	MDA (H) 470 FT (443 FT) RVR 1 400 M	MDA (H) 470 FT (443 FT) RVR 1 400 M	MDA (H) 470 FT (443 FT) RVR 1 400 M	MDA (H) 470 FT (443 FT) RVR 1 400 M
ALS out	RVR 2 100 M	RVR 2 100 M	RVR 2 100 M	RVR 2 100 M	RVR 2 100 M
NDB	MDA (H) 550 FT (523 FT) RVR 1 700 M	MDA (H) 550 FT (523 FT) RVR 1 700 M	MDA (H) 550 FT (523 FT) RVR 1 700 M	MDA (H) 550 FT (523 FT) RVR 1 700 M	MDA (H) 550 FT (523 FT) RVR 1 700 M
ALS out	RVR 2 400 M	RVR 2 400 M	RVR 2 400 M	RVR 2 400 M	RVR 2 400 M
NDB 4.0% Missed Approach Climb Gradient	MDA (H) 420 FT (393 FT) RVR 1 100 M	MDA (H) 420 FT (393 FT) RVR 1 100 M	MDA (H) 420 FT (393 FT) RVR 1 100 M	MDA (H) 420 FT (393 FT) RVR 1 100 M	MDA (H) 420 FT (393 FT) RVR 1 100 M
ALS out	RVR 1 800 M	RVR 1 800 M	RVR 1 800 M	RVR 1 800 M	RVR 1 800 M

Circle to land	100 KT	135 KT	180 KT	205 KT	240 KT
All Procedures	MDA (H) 620 FT (583 FT) VIS 1 500 M	MDA (H) 850 FT (813 FT) VIS 1 600 M	MDA (H) 1 240 FT (1 203 FT) VIS 2 400 M	MDA (H) 1 240 FT (1 203 FT) VIS 3 600 M	MDA (H) 1 550 FT (1 513 FT) VIS 3 600 M

3.2 TAKE-OFF OPERATING MINIMA

Take-off RVR / Visibility for RWY 15 & 33					
LVP must be in force					
	Runway edge and centre line lighting and multiple RVR information	**Runway edge and centre line lighting**	**Runway edge lighting and/or centre line marking (DAY only)**	**Runway edge lighting and/or centre line marking (DAY only)**	**NIL (DAY only)**
A	150 M	200 M	250 M	-	500 M
B					
C					
D	200 M	250 M	300 M		

Note: The operational minima published for DOHA INTERNATIONAL airport have been established in accordance with Appendix 1 (New) to QCAR - OPS 1.430.

4 PROCEDURES TO BE OBSERVED BY VFR AIRCRAFT IN AND OUT OF DOHA CONTROL ZONE

4.1 Aircraft operating under Visual Flight Rules (VFR) to report control zone boundary outbound at nearest visual reporting point to their desired tracks.

4.2 Visual reporting points

1.Reporting points for Civil Rotary Wing aircraft:

BANANA EAST (BNE)	251850.49N 0514140.25E
BAY-POINT (BAY)	251923.40N 0513802.40E
CABLE (CAB)	252922.58N 0512709.46E
CENTRAL ROUNDABOUT (CRA)	251531.20N 0513503.57E
HAB (HAB)	252554.00N, 0514112.60E
LANDMARK (LMK)	251954.21N 0512751.49E
MARRIOT (MRT)	251800.58N 0513357.07E
NORTH ROUNDABOUT (NRA)	251623.55N 0513438.06E
OUTER CHANNEL MARKER (OCM)	251602.64N 0514418.28E
ROMEO (RME)	251619.73N 0513049.22E
SARAH (SRH)	252653.28N 0512435.68E
SEA-POINT (SEA)	251600.00N 0513925.80E
SOUTH ROUNDABOUT (SRA)	251423.05N 0513528.92E
SPOON (SPN)	253319.71N 0513801.01E
X-RAY (XRY)	251344.29N 0513120.70E
ZULU (ZUL)	251255.01N 0512700.43E

2.Reporting points for Civil Fixed Wing aircraft:

ALPHA (ALF)	252344.84N 0512204.72E
ASPIRE (ASP)	251544.78N 0512641.36E
BRAVO (BVO)	253201.18N 0511823.86E
ROMEO (RME)	251619.73N 0513049.22E
SHAMAL (SML)	253716.55N 0512405.05E
SOFIA (SOF)	252425.00N 0512254.00E
SOUTH POINT (SPT)	245917.99N 0513111.90E
X-RAY (XRY)	251344.29N 0513120.70E
ZULU (ZUL)	251255.01N 0512700.43E

4.3 Aircraft returning from general flying training areas shall request joining instructions prior to leaving these areas.

4.4 All aircraft must maintain listening watch on 118.900 MHz whilst operating within the control zone with an operations normal call every 30 minutes

4.5 Standard VFR departure and arrival routes for Rotary Wing Aircraft.

1.Aircraft departing from Doha International Airport

	Runway	Name	Description
a)	RWY 15	BAY-POINT (BAY) DEPARTURE	After departure RWY 15, turn left towards CENTRAL ROUNDABOUT (CRA) and climb to 1000 FT to cross CRA at 1000 FT, contact Hamad Tower West (TW) once clear of runway. From CRA route to MARRIOT (MRT) and hold, whilst awaiting clearance from ATC. When cleared, cross north of threshold RWY 16R/RWY 16L and route towards BAY-POINT (BAY) and BANANA EAST (BNE). (See note below) *Note: The aircraft should not, in normal circumstances, leave MRT until TW has effected coordination with Tower East (TE) and all Traffic Information (TI) passed i.e. RWY 16R/RWY 16L traffic, helicopter arrivals etc.*
b)	RWY 33	SEA-POINT (SEA) DEPARTURE	After departure RWY 33 turn right towards CENTRAL ROUNDABOUT (CRA) and climb to 1000 FT to cross CRA at 1000 FT, contact Hamad Tower West (TW) once clear of runway. From CRA route to SOUTH ROUNDABOUT (SRA) and hold, whilst awaiting clearance from ATC. When cleared, cross south of threshold RWY 34L/RWY 34R and route towards SEA-POINT (SEA) and BANANA EAST (BNE). (See note below). *Note: The aircraft should not, in normal circumstances, leave SRA until TW has effected coordination with Tower East (TE) and all Traffic Information (TI) passed i.e. RWY 34L/RWY 34R traffic, helicopter arrivals etc.*

Note: From BNE, the following outbound procedures will apply:

i. Aircraft operating on DOH VOR R360 to R019 will route via HAB and then on their requested radials.
ii. Aircraft operating east of DOH VOR R019 will route as requested.
iii. Aircraft routing to eastern oil fields will route as requested.

2.Aircraft inbound to Doha International Airport

Aircraft inbound from the North and the East
All aircraft inbound to Doha International Airport shall contact Hamad Tower East (TE) at least 10 minutes before entering the CTR. Once cleared by ATC, the aircraft will route as below and arrange to cross the CTR boundary at 500 FT. i. Aircraft inbound on radials West of DOH VOR R019 will route direct to HAB and then to BNE to hold and wait for clearance to proceed. ii. Aircraft inbound on radials East of DOH VOR R019 will route direct to BNE to hold and wait for clearance to proceed. iii. Aircraft inbound from the East will route direct to BNE to hold and wait for clearance to proceed. iv. The holding pattern will be towards the East of BNE to remain clear of Banana Island. v. Once clearance is obtained, the aircraft will follow the standard arrival route as below depending on runway-in-use.

	Runway	Name	Description
a)	RWY 15	BAY-POINT (BAY) ARRIVAL	When cleared to leave BANANA-EAST (BNE), aircraft will be tactically routed to hold at BAY-POINT (BAY). Aircraft should not, in normal circumstances, leave the BAY hold until TE has effected coordination with TW and all traffic information passed i.e. RWY 16L/RWY 16R traffic, helicopter departures, etc. Doha Tower should also be informed. From BAY, aircraft should route North of threshold RWY 16L/RWY 16R towards MRT and join long final RWY 15. Once clear of the Eastern RWY, aircraft should be passed traffic information as necessary and transferred to Doha Tower (or TW if they request it during coordination). Helicopter may be requested to hold at MRT if, required due to traffic on final RWY 15.
b)	RWY 33	SEA-POINT (SEA) ARRIVAL	When cleared to leave BANANA-EAST (BNE), aircraft will be tactically routed to hold at SEA. Aircraft should not, in normal circumstances, leave the SEA-POINT (SEA) hold until TE has effected coordination with TW and all traffic information passed i.e. RWY 34R/RWY 34L traffic, helicopter departures, etc. Doha Tower should also be informed. From SEA, aircraft should route south of threshold RWY 34R/RWY 34L towards SRA. Once clear of the Eastern RWY, aircraft should be passed traffic information as necessary and transferred to Doha Tower (or TW if they request it during coordination). Helicopter may be requested to hold at SRA if required due to traffic on final RWY 33.

3.Special VFR operations

Departing Flights			
	Runway	Name	Description
a)	RWY 15	HELI 15 Departure	After departure RWY 15, turn right to X-RAY (XRY) and climb to 1500 FT. From XRY, route direct LANDMARK (LMK), then SARAH (SRH), CABLE (CAB) and SPOON (SPN). After SPN, aircraft will be routed as requested.

Departing Flights			
	Runway	**Name**	**Description**
b)	RWY 33	HELI 33 Departure	After departure RWY 33 turn left route ROMEO (RME) and climb to 1500 FT. From RME, route direct LANDMARK (LMK), then SARAH (SRH), CABLE (CAB) and SPOON (SPN). After SPN, aircraft will be routed as requested.

Arriving flights			
	Runway	**Name**	**Description**
a)	RWY 15	HELI 15 ARRIVAL	Aircraft will route direct SPOON (SPN) to cross SPN maintaining 1000 FT and then route CABLE (CAB), SARAH (SRH), LANDMARK (LMK) and hold overhead ROMEO (RME) if required. From RME, route as cleared by ATC for right base RWY 15.
b)	RWY 33	HELI 33 ARRIVAL	Aircraft will route direct SPOON (SPN) to cross SPN maintaining 1000 FT and then route CABLE (CAB), SARAH (SRH), LANDMARK (LMK) then direct X-RAY (XRY) hold overhead XRY if required. From XRY, route as cleared by ATC for landing RWY 33.
Note 1 Aircraft to contact Doha Tower 10 minutes before entering the CTR. Doha Tower will obtain SVFR Clearance from Doha Director and then transfer aircraft to Director when instructed. Aircraft will route inbound to SPOON (SPN) and then follow procedures as above: *Note 2 The weather minima for Gulf Helicopters, has been decreased from 5000 M to 3500 M. All other traffic has to follow standard VMC minima.*			

4.Radio Communication Failure during VMC

Aircraft east of a line drawn between MRT and SRA.
Aircraft outside the CTR will route direct to BANANA EAST (BNE) and hold for 3 minutes. There after the aircraft will route either to BAY or SEA depending on runway-in-use and execute 2 holds and visually check the landing area and the Tower for visual signals. Aircraft will then proceed and land on the RWY 34R/16L close to TWY A6, or if runway block land on TWY B.
Aircraft west of a line drawn between MRT and SRA.
Remain west of this line, hold on western side of RWY 15/33 and observe tower for visual signals. After 3 minutes proceed to land on runway-in-use in Doha.

4.6 Standard VFR departure and arrival routes for Civil Fixed Wing Aircraft

1.Aircraft departing from Doha to the North

	Runway	**Name**	**Description**
a)	RWY 33	ASPIRE 33 Visual Departure	Climb straight ahead to 700 FT, turn to the West and remain clear of prohibited-area OTP45; route direct to ASPIRE (ASP); then direct to point SOFIA (SOF); then direct to point SHAMAL (SML). Climb as instructed by ATC to 1500 FT.
b)	RWY 15	ASPIRE 15 Visual Departure	Climb straight ahead to 700 FT turn to the West before the upwind end of RWY 15; route direct to point X-RAY (XRY); direct to ASPIRE (ASP); direct to point SOFIA (SOF); then direct to point SHAMAL (SML). Climb as instructed by ATC to 1500 FT.

2.Aircraft inbound to Doha from the North

	Runway	**Name**	**Description**
a)	RWY 33	ASPIRE 33 Visual Arrival	From point SHAMAL (SML), route direct to SOFIA (SOF) traffic must be 2000 FT at SOF then route direct to ASP and hold over ASP as required by ATC. From ASP, route direct to ZULU (ZUL) if requested, hold at ZUL at 2000 FT. From ZUL, route direct to XRY and descend as instructed by ATC. Hold overhead XRY at 1500 FT when instructed or when cleared by ATC route for final approach RWY 33.

	Runway	Name	Description
b)	RWY 15	ASPIRE 15 Visual Arrival	From point SHAMAL (SML), route direct to SOFIA (SOF). Traffic must be 2000 FT by SOF, then route direct to ASP and hold over ASP as required by ATC. When cleared by ATC proceed to ROMEO (RME) at 2000 FT. 1500 FT may be used subject to other VFR traffic; however at this altitude only 1 hold may be carried out. If more holds are required, the aircraft should maintain 2000 FT and then proceed to right hand as instructed by ATC. The holding will be between ROMEO (RME) and MidMac roundabout. *Notes:* *i) Aircraft to contact Doha TWR at SHAMAL (SML) for inbound clearance.* Remarks: i. If more than two aircraft request to return to Doha from General Flying Area, and they will be required to hold overhead ZULU (ZUL) for RWY 33 or ROMEO (RME) for RWY 15, the second and succeeding aircraft will be advised to remain clear of the CTR and standby for joining instruction. Only one aircraft can be hold at any one time over ZUL and RME respectively. No holding allowed overhead ASP. ii. VFR traffic arriving on the ASPIRE (ASP) arrival are independent of Hamad IFR traffic. If a VFR arrival carries out a go-around, Doha TWR must inform Hamad TWR W if the traffic does not turn west before the upwind end of the runway. Hamad TWR W must pass any relevant traffic information to Doha TWR and pass traffic information to both Hamad departing and arriving traffic. iii. Aircraft proceeding to right base RWY 15 from ROMEO (RME) will maintain 1500 FT until established on final approach to avoid infringing the restricted-area over the Amiri Diwan. After establishing the approach,subsequent touchdown may be expected approximately abeam intersection Q, with roll-out and vacation at intersection B/B1. iv. Advanced students or instructors may be able to accomplish touchdown and roll-out earlier than the above, but no attempt should be made to request this from the pilot.

5 RADIO FAILURE PROCEDURES - VFR AIRCRAFT

5.1 Clearance received:
In the event of a radio failure after obtaining a clearance continue as per ATC clearance. On entry to aerodrome traffic pattern, join at southern boundary and proceed along north / south TWY D at 700 FT executing wing-waggling past the control tower and continue in a left-hand orbit until visual instructions received from tower.

5.2 No clearance received:
Proceed inbound via nearest reporting point to rejoin south of aerodrome and execute procedure as detailed in 5.1 (above). Aircraft inbound from ALPHA to route west of the city prior to rejoin as detailed in 5.1 (above)

5.3 Aircraft operations to Halul Island or off-shore rigs will not be subjected to these procedures.

6 RUNWAY UTILISATION

To ensure the maximum runway utilisation, pilots are expected to comply with the following operational procedures.

6.1 DEPARTURES

When given clearance to enter the runway and take off, the manoeuvre shall commence without delay. If pre-take off checks have not been completed, ATC must be advised and the delay taken up at the holding point.

6.2 ARRIVALS

Arriving flights shall, on completion of the landing roll, be excepted to vacate expeditiously at the first available taxiway exit, or as instructed by ATC. The aircraft should not be slowed significantly below normal taxi speed, or stopped, on the exit taxiway unless approved by ATC.

7 GROUND MOVEMENT

Pilots should adhere to centreline guidance on taxiways at all times.

7.1 DEPARTURES

Departing aircraft are advised to switch - on their transponder before requesting startup clearance from ATC. If an allocated code has not been assigned under DCL (Departure Clearance) procedures, conspicuity code A2000 should be selected.

7.2 ARRIVALS

Landing aircraft to maintain their transponder switched - on until they park on the stand.

8 ARRIVAL AIRCRAFT CONTACT PROCEDURE

In the absence of instructions by Doha APP to transfer frequency, landing aircraft are advised to contact Doha Tower – Frequency 118.900 MHz at 5 NM final.

9 RNP INSTRUMENT APPROACH PROCEDURE

9.1 WAYPOINT LIST

Designator	Co-ordinates	Approach procedure
MAKIN*	253003.10N 0512732.91E	RNP RWY15 (LNAV ONLY)
BD401	252344.28N 0513020.49E	RNP RWY15 (LNAV ONLY)
RW15	251626.13N 0513333.92E	RNP RWY15 (LNAV ONLY)
BOTAS	250006.66N 0513226.55E	RNP RWY15 (LNAV ONLY)
BUBOG	250204.78N 0514245.93E	RNP RWY15 (LNAV ONLY)
REVAT	251020.75N 0514932.10E	RNP RWY15 (LNAV ONLY)
NAJMA*	250057.64N 0514022.44E	RNP RWY33
BD701	250558.04N 0513810.48E	RNP RWY33
BD702	251401.07N 0513437.82E	RNP RWY33
SILDA	252100.22N 0513132.97E	RNP RWY33
GITNI	252633.64N 0512657.57E	RNP RWY33
IVIKA	252816.47N 0513625.72E	RNP RWY33
ELILO	252439.52N 0514513.38E	RNP RWY33
Note: Waypoints marked with asterisk (*) are listed in ENR 4.4		

OTBD AD 2.23 ADDITIONAL INFORMATION

1 VISUAL DOCKING GUIDANCE SYSTEM (VDGS)

1.1 GENERAL SAFETY MEASURES

1.1.1 The VDGS has a built-in error detection program to inform the aircraft pilot of impending dangers during the docking procedure. If the pilot is unsure of the information being shown on the VDGS display unit, he / she must immediately stop the aircraft and obtain further information for clearance.

1.1.2 The pilot shall not enter the stand area, unless the docking system first is showing the vertical running arrows. The pilot must not proceed beyond the bridge, unless these arrows have been superseded by the closing rate bar.

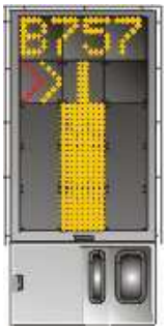
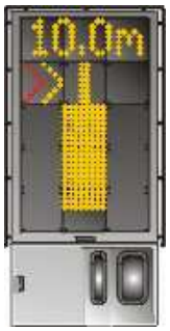
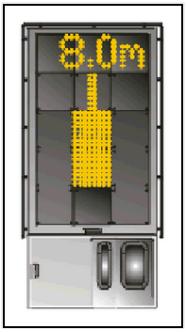
1.1.3 The pilot shall not enter the stand area, unless the aircraft type displayed is equal to the approaching aircraft. The correctness of other information, such as ‘DOOR 2‘, shall also be checked.

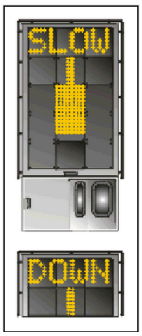
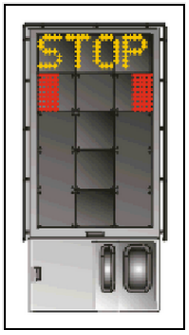
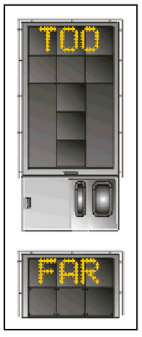
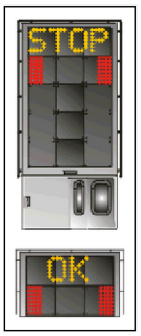
1.1.4 When using the docking system, pilots are advised to taxi into the aircraft stand at minimum speed. The system will display "SLOW DOWN" to inform the pilot if the aircraft‘s taxiing speed is too fast. (See ITEM 1.2.6 of Docking Procedures)

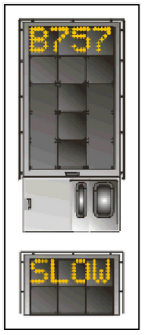
1.1.5 To avoid overshooting, pilots are advised to approach the stop position slowly and observe the closing rate information displayed. Pilots should stop the aircraft immediately when seeing the "STOP" display or when given the "STOP" sign by the aircraft marshaller.

1.1.6 THE SBU MESSAGE - The message STOP SBU means that docking has been interrupted and has to be resumed only by manual guidance. Do not try to resume docking without manual guidance.

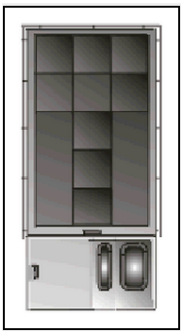
1.2 STAND DOCKING PROCEDURES

1.2.1 START-OF-DOCKING The system is activated by pressing one of the aircraft type buttons on the operator panel. When the system has been activated, 'WAIT' will be displayed.	
1.2.2 CAPTURE The yellow scrolling arrows indicate that the system is activated and in capture mode, searching for an approaching aircraft. It shall be checked that the correct aircraft type is displayed. The lead-in line shall be followed. The pilot must not enter the parking stand area unless the yellow scrolling arrows are displayed.	
1.2.3 TRACKING On successful capture of the aircraft, the yellow scrolling arrows are replaced by the yellow centre line indicator (Closing Rate Bar). The flashing red arrow indicates the direction the aircraft should turn. The vertical yellow arrow shows position in relation to the centre line. This indicator gives the correct position and azimuth guidance. In the figure, the yellow arrow indicates an aircraft to the left of the centre line and the red flashing arrow indicates the direction to steer in-order to align the aircraft with the centre line.	
1.2.4 CLOSING RATE Display of digital countdown starts when the aircraft is 20 meters from stop position. When the aircraft is less than 12 meters from the stop-position, the closing rate is indicated by turning off one row of the centre line symbol per half a metre of the distance, covered by the aircraft towards the stop-position of the stand. The picture illustrates the aircraft is 10 metres from the stop-position, slightly left of the centre line. The red arrow indicates the direction to steer.	
1.2.5 ALIGNED TO CENTRE The absence of any direction arrow indicates the aircraft is on the centre line. The picture illustrates that the aircraft is 8 meters from the stop-position and is on the centre line.	

1.2.6 SLOW DOWN If the aircraft is approaching faster than the accepted speed, the system will show 'SLOW DOWN' as a warning to the pilot.	
1.2.7 STOP-POSITION REACHED When the correct stop-position is reached, the display will show 'STOP' and red lights will be lit.	
1.2.8 DOCKING COMPLETED When the aircraft has parked, 'OK' will be displayed.	
1.2.9 OVERSHOOT If the aircraft has overshot the stop-position, 'TOO FAR' will be displayed.	
1.2.10 STOP SHORT If the aircraft is found standing still but has not reached the intended stop-position, the message 'STOP OK' will be shown after a while.	

1.2.11 WAIT If some object is blocking the view toward the approaching aircraft or the detected aircraft is lost during docking close to STOP, the display will show 'WAIT'. The docking will continue as soon as the blocking object has disappeared or the system detects the aircraft again. The pilot must not proceed further, unless the 'WAIT' message has been superseded by the closing rate bar.	
1.2.12 SLOW This display can be shown for two reasons: a. BAD WEATHER CONDITION During heavy sandstorm, fog or rain, the visibility for the docking system can be reduced. When the system is activated and in capture mode, the display will disable the yellow scrolling arrows and display 'SLOW' and the aircraft type. As soon as the system detects the approaching aircraft, the closing rate bar will appear. If the system has been configured in this mode to make a shortened ID verification (check of engine position excluded), the aircraft symbol will blink to give attention. b. AIRCRAFT LOST DURING DOCKING If the aircraft is lost during docking at a distance greater than STOP plus the distance between nose and engine, the display will show 'SLOW'. As soon as the system detects the approaching aircraft, the closing-rate bar will appear. The pilot must not proceed further, unless the closing rate bar is shown.	
1.2.13 AIRCRAFT VERIFICATION FAILURE During entry into the stand, the aircraft geometry is being checked. If, for any reason, aircraft verification is not made 12 meters before the stop-position, the display will first show 'WAIT' and make a second verification check. If this fails, 'STOP' and 'ID FAIL' will be displayed. The text will be alternating on the upper two rows of the display. The pilot must not proceed further without manual guidance, unless the 'WAIT' message has been superseded by the closing rate bar.	
1.2.14 GATE BLOCKED If an object is found blocking the view from the docking system to the planned stop position for the aircraft, the docking procedure will be halted with a 'WAIT' and 'GATE BLOC' message. The docking procedure will resume as soon as the blocking object has been removed. The pilot must not proceed further without manual guidance, unless the 'WAIT' message has been superseded by the closing rate bar.	

1.2.15 VIEW BLOCKED If the view towards the approaching aircraft is hindered, for instance by dirt on the window, the docking system will report a view blocked condition, i.e. 'VIEW BLOC'. Once the system is able to see the aircraft through the dirt, the message will be replaced by closing rate bar. The pilot must not proceed further without manual guidance, unless the 'WAIT' message has been superseded by the closing rate bar.	
1.2.16 SBU-STOP Any unrecoverable error during the docking procedure will generate a SBU (Safety Back Up) condition. The display will show red stop-bar and 'STOP SBU' message. A manual backup procedure will be used for docking guidance.	
1.2.17 TOO FAST If the aircraft approaches with a speed higher than the docking system can handle, the message 'STOP' (with red squares) and 'TOO FAST' will be displayed. The docking system will be re-started or the docking procedure completed by manual guidance.	
1.2.18 EMERGENCY STOP Pilots should stop the aircraft immediately when 'STOP' is displayed.	
1.2.19 CHOCKS ON 'CHOC ON' will be displayed, when the ground staff has put the chocks in front of the nose wheel and pressed the "chocks on" button on the operator panel.	

1.2.20 ERROR If a system error occurs, the message 'ERR' will be displayed.	
1.2.21 SYSTEM BREAKDOWN In case of a severe system failure, the display will go black except for the red stop indicator. A manual backup procedure will be used for docking guidance.	
1.2.22 POWER FAILURE In case of a power failure, the display will be completely black. A manual backup procedure will be used for docking guidance.	

