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BAHRAIN AIP FIR
KINGDOM OF BAHRAIN
CIVIL AVIATION AFFAIRS
AIR NAVIGATION DIRECTORATE
AERONAUTICAL INFORMATION SERVICES

AIRAC AIP SUPPLEMENT 09/12	Effective Date 18 October 12

RECORD AIP SUPPLEMENT IN GEN 0.3

STATUS OF SUPPLEMENT ITEMS

VALID SUPPLEMENTS: 06/00, 07/00, 03/03, 02/04, 03/08, 04/08, 02/10, 02/12, 03/12, 04/12, 05/12, 06/12 and 08/12.

CANCELLED SUPPLEMENT: NIL

NOTAM CANCELLED BY THIS AIP SUPPLEMENT: NIL

NR 09/12 HAMAD INTERNATIONAL AIRPORT (OTHH) – STATE OF QATAR AD

1 Introduction

1.1 HAMAD INTERNATIONAL AIRPORT will be operational on 12 December 2012.

2 Effective Date and Publication Date

2.1 TRUE EFFECTIVE DATE : 12 Dec 2012

2.2 AIRAC EFFECTIVE DATE : 18 Oct 2012

2.3 PUBLICATION DATE : 20 Sep 2012

2.4 Since 12 Dec 2012 is NOT an AIRAC effective date, in order to comply with the AIRAC requirements, the previous AIRAC (15 Nov 2012) was considered for publication. Due to the ICAO embargo for the new Flight Plan Format requirements, AIRAC (15 Nov 2012) is also NOT possible. Therefore AIRAC effective date of 18 Oct 2012 was chosen as the AIRAC effective date.

2.5 The establishment of a new Aerodrome requires an advance notification of at least 56 days (Publication Date for a Major AIRAC) before the effective date, instead of 28 days. However since the true effective date(12 Dec 2012) is way beyond the proposed AIRAC effective date (18 Oct 2012), the publication date of 20 Sep 2012 was chosen instead of 23 Aug 2012 with a total advanced notification of 83 days before the true effective date.

3 Special Notes

3.1 Only Runway 16L/34R will be operational. Pilots are reminded to exercise caution not to confuse with the other non-operational Runway 16R/34L and the runway in use at Doha International Airport. This supplement contains all information that was available to date.

4 Users are advised to monitor NOTAM's for updates/developments and changes.

AD 2 AERODROMES

OTHH AD 2.1 — AERODROME LOCATION INDICATOR AND NAME

OTHH - HAMAD INTERNATIONAL AIRPORT

OTHH AD 2.2 — AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	**ARP coordinates and site at Aerodrome**:	**Lat:** 251628.43N **Long:** 0513630.16E Adjacent to Control Tower building.
2	**Direction and distance from the city:**	5.5 nm East from the Doha City Centre
3	**Elevation/Reference temperature:**	13 ft – 42°C
4	**Geoid undulation at AD ELEV PSN:**	-98 ft
5	**MAG VAR/Annual change:**	2.24E (2012) / 0.05E
6	**AD Administrator:**	Chairman
	Address:	P.O. BOX 3000, Doha, State of Qatar
	Telephone:	+974 4455 7333
	Fax:	+974 4455 2233
	Telex:	4306 CIVAIR DH
	AFS:	OTBDYAYX
	SITA:	DOHXYYF
7	**Types of traffic permitted (IFR/VFR):**	IFR/VFR
8	**Remarks:**	Nil.

OTHH AD 2.3 — OPERATIONAL HOURS

1	**AD Administration:**	Sun-Thu 0400-1100.
2	**Customs and immigration**:	H24.
3	**Health and sanitation:**	H24.
4	**AIS Briefing Office:**	Sat-Thu 0400-1800 UTC (daily) ; Fri 0400-1100 (UTC)
5	**ATS Reporting Office (ARO):**	H24.
6	**MET Briefing Office:**	H24.
7	**ATS:**	H24.
8	**Fuelling:**	H24.
9	**Handling:**	H24
10	**Security:**	H24.
11	**De-icing:**	Not required due to local climate
12	**Remarks:**	Nil.

OTHH AD 2.4 — HANDLING SERVICES AND FACILITIES

1	**Cargo handling facilities:**	Yes.
2	**Fuel/oil types:**	JET-A1
3	**Fuelling facilities/capacity:**	Fuel Hydrant System on Concourse A, B and C, Emiri Apron, Cargo Apron and Maintenance Apron - stands Q1, Q2, Q3 and Q4. All other bays Bowsers only.
4	**De-icing facilities:**	Not required due to local climate.
5	**Hangar space available for visiting aircraft:**	Nil.
6	**Repair facilities for visiting aircraft:**	Qatar Airways Technical by arrangement.
7	**Remarks:**	For handling service, contact Qatar Aviation Services (QAS). See GEN 1.1.10 and GEN 1.2.2.6.4.