OTBD AD 2.24 CHARTS RELATED TO AN AERODROME

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AERODROME GROUND MOVEMENT CHART - ICAO

DISTANCES IN METRES, ALTITUDES, ELEVATIONS AND HEIGHTS IN FEET

AD ELEV 37 FT

ARP
25° 15' 39.8145"N
051° 33' 54.3435"E

D-ATIS AP ID-DOHCAYA
126.45

TWR	118.90 (PRI)
	119.025 (SRY)
GMC	121.925

DOHA/Doha Intl. (OTBD)

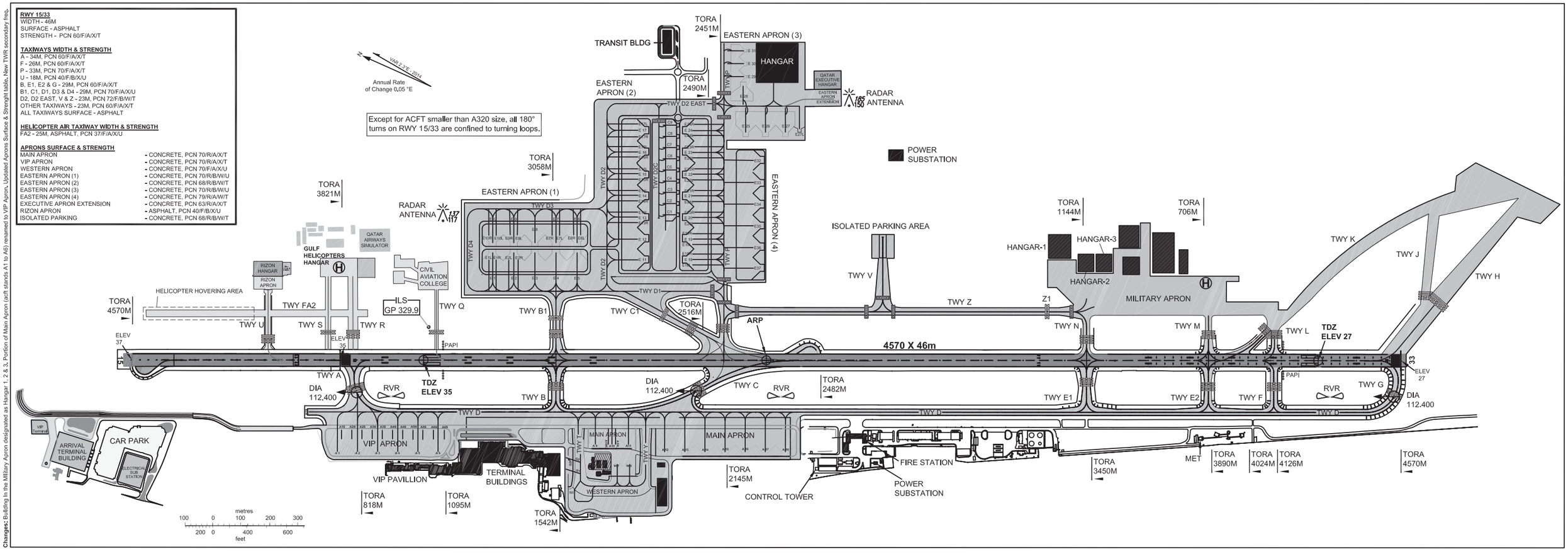
RWY 15/33
WIDTH - 46M
SURFACE - ASPHALT
STRENGTH - PCN 60/F/A/X/T

TAXIWAYS WIDTH & STRENGTH
A - 34M, PCN 60/F/A/X/T
F - 26M, PCN 60/F/A/X/T
P - 33M, PCN 70/F/A/X/T
U - 18M, PCN 40/F/B/X/U
B, E1, E2 & G - 29M, PCN 60/F/A/X/T
B1, C1, D1, D3 & D4 - 29M, PCN 70/F/A/X/U
D2, D2 EAST, V & Z - 23M, PCN 72/F/B/W/T
OTHER TAXIWAYS - 23M, PCN 60/F/A/X/T
ALL TAXIWAYS SURFACE - ASPHALT

HELICOPTER AIR TAXIWAY WIDTH & STRENGTH
FA2 - 25M, ASPHALT, PCN 37/F/A/X/U

APRONS SURFACE & STRENGTH

MAIN APRON	- CONCRETE, PCN 70/R/A/X/T
VIP APRON	- CONCRETE, PCN 70/R/A/X/T
WESTERN APRON	- CONCRETE, PCN 70/F/A/X/U
EASTERN APRON (1)	- CONCRETE, PCN 70/R/B/W/U
EASTERN APRON (2)	- CONCRETE, PCN 68/R/B/W/T
EASTERN APRON (3)	- CONCRETE, PCN 70/R/B/W/U
EASTERN APRON (4)	- CONCRETE, PCN 79/R/A/W/T
EXECUTIVE APRON EXTENSION	- CONCRETE, PCN 63/R/A/X/T
RIZON APRON	- ASPHALT, PCN 40/F/B/X/U
ISOLATED PARKING	- CONCRETE, PCN 68/R/B/W/T



Changes: Building In the Military Aprron designated as Hangar 1, 2 & 3, Portion of Main Aprron (acft stands A1 to A6) renamed to VIP Aprron, Updated Aprons Surface & Strenght table, New TWR secondary freq.

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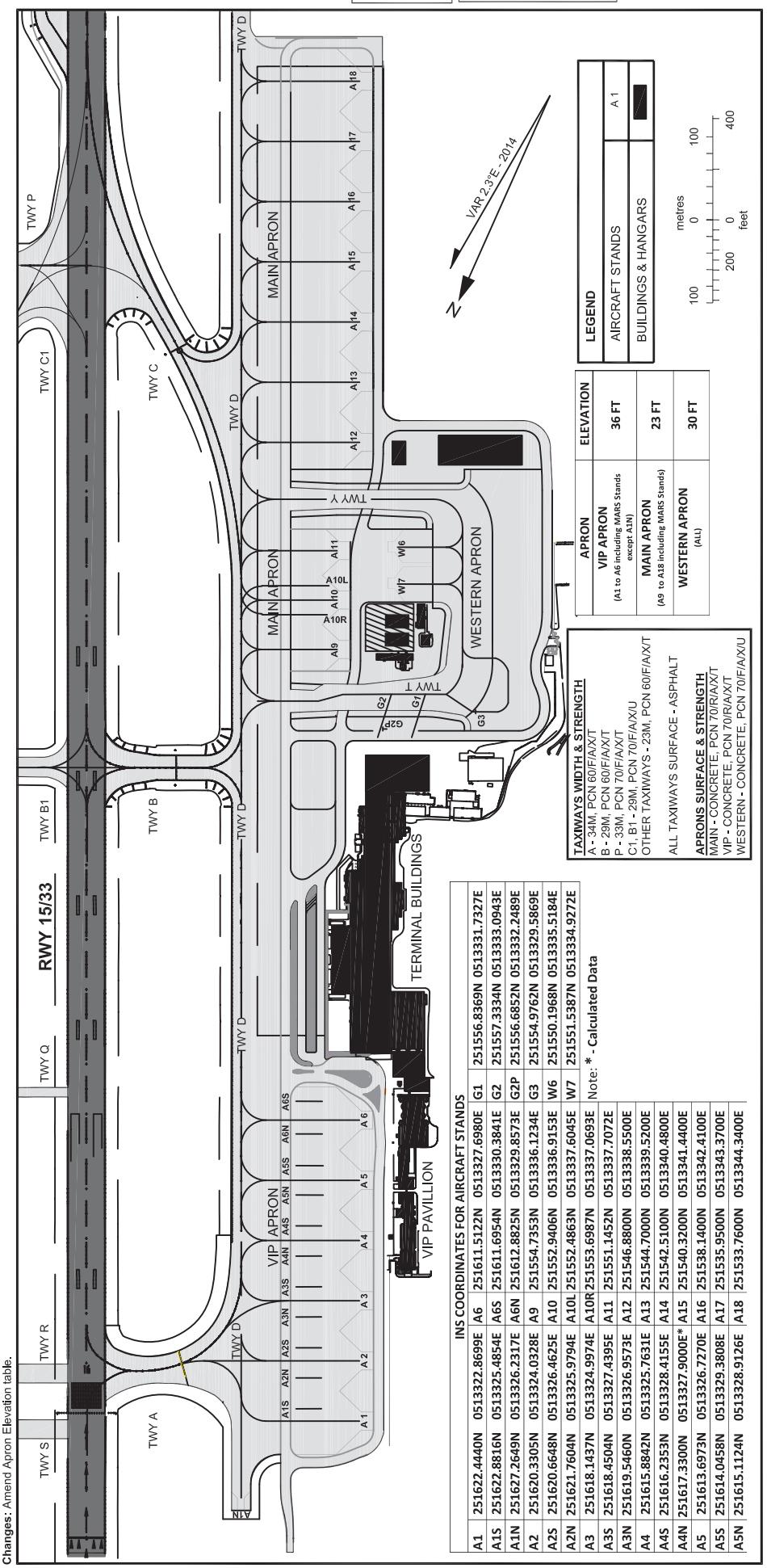
AIRCRAFT PARKING/ DOCKING CHART - ICAO **APRON ELEV** (SEE TABLE)

D-ATIS AP	TWR 118.90 (PRI)
ID-DOHCAYA	119.025 (SRY)
126.45	GMC 121.925

DOHA/Doha Intl. (OTBD)



APRON	ELEVATION
VIP APRON (A1 to A6 including MARS Stands except A1N)	36 FT
MAIN APRON (A9 to A18 including MARS Stands)	23 FT
WESTERN APRON (ALL)	30 FT

	INS COORDINATES FOR AIRCRAFT STANDS							
A1	251622.4440N	0513322.8699E	A6	251611.5122N	0513327.6980E	G1	251556.8369N	0513331.7327E
A1S	251622.8816N	0513325.4854E	A6S	251611.6954N	0513330.3841E	G2	251557.3334N	0513333.0943E
A1N	251627.2649N	0513326.2317E	A6N	251612.8825N	0513329.8573E	G2P	251556.6852N	0513332.2489E
A2	251620.3305N	0513324.0328E	A9	251554.7353N	0513336.1234E	G3	251554.9762N	0513329.5869E
A2S	251620.6648N	0513326.4625E	A10	251552.9406N	0513336.9153E	W6	251550.1968N	0513335.5184E
A2N	251621.7604N	0513325.9794E	A10L	251552.4863N	0513337.6045E	W7	251551.5387N	0513334.9272E
A3	251618.1437N	0513324.9974E	A10R	251553.6987N	0513337.0693E	Note: * - Calculated Data		
A3S	251618.4504N	0513327.4395E	A11	251551.1452N	0513337.7072E			
A3N	251619.5460N	0513326.9573E	A12	251546.8800N	0513338.5500E			
A4	251615.8842N	0513325.7631E	A13	251544.7000N	0513339.5200E			
A4S	251616.2353N	0513328.4155E	A14	251542.5100N	0513340.4800E			
A4N	251617.3300N	0513327.9000E*	A15	251540.3200N	0513341.4400E			
A5	251613.6973N	0513326.7270E	A16	251538.1400N	0513342.4100E			
A5S	251614.0458N	0513329.3808E	A17	251535.9500N	0513343.3700E			
A5N	251615.1124N	0513328.9126E	A18	251533.7600N	0513344.3400E			

Changes: Amend Apron Elevation table.

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Changes: New TWR Secondary freq.

AIRCRAFT PARKING/ DOCKING CHART - ICAO

APRON ELEV (SEE TABLE)

D-ATIS AP
ID-DOHCAYA
126.45

TWR 118.90 (PRI)
GMC 119.025 (SRY)
121.925

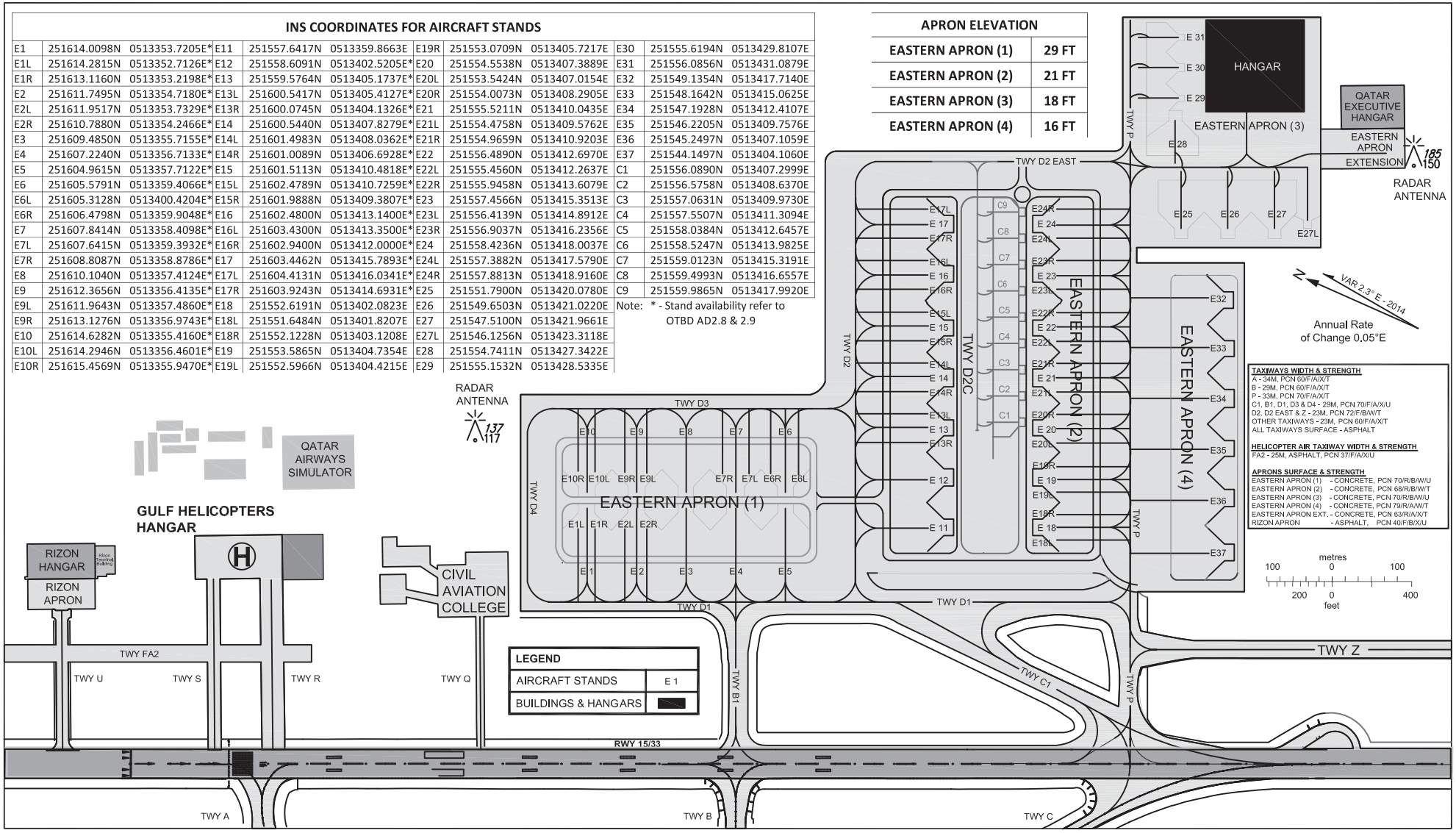
DOHA/Doha Intl. (OTBD)

AD 2.OTBD-CHART-05
25 MAY 2017

INS COORDINATES FOR AIRCRAFT STANDS

E1	251614.0098N	0513353.7205E*	E11	251557.6417N	0513359.8663E	E19R	251553.0709N	0513405.7217E	E30	251555.6194N	0513429.8107E
E1L	251614.2815N	0513352.7126E*	E12	251558.6091N	0513402.5205E*	E20	251554.5538N	0513407.3889E	E31	251556.0856N	0513431.0879E
E1R	251613.1160N	0513353.2198E*	E13	251559.5764N	0513405.1737E*	E20L	251553.5424N	0513407.0154E	E32	251549.1354N	0513417.7140E
E2	251611.7495N	0513354.7180E*	E13L	251600.5417N	0513405.4127E*	E20R	251554.0073N	0513408.2905E	E33	251548.1642N	0513415.0625E
E2L	251611.9517N	0513353.7329E*	E13R	251600.0745N	0513404.1326E*	E21	251555.5211N	0513410.0435E	E34	251547.1928N	0513412.4107E
E2R	251610.7880N	0513354.2466E*	E14	251600.5440N	0513407.8279E*	E21L	251554.4758N	0513409.5762E	E35	251546.2205N	0513409.7576E
E3	251609.4850N	0513355.7155E*	E14L	251601.4983N	0513408.0362E*	E21R	251554.9659N	0513410.9203E	E36	251545.2497N	0513407.1059E
E4	251607.2240N	0513356.7133E*	E14R	251601.0089N	0513406.6928E*	E22	251556.4890N	0513412.6970E	E37	251544.1497N	0513404.1060E
E5	251604.9615N	0513357.7122E*	E15	251601.5113N	0513410.4818E*	E22L	251555.4560N	0513412.2637E	C1	251556.0890N	0513407.2999E
E6	251605.5791N	0513359.4066E*	E15L	251602.4789N	0513410.7259E*	E22R	251555.9458N	0513413.6079E	C2	251556.5758N	0513408.6370E
E6L	251605.3128N	0513400.4204E*	E15R	251601.9888N	0513409.3807E*	E23	251557.4566N	0513415.3513E	C3	251557.0631N	0513409.9730E
E6R	251606.4798N	0513359.9048E*	E16	251602.4800N	0513413.1400E*	E23L	251556.4139N	0513414.8912E	C4	251557.5507N	0513411.3094E
E7	251607.8414N	0513358.4098E*	E16L	251603.4300N	0513413.3500E*	E23R	251556.9037N	0513416.2356E	C5	251558.0384N	0513412.6457E
E7L	251607.6415N	0513359.3932E*	E16R	251602.9400N	0513412.0000E*	E24	251558.4236N	0513418.0037E	C6	251558.5247N	0513413.9825E
E7R	251608.8087N	0513358.8786E*	E17	251603.4462N	0513415.7893E*	E24L	251557.3882N	0513417.5790E	C7	251559.0123N	0513415.3191E
E8	251610.1040N	0513357.4124E*	E17L	251604.4131N	0513416.0341E*	E24R	251557.8813N	0513418.9160E	C8	251559.4993N	0513416.6557E
E9	251612.3656N	0513356.4135E*	E17R	251603.9243N	0513414.6931E*	E25	251551.7900N	0513420.0780E	C9	251559.9865N	0513417.9920E
E9L	251611.9643N	0513357.4860E*	E18	251552.6191N	0513402.0823E	E26	251549.6503N	0513421.0220E	Note: * - Stand availability refer to OTBD AD2.8 & 2.9		
E9R	251613.1276N	0513356.9743E*	E18L	251551.6484N	0513401.8207E	E27	251547.5100N	0513421.9661E			
E10	251614.6282N	0513355.4160E*	E18R	251552.1228N	0513403.1208E	E27L	251546.1256N	0513423.3118E			
E10L	251614.2946N	0513356.4601E*	E19	251553.5865N	0513404.7354E	E28	251554.7411N	0513427.3422E			
E10R	251615.4569N	0513355.9470E*	E19L	251552.5966N	0513404.4215E	E29	251555.1532N	0513428.5335E			

APRON ELEVATION	
EASTERN APRON (1)	29 FT
EASTERN APRON (2)	21 FT
EASTERN APRON (3)	18 FT
EASTERN APRON (4)	16 FT



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AERODROME LIGHTING CHART

DISTANCES IN METRES,
ALTITUDES, ELEVATIONS
AND HEIGHTS IN FEET

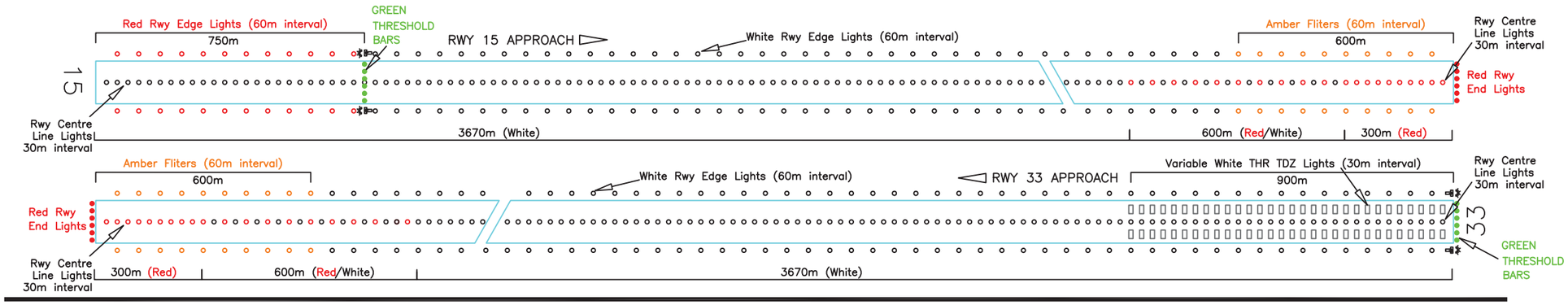
AD ELEV 37 FT

ARP
25° 15' 39.81"N
051° 33' 54.34"E

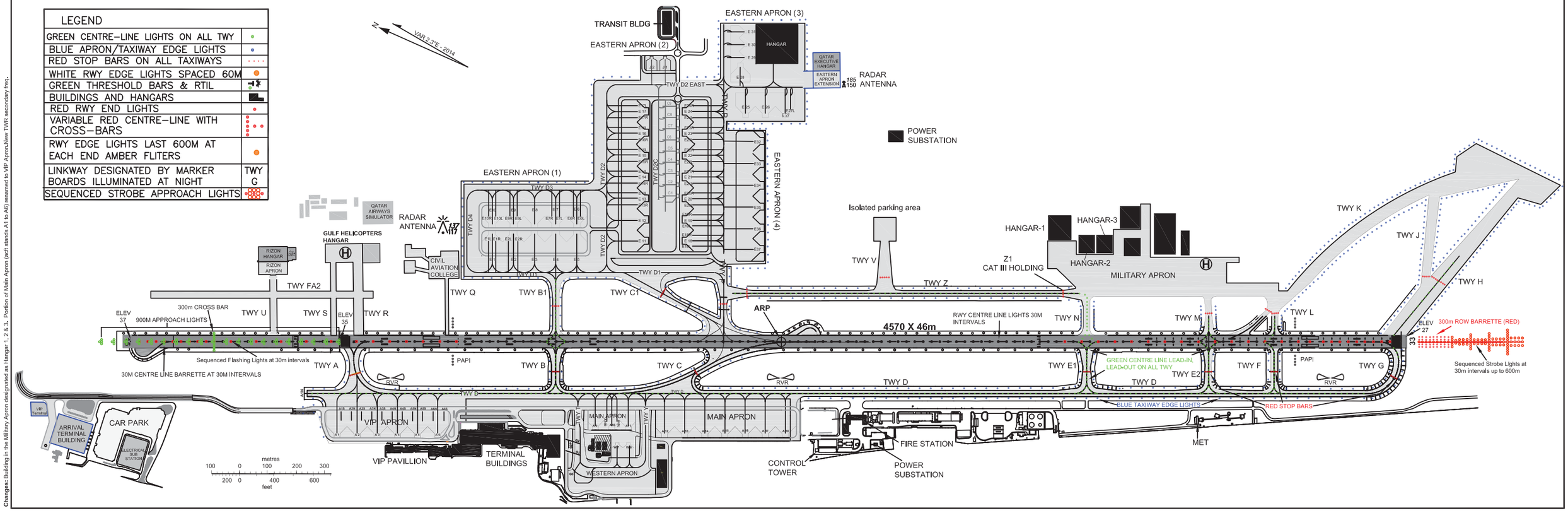
D-ATIS AP ID-DOHCAYA
126.45

TWR	118.90 (PRI) 119.025 (SRY)
GMC	121.925

DOHA/Doha Intl. (OTBD)



LEGEND	
GREEN CENTRE–LINE LIGHTS ON ALL TWY	
BLUE APRON/TAXIWAY EDGE LIGHTS	
RED STOP BARS ON ALL TAXIWAYS	
WHITE RWY EDGE LIGHTS SPACED 60M	
GREEN THRESHOLD BARS & RTIL	
BUILDINGS AND HANGARS	
RED RWY END LIGHTS	
VARIABLE RED CENTRE–LINE WITH CROSS–BARS	
RWY EDGE LIGHTS LAST 600M AT EACH END AMBER FLITERS	
LINKWAY DESIGNATED BY MARKER BOARDS ILLUMINATED AT NIGHT	TWY G
SEQUENCED STROBE APPROACH LIGHTS	



Changes: Building in the Military Apron designated as Hangar 1, 2 & 3., Portion of Main Apron (acft stands A1 to A6) renamed to VIP Apron,New TWR secondary freq.