OTHH AD 2.5 — PASSENGER FACILITIES

1	**Hotels:**	Hotel accommodation available in Doha City.
2	**Restaurants:**	24-Hour Airport Restaurants in the Terminal Building.
3	**Transportation:**	Bus service, Taxis and courtesy coaches to Hotels.
4	**Medical facilities:**	Airport's Medical Centre located at passenger terminal complex. Operated H24. Full medical facilities (Level 3 Hospital) are available in City of Doha.
5	**Bank and Post Office:**	Available in Airport Terminal Building.
6	**Tourist Office:**	Available in Airport Terminal Building.
7	**Remarks:**	Nil.

OTHH AD 2.6 — RESCUE AND FIRE FIGHTING SERVICES

1	**AD category for fire fighting:**	Category 10.
2	**Rescue equipment**	As per ICAO Annex 14 and Qatar Civil Aviation Regulation QCAR-ADR - 'Aerodrome Design, Operations and Licensing' issue 3.
3	**Capability for removal of disabled aircraft:**	The recovery equipment available at Hamad International Airport is able to assist in the recovery of aircraft up to and including A380. The Disabled Aircraft Recovery Team shall be activated through the Qatar Airways OCC H24. Duty Manager Telephone number: +974 44 55 67 89.
4	**Remarks:**	Nil.

OTHH AD 2.7 — SEASONAL AVAILABILITY - CLEARING

1	**Type(s) of clearing equipment:**	Nil.
2	**Clearance priorities:**	N/A.
3	**Remarks:**	Local climate precludes the requirement. Aerodrome is available in all seasons

OTHH AD 2.8 — APRONS, TAXIWAYS AND CHECK LOCATIONS/POSITIONS DATA

1	**Apron surface and strength:**	Concourse A: **Surface:** Concrete **Strength:** 110/R/B/W/T Concourse B: **Surface:** Concrete **Strength:** 110/R/B/W/T Concourse C: **Surface:** Concrete **Strength:** 92/R/B/W/T Concourse D: **Surface:** Concrete **Strength:** 92/R/B/W/T Concourse E: **Surface:** Concrete **Strength:** 92/R/B/W/T Remote Transfer: **Surface:** Concrete **Strength:** 110/R/B/W/T Emiri Terminal: **Surface:** Concrete **Strength:** 110/R/B/W/T Cargo and Courier: **Surface:** Concrete **Strength:** 110/R/B/W/T Maintenance: **Surface:** Concrete **Strength:** 110/R/B/W/T General Aviation: **Surface:** Asphalt **Strength:** 110/F/B/W/T Isolation Pad: **Surface:** Concrete **Strength:** 110/R/B/W/T
2	**Taxiway width, surface and strength:**	A **Width:** 30 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T B **Width:** 25 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T C **Width:** 25 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T D **Width:** 25 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T 168/F/A/X/T E **Width:** 30 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T E1 **Width:** 25 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T 168/F/A/X/T E2, E3 **Width:** 25 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T E4 **Width:** 25 m. **Surface:** Asphalt **Strength:** 168/F/A/X/T F **Width:** 25 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T G **Width:** 30 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T H **Width:** 25 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T 168/F/A/X/T J **Width:** 25 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T K **Width:** 25 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T L **Width:** 30 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T M **Width:** 30 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T N1, N4 **Width:** 25 m. **Surface:** Asphalt **Strength:** 168/F/A/X/T Q **Width:** 25 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T R **Width:** 25 m. **Surface:** Asphalt **Strength:** 168/F/A/X/T S **Width:** 25 m. **Surface:** Asphalt **Strength:** 168/F/A/X/T T **Width:** 40 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T T1, T2, T3, T4 **Width:** 25 m. **Surface:** Asphalt **Strength:** 168/F/A/X/T V **Width:** 25 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T W **Width:** 30 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T W1 **Width:** 25 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T 168/F/A/X/T W2, W3 **Width:** 25 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T W4 **Width:** 25 m. **Surface:** Asphalt **Strength:** 168/F/A/X/T Y **Width:** 30 m. **Surface:** Asphalt **Strength:** 110/F/B/W/T
3	**Altimeter checkpoint location and elevation:**	To be developed.
4	**VOR checkpoints:**	RWY 34R - Holding Point A; RWY 16L - Holding Point A12; RWY 34L- Holding Point L ; RWY 16R - Holding Point L12
5	**INS checkpoints:**	See Aircraft Parking/Docking charts.
6	**Remarks:**	Nil.