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ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART - ICAO
TYPE A OPERATING LIMITATIONS

DOHA/Doha Intl. (OTBD)
QATAR

MAGNETIC VARIATION 2.3°E (2014)

ORDER OF ACCURACY: Horizontal 3m; Vertical 1ft	
CHANGE: Updated height for Obs # 25.	
Aerodrome information current SEPTEMBER 2014	
Based on survey dated NOVEMBER 2016	

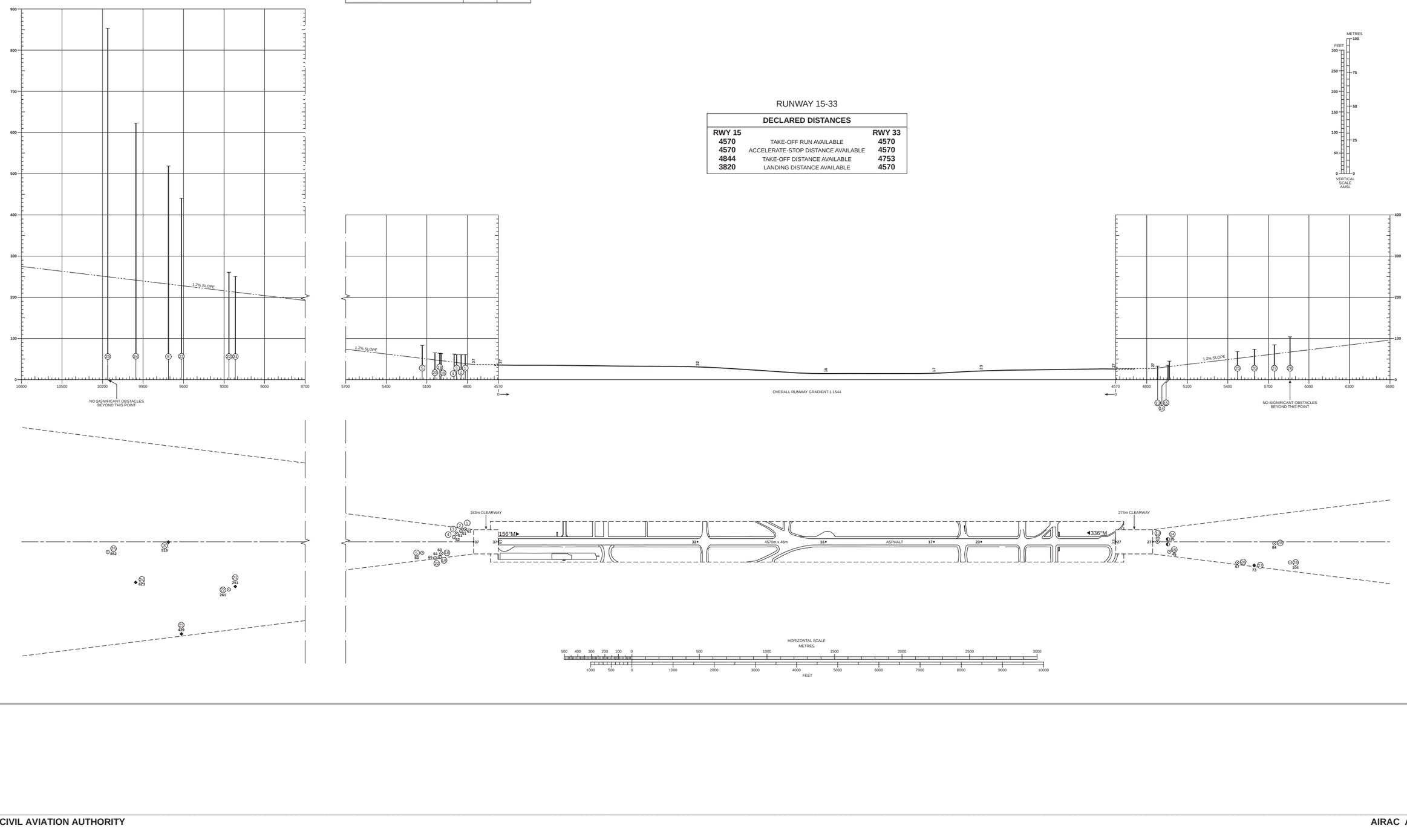
LEGEND

	PLAN	PROFILE
IDENTIFICATION NUMBER	⑥	
HEIGHT AMSL	679	
ILS	◐	
CRANE, POLE, TOWER, ANTENNA, ETC.	⊙	
BUILDING	◆	

RUNWAY 15-33

DECLARED DISTANCES

RWY 15		RWY 33
4570	TAKE-OFF RUN AVAILABLE	4570
4570	ACCELERATE-STOP DISTANCE AVAILABLE	4570
4844	TAKE-OFF DISTANCE AVAILABLE	4753
3820	LANDING DISTANCE AVAILABLE	4570



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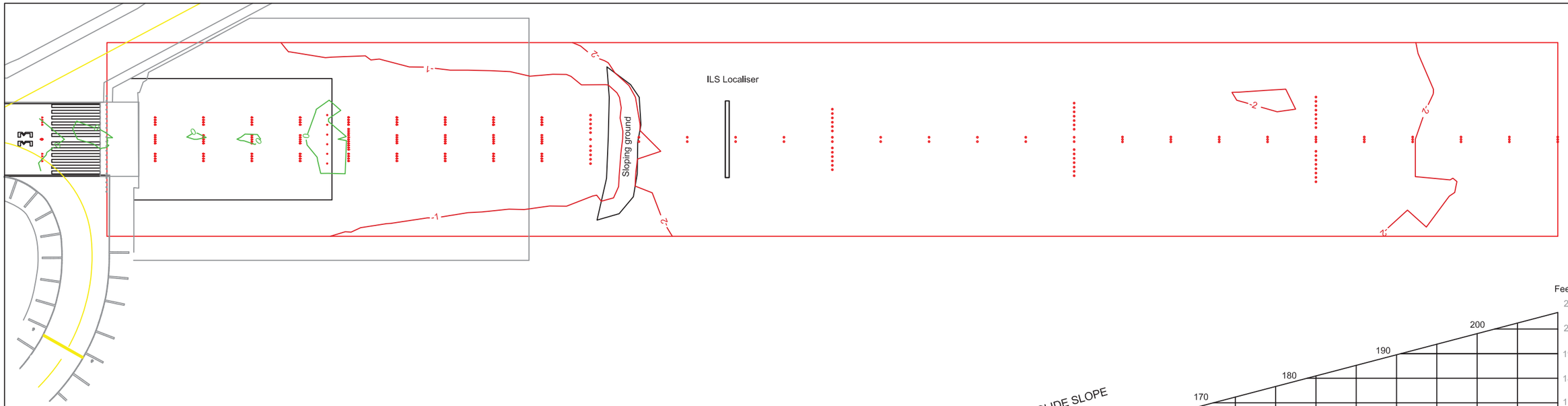
ELEVATIONS IN METERS
ALL OTHER DIMENSIONS IN METRES

PRECISION APPROACH TERRAIN CHART - ICAO

DOHA/Doha International (OTBD)
RUNWAY 33



LEGEND	
BUILDING OR LARGE STRUCTURE	
CENTRELINE PROFILE	
APPROACH LIGHT	

HORIZONTAL SCALE 1:2500
VERTICAL SCALE 1:500
CONTOURS AND HEIGHTS ARE IN METRES AND RELATED TO ELEVATION OF RUNWAY THRESHOLD

CHANGE: Chart renumbered.
Aerodrome Information Current JUNE 2014
Based on survey dated AUG 2015

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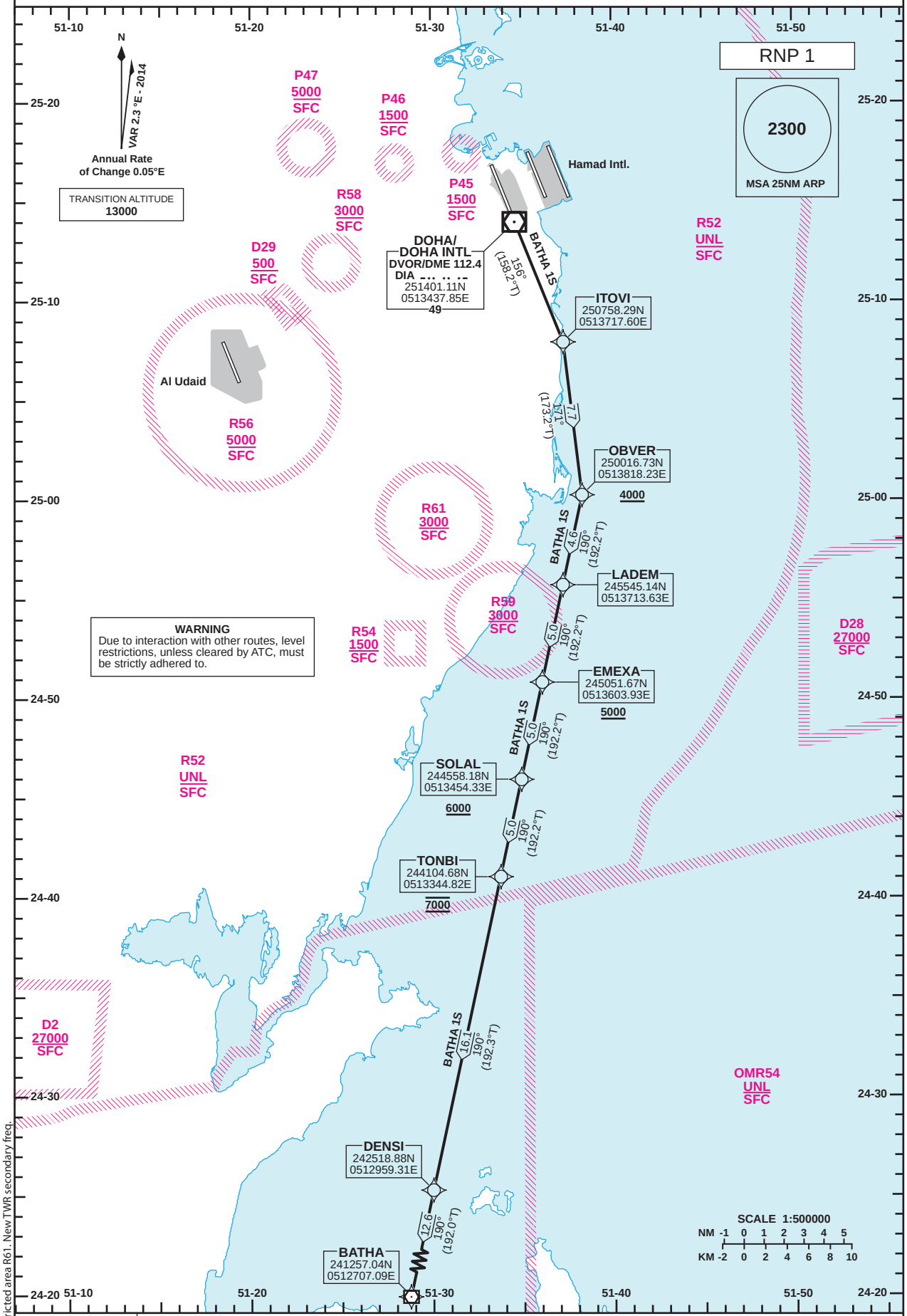
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA RADAR	121.10
DOHA APP	119.725 / 120.60
TWR	118.90 / 119.025

DOHA/Doha Intl. (OTBD)
RNP RWY 15
BATHA 1S



Route Designator	Routeing
BATHA 1S	**ITOVI** - **OBVER**[A4000+] - **LADEM** - **EMEXA**[A5000+] - **SOLAL**[A6000+] - **TONBI**[A7000] - **DENSI** - **BATHA**

GENERAL INFORMATION
1. Close-in obstacles exist for Rwy 15 departures.

Changes: New restricted area R61. New TWR secondary freq.

STANDARD DEPARTURE CHART-INSTRUMENT (SID)-ICAO

DOHA/Doha Intl.(OTBD)
RNP RWY 15
BATHA 1S

TABULAR DESCRIPTION

RNP SID BATHA 1S

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	CF	**ITOVI**	**-**	156 (158.2)	2.3	-	**-**	-	**-**	**-**	RNP 1
2	TF	**OBVER**	**-**	171 (173.2)	2.3	7.7	-	+4000	**-**	**-**	RNP 1
3	TF	**LADEM**	-	190 (192.2)	2.3	4.6	-	-	**-**	-	RNP 1
4	TF	**EMEXA**	-	190 (192.2)	2.3	5.0	-	+5000	-	**-**	RNP 1
5	TF	**SOLAL**	-	190 (192.2)	2.3	5.0	-	+6000	-	**-**	RNP 1
6	TF	**TONBI**	-	190 (192.2)	2.3	5.0	-	@7000	-	**-**	RNP 1
7	TF	**DENSI**	-	190 (192.3)	2.3	16.1	-	-	-	**-**	RNP 1
8	TF	**BATHA**	-	190 (192.0)	2.3	12.6	-	-	-	**-**	RNP 1

WAYPOINT LIST

RNP SID BATHA 1S

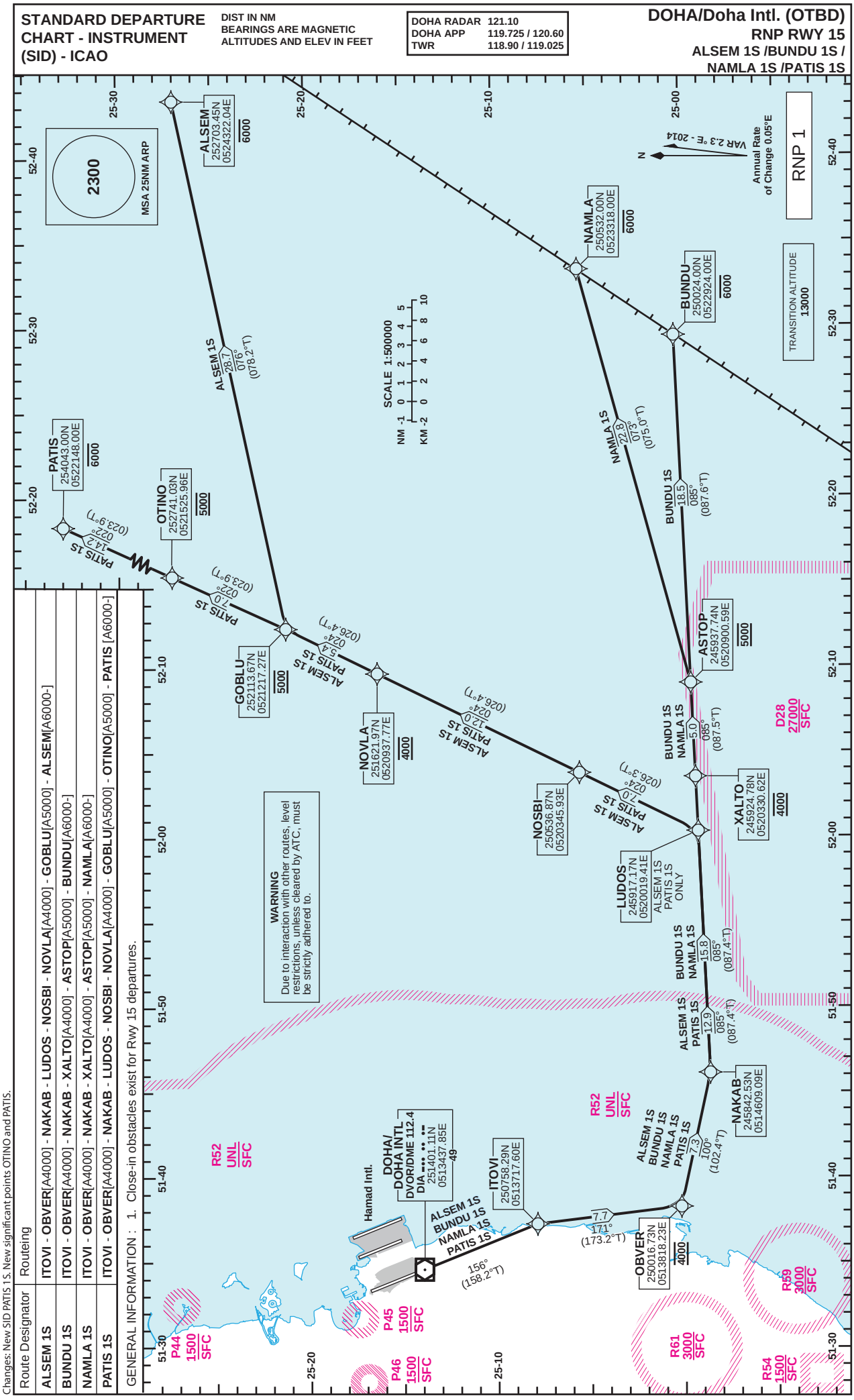
Waypoint Identifier	Coordinates
ITOVI	250758.29N 0513717.60E
OBVER	250016.73N 0513818.23E
LADEM	245545.14N 0513713.63E
EMEXA	245051.67N 0513603.93E
SOLAL	244558.18N 0513454.33E
TONBI	244104.68N 0513344.82E
DENSI	242518.88N 0512959.31E
BATHA	241257.04N 0512707.09E

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA RADAR	121.10
DOHA APP	119.725 / 120.60
TWR	118.90 / 119.025

DOHA/Doha Intl. (OTBD)
RNP RWY 15
ALSEM 1S /BUNDU 1S /
NAMLA 1S /PATIS 1S



Changes: New SID PATIS 1S. New significant points OTINO and PATIS.

Route Designator	Routeing
ALSEM 1S	ITOVI - OBVER[A4000] - NAKAB - LUDOS - NOSBI - NOVLA[A4000] - GOBLU[A5000] - ALSEM[A6000-]
BUNDU 1S	ITOVI - OBVER[A4000] - NAKAB - XALTO[A4000] - ASTOP[A5000] - BUNDU[A6000-]
NAMLA 1S	ITOVI - OBVER[A4000] - NAKAB - XALTO[A4000] - ASTOP[A5000] - NAMLA[A6000-]
PATIS 1S	ITOVI - OBVER[A4000] - NAKAB - LUDOS - NOSBI - NOVLA[A4000] - GOBLU[A5000] - OTINO[A5000] - PATIS [A6000-]

GENERAL INFORMATION : 1. Close-in obstacles exist for Rwy 15 departures.

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DOHA/Doha Intl.(OTBD)
RNP RWY 15
ALSEM 1S /BUNDU 1S /NAMLA 1S /PATIS 1S

TABULAR DESCRIPTION

RNP SID ALSEM 1S

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	CF	ITOVI	-	156 (158.2)	2.3	-	-	-	-	-	RNP 1
2	TF	OBVER	-	171 (173.2)	2.3	7.7	-	@4000	-	-	RNP 1
3	TF	NAKAB	-	100 (102.4)	2.3	7.3	-	-	-	-	RNP 1
4	TF	LUDOS	-	085 (087.4)	2.3	12.9	-	-	-	-	RNP 1
5	TF	NOSBI	-	024 (026.3)	2.3	7.0	-	-	-	-	RNP 1
6	TF	NOVLA	-	024 (026.4)	2.3	12.0	-	@4000	-	-	RNP 1
7	TF	GOBLU	-	024 (026.4)	2.3	5.4	-	@5000	-	-	RNP 1
8	TF	ALSEM	-	076 (078.2)	2.3	28.7	-	-6000	-	-	RNP 1

RNP SID BUNDU 1S

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	CF	ITOVI	-	156 (158.2)	2.3	-	-	-	-	-	RNP 1
2	TF	OBVER	-	171 (173.2)	2.3	7.7	-	@4000	-	-	RNP 1
3	TF	NAKAB	-	100 (102.4)	2.3	7.3	-	-	-	-	RNP 1
4	TF	XALTO	-	085 (087.4)	2.3	15.8	-	@4000	-	-	RNP 1
5	TF	ASTOP	-	085 (087.5)	2.3	5.0	-	@5000	-	-	RNP 1
6	TF	BUNDU	-	085 (087.6)	2.3	18.5	-	-6000	-	-	RNP 1

RNP SID NAMLA 1S

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	CF	ITOVI	-	156 (158.2)	2.3	-	-	-	-	-	RNP 1
2	TF	OBVER	-	171 (173.2)	2.3	7.7	-	@4000	-	-	RNP 1
3	TF	NAKAB	-	100 (102.4)	2.3	7.3	-	-	-	-	RNP 1
4	TF	XALTO	-	085 (087.4)	2.3	15.8	-	@4000	-	-	RNP 1
5	TF	ASTOP	-	085 (087.5)	2.3	5.0	-	@5000	-	-	RNP 1
6	TF	NAMLA	-	073 (075.0)	2.3	22.8	-	-6000	-	-	RNP 1

RNP SID PATIS 1S

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	CF	ITOVI	-	156 (158.2)	2.3	-	-	-	-	-	RNP 1
2	TF	OBVER	-	171 (173.2)	2.3	7.7	-	@4000	-	-	RNP 1
3	TF	NAKAB	-	100 (102.4)	2.3	7.3	-	-	-	-	RNP 1
4	TF	LUDOS	-	085 (087.4)	2.3	12.9	-	-	-	-	RNP 1
5	TF	NOSBI	-	024 (026.3)	2.3	7.0	-	-	-	-	RNP 1
6	TF	NOVLA	-	024 (026.4)	2.3	12.0	-	@4000	-	-	RNP 1
7	TF	GOBLU	-	024 (026.4)	2.3	5.4	-	@5000	-	-	RNP 1
8	TF	OTINO	-	022 (023.9)	2.3	7.0	-	@5000	-	-	RNP 1
9	TF	PATIS	-	022 (023.9)	2.3	14.2	-	-6000	-	-	RNP 1

WAYPOINT LIST

RNP SID ALSEM 1S /BUNDU 1S /NAMLA 1S /PATIS 1S

Waypoint Identifier	Coordinates
ITOVI	250758.29N 0513717.60E
OBVER	250016.73N 0513818.23E
NAKAB	245842.53N 0514609.09E
LUDOS	245917.17N 0520019.41E
NOSBI	250536.87N 0520345.93E
NOVLA	251621.97N 0520937.77E
GOBLU	252113.67N 0521217.27E

RNP SID ALSEM 1S /BUNDU 1S /NAMLA 1S /PATIS 1S

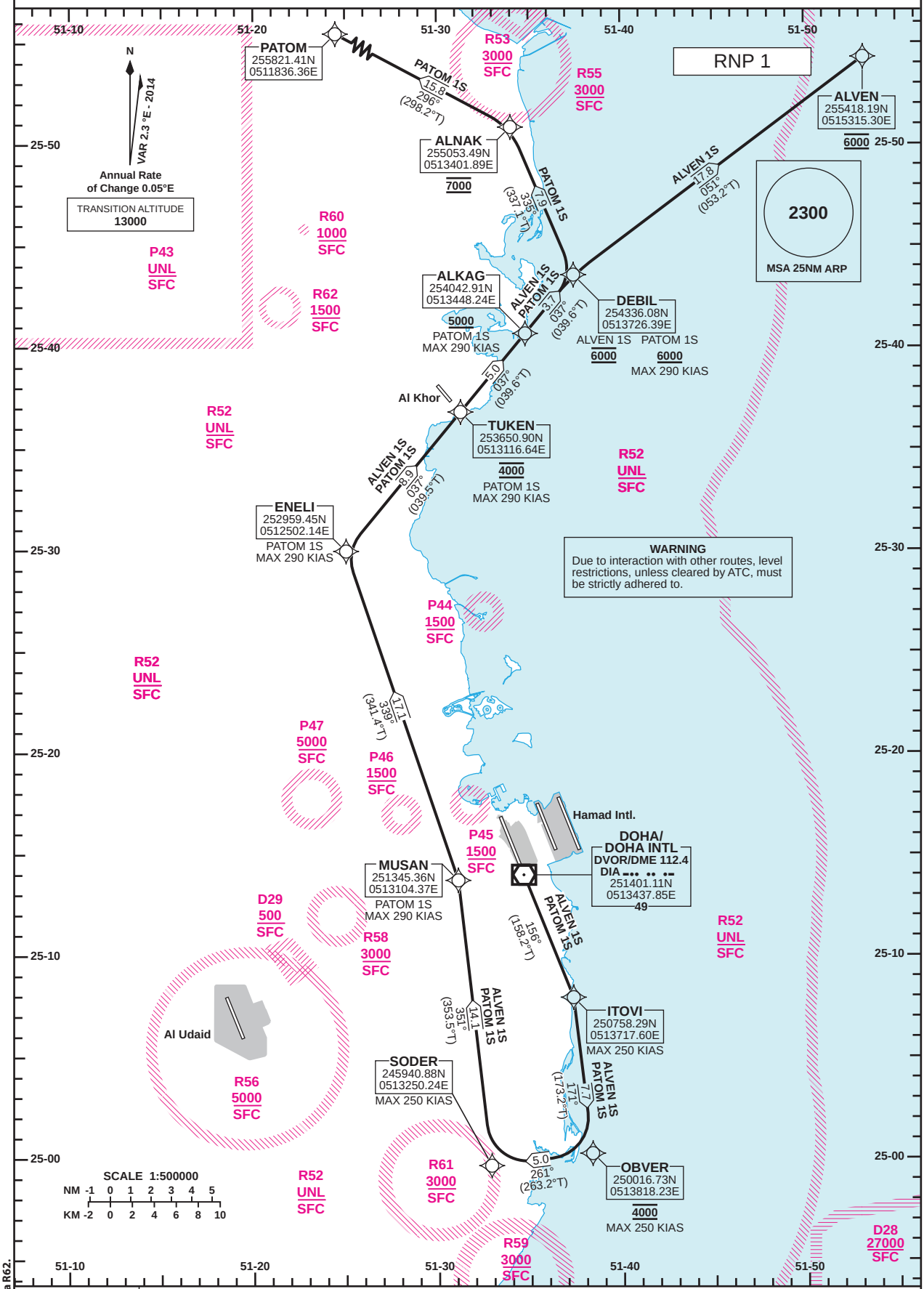
Waypoint Identifier	Coordinates
ALSEM	252703.45N 0524322.04E
XALTO	245924.78N 0520330.62E
ASTOP	245937.74N 0520900.59E
BUNDU	250024.00N 0522924.00E
NAMLA	250532.00N 0523318.00E
OTINO	252741.03N 0521525.96E
PATIS	254043.00N 0522148.00E

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA RADAR	121.10
DOHA APP	119.725 / 120.60
TWR	118.90 / 119.025

DOHA/Doha Intl. (OTBD)
RNP RWY 15
ALVEN 1S /PATOM 1S



Route Designator	Routeing
ALVEN 1S	**ITOVI**[K250-] - **OBVER**[R;A4000;K250-] - **SODER**[R;K250-] - **MUSAN** - **ENELI** - **TUKEN**[A4000] - **ALKAG**[A5000+] - **DEBIL**[A6000] - **ALVEN**[A6000]
PATOM 1S	**ITOVI**[K250-] - **OBVER**[R;A4000;K250-] - **SODER**[R;K250-] - **MUSAN**[K290-] - **ENELI**[K290-] - **TUKEN**[A4000;K290-] - **ALKAG**[A5000+;K290-] - **DEBIL**[A6000+;K290-] - **ALNAK**[A7000] - **PATOM**

GENERAL INFORMATION
1. Close-in obstacles exist for Rwy 15 departures.

Changes: New restricted area R62.

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DOHA/Doha Intl.(OTBD)
RNP RWY 15
ALVEN 1S /PATOM 1S

TABULAR DESCRIPTION

RNP SID ALVEN 1S

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	CF	**ITOVI**	**-**	156 (158.2)	2.3	-	**-**	-	-250	**-**	RNP 1
2	TF	**OBVER**	**-**	171 (173.2)	2.3	7.7	R	@4000	-250	**-**	RNP 1
3	TF	**SODER**	-	261 (263.2)	2.3	5.0	R	-	-250	-	RNP 1
4	TF	**MUSAN**	-	351 (353.5)	2.3	14.1	-	-	-	**-**	RNP 1
5	TF	**ENELI**	-	339 (341.4)	2.3	17.1	-	-	-	**-**	RNP 1
6	TF	**TUKEN**	-	037 (039.5)	2.3	8.9	-	@4000	-	**-**	RNP 1
7	TF	**ALKAG**	-	037 (039.6)	2.3	5.0	-	+5000	-	**-**	RNP 1
8	TF	**DEBIL**	-	037 (039.6)	2.3	3.7	-	@6000	-	**-**	RNP 1
9	TF	**ALVEN**	-	051 (053.2)	2.3	17.8	-	@6000	-	**-**	RNP 1

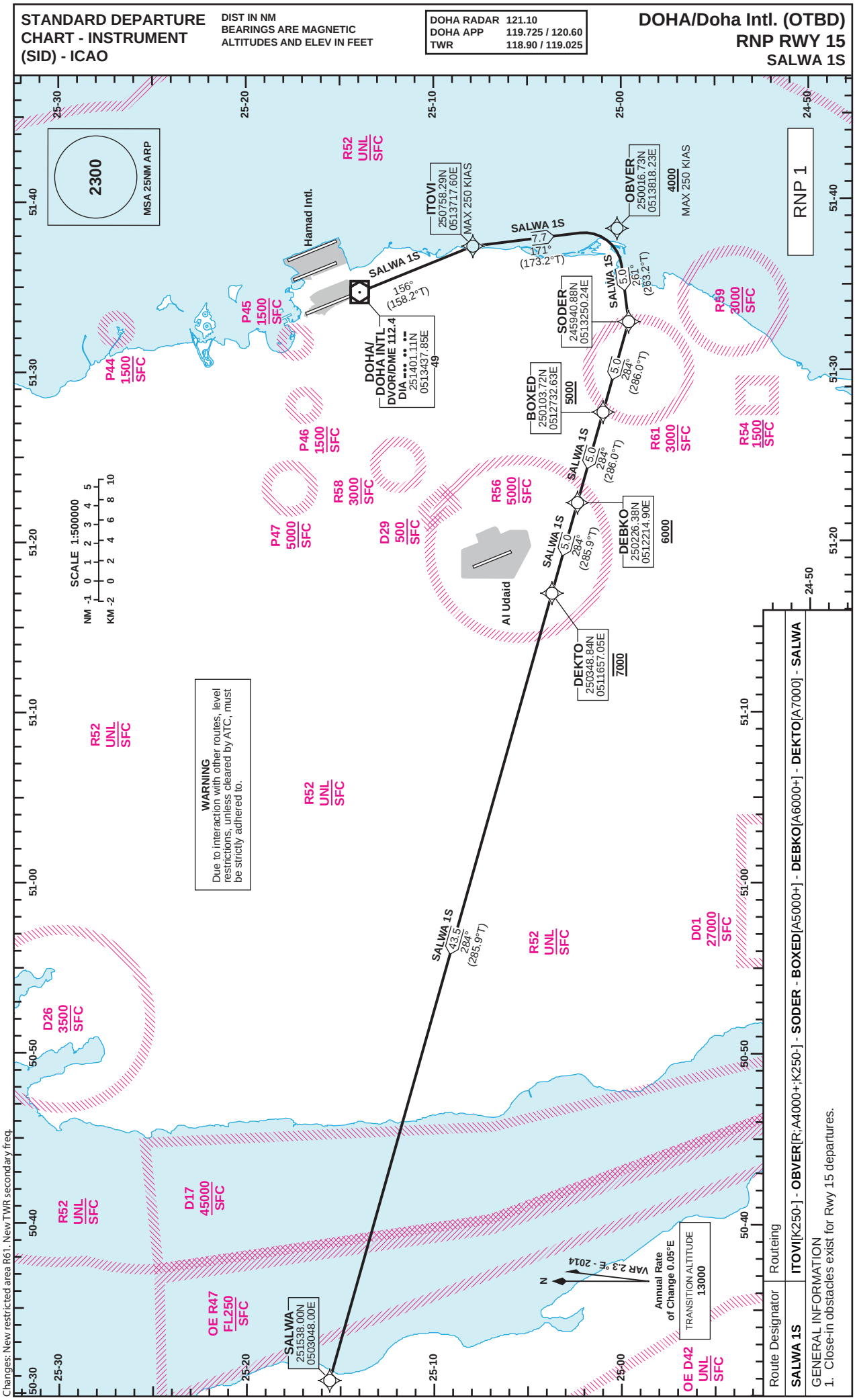
RNP SID PATOM 1S

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	CF	**ITOVI**	**-**	156 (158.2)	2.3	-	**-**	**-**	-250	**-**	RNP 1
2	TF	**OBVER**	**-**	171 (173.2)	2.3	7.7	R	@4000	-250	**-**	RNP 1
3	TF	**SODER**	**-**	261 (263.2)	2.3	5.0	R	**-**	-250	**-**	RNP 1
4	TF	**MUSAN**	**-**	351 (353.5)	2.3	14.1	**-**	**-**	-290	**-**	RNP 1
5	TF	**ENELI**	**-**	339 (341.4)	2.3	17.1	**-**	**-**	-290	**-**	RNP 1
6	TF	**TUKEN**	**-**	037 (039.5)	2.3	8.9	**-**	@4000	-290	**-**	RNP 1
7	TF	**ALKAG**	**-**	037 (039.6)	2.3	5.0	**-**	+5000	-290	**-**	RNP 1
8	TF	**DEBIL**	**-**	037 (039.6)	2.3	3.7	**-**	+6000	-290	**-**	RNP 1
9	TF	**ALNAK**	**-**	335 (337.1)	2.3	7.9	**-**	@7000	**-**	**-**	RNP 1
10	TF	**PATOM**	**-**	296 (298.2)	2.3	15.8	**-**	**-**	**-**	**-**	RNP 1

WAYPOINT LIST

RNP SID ALVEN 1S /PATOM 1S

Waypoint Identifier	Coordinates
ITOVI	250758.29N 0513717.60E
OBVER	250016.73N 0513818.23E
SODER	245940.88N 0513250.24E
MUSAN	251345.36N 0513104.37E
ENELI	252959.45N 0512502.14E
TUKEN	253650.90N 0513116.64E
ALKAG	254042.91N 0513448.24E
DEBIL	254336.08N 0513726.39E
ALVEN	255418.19N 0515315.30E
ALNAK	255053.49N 0513401.89E
PATOM	255821.41N 0511836.36E


STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO
DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET
DOHA RADAR 121.10
DOHA APP 119.725 / 120.60
TWR 118.90 / 119.025
DOHA/Doha Intl. (OTBD)
RNP RWY 15
SALWA 1S
RNP 1
MSA 25NM ARP
2300
Hamad Intl.
Al Udaid
ITOVI
250758.29N
0513717.60E
MAX 250 KIAS
OBVER
250016.73N
0513818.23E
4000
MAX 250 KIAS
SODER
245940.88N
0513250.24E
BOXED
250103.72N
0512732.63E
5000
DEBKO
250226.38N
0512214.90E
6000
DEKTO
250348.84N
0511657.05E
7000
DOHA/
DOHA INTL
DVOR/DME 112.4
DIA
251401.11N
0513437.85E
SALWA
251538.00N
0503048.00E
SALWA 1S
7.7
171°
(173.2°T)
156°
(158.2°T)
5.0
261°
(263.2°T)
5.0
284°
(286.0°T)
43.5
284°
(285.9°T)
SCALE 1:500000
NM -1 0 1 2 3 4 5
KM -2 0 2 4 6 8 10
WARNING
Due to interaction with other routes, level restrictions, unless cleared by ATC, must be strictly adhered to.
R52 UNL SFC
P44 1500 SFC
P45 1500 SFC
P46 1500 SFC
P47 5000 SFC
R58 3000 SFC
D29 500 SFC
R56 5000 SFC
R61 3000 SFC
R59 3000 SFC
R54 1500 SFC
D26 3500 SFC
D17 45000 SFC
D01 27000 SFC
OE R47 FL250 SFC
OE D42 UNL SFC
VAR 2.3°E - 2014
Annual Rate of Change 0.05°E
TRANSITION ALTITUDE 13000
Changes: New restricted area R61. New TWR secondary freq.
Route Designator | Routeing
SALWA 1S | ITOVI[K250-] - OBVER[R;A4000+;K250-] - SODER - BOXED[A5000+] - DEBKO[A6000+] - DEKTO[A7000] - SALWA
GENERAL INFORMATION
1. Close-in obstacles exist for Rwy 15 departures.

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DOHA/Doha Intl.(OTBD)
RNP RWY 15
SALWA 1S

TABULAR DESCRIPTION

RNP SID SALWA 1S

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	CF	**ITOVI**	**-**	156 (158.2)	2.3	-	**-**	-	-250	**-**	RNP 1
2	TF	**OBVER**	**-**	171 (173.2)	2.3	7.7	R	+4000	-250	**-**	RNP 1
3	TF	**SODER**	-	261 (263.2)	2.3	5.0	-	-	**-**	-	RNP 1
4	TF	**BOXED**	-	284 (286.0)	2.3	5.0	-	+5000	-	**-**	RNP 1
5	TF	**DEBKO**	-	284 (286.0)	2.3	5.0	-	+6000	-	**-**	RNP 1
6	TF	**DEKTO**	-	284 (285.9)	2.3	5.0	-	@7000	-	**-**	RNP 1
7	TF	**SALWA**	-	284 (285.9)	2.3	43.5	-	-	-	**-**	RNP 1

WAYPOINT LIST

RNP SID SALWA 1S

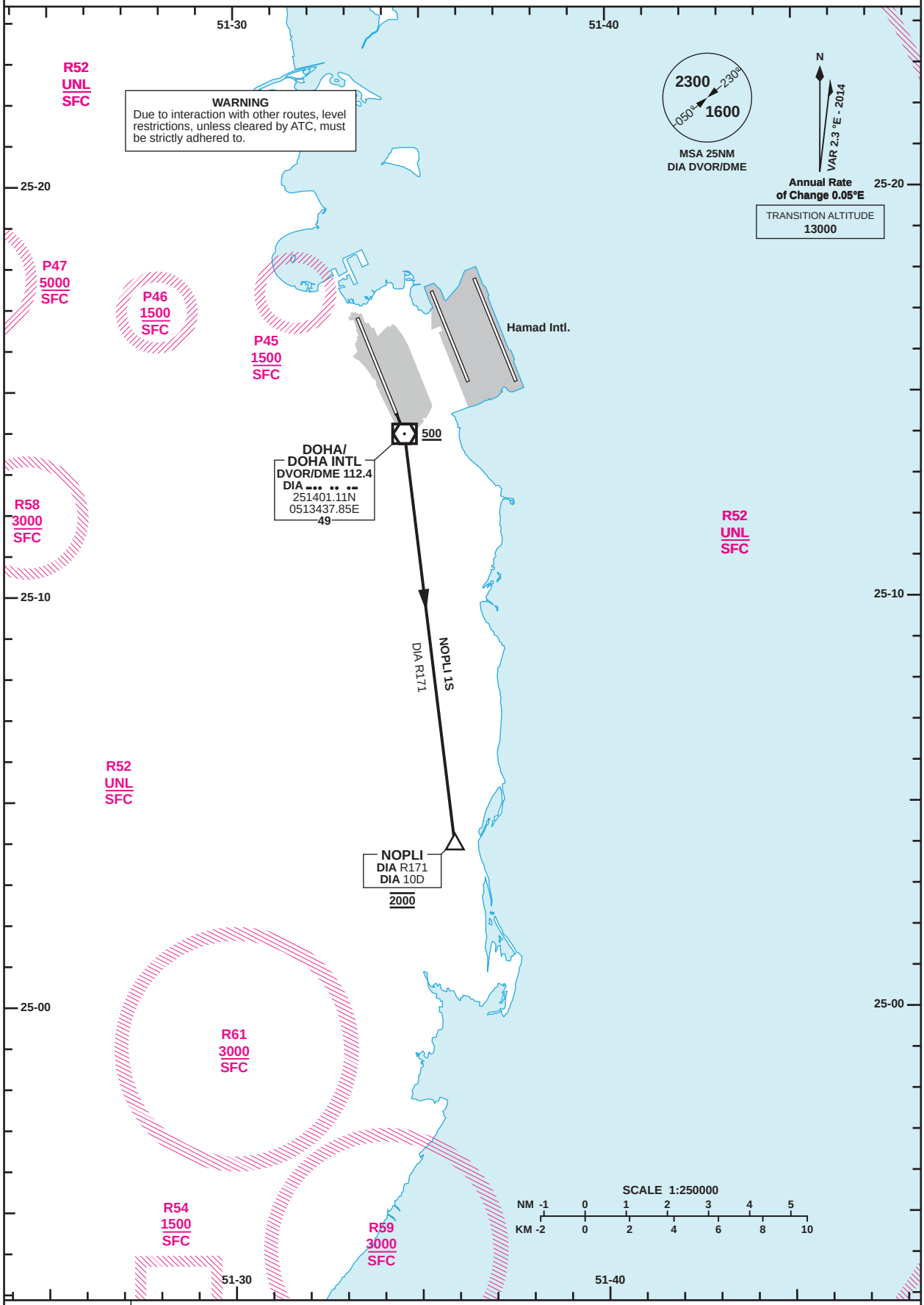
Waypoint Identifier	Coordinates
ITOVI	250758.29N 0513717.60E
OBVER	250016.73N 0513818.23E
SODER	245940.88N 0513250.24E
BOXED	250103.72N 0512732.63E
DEBKO	250226.38N 0512214.90E
DEKTO	250348.84N 0511657.05E
SALWA	251538.00N 0503048.00E

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA RADAR	121.10
DOHA APP	119.725 / 120.60
TWR	118.90 / 119.025

DOHA/Doha Intl. (OTBD)
RWY 15
NOPLI 1S



Route Designator	Routeing
NOPLI 1S	Climb straight ahead to **500**. Turn right to intercept **DIA** R171 to **NOPLI** (**DIA**10D) at **2000**. Continue as directed.

GENERAL INFORMATION : 1. Close-in obstacles exist.

RWY	Primary SIDs	Initial Contact	Initial Altitude	Radio Fail Procedures
15	**NOPLI 1S**	DEPs	2000	Execute three right-hand orbits at NOPLI at 2000. Continue right-hand orbit climbing to 5000. Proceed direct to first enroute waypoint then continue as flight planned or proceed direct to DIA DVOR and follow the ILS 15 approach procedure to land at OTBD.

Changes: Updated MSA.

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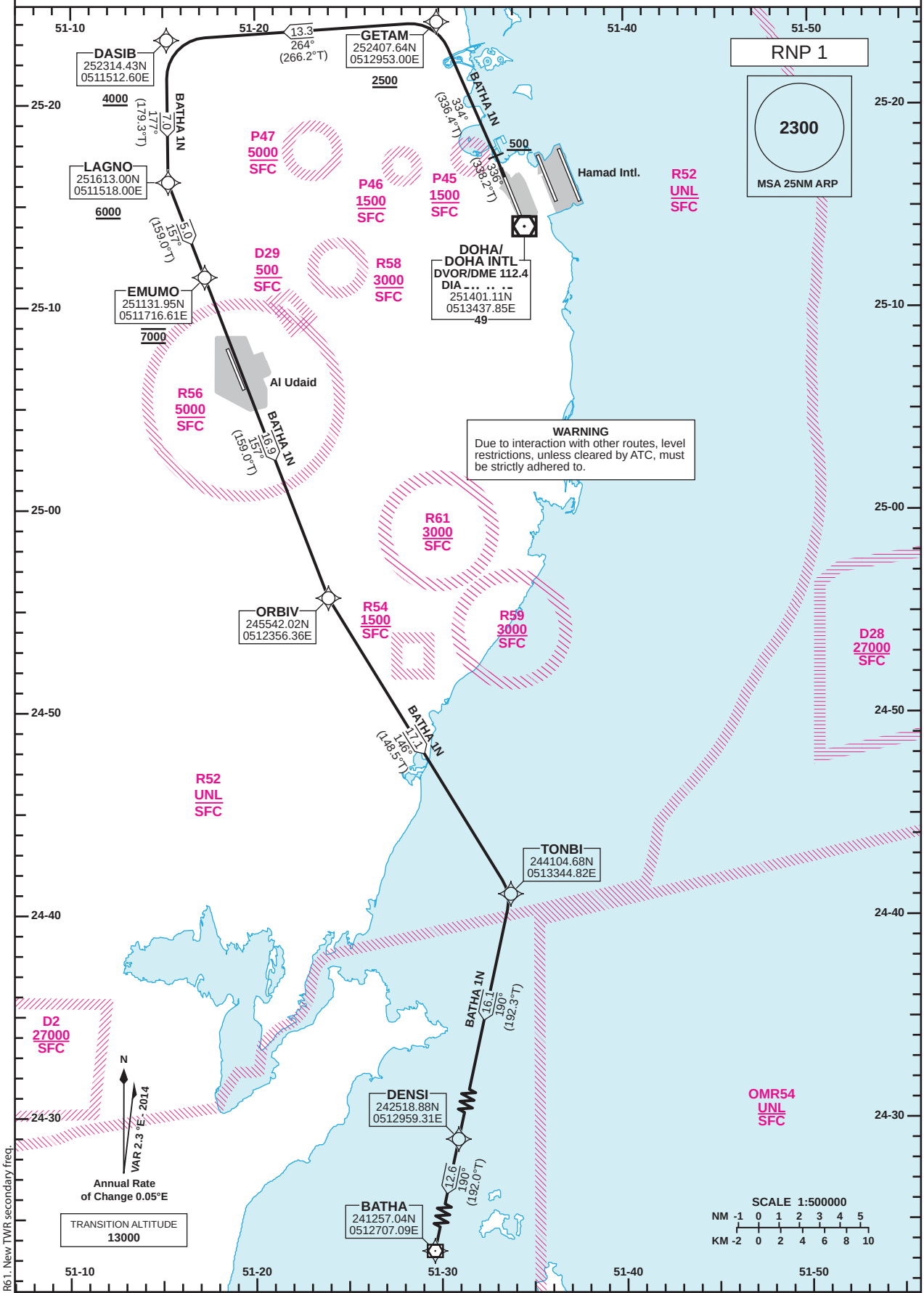
STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA RADAR	121.10
DOHA APP	119.725 / 120.60
TWR	118.90 / 119.025

DOHA/Doha Intl. (OTBD)
RNP RWY 33
BATHA 1N



Route Designator	Routeing
BATHA 1N	[T338.2; A500+] - **GETAM**[T336.4;A2500+] - **DASIB**[A4000+] - **LAGNO**[A6000+] - **EMUMO**[A7000] - **ORBIV** - **TONBI** - **DENSI** - **BATHA**

GENERAL INFORMATION
1. Close-in obstacles exist for Rwy 33 departures.
2. **9.2% CG** required to **910**.

Changes: New restricted area R61. New TWR secondary freq.

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DOHA/Doha Intl.(OTBD)
RNP RWY 33
BATHA 1N

TABULAR DESCRIPTION

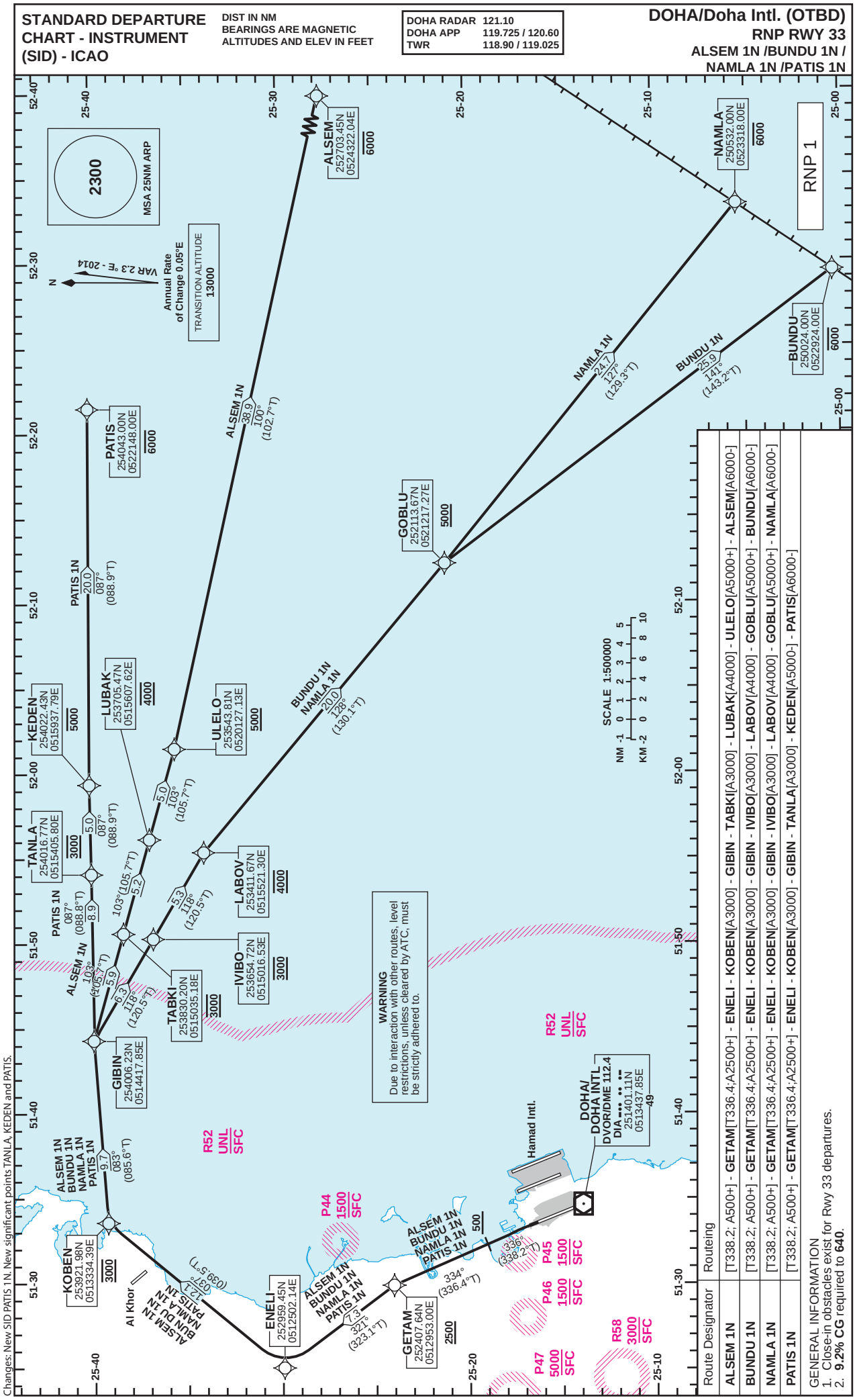
RNP SID BATHA 1N

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	CA	**-**	**-**	336 (338.2)	2.3	-	**-**	+500	**-**	**-**	RNP 1
2	CF	**GETAM**	**-**	334 (336.4)	2.3	-	-	+2500	**-**	**-**	RNP 1
3	TF	**DASIB**	-	264 (266.2)	2.3	13.3	-	+4000	**-**	-	RNP 1
4	TF	**LAGNO**	-	177 (179.3)	2.3	7.0	-	+6000	-	**-**	RNP 1
5	TF	**EMUMO**	-	157 (159.0)	2.3	5.0	-	@7000	-	**-**	RNP 1
6	TF	**ORBIV**	-	157 (159.0)	2.3	16.9	-	-	-	**-**	RNP 1
7	TF	**TONBI**	-	146 (148.5)	2.3	17.1	-	-	-	**-**	RNP 1
8	TF	**DENSI**	-	190 (192.3)	2.3	16.1	-	-	-	**-**	RNP 1
9	TF	**BATHA**	-	190 (192.0)	2.3	12.6	-	-	-	**-**	RNP 1

WAYPOINT LIST

RNP SID BATHA 1N

Waypoint Identifier	Coordinates
GETAM	252407.64N 0512953.00E
DASIB	252314.43N 0511512.60E
LAGNO	251613.00N 0511518.00E
EMUMO	251131.95N 0511716.61E
ORBIV	245542.02N 0512356.36E
TONBI	244104.68N 0513344.82E
DENSI	242518.88N 0512959.31E
BATHA	241257.04N 0512707.09E


STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO
DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET
DOHA RADAR 121.10
DOHA APP 119.725 / 120.60
TWR 118.90 / 119.025
DOHA/Doha Intl. (OTBD)
RNP RWY 33
ALSEM 1N /BUNDU 1N /
NAMLA 1N /PATIS 1N
RNP 1
MSA 25NM ARP
2300
VAR 2.3°E - 2014
Annual Rate of Change 0.05°E
TRANSITION ALTITUDE 13000
ALSEM 252703.45N 0524322.04E 6000
NAMLA 250532.00N 0523318.00E 6000
BUNDU 250024.00N 0522924.00E 6000
PATIS 254043.00N 0522148.00E 6000
KEDEN 254022.43N 0515937.79E 5000
LUBAK 253705.47N 0515607.62E 4000
TANLA 254016.77N 0515405.80E 3000
ULELO 253543.81N 0520127.13E 5000
LABOV 253411.67N 0515521.30E 4000
IVIBO 253654.72N 0515016.53E 3000
TABKI 253830.20N 0515035.18E 3000
GIBIN 254006.23N 0514417.85E
KOBEN 253921.98N 0513334.39E 3000
ENELI 252959.45N 0512502.14E
GETAM 252407.64N 0512953.00E 2500
GOBLU 252113.67N 0521217.27E 5000
DOHA/ DOHA INTL DVOR/DME 112.4 DIA 251401.11N 0513437.85E 49
ALSEM 1N 38.9 100° (102.7°T)
NAMLA 1N 24.7 127° (129.3°T)
BUNDU 1N 25.9 141° (143.2°T)
PATIS 1N 20.0 087° (088.9°T)
BUNDU 1N NAMLA 1N 20.0 128° (130.1°T)
ALSEM 1N BUNDU 1N NAMLA 1N PATIS 1N 9.7 083° (085.6°T)
PATIS 1N 087° (088.8°T) 8.9
ALSEM 1N 103° (105.7°T) 5.9
5.0 087° (088.9°T)
103° (105.7°T) 5.2
5.0 103° (105.7°T)
6.3 118° (120.5°T)
5.3 118° (120.5°T)
ALSEM 1N BUNDU 1N NAMLA 1N PATIS 1N 7.3 327° (323.1°T)
ALSEM 1N BUNDU 1N NAMLA 1N PATIS 1N 334° (336.4°T)
ALSEM 1N BUNDU 1N NAMLA 1N PATIS 1N 336° (338.2°T)
ALSEM 1N BUNDU 1N NAMLA 1N PATIS 1N 12.1 057° (059.5°T)
SCALE 1:500000
NM -1 0 1 2 3 4 5
KM -2 0 2 4 6 8 10
WARNING
Due to interaction with other routes, level restrictions, unless cleared by ATC, must be strictly adhered to.
R52 UNL SFC
R52 UNL SFC
P44 1500 SFC
P45 1500 SFC
P46 1500 SFC
P47 5000 SFC
R58 3000 SFC
Hamad Intl.
Al Khor
Changes: New SID PATIS 1N. New significant points TANLA, KEDEN and PATIS.
Route Designator | Routeing
ALSEM 1N | [T338.2; A500+] - GETAM[T336.4;A2500+] - ENELI - KOBEN[A3000] - GIBIN - TABKI[A3000] - LUBAK[A4000] - ULELO[A5000+] - ALSEM[A6000-]
BUNDU 1N | [T338.2; A500+] - GETAM[T336.4;A2500+] - ENELI - KOBEN[A3000] - GIBIN - IVIBO[A3000] - LABOV[A4000] - GOBLU[A5000+] - BUNDU[A6000-]
NAMLA 1N | [T338.2; A500+] - GETAM[T336.4;A2500+] - ENELI - KOBEN[A3000] - GIBIN - IVIBO[A3000] - LABOV[A4000] - GOBLU[A5000+] - NAMLA[A6000-]
PATIS 1N | [T338.2; A500+] - GETAM[T336.4;A2500+] - ENELI - KOBEN[A3000] - GIBIN - TANLA[A3000] - KEDEN[A5000-] - PATIS[A6000-]
GENERAL INFORMATION
1. Close-in obstacles exist for Rwy 33 departures.
2. 9.2% CG required to 640.