OTHH 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 of aircraft stands:**	Mandatory signs at all intersections of taxiways and runways at all holding positions. Taxi information and location signs at all taxiways. Docking Guidance System (DGS) installed and operational on all the bays. For information on Visual Docking Guidance System (VDGS) see OTHH AD 2.23.
2	**Runway and taxiway markings:**	Runway: Designation, Threshold, TDZ, Centre-line, Edge, Runway end. See AD 2.14 and 2.15 for additional information on lighting. Taxiway: Edge marking, Centre-line, Holding Positions at all taxiway/runway intersections.
3	**Stop bars:**	Stop bars at all runway entrances and where appropriate.
4	**Remarks:**	Nil.

OTHH AD 2.10 — AERODROME OBSTACLES

In Area 2					
OBST ID/ Designation	**OBST Type**	**OBST position**	**ELEV/HGT**	**Markings/ type, colour**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
Area 2 terrain and obstacles will be carried out using high resolution stereo satellite images closer to the completion date of the airport					

In Area 3					
OBST ID/ Designation	**OBST Type**	**OBST position**	**ELEV/HGT**	**Markings/ type, colour**	**Remarks**
a	**b**	**c**	**d**	**e**	**f**
		Nil			

OTHH AD 2.11 — METEOROLOGICAL INFORMATION PROVIDED

1	**Associated MET Office:**	Forecast and Analysis Office, Qatar Met Dept, Doha International Airport.
2	**Hours of service:** **MET Office outside hours:**	H24. –
3	**Office responsible for TAF preparation:** **Periods of validity:**	Forecast and Analysis Office, Doha International Airport, . H30 (prepared 6 hourly).
4	**Trend Forecast:** **Interval of issuance:**	TREND 30 minutes
5	**Briefing/consultation provided:**	Issue of forecast folders, Personal consultations, self-briefings, telephone consultation with duty forecaster.
6	**Flight documentation:** **Language(s) used:**	Charts, abbreviated plain language text. English.
7	**Charts and other information available for briefing or consultation:**	S, U25, P25 (other levels on request), T, SWH (East and West), SWM, TB (Gulf sector winds).
8	**Supplementary equipment available for providing information:**	Fax, e-mail, IVR (Interactive Voice Response) for general.
9	**ATS units provided with information:**	Doha APP, Hamad TWR.
10	**Additional Information (limitation of service etc):**	Nil.

OTHH AD 2.12 — RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY Number	True bearing MAG Bearing	Dimensions of RWY (m)	Strength (PCN) and surface of RWY and Stopway	Threshold co-ordinates RWY end co-ordinates THR Geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
16L	158.17°T 155.94°M	4850 x 60	110/F/B/W/T Asphalt	251745.97N 0513631.96E 251519.65N 0513736.41E -98.31 ft	THR 12.47 ft TDZ 12.37 ft
34R	338.18°T 335.94°M	4850 x 60	110/F/B/W/T Asphalt	251519.65N 0513736.41E 251745.97N 0513631.96E -98.57 ft	THR 12.37 ft TDZ 12.34 ft
16R	158.16°T 155.93°M	4250 x 60	110/F/B/W/T Asphalt	251727.52N 0513523.07E 251519.32N 0513619.56E -98.28 ft	THR 12.40 ft TDZ 12.73 ft
34L	338.17°T 335.94°M	4250 x 60	110/F/B/W/T Asphalt	251519.32N 0513619.56E 251727.52N 0513523.07E -98.47 ft	THR 12.47 ft TDZ 12.53 ft

Slope of RWY-SWY	Stopway dimensions (m)	Clearway dimensions (m)	Strip dimensions (m)	OFZ	Remarks
7	8	9	10	11	12
16L - Nil	Nil	Nil	4970 x 300	Yes	Non-load bearing Runway shoulders - 7.5 m each side
34R - Nil	Nil	Nil	4970 x 300	Yes	Non-load bearing Runway shoulders - 7.5 m each side
16R - Nil	Nil	Nil	4370 x 300	Yes	Non-load bearing Runway shoulders - 7.5 m each side
34L - Nil	Nil	Nil	4370 x 300	Yes	Non-load bearing Runway shoulders - 7.5 m each side

OTHH 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
16L		4850	4850	4850	4850	
34R		4850	4850	4850	4850	
16R		4250	4250	4250	4250	
34L		4250	4250	4250	4250	
16L	TWY A11	4730	4730	4730	–	**Note:** Intersection departures are allowed subject to the following: • Initiated by pilot and approved by ATC, subject to traffic. • ATC is able to keep aircraft visual at all times
	TWY A10	4082	4082	4082	–	
	TWY A6	2497	2497	2497	–	
34R	TWY A1	4730	4730	4730	–	
	TWY A2	4266	4266	4266	–	
	TWY A6	2386	2386	2386	–	
16R	TWY L11	4610	4610	4610	–	
	TWY L10	3614	3614	3614	–	
	TWY L7	2348	2348	2348	–	
34L	TWY L1	4122	4122	4122	–	
	TWY L2	3646	3646	3646	–	
	TWY L7	1935	1935	1935	–	