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DOHA/Doha Intl.(OTBD)
RNP RWY 33
ALSEM 1N /BUNDU 1N /NAMLA 1N /PATIS 1N

TABULAR DESCRIPTION

RNP SID ALSEM 1N

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	CA	-	-	336 (338.2)	2.3	-	-	+500	-	-	RNP 1
2	CF	GETAM	-	334 (336.4)	2.3	-	-	+2500	-	-	RNP 1
3	TF	ENELI	-	321 (323.1)	2.3	7.3	-	-	-	-	RNP 1
4	TF	KOBEN	-	037 (039.5)	2.3	12.1	-	@3000	-	-	RNP 1
5	TF	GIBIN	-	083 (085.6)	2.3	9.7	-	-	-	-	RNP 1
6	TF	TABKI	-	103 (105.7)	2.3	5.9	-	@3000	-	-	RNP 1
7	TF	LUBAK	-	103 (105.7)	2.3	5.2	-	@4000	-	-	RNP 1
8	TF	ULELO	-	103 (105.7)	2.3	5.0	-	+5000	-	-	RNP 1
9	TF	ALSEM	-	100 (102.7)	2.3	38.9	-	-6000	-	-	RNP 1

RNP SID BUNDU 1N

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	CA	-	-	336 (338.2)	2.3	-	-	+500	-	-	RNP 1
2	CF	GETAM	-	334 (336.4)	2.3	-	-	+2500	-	-	RNP 1
3	TF	ENELI	-	321 (323.1)	2.3	7.3	-	-	-	-	RNP 1
4	TF	KOBEN	-	037 (039.5)	2.3	12.1	-	@3000	-	-	RNP 1
5	TF	GIBIN	-	083 (085.6)	2.3	9.7	-	-	-	-	RNP 1
6	TF	IVIBO	-	118 (120.5)	2.3	6.3	-	@3000	-	-	RNP 1
7	TF	LABOV	-	118 (120.5)	2.3	5.3	-	@4000	-	-	RNP 1
8	TF	GOBLU	-	128 (130.1)	2.3	20.0	-	+5000	-	-	RNP 1
9	TF	BUNDU	-	141 (143.2)	2.3	25.9	-	-6000	-	-	RNP 1

RNP SID NAMLA 1N

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	CA	-	-	336 (338.2)	2.3	-	-	+500	-	-	RNP 1
2	CF	GETAM	-	334 (336.4)	2.3	-	-	+2500	-	-	RNP 1
3	TF	ENELI	-	321 (323.1)	2.3	7.3	-	-	-	-	RNP 1
4	TF	KOBEN	-	037 (039.5)	2.3	12.1	-	@3000	-	-	RNP 1
5	TF	GIBIN	-	083 (085.6)	2.3	9.7	-	-	-	-	RNP 1
6	TF	IVIBO	-	118 (120.5)	2.3	6.3	-	@3000	-	-	RNP 1
7	TF	LABOV	-	118 (120.5)	2.3	5.3	-	@4000	-	-	RNP 1
8	TF	GOBLU	-	128 (130.1)	2.3	20.0	-	+5000	-	-	RNP 1
9	TF	NAMLA	-	127 (129.3)	2.3	24.7	-	-6000	-	-	RNP 1

RNP SID PATIS 1N

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	CA	-	-	336 (338.2)	2.3	-	-	+500	-	-	RNP 1
2	CF	GETAM	-	334 (336.4)	2.3	-	-	+2500	-	-	RNP 1
3	TF	ENELI	-	321 (323.1)	2.3	7.3	-	-	-	-	RNP 1
4	TF	KOBEN	-	037 (039.5)	2.3	12.1	-	@3000	-	-	RNP 1
5	TF	GIBIN	-	083 (085.6)	2.3	9.7	-	-	-	-	RNP 1
6	TF	TANLA	-	087 (088.8)	2.3	8.9	-	@3000	-	-	RNP 1
7	TF	KEDEN	-	087 (088.9)	2.3	5.0	-	-5000	-	-	RNP 1
8	TF	PATIS	-	087 (088.9)	2.3	20.0	-	-6000	-	-	RNP 1

WAYPOINT LIST

RNP SID ALSEM 1N /BUNDU 1N /NAMLA 1N /PATIS 1N

Waypoint Identifier	Coordinates
GETAM	252407.64N 0512953.00E
ENELI	252959.45N 0512502.14E
KOBEN	253921.98N 0513334.39E
GIBIN	254006.23N 0514417.85E
TABKI	253830.20N 0515035.18E
LUBAK	253705.47N 0515607.62E
ULELO	253543.81N 0520127.13E
ALSEM	252703.45N 0524322.04E

RNP SID ALSEM 1N /BUNDU 1N /NAMLA 1N /PATIS 1N

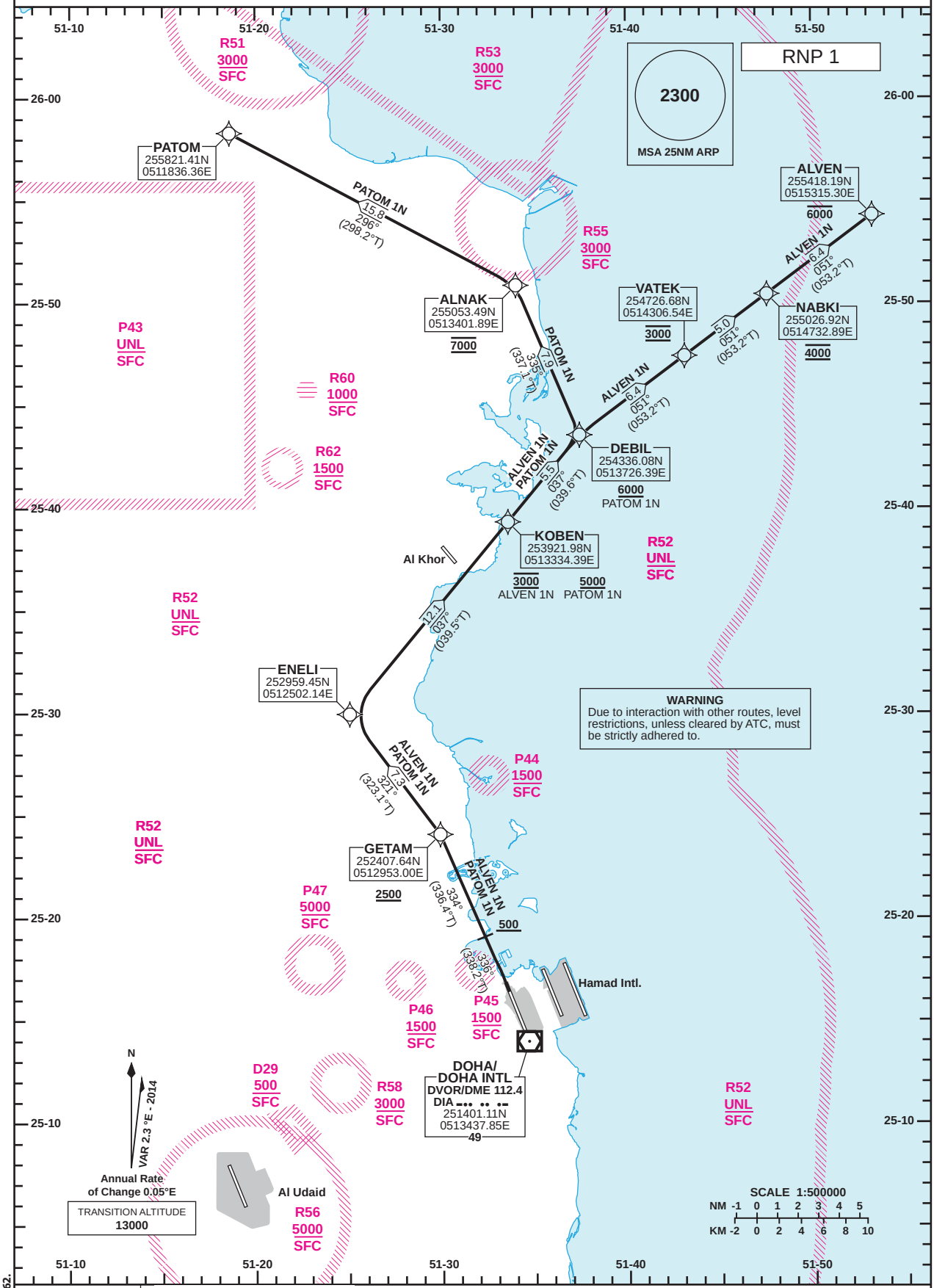
Waypoint Identifier	Coordinates
IVIBO	253654.72N 0515016.53E
LABOV	253411.67N 0515521.30E
GOBLU	252113.67N 0521217.27E
BUNDU	250024.00N 0522924.00E
NAMLA	250532.00N 0523318.00E
TANLA	254016.77N 0515405.80E
KEDEN	254022.43N 0515937.79E
PATIS	254043.00N 0522148.00E

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA RADAR	121.10
DOHA APP	119.725 / 120.60
TWR	118.90 / 119.025

DOHA/Doha Intl. (OTBD)
RNP RWY 33
ALVEN 1N /PATOM 1N



Route Designator	Routeing
ALVEN 1N	[T338.2; A500+] - **GETAM**[T336.4;A2500+] - **ENELI** - **KOBEN**[A3000] - **DEBIL** - **VATEK**[A3000] - **NABKI**[A4000] - **ALVEN**[A6000-]
PATOM 1N	[T338.2; A500+] - **GETAM**[T336.4;A2500+] - **ENELI** - **KOBEN**[A5000+] - **DEBIL**[A6000+] - **ALNAK**[A7000] - **PATOM**

GENERAL INFORMATION
1. Close-in obstacles exist for Rwy 33 departures.
2. **9.2% CG** required to **640**.

Changes: New restricted area R62.

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DOHA/Doha Intl.(OTBD)
RNP RWY 33
ALVEN 1N /PATOM 1N

TABULAR DESCRIPTION

RNP SID ALVEN 1N

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	CA	**-**	**-**	336 (338.2)	2.3	-	**-**	+500	**-**	**-**	RNP 1
2	CF	**GETAM**	**-**	334 (336.4)	2.3	-	-	+2500	**-**	**-**	RNP 1
3	TF	**ENELI**	-	321 (323.1)	2.3	7.3	-	-	**-**	-	RNP 1
4	TF	**KOBEN**	-	037 (039.5)	2.3	12.1	-	@3000	-	**-**	RNP 1
5	TF	**DEBIL**	-	037 (039.6)	2.3	5.5	-	-	-	**-**	RNP 1
6	TF	**VATEK**	-	051 (053.2)	2.3	6.4	-	@3000	-	**-**	RNP 1
7	TF	**NABKI**	-	051 (053.2)	2.3	5.0	-	@4000	-	**-**	RNP 1
8	TF	**ALVEN**	-	051 (053.2)	2.3	6.4	-	-6000	-	**-**	RNP 1

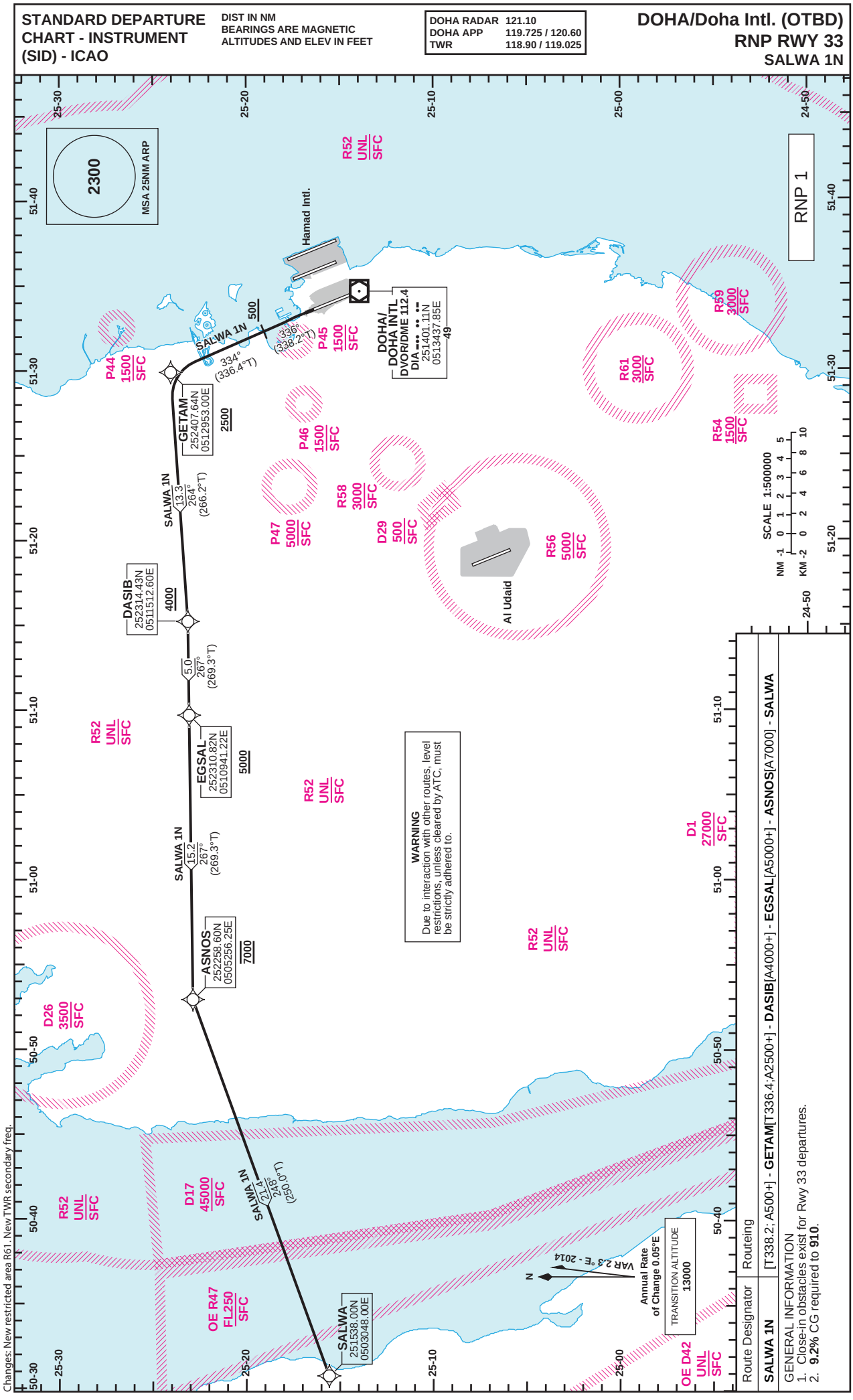
RNP SID PATOM 1N

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	CA	**-**	**-**	336 (338.2)	2.3	-	**-**	+500	**-**	**-**	RNP 1
2	CF	**GETAM**	**-**	334 (336.4)	2.3	-	-	+2500	**-**	**-**	RNP 1
3	TF	**ENELI**	-	321 (323.1)	2.3	7.3	-	-	**-**	-	RNP 1
4	TF	**KOBEN**	-	037 (039.5)	2.3	12.1	-	+5000	-	**-**	RNP 1
5	TF	**DEBIL**	-	037 (039.6)	2.3	5.5	-	+6000	-	**-**	RNP 1
6	TF	**ALNAK**	-	335 (337.1)	2.3	7.9	-	@7000	-	**-**	RNP 1
7	TF	**PATOM**	-	296 (298.2)	2.3	15.8	-	-	-	**-**	RNP 1

WAYPOINT LIST

RNP SID ALVEN 1N /PATOM 1N

Waypoint Identifier	Coordinates
GETAM	252407.64N 0512953.00E
ENELI	252959.45N 0512502.14E
KOBEN	253921.98N 0513334.39E
DEBIL	254336.08N 0513726.39E
VATEK	254726.68N 0514306.54E
NABKI	255026.92N 0514732.89E
ALVEN	255418.19N 0515315.30E
ALNAK	255053.49N 0513401.89E
PATOM	255821.41N 0511836.36E


STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO
DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET
DOHA RADAR 121.10
DOHA APP 119.725 / 120.60
TWR 118.90 / 119.025
DOHA/Doha Intl. (OTBD)
RNP RWY 33
SALWA 1N
2300
MSA 25NM ARP
RNP 1
Hamad Intl.
Al Udaid
DOHA/ DOHA INTL DVOR/DME 112.4
DIA ... ...
251401.11N 0513437.85E
49
SALWA 1N
500
334° (336.4°T)
336° (338.2°T)
GETAM 252407.64N 0512953.00E
2500
264° (266.2°T)
13.3
DASIB 252314.43N 0511512.60E
4000
267° (269.3°T)
5.0
EGSAL 252310.82N 0510941.22E
5000
15.2
ASNOS 252258.60N 0505256.25E
7000
SALWA 1N
214° (216.0°T)
24.8
SALWA 251538.00N 0503048.00E
P44 1500 SFC
P45 1500 SFC
P46 1500 SFC
P47 5000 SFC
R52 UNL SFC
R58 3000 SFC
D29 500 SFC
R56 5000 SFC
R59 3000 SFC
R61 3000 SFC
R54 1500 SFC
D1 27000 SFC
D26 3500 SFC
D17 45000 SFC
OE R47 FL250 SFC
OE D42 UNL SFC
WARNING
Due to interaction with other routes, level restrictions, unless cleared by ATC, must be strictly adhered to.
SCALE 1:500000
NM -1 0 1 2 3 4 5
KM -2 0 2 4 6 8 10
TRANSITION ALTITUDE 13000
Annual Rate of Change 0.05°E
VAR 2.3°E - 2014
Changes: New restricted area R61. New TWR secondary freq.
Route Designator
Routeing
SALWA 1N
[T338.2; A500+] - GETAM[T336.4;A2500+] - DASIB[A4000+] - EGSAL[A5000+] - ASNOS[A7000] - SALWA
GENERAL INFORMATION
1. Close-in obstacles exist for Rwy 33 departures.
2. 9.2% CG required to 910.

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DOHA/Doha Intl.(OTBD)
RNP RWY 33
SALWA 1N

TABULAR DESCRIPTION

RNP SID SALWA 1N

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	CA	**-**	**-**	336 (338.2)	2.3	-	**-**	+500	**-**	**-**	RNP 1
2	CF	**GETAM**	**-**	334 (336.4)	2.3	-	-	+2500	**-**	**-**	RNP 1
3	TF	**DASIB**	-	264 (266.2)	2.3	13.3	-	+4000	**-**	-	RNP 1
4	TF	**EGSAL**	-	267 (269.3)	2.3	5.0	-	+5000	-	**-**	RNP 1
5	TF	**ASNOS**	-	267 (269.3)	2.3	15.2	-	@7000	-	**-**	RNP 1
6	TF	**SALWA**	-	248 (250.0)	2.3	21.4	-	-	-	**-**	RNP 1

WAYPOINT LIST

RNP SID SALWA 1N

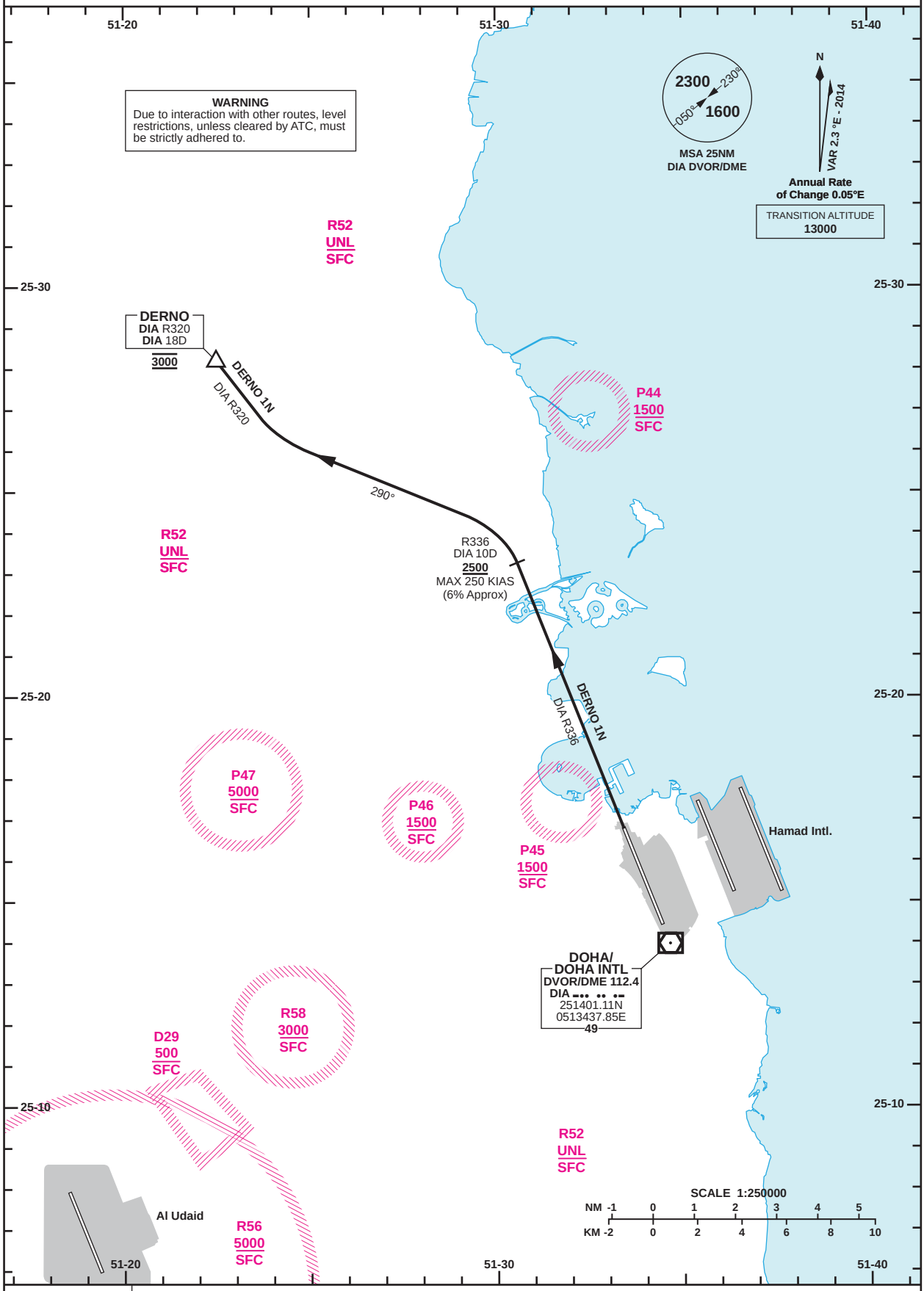
Waypoint Identifier	Coordinates
GETAM	252407.64N 0512953.00E
DASIB	252314.43N 0511512.60E
EGSAL	252310.82N 0510941.22E
ASNOS	252258.60N 0505256.25E
SALWA	251538.00N 0503048.00E

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA RADAR	121.10
DOHA APP	119.725 / 120.60
TWR	118.90 / 119.025

DOHA/Doha Intl. (OTBD)
RWY 33
DERNO 1N



Route Designator	Routeing
DERNO 1N	Climb on **DIA** R336 to **DIA** 10D, crossing **DIA**10D at or above **2500**. Turn left heading 290° to intercept **DIA** R320 to **DERNO** (**DIA** 18D) at **3000**. Continue as directed.

GENERAL INFORMATION : 1. Close-in obstacles exist. 2. **9.0% CG** required to **1000**.

RWY	Primary SIDs	Initial Contact	Initial Altitude	Radio Fail Procedures
33	**DERNO 1N**	DEPs	3000	Execute three left-hand orbits at DERNO at 3000. Continue left-hand orbit climbing to 5000. Proceed direct to first enroute waypoint then continue as flight planned or proceed direct to DIA DVOR and follow the ILS 33 approach procedure to land at OTBD.

Changes: Updated MSA.

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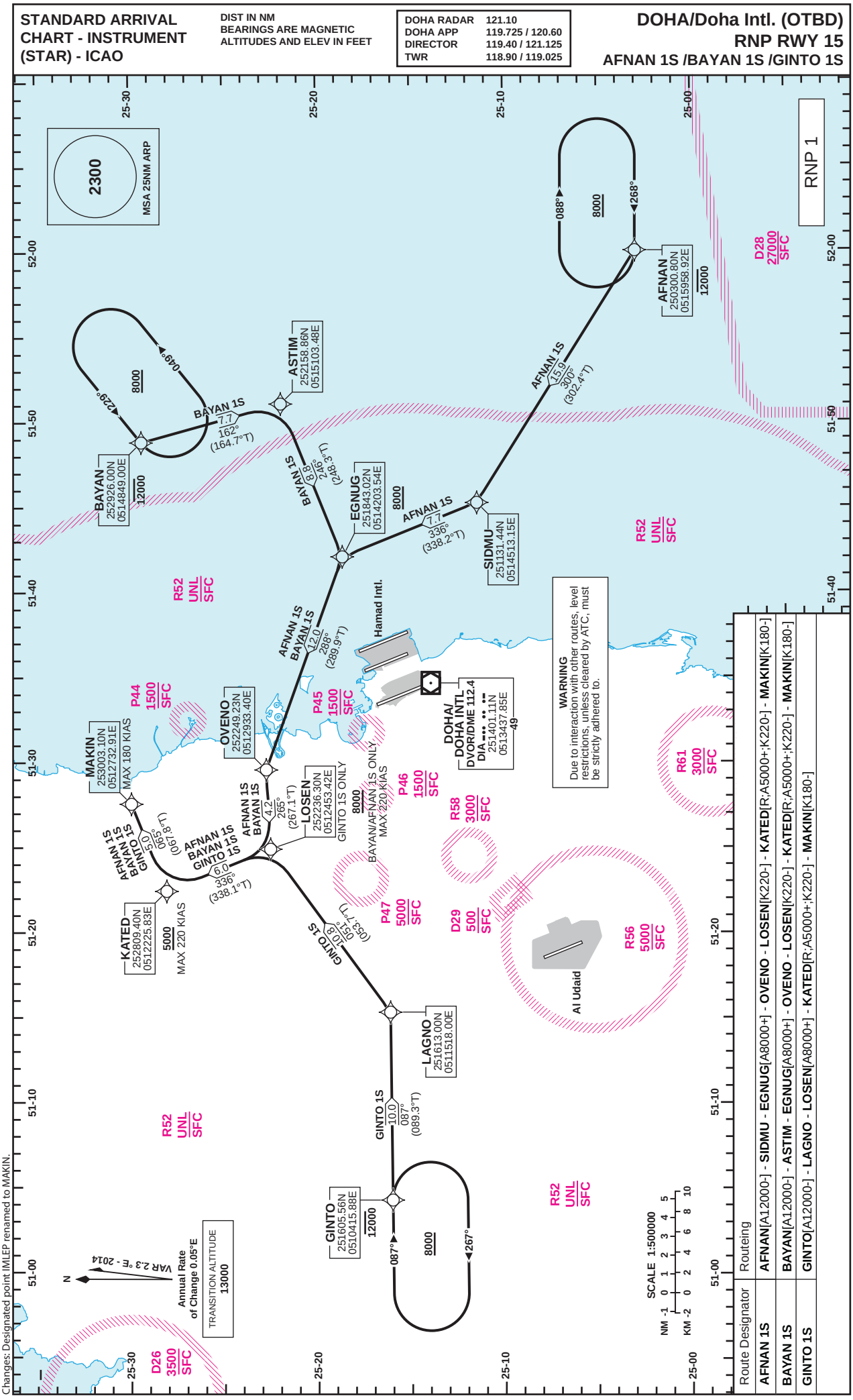

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO
DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET
DOHA RADAR 121.10
DOHA APP 119.725 / 120.60
DIRECTOR 119.40 / 121.125
TWR 118.90 / 119.025
DOHA/Doha Intl. (OTBD)
RNP RWY 15
AFNAN 1S /BAYAN 1S /GINTO 1S
RNP 1
MSA 25NM ARP
2300
BAYAN 252926.00N 0514849.00E 12000
ASTIM 252158.86N 0515103.48E
AFNAN 250300.80N 0515958.92E 12000
EGNUG 251843.02N 0514203.54E 8000
SIDMU 251131.44N 0514513.15E
OVENO 252249.23N 0512933.40E
MAKIN 253003.10N 0512732.91E MAX 180 KIAS
LOSEN 252236.30N 0512453.42E GINTO 1S ONLY 8000
KATED 252809.40N 0512225.83E 5000 MAX 220 KIAS
LAGNO 251613.00N 0511518.00E
GINTO 251605.56N 0510415.88E 12000
DOHA/ DOHA INTL DVOR/DME 112.4 DIA 251401.11N 0513437.85E 49
Hamad Intl.
Al Udaid
BAYAN/AFNAN 1S ONLY MAX 220 KIAS
WARNING
Due to interaction with other routes, level restrictions, unless cleared by ATC, must be strictly adhered to.
R52 UNL SFC
P44 1500 SFC
P45 1500 SFC
P46 1500 SFC
P47 5000 SFC
R58 3000 SFC
D29 500 SFC
R56 5000 SFC
R61 3000 SFC
D28 27000 SFC
D26 3500 SFC
8000
12000
5000
MAX 220 KIAS
TRANSITION ALTITUDE 13000
VAR 2.3°E - 2014
Annual Rate of Change 0.05°E
SCALE 1:500000
Changes: Designated point IMLEP renamed to MAKIN.
Route Designator
Routeing
AFNAN 1S
AFNAN[A12000-] - SIDMU - EGNUG[A8000+] - OVENO - LOSEN[K220-] - KATED[R;A5000+;K220-] - MAKIN[K180-]
BAYAN 1S
BAYAN[A12000-] - ASTIM - EGNUG[A8000+] - OVENO - LOSEN[K220-] - KATED[R;A5000+;K220-] - MAKIN[K180-]
GINTO 1S
GINTO[A12000-] - LAGNO - LOSEN[A8000+] - KATED[R;A5000+;K220-] - MAKIN[K180-]

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

DOHA/Doha Intl.(OTBD)
RNP RWY 15
AFNAN 1S /BAYAN 1S /GINTO 1S

TABULAR DESCRIPTION

RNP STAR AFNAN 1S

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	IF	AFNAN	-	-	2.3	-	-	-12000	-	-	RNP 1
2	TF	SIDMU	-	300 (302.4)	2.3	15.9	-	-	-	-	RNP 1
3	TF	EGNUG	-	336 (338.2)	2.3	7.7	-	+8000	-	-	RNP 1
4	TF	OVENO	-	288 (289.9)	2.3	12.0	-	-	-	-	RNP 1
5	TF	LOSEN	-	265 (267.1)	2.3	4.2	-	-	-220	-	RNP 1
6	TF	KATED	-	336 (338.1)	2.3	6.0	R	+5000	-220	-	RNP 1
7	TF	MAKIN	-	065 (067.8)	2.3	5.0	-	-	-180	-	RNP 1

RNP STAR BAYAN 1S

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	IF	BAYAN	-	-	2.3	-	-	-12000	-	-	RNP 1
2	TF	ASTIM	-	162 (164.7)	2.3	7.7	-	-	-	-	RNP 1
3	TF	EGNUG	-	246 (248.3)	2.3	8.8	-	+8000	-	-	RNP 1
4	TF	OVENO	-	288 (289.9)	2.3	12.0	-	-	-	-	RNP 1
5	TF	LOSEN	-	265 (267.1)	2.3	4.2	-	-	-220	-	RNP 1
6	TF	KATED	-	336 (338.1)	2.3	6.0	R	+5000	-220	-	RNP 1
7	TF	MAKIN	-	065 (067.8)	2.3	5.0	-	-	-180	-	RNP 1

RNP STAR GINTO 1S

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	IF	GINTO	-	-	2.3	-	-	-12000	-	-	RNP 1
2	TF	LAGNO	-	087 (089.3)	2.3	10.0	-	-	-	-	RNP 1
3	TF	LOSEN	-	051 (053.7)	2.3	10.8	-	+8000	-	-	RNP 1
4	TF	KATED	-	336 (338.1)	2.3	6.0	R	+5000	-220	-	RNP 1
5	TF	MAKIN	-	065 (067.8)	2.3	5.0	-	-	-180	-	RNP 1

WAYPOINT LIST

RNP STAR AFNAN 1S/BAYAN 1S/GINTO 1S

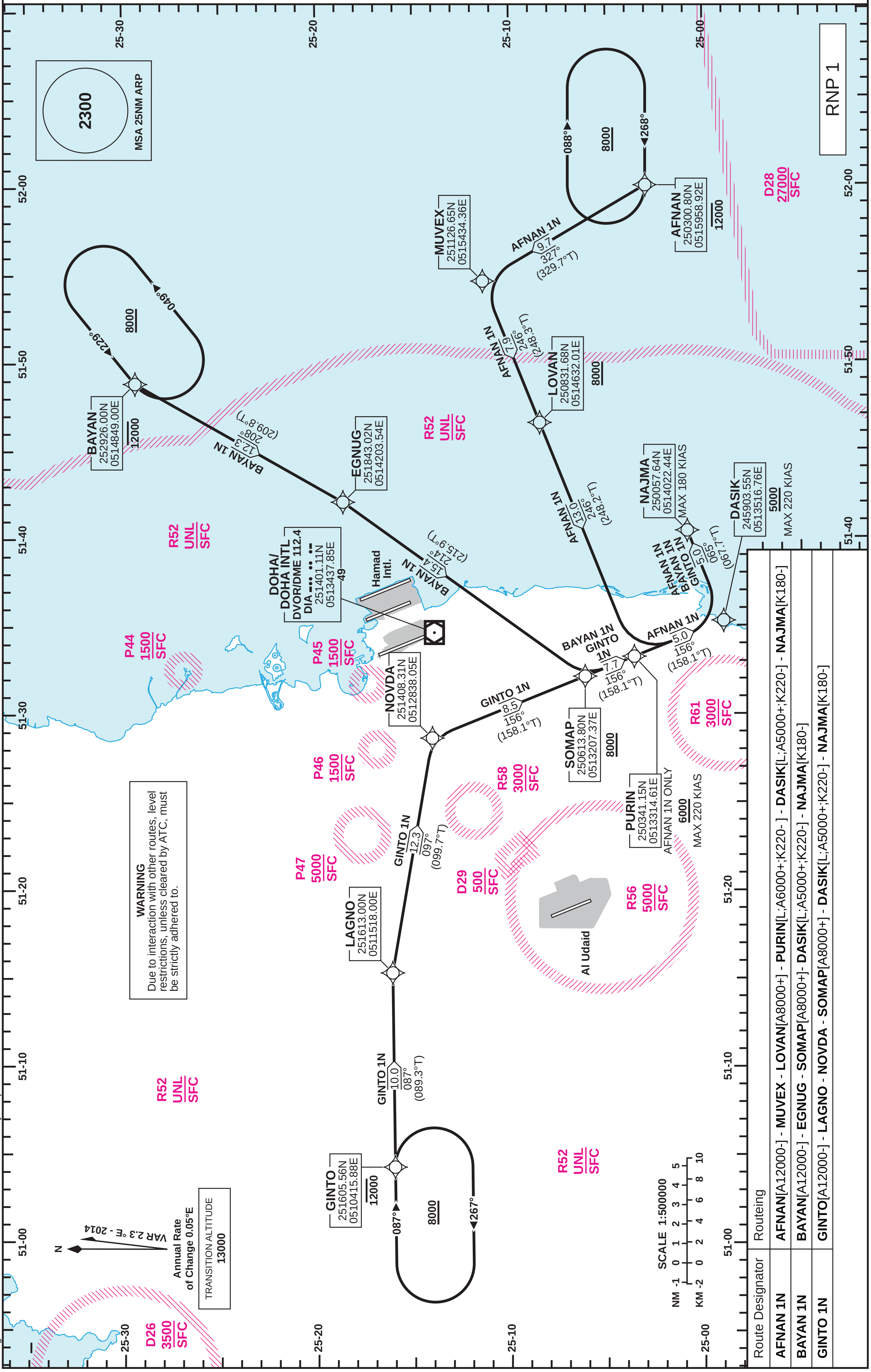
Waypoint Identifier	Coordinates
AFNAN	250300.80N 0515958.92E
SIDMU	251131.44N 0514513.15E
BAYAN	252926.00N 0514849.00E
ASTIM	252158.86N 0515103.48E
EGNUG	251843.02N 0514203.54E
OVENO	252249.23N 0512933.40E
GINTO	251605.56N 0510415.88E
LAGNO	251613.00N 0511518.00E
LOSEN	252236.30N 0512453.42E
KATED	252809.40N 0512225.83E
MAKIN	253003.10N 0512732.91E

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA RADAR	121.10
DOHA APP	119.725 / 120.60
DIRECTOR	119.40 / 121.125
TWR	118.90 / 119.025

DOHA/Doha Intl. (OTBD)
RNP RWY 33
AFNAN 1N /BAYAN 1N /GINTO 1N



Route Designator	Routeing
AFNAN 1N	AFNAN[A12000-] - MUVEX - LOVAN[A8000+] - PURIN[L;A6000+;K220-] - DASIK[L;A5000+;K220-] - NAJMA[K180-]
BAYAN 1N	BAYAN[A12000-] - EGNUG - SOMAP[A8000+]- DASIK[L;A5000+;K220-] - NAJMA[K180-]
GINTO 1N	GINTO[A12000-] - LAGNO - NOVDA - SOMAP[A8000+] - DASIK[L;A5000+;K220-] - NAJMA[K180-]

STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

DOHA/Doha Intl.(OTBD)
RNP RWY 33
AFNAN 1N /BAYAN 1N /GINTO 1N

TABULAR DESCRIPTION

RNP STAR AFNAN 1N

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	IF	AFNAN	-	-	2.3	-	-	-12000	-	-	RNP 1
2	TF	MUVEX	-	327 (329.7)	2.3	9.7	-	-	-	-	RNP 1
3	TF	LOVAN	-	246 (248.3)	2.3	7.9	-	+8000	-	-	RNP 1
4	TF	PURIN	-	246 (248.2)	2.3	13.0	L	+6000	-220	-	RNP 1
5	TF	DASIK	-	156 (158.1)	2.3	5.0	L	+5000	-220	-	RNP 1
6	TF	NAJMA	-	065 (067.7)	2.3	5.0	-	-	-180	-	RNP 1

RNP STAR BAYAN 1N

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	IF	BAYAN	-	-	2.3	-	-	-12000	-	-	RNP 1
2	TF	EGNUG	-	208 (209.8)	2.3	12.3	-	-	-	-	RNP 1
3	TF	SOMAP	-	214 (215.9)	2.3	15.4	-	+8000	-	-	RNP 1
4	TF	DASIK	-	156 (158.1)	2.3	7.7	L	+5000	-220	-	RNP 1
5	TF	NAJMA	-	065 (067.7)	2.3	5.0	-	-	-180	-	RNP 1

RNP STAR GINTO 1N

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	IF	GINTO	-	-	2.3	-	-	-12000	-	-	RNP 1
2	TF	LAGNO	-	087 (089.3)	2.3	10.0	-	-	-	-	RNP 1
3	TF	NOVDA	-	097 (099.7)	2.3	12.3	-	-	-	-	RNP 1
4	TF	SOMAP	-	156 (158.1)	2.3	8.5	-	+8000	-	-	RNP 1
5	TF	DASIK	-	156 (158.1)	2.3	7.7	L	+5000	-220	-	RNP 1
6	TF	NAJMA	-	065 (067.7)	2.3	5.0	-	-	-180	-	RNP 1

WAYPOINT LIST

RNP STAR AFNAN 1N/BAYAN 1N/GINTO 1N

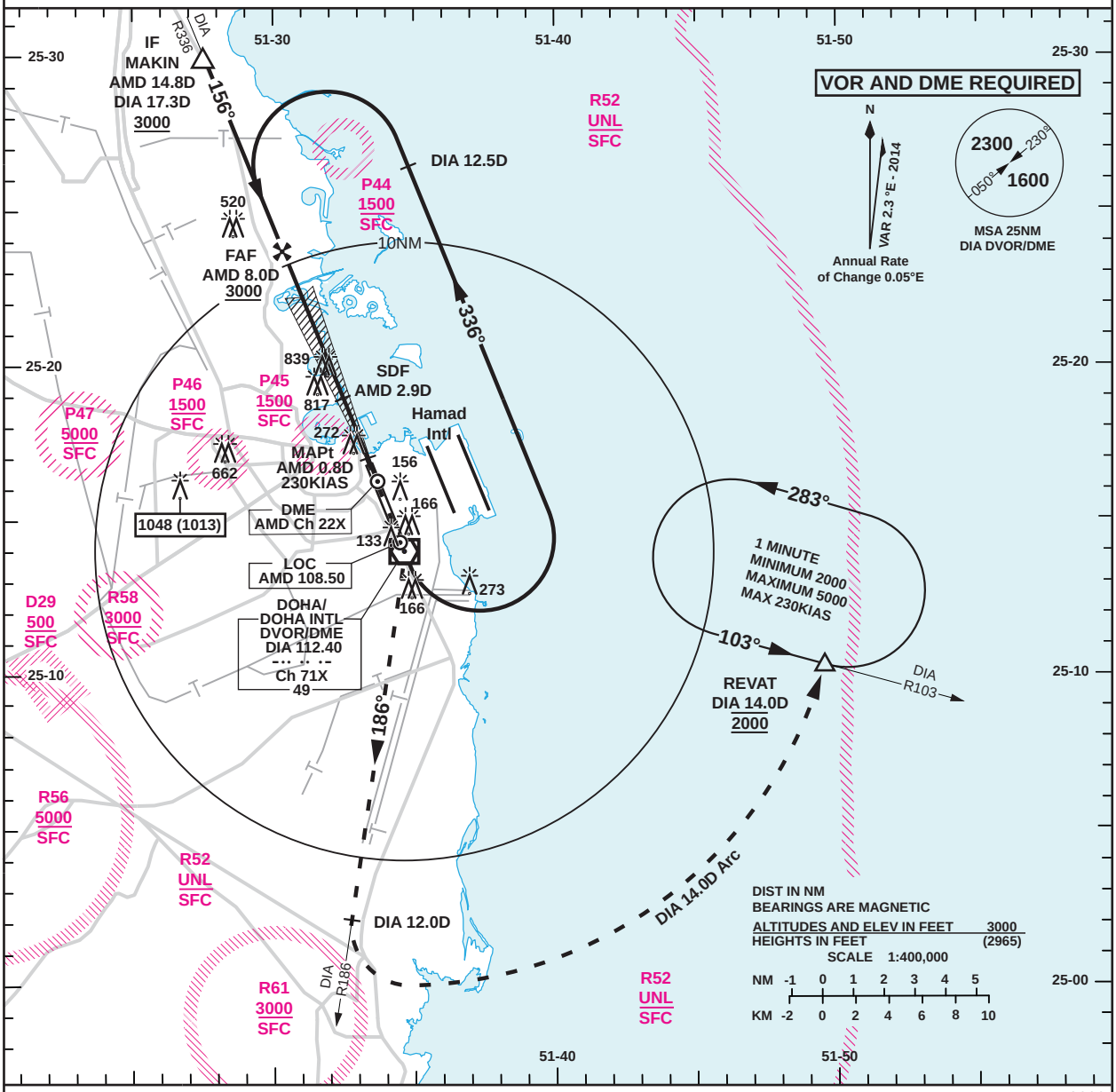
Waypoint Identifier	Coordinates
AFNAN	250300.80N 0515958.92E
MUVEX	251126.65N 0515434.36E
LOVAN	250831.68N 0514632.01E
PURIN	250341.15N 0513314.61E
BAYAN	252926.00N 0514849.00E
EGNUG	251843.02N 0514203.54E
GINTO	251605.56N 0510415.88E
LAGNO	251613.00N 0511518.00E
NOVDA	251408.31N 0512838.05E
SOMAP	250613.80N 0513207.37E
DASIK	245903.55N 0513516.76E
NAJMA	250057.64N 0514022.44E

INSTRUMENT APPROACH CHART - ICAO

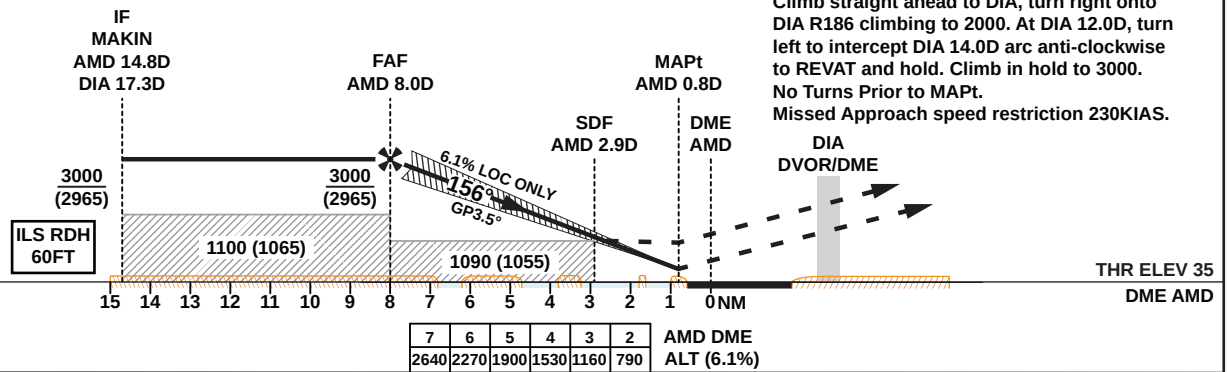
AD ELEV 37
HEIGHTS RELATED TO THR RWY 15 - ELEV 35

DOHA RADAR	121.10
DOHA APP	119.725 / 120.60
DIRECTOR	119.40 / 121.125
TWR	118.90 / 119.025

DOHA/Doha Intl. (OTBD)
ILS RWY 15
ALL ACFT CATEGORIES



TA 13000



Missed Approach
Climb straight ahead to DIA, turn right onto DIA R186 climbing to 2000. At DIA 12.0D, turn left to intercept DIA 14.0D arc anti-clockwise to REVAT and hold. Climb in hold to 3000.
No Turns Prior to MAPt.
Missed Approach speed restriction 230KIAS.

OCA (OCH)		A	B	C	D	E
Straight in Approach	ILS	245 (210)	254 (219)	263 (228)	272 (237)	322 (287)
	LOC ONLY	520 (485)				
Circling		620 (583)	850 (813)	1240 (1203)		1550 (1513)

1. AMD DME Zero Ranged to TDZ.
2. Hold at REVAT protected for Sector 3 Entry only.
3. Racetrack to be used only in case of communication failure.
4. Aircraft to commence Initial Racetrack at 3000 (2965).

LOC ONLY Approach: MAPt at AMD 0.8D

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
RATE OF DESCENT	FT/MIN	490	610	740	860	990	1110

Changes: Designated point IMLEP renamed to MAKIN.

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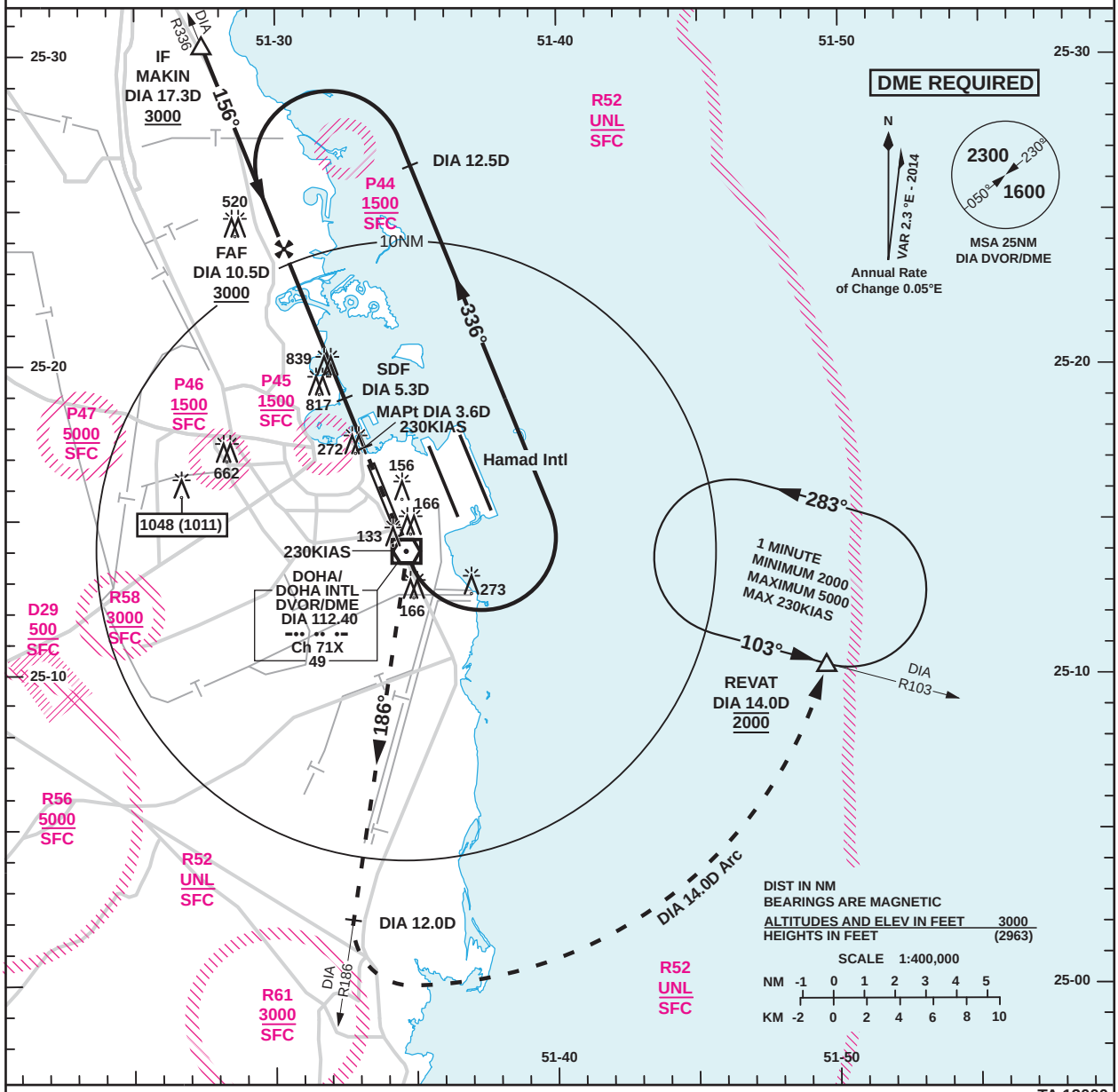
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 37
HEIGHTS RELATED TO AD ELEV

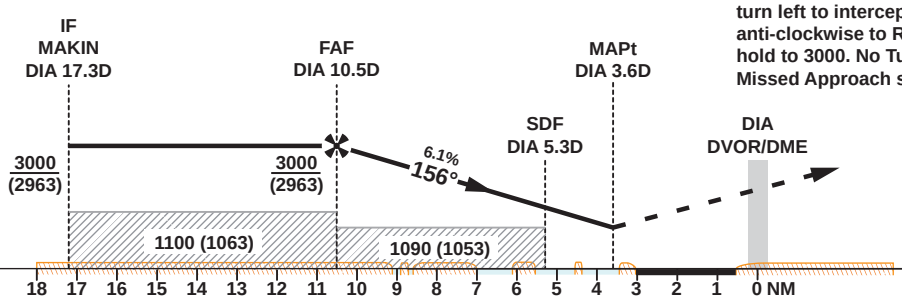
DOHA RADAR	121.10
DOHA APP	119.725 / 120.60
DIRECTOR	119.40 / 121.125
TWR	118.90 / 119.025

DOHA/Doha Intl.(OTBD)
VOR RWY 15
ALL ACFT CATEGORIES



TA 13000

Missed Approach
Climb straight ahead to DIA, turn right onto R186 climbing to 2000. At DIA 12.0D, turn left to intercept DIA 14.0D arc anti-clockwise to REVAT and hold. Climb in hold to 3000. No Turns Prior to MAPt. Missed Approach speed restriction 230KIAS.



10	9	8	7	6	5	4	DME
2840	2470	2100	1730	1350	980	610	ALT (6.1%)

OCA (OCH)		A	B	C	D	E
Straight in Approach	DVOR/DME	540 (503)				
Circling		620 (583)	850 (813)	1240 (1203)		1550 (1513)

1. Hold at REVAT protected for Sector 3 Entry only.
2. Racetrack to be used only in case of communications failure.
3. Aircraft to commence Initial Racetrack at 3000 (2963).

VOR Approach: MAPt at DIA 3.6D

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
RATE OF DESCENT	FT/MIN	490	610	740	860	990	1110

Changes: Designated point IMLEP renamed to MAKIN.

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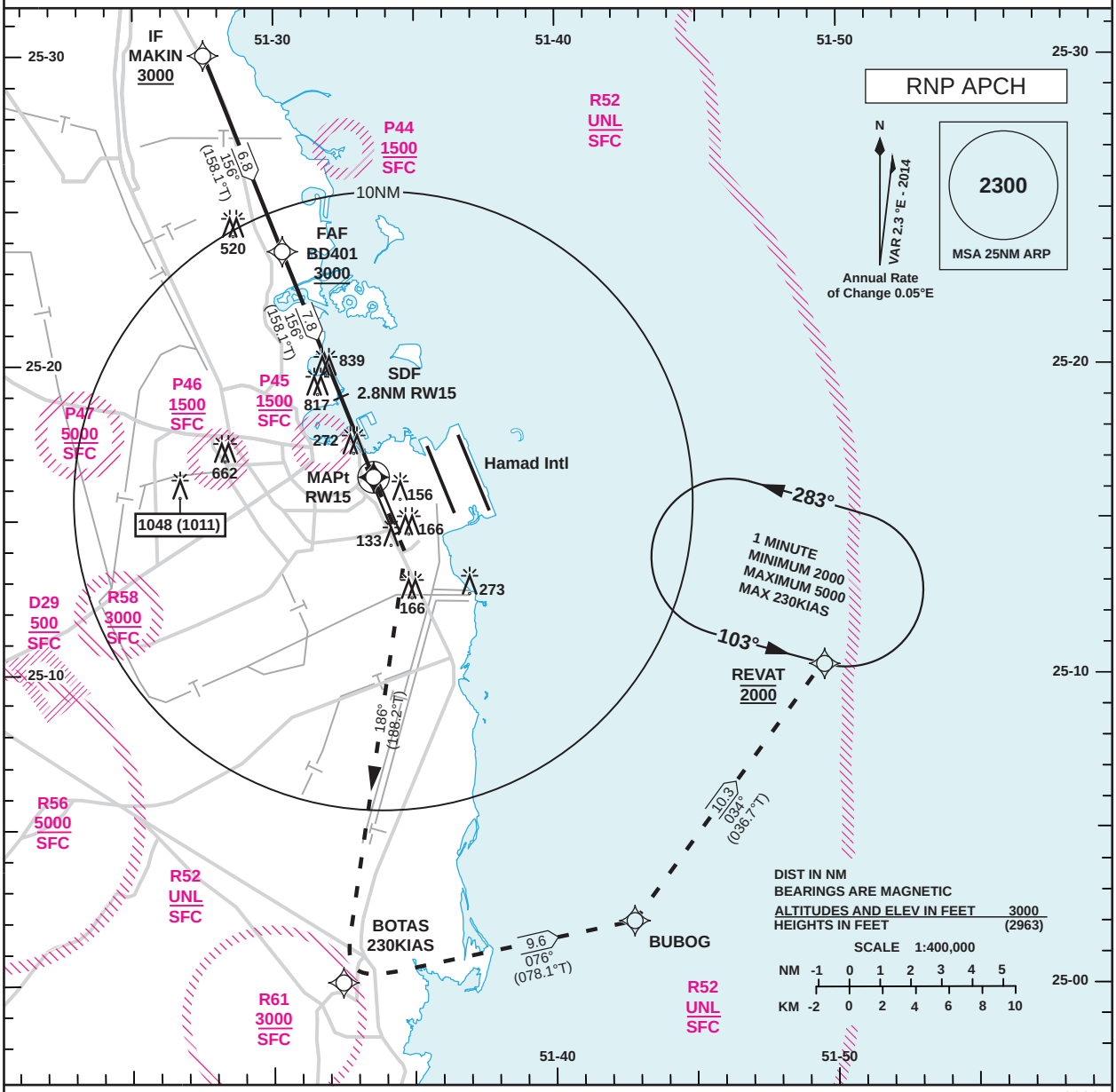
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 37
HEIGHTS RELATED TO AD ELEV

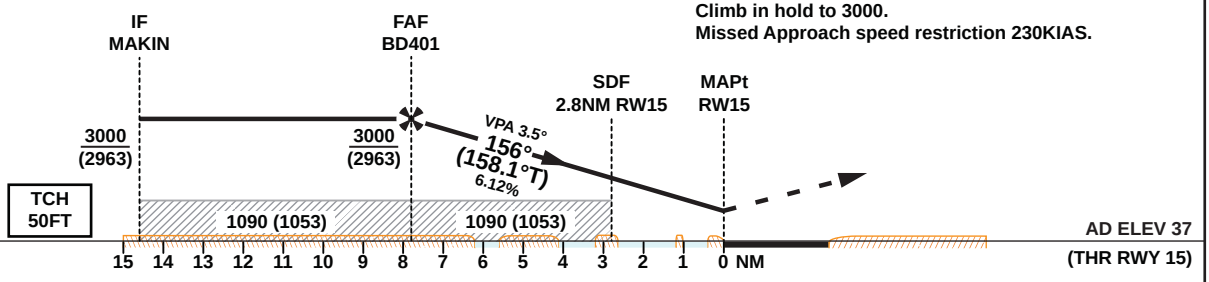
DOHA RADAR	121.10
DOHA APP	119.725 / 120.60
DIRECTOR	119.40 / 121.125
TWR	118.90 / 119.025

DOHA/Doha Intl. (OTBD)
RNP RWY 15 (LNAV only)
ALL ACFT CATEGORIES



TA 13000

Missed Approach
Climb straight ahead, then turn right to intercept course 186° (188.2°T) to BOTAS. At BOTAS turn left to BUBOG, then left to REVAT and hold. Climb and maintain 2000.
Climb in hold to 3000.
Missed Approach speed restriction 230KIAS.



7	6	5	4	3	2	Distance from MAPt
2690	2320	1950	1580	1200	830	ALT (3.5°VPA)

OCA (OCH)		A	B	C	D	E
Straight in Approach	LNAV	520 (483)				
Circling		620 (583)	850 (813)	1240 (1203)		1550 (1513)

1. Hold at REVAT protected for Sector 3 Entry only.

Approach: MAPt at RW15

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
RATE OF DESCENT	FT/MIN	490	610	740	860	990	1110

Changes: Designated point IMLEP renamed to MAKIN.

INSTRUMENT APPROACH CHART-ICAO

AD ELEV 37
HEIGHTS RELATED TO AD ELEV

DOHA/Doha Intl.(OTBD)
RNP RWY 15 (LNAV only)
ALL ACFT CATEGORIES

TABULAR DESCRIPTION

RNP RWY 15 (LNAV Only)

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	IF	**MAKIN**	**-**	-	2.3	-	**-**	+3000	**-**	**-**	RNP APCH
2	TF	**BD401**	**-**	156 (158.1)	2.3	6.8	-	+3000	**-**	**-**	RNP APCH
3	TF	**RW15**	Y	156 (158.1)	2.3	7.8	-	-	**-**	-3.5/50	RNP APCH
4	CF	**BOTAS**	-	186 (188.2)	2.3	-	L	-	-230	**-**	RNP APCH
5	TF	**BUBOG**	-	076 (078.1)	2.3	9.6	-	-	-230	**-**	RNP APCH
6	TF	**REVAT**	-	034 (036.7)	2.3	10.3	-	@2000	-230	**-**	RNP APCH
7	HM	**REVAT**	Y	103 (105.2)	2.3	4.3	L	@3000	-230	**-**	RNP APCH

WAYPOINT LIST

RNP RWY 15 (LNAV Only)

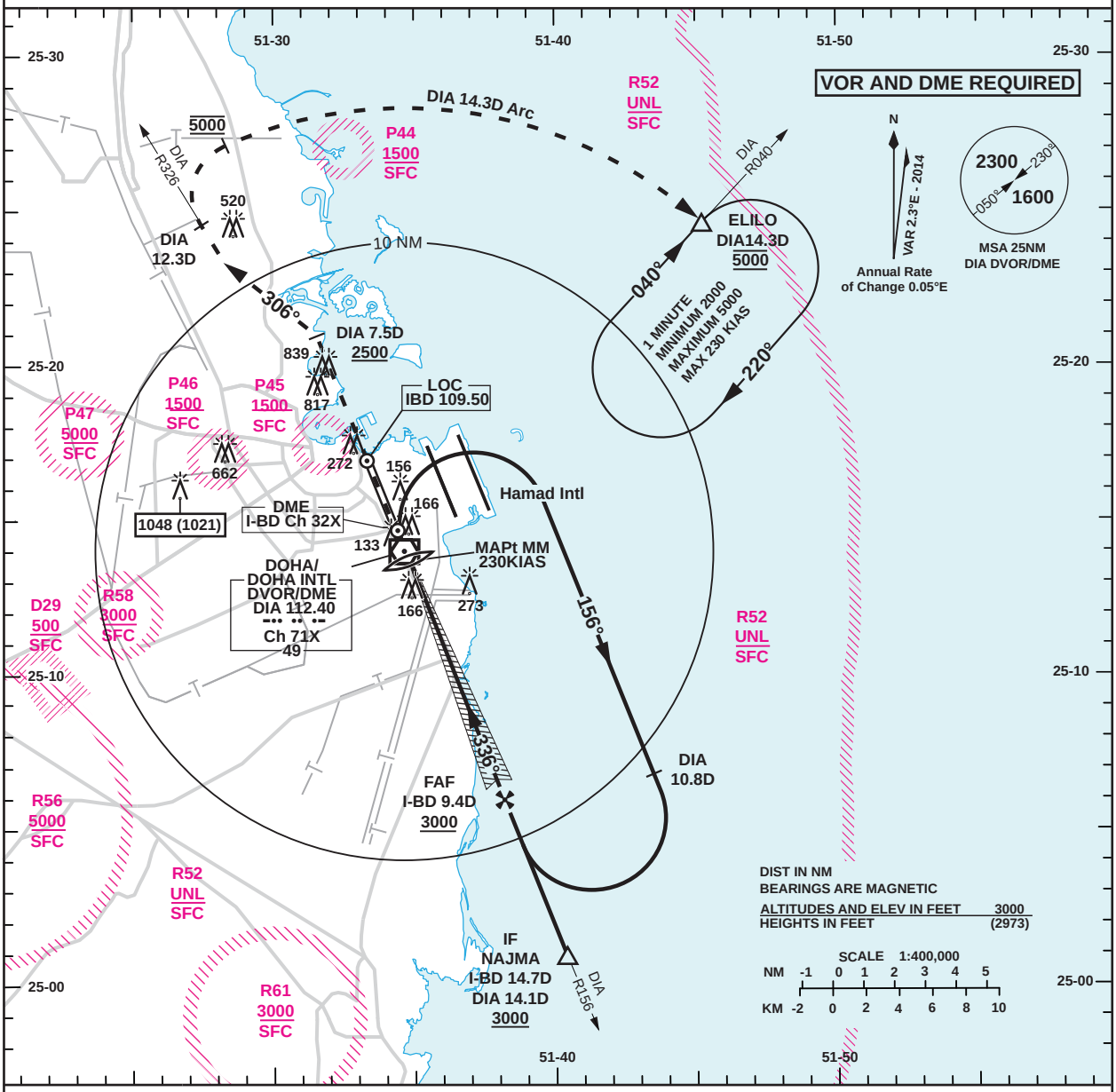
Waypoint Identifier	Coordinates
MAKIN	253003.10N 0512732.91E
BD401	252344.28N 0513020.49E
RW15	251626.13N 0513333.92E
BOTAS	250006.66N 0513226.55E
BUBOG	250204.78N 0514245.93E
REVAT	251020.75N 0514932.10E

INSTRUMENT APPROACH CHART - ICAO

AD ELEV 37
HEIGHTS RELATED TO THR RWY 33 - ELEV 27

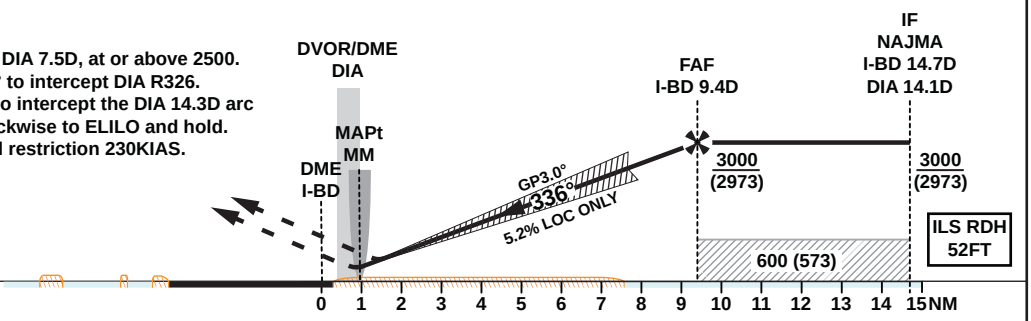
DOHA RADAR	121.10
DOHA APP	119.725 / 120.60
DIRECTOR	119.40 / 121.125
TWR	118.90 / 119.025

DOHA/Doha Intl. (OTBD)
ILS RWY 33
ALL ACFT CATEGORIES



TA 13000

Missed Approach
Climb straight ahead to DIA 7.5D, at or above 2500.
Turn left onto track 306° to intercept DIA R326.
At DIA 12.3D turn right to intercept the DIA 14.3D arc at 5000, proceeding clockwise to ELILO and hold.
Missed Approach speed restriction 230KIAS.



DME	1	2	3	4	5	6	7	8	9
ALT (5.2%)	350	670	990	1310	1620	1940	2260	2580	2900

OCA (OCH)		A	B	C	D	E
Straight in Approach	ILS CAT I	233 (206)	243 (216)	255 (228)	266 (239)	314 (287)
	ILS CAT II	147 (120)	160 (133)	171 (144)	185 (158)	245 (218)
	LOC ONLY	420 (393)				
Circling		620 (583)	850 (813)	1240 (1203)		1550 (1513)

DA (DH)	A	B	C	D	E
ILS CAT II ALS OUT	147 (120) RVR 300m	160 (133) RVR 400m	171 (144) RVR 450m	185 (158) RVR 450m	245 (218) RVR 450m
ILS CAT IIIA	77 (50) / RVR 200m				
ILS CAT IIIB	RVR 50m				

1. I-BD DME Zero Ranged to TDZ.
2. Hold at ELILO protected for Sector 3 Entry only.
3. Racetrack to be used only in case of communications failure.
4. Aircraft to commence Initial Racetrack at 3000 (2973).

LOC ONLY APPROACH : MAPt at MM

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
RATE OF DESCENT	FT/MIN	420	530	630	740	840	950

Changes: Updated MSA, dominating obstacle height and Circling Minimas.

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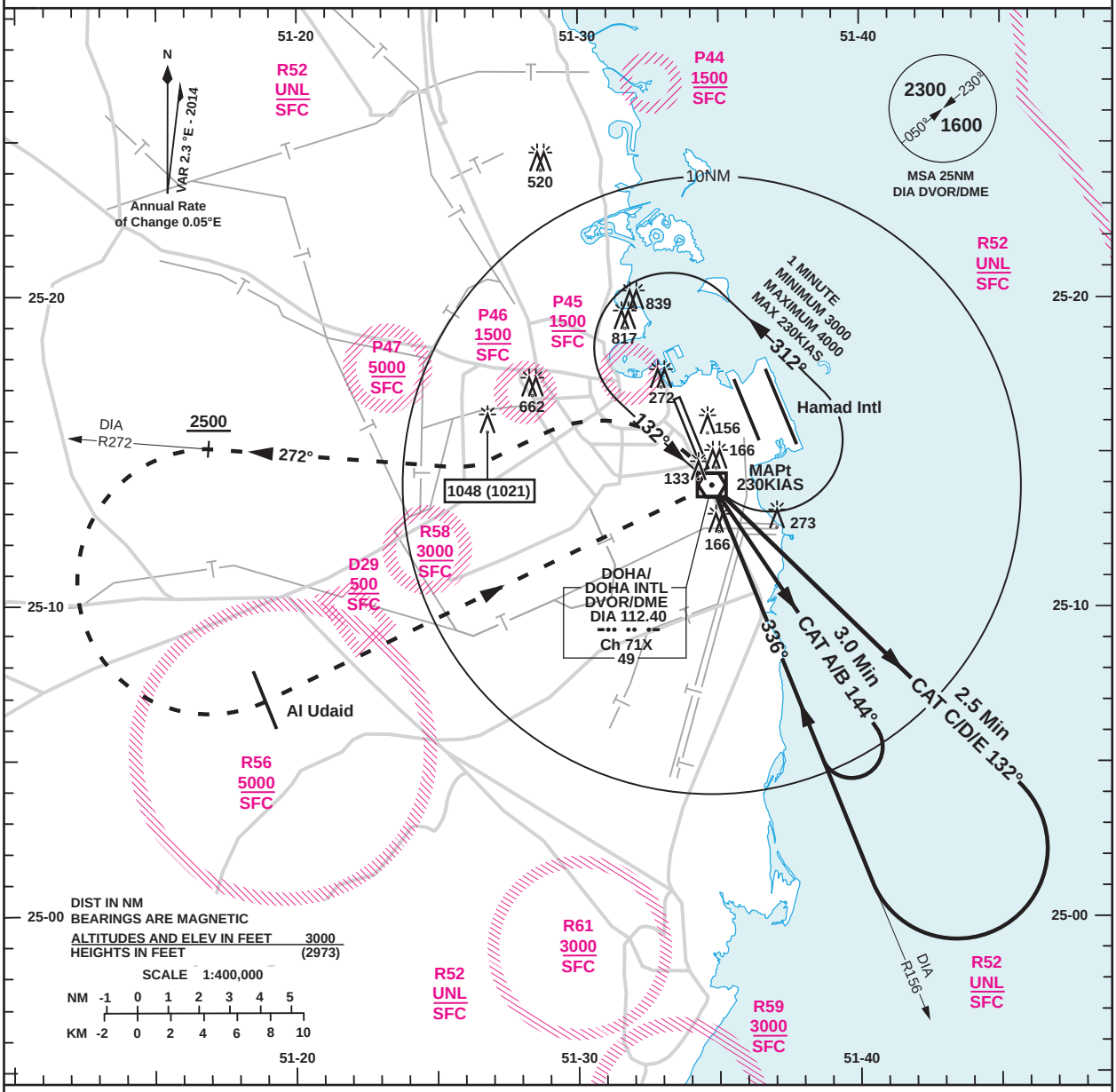
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 37
HEIGHTS RELATED TO THR RWY 33 - ELEV 27

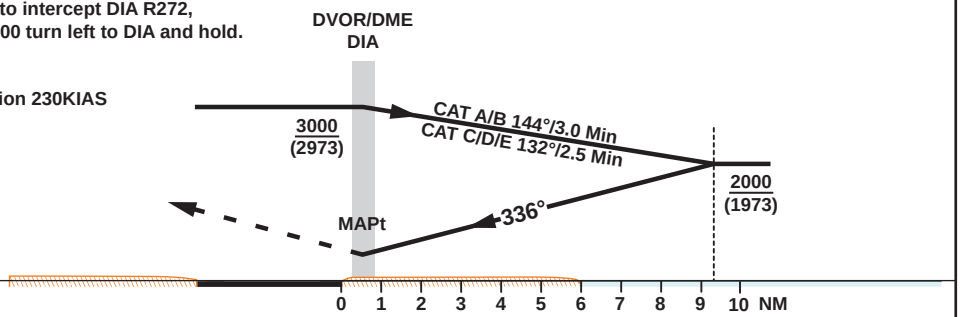
DOHA RADAR	121.10
DOHA APP	119.725 / 120.60
DIRECTOR	119.40 / 121.125
TWR	118.90 / 119.025

DOHA/Doha Intl. (OTBD)
VOR y RWY 33
ALL ACFT CATEGORIES



TA 13000

Missed Approach.
Turn left as soon as practicable to intercept DIA R272, climbing to 2500. On passing 2500 turn left to DIA and hold.
Climb and maintain 3000.
No turns prior to the MAPt.
Missed Approach speed restriction 230KIAS



OCA (OCH)		A	B	C	D	E
Straight in Approach	VOR	470 (443)				
Circling		620 (583)	850 (813)	1240 (1203)		1550 (1513)

VOR APPROACH: MAPt at DIA

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC						
Rate of descent	FT/MIN						

Changes: Updated MSA, dominating obstacle height and Circling Minimas.

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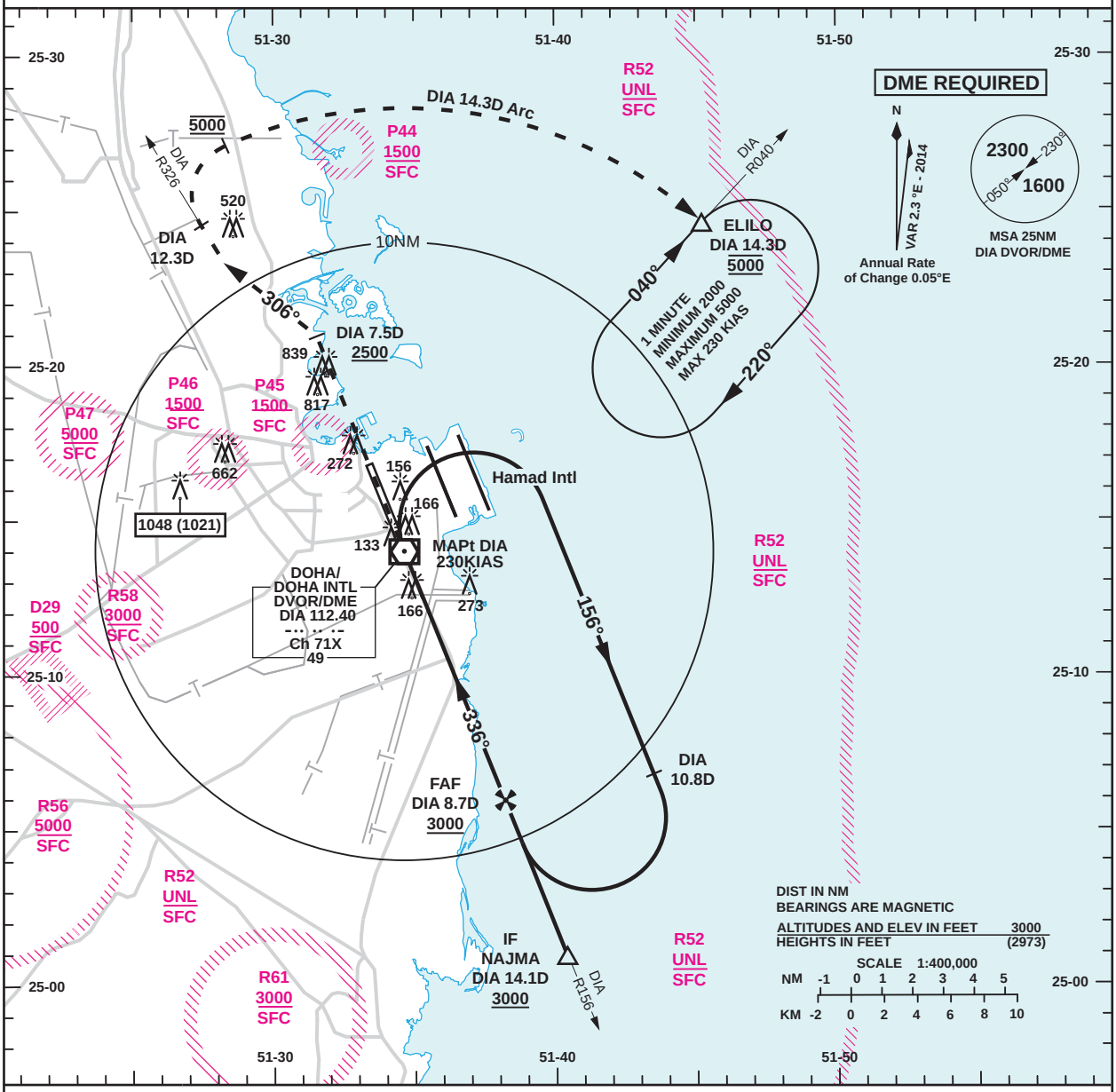
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 37
HEIGHTS RELATED TO THR RWY 33 - ELEV 27

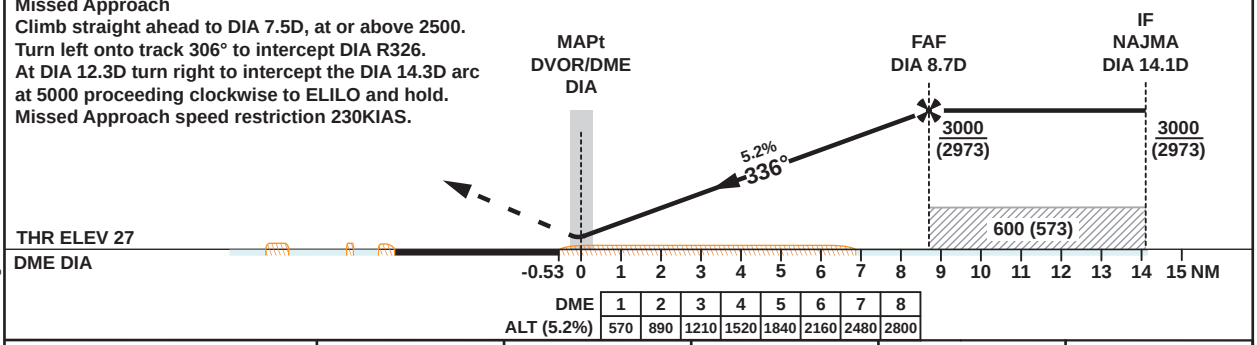
DOHA RADAR	121.10
DOHA APP	119.725 / 120.60
DIRECTOR	119.40 / 121.125
TWR	118.90 / 119.025

DOHA/Doha Intl. (OTBD)
VOR z RWY 33
ALL ACFT CATEGORIES



TA 13000

Missed Approach
Climb straight ahead to DIA 7.5D, at or above 2500.
Turn left onto track 306° to intercept DIA R326.
At DIA 12.3D turn right to intercept the DIA 14.3D arc at 5000 proceeding clockwise to ELILO and hold.
Missed Approach speed restriction 230KIAS.



DME	1	2	3	4	5	6	7	8
ALT (5.2%)	570	890	1210	1520	1840	2160	2480	2800

OCA (OCH)		A	B	C	D	E
Straight in Approach	DVOR/DME	420 (393)				
Circling		620 (583)	850 (813)	1240 (1203)		1550 (1513)

1. Hold at ELILO protected for Sector 3 Entry only.
2. Racetrack to be used only in case of communications failure.
3. Aircraft to commence Initial Racetrack at 3000 (2973).

VOR APPROACH: MAPt at DIA

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
RATE OF DESCENT	FT/MIN	420	530	630	740	840	950

Changes: Updated MSA, dominating obstacle height and Circling Minimas.

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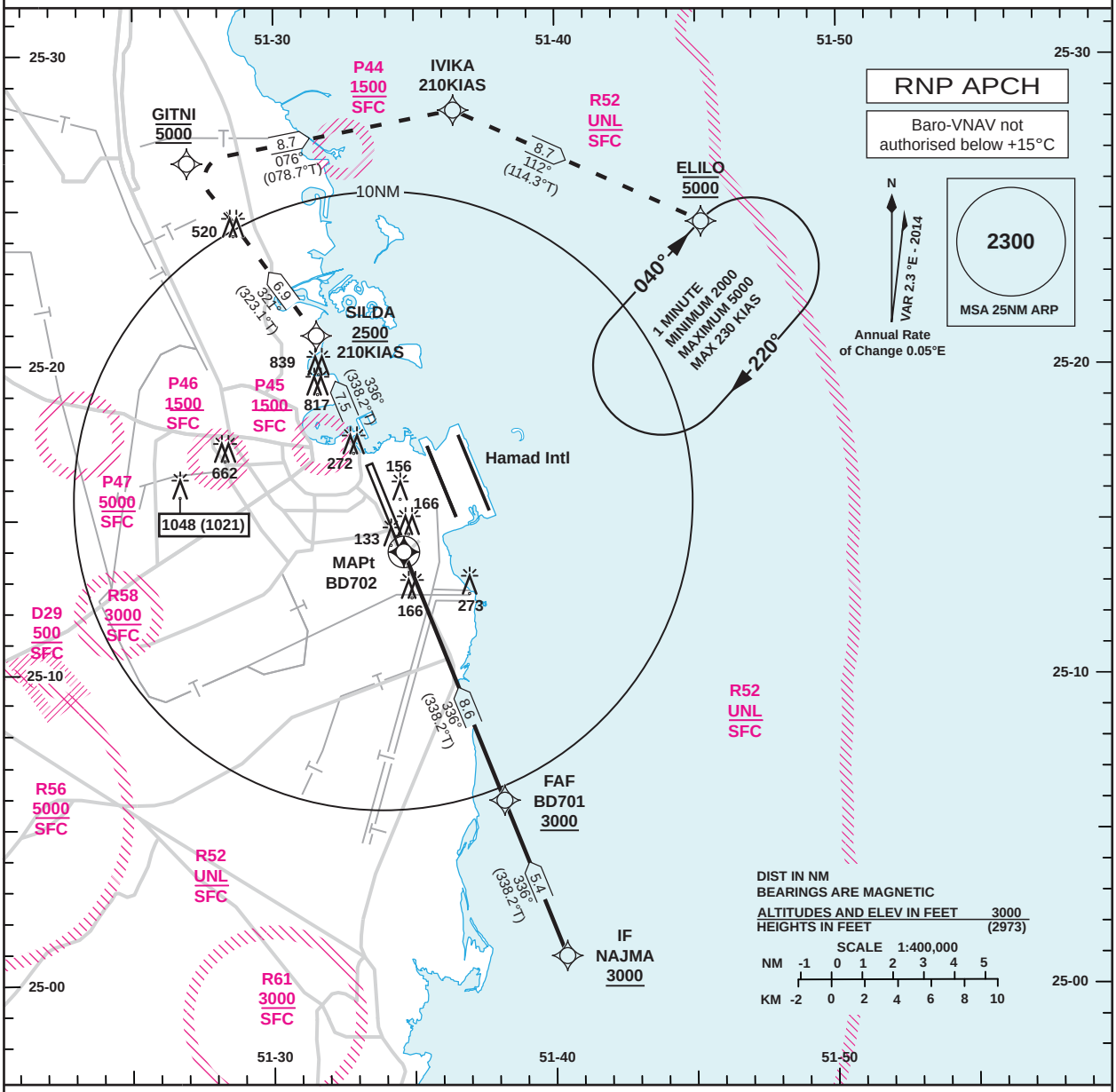
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 37
HEIGHTS RELATED TO THR RWY 33 - ELEV 27

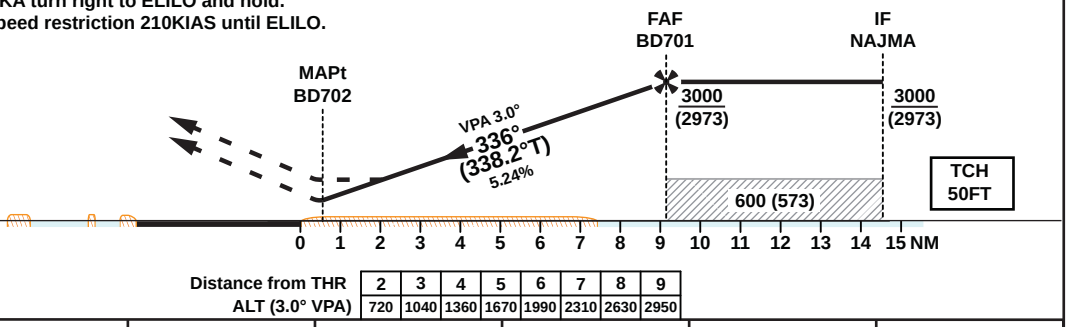
DOHA RADAR	121.10
DOHA APP	119.725 / 120.60
DIRECTOR	119.40 / 121.125
TWR	118.90 / 119.025

DOHA/Doha Intl. (OTBD)
RNP RWY 33
ALL ACFT CATEGORIES



TA 13000

Missed Approach
Climb straight ahead to SILDA, at or above 2500.
At SILDA turn left to GITNI, at 5000. At GITNI turn right to IVIKA, at IVIKA turn right to ELILO and hold.
Missed Approach speed restriction 210KIAS until ELILO.



Distance from THR	2	3	4	5	6	7	8	9
ALT (3.0° VPA)	720	1040	1360	1670	1990	2310	2630	2950

OCA (OCH)		A	B	C	D	E
Straight in Approach	LNAV/VNAV	390 (363)				
	LNAV	420 (393)				
Circling		620 (583)	850 (813)	1240 (1203)		1550 (1513)

1. Hold at ELILO protected for Sector 3 Entry only.
2. 5.8% CG required to SILDA.

Approach: MAPt at BD702

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
Rate of descent	FT/MIN	420	530	630	740	840	950

Changes: Updated dominating obstacle height and Circling Minimas.

INSTRUMENT APPROACH CHART-ICAO

AD ELEV 37
HEIGHTS RELATED TO THR RWY 33 - ELEV 27

DOHA/Doha Intl.(OTBD)
RNP RWY 33
ALL ACFT CATEGORIES

TABULAR DESCRIPTION

RNP RWY 33

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	IF	**NAJMA**	**-**	-	2.3	-	**-**	+3000	**-**	**-**	RNP APCH
2	TF	**BD701**	**-**	336 (338.2)	2.3	5.4	-	+3000	**-**	**-**	RNP APCH
3	TF	**BD702**	Y	336 (338.2)	2.3	8.6	-	-	**-**	-3.0/50	RNP APCH
4	CF	**SILDA**	-	336 (338.2)	2.3	-	**-**	+2500	-210	**-**	RNP APCH
5	TF	**GITNI**	-	321 (323.1)	2.3	6.9	R	@5000	-210	**-**	RNP APCH
6	TF	**IVIKA**	-	076 (078.7)	2.3	8.7	-	-	-210	**-**	RNP APCH
7	TF	**ELILO**	-	112 (114.3)	2.3	8.7	-	@5000	-230	**-**	RNP APCH
8	HM	**ELILO**	Y	040 (042.2)	2.3	4.3	R	@5000	-230	**-**	RNP APCH

WAYPOINT LIST

RNP RWY 33

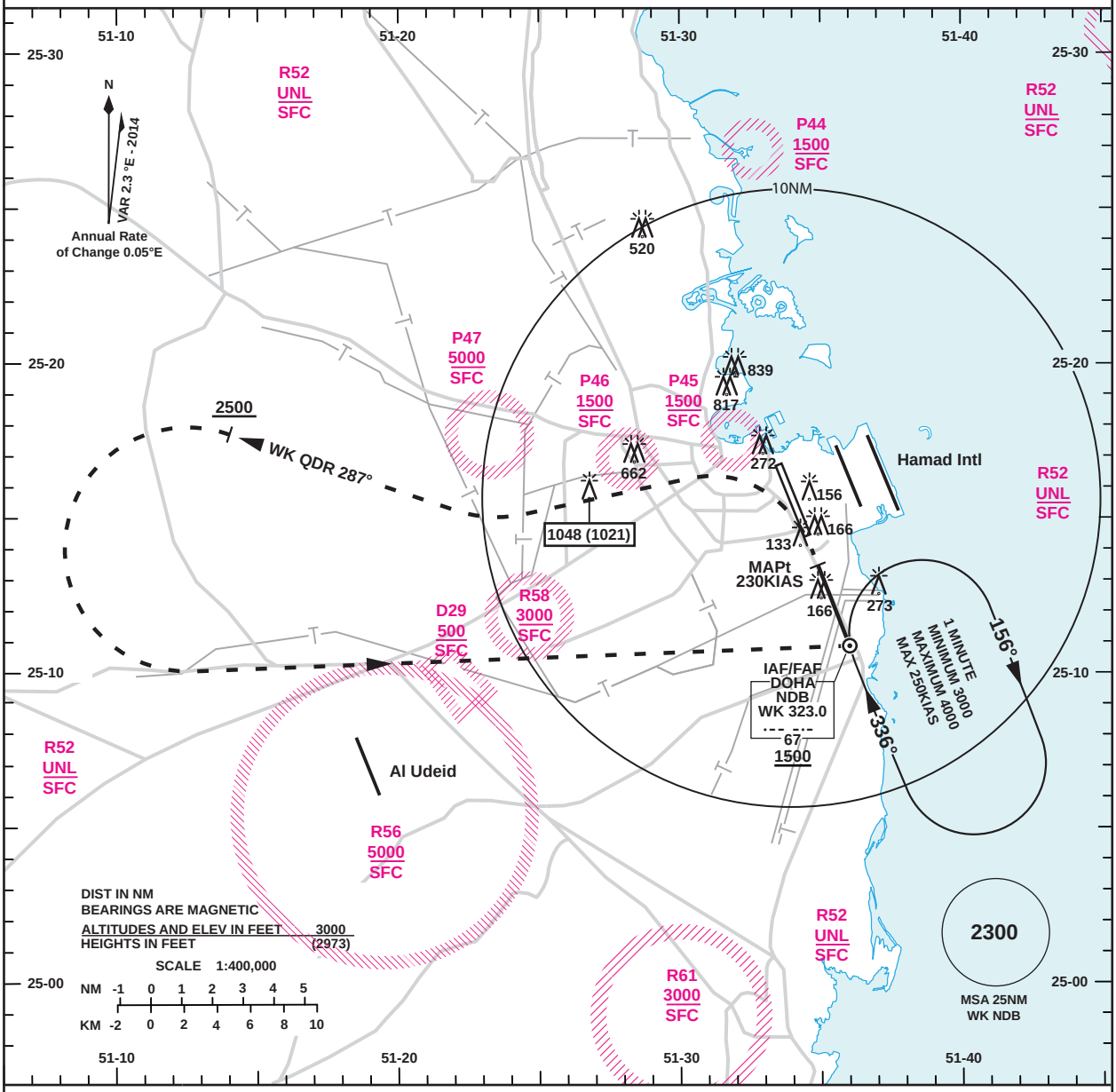
Waypoint Identifier	Coordinates
NAJMA	250057.64N 0514022.44E
BD701	250558.04N 0513810.48E
BD702	251401.07N 0513437.82E
SILDA	252100.22N 0513132.97E
GITNI	252633.64N 0512657.57E
IVIKA	252816.47N 0513625.72E
ELILO	252439.52N 0514513.38E

INSTRUMENT APPROACH CHART - ICAO

AD ELEV 37
HEIGHTS RELATED TO THR RWY 33 - ELEV 27

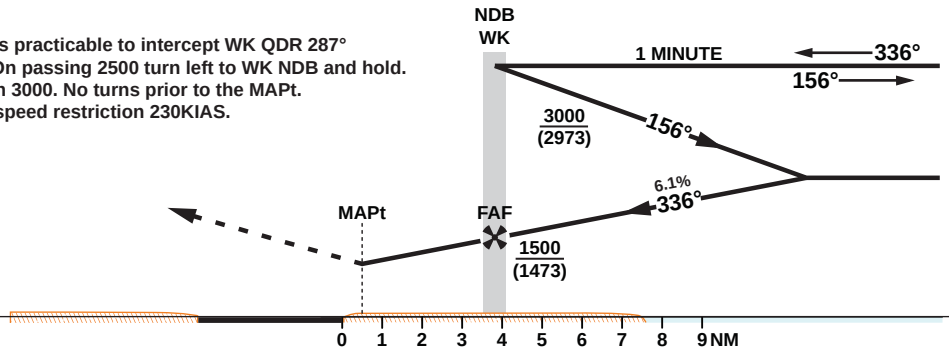
DOHA RADAR	121.10
DOHA APP	119.725 / 120.60
DIRECTOR	119.40 / 121.125
TWR	118.90 / 119.025

DOHA/Doha Intl.(OTBD)
NDB RWY 33
ALL ACFT CATEGORIES



TA 13000

Missed Approach
Turn left as soon as practicable to intercept WK QDR 287° climbing to 2500. On passing 2500 turn left to WK NDB and hold. Climb and maintain 3000. No turns prior to the MAPt.
Missed Approach speed restriction 230KIAS.



OCA (OCH)		A	B	C	D	E
Straight in Approach	NDB 2.5%MA CG	550 (523)				
	NDB 4.0%MA CG	420 (393)				
Circling		620 (583)	850 (813)	1240 (1203)		1550 (1513)

Approach: MAPt at 3.4NM from WK NDB (Distance FAF-MAPt)

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	2:33	2:02	1:42	1:27	1:17	1:08
RATE OF DESCENT	FT/MIN	490	610	740	860	990	1110

Changes: Updated dominating obstacle height and Circling Minimas.

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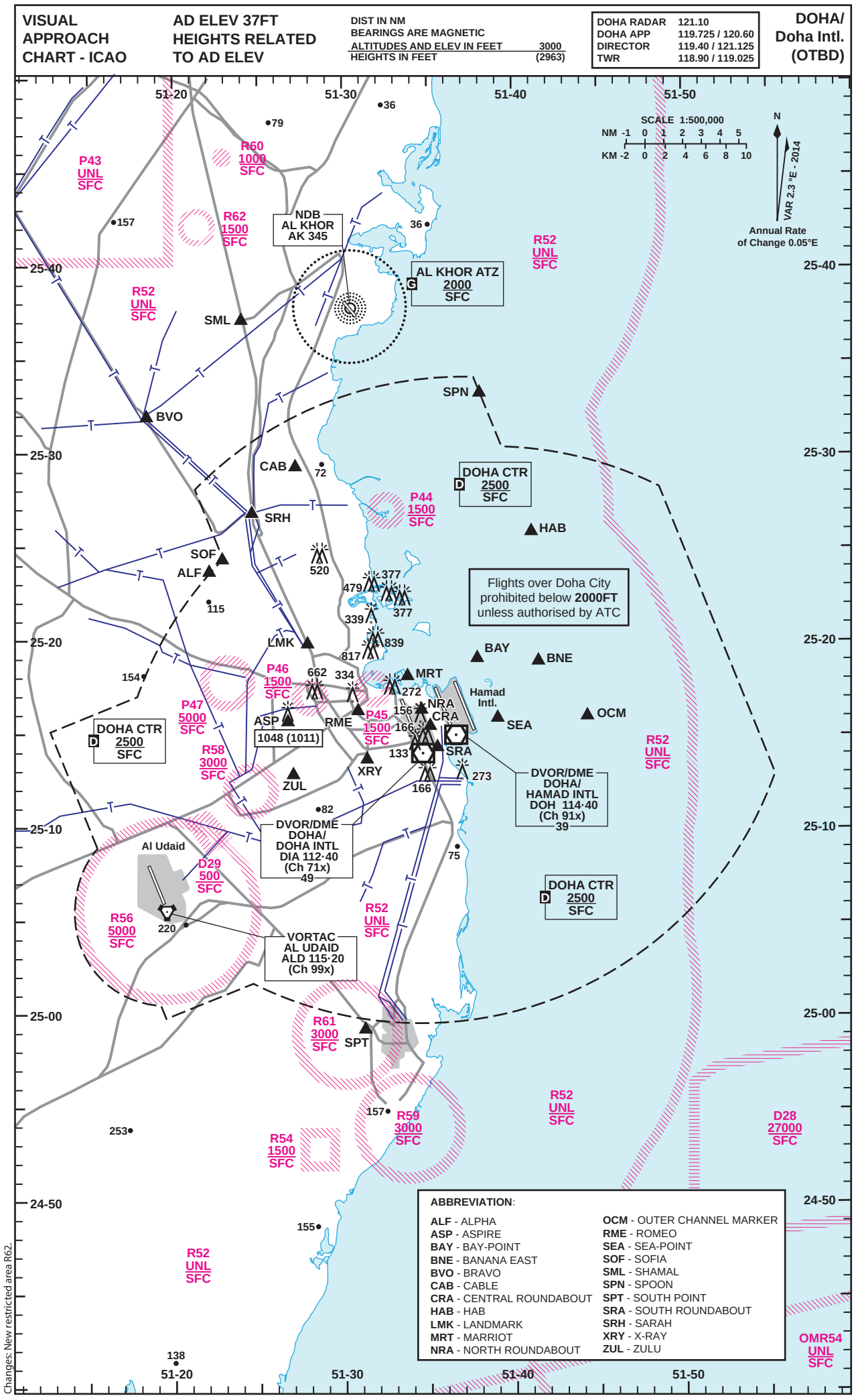
VISUAL APPROACH CHART - ICAO
AD ELEV 37FT
HEIGHTS RELATED TO AD ELEV
DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET 3000
HEIGHTS IN FEET (2963)
DOHA RADAR 121.10
DOHA APP 119.725 / 120.60
DIRECTOR 119.40 / 121.125
TWR 118.90 / 119.025
DOHA/ Doha Intl. (OTBD)
SCALE 1:500,000
NM -1 0 1 2 3 4 5
KM -2 0 2 4 6 8 10
N
VAR 2.3 °E - 2014
Annual Rate of Change 0.05°E
51-20
51-30
51-40
51-50
25-40
25-30
25-20
25-10
25-00
24-50
P43 UNL SFC
R60 1000 SFC
R62 1500 SFC
NDB AL KHOR AK 345
AL KHOR ATZ 2000 SFC
R52 UNL SFC
SML
BVO
SPN
CAB
DOHA CTR 2500 SFC
P44 1500 SFC
SRH
HAB
SOF
ALF
Flights over Doha City prohibited below 2000FT unless authorised by ATC
LMK
BAY
BNE
P46 1500 SFC
MRT
Hamad Intl.
P47 5000 SFC
ASP
1048 (1011)
RME
P45 1500 SFC
NRA
CRA
SRA
SEA
OCM
R58 3000 SFC
XRY
ZUL
DVOR/DME DOHA/ HAMAD INTL DOH 114·40 (Ch 91x)
DVOR/DME DOHA/ DOHA INTL DIA 112·40 (Ch 71x)
Al Udaid
D29 500 SFC
R56 5000 SFC
VORTAC AL UDAID ALD 115·20 (Ch 99x)
R61 3000 SFC
SPT
R59 3000 SFC
R54 1500 SFC
D28 27000 SFC
OMR54 UNL SFC
ABBREVIATION:
ALF - ALPHA
ASP - ASPIRE
BAY - BAY-POINT
BNE - BANANA EAST
BVO - BRAVO
CAB - CABLE
CRA - CENTRAL ROUNDABOUT
HAB - HAB
LMK - LANDMARK
MRT - MARRIOT
NRA - NORTH ROUNDABOUT
OCM - OUTER CHANNEL MARKER
RME - ROMEO
SEA - SEA-POINT
SOF - SOFIA
SML - SHAMAL
SPN - SPOON
SPT - SOUTH POINT
SRA - SOUTH ROUNDABOUT
SRH - SARAH
XRY - X-RAY
ZUL - ZULU
Changes: New restricted area R62.

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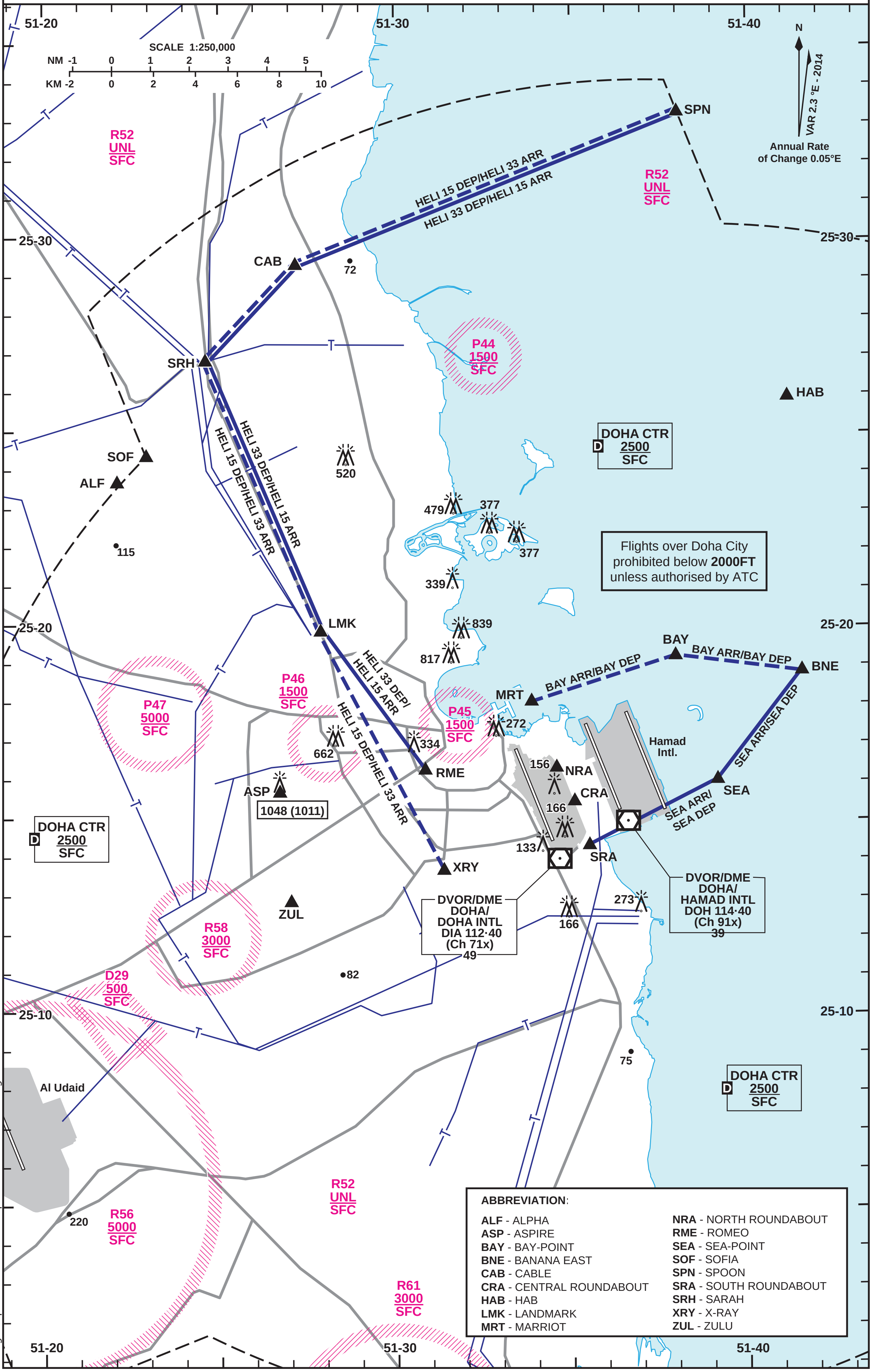
HELICOPTER ROUTE CHART

AD ELEV 37FT
HEIGHTS RELATED TO AD ELEV

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET 3000
HEIGHTS IN FEET (2963)

DOHA RADAR	121.10
DOHA APP	119.725 / 120.60
DIRECTOR	119.40 / 121.125
TWR	118.90 / 119.025

DOHA/
Doha Intl.
(OTBD)



ABBREVIATION:

ALF - ALPHA
ASP - ASPIRE
BAY - BAY-POINT
BNE - BANANA EAST
CAB - CABLE
CRA - CENTRAL ROUNDABOUT
HAB - HAB
LMK - LANDMARK
MRT - MARRIOT
NRA - NORTH ROUNDABOUT
RME - ROMEO
SEA - SEA-POINT
SOF - SOFIA
SPN - SPOON
SRA - SOUTH ROUNDABOUT
SRH - SARAH
XRY - X-RAY
ZUL - ZULU

Changes: Updated location of VFR points BAY and SEA. Re-alignment of BAY ARR/DEP and SEA ARR/DEP routes.

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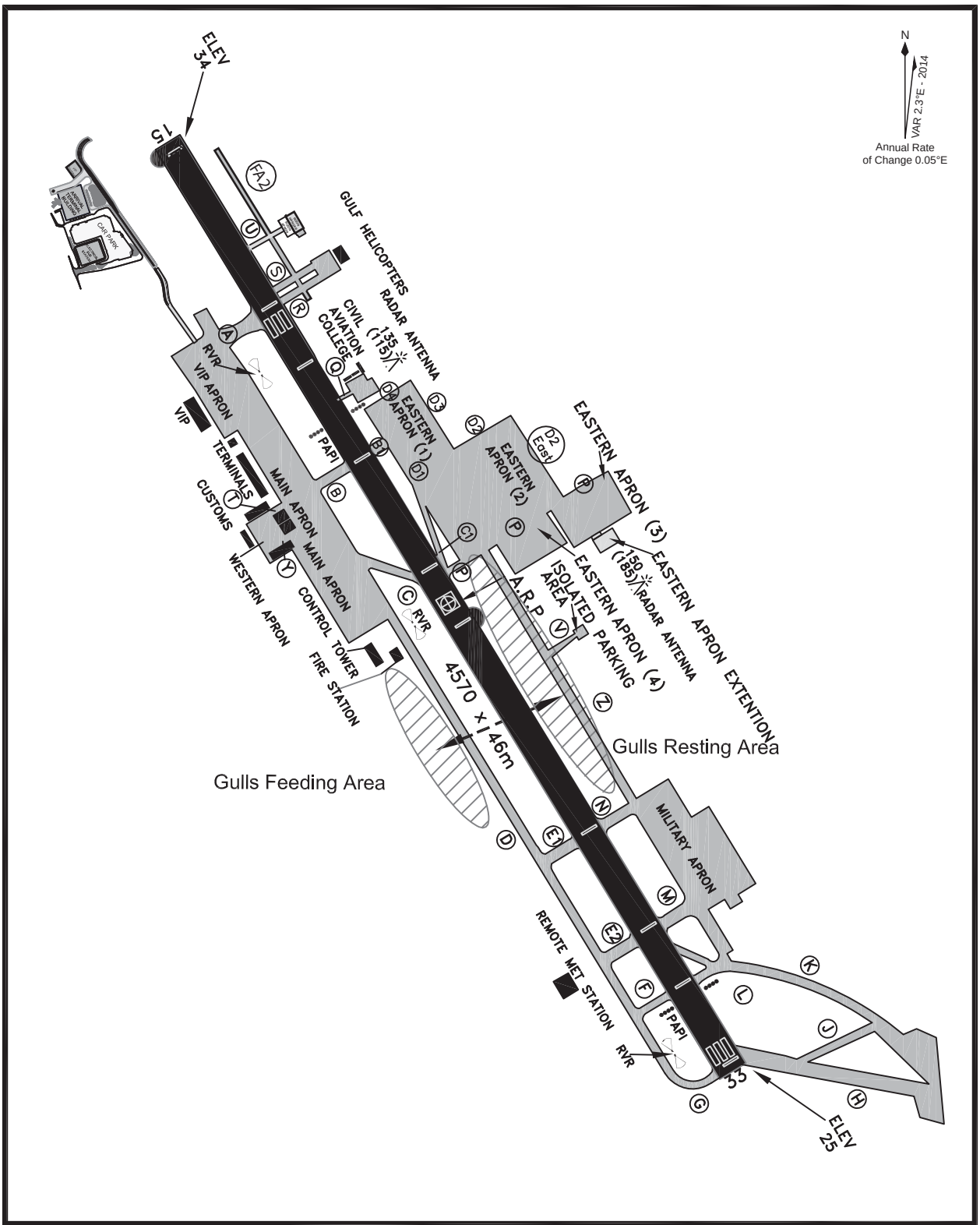
BIRD CONCENTRATIONS

DOHA/Doha Intl.
OTBD



Gulls:

Present from October to March mainly at the Airport during rains (when there are pools of water) or during cold weather. Can cause considerable damage.

Various Birds:

Bee-eaters, large flocks of pigeons present during the year, 1000ft and below around the field.

Changes: Portion of Main Apron in front of VIP building designated as VIP Apron.

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