OTHH AD 2.14 — APPROACH AND RUNWAY LIGHTING

Runway	Approach lighting Type Length Intensity	Threshold lighting colour Wingbars	PAPI VASIS (MEHT)	TDZ lighting Length	Runway Centre-line Lighting Length Spacing Colour Intensity	Runway edge lighting Length Spacing Colour Intensity	Runway End Lighting Colour Wingbars	Stopway Lighting Length (M) Colour	Remarks
1	2	3	4	5	6	7	8	9	10
16L	CAT lll 900 m LIH	LIH Green supplemented by WBAR	PAPI 3° (19.20 m)	900 m	Length: 4850 m Spacing: 15 m Colour: White 0 m to last 900 m Red/White last 900 m to last 300 m Red last 300 m LIH	Length: 4850 m Spacing: 60 m Colour: White 0 m to last 600 m Yellow last 600 m LIH	Red –	Nil	MEHT height to be confirmed
34R	CAT lll 900 m LIH	LIH Green supplemented by WBAR	PAPI 3° (19.20 m)	900 m	Length: 4850 m Spacing: 15 m Colour: White 0 m to last 900 m Red/White last 900 m to last 300 m Red last 300 m LIH	Length: 4850 m Spacing: 60 m Colour: White 0 m to last 600 m Yellow last 600 m LIH	Red –	Nil	MEHT height to be confirmed
16R	CAT lll 900 m LIH	LIH Green supplemented by WBAR	PAPI 3° (19.20 m)	900 m	Length: 4250 m Spacing: 15 m Colour: White 0 m to last 900 m Red/White last 900 m to last 300 m Red last 300 m LIH	Length: 4250 m Spacing: 60 m Colour: White 0 m to last 600 m Yellow last 600 m LIH	Red –	Nil	MEHT height to be confirmed
34L	CAT lll 900 m LIH	LIH Green supplemented by WBAR	PAPI 3° (19.40 m)	900 m	Length: 4250 m Spacing: 15 m Colour: White 0 m to last 900 m Red/White last 900 m to last 300 m Red last 300 m LIH	Length: 4250 m Spacing: 60 m Colour: White 0 m to last 600 m Yellow last 600 m LIH	Red –	Nil	MEHT height to be confirmed

OTHH 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 lighting:** **Anemometer location and lighting:**	LDI: Nil Anemometers: 16L - 251736.4560N 0513640.7313E. 34R - 251532.1162N 0513735.5462E. 16R - 251715.2675N 0513524.0348E. 34L - 251530.2198N 0513609.9122E Automated Weather Observing System (AWOS). WS425 Ultrasonic Wind Sensor.
3	**Taxiway edge and centre-line lighting:**	RETILS marked and lighted. Taxiway edge available only on corners and bends. Colour blue Edge lights and Green Centre-line lights, Alternate Green and Amber centre-line lights within ILS sensitive area. Holding Positions at all taxiway/runway intersections are lighted
4	**Secondary power supply/switch-over time:**	Available via UPS immediate power. Standby generator also available. Switch-over time of less than 1 second.
5	**Remarks:**	Nil

OTHH AD 2.16 — HELICOPTER LANDING AREA

1	**Co-ordinates 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 Bearing of FATO:**	Nil
5	**Declared distance available:**	Nil
6	**Approach and FATO lighting:**	Nil
7	**Remarks:**	Nil

OTHH AD 2.17 — ATS AIRSPACE

1	**Designation and lateral limits**	**DOHA CTR**: Doha Control Zone is a circle of 15 nm radius centred on DOH DVOR (251401.11N 0513437.85E)
2	**Vertical Limits:**	SFC to 14500 ft.
3	**Airspace classification:**	C
4	**ATS unit call sign:** **Language(s):**	Hamad Tower. English.
5	**Transition altitude:**	13000 ft.
6	**Remarks:**	Nil.

OTHH AD 2.18 — ATS COMMUNICATION FACILITIES

Service Designation	Callsign	Channel	Hours of Operation	Remarks
1	2	3	4	5
APP/TAR	Doha Approach Radar	121.100 MHz 119.400 MHz	H24	
TWR	Hamad Tower	118.525 MHz 118.225 MHz	H24	
GMC	Hamad Ground	121.875 MHz 118.225 MHz	H24	
ATIS	Hamad Terminal Information	126.850 MHz	H24	

OTHH AD 2.19 — RADIO NAVIGATION AND LANDING AIDS

Type of Aid MAG VAR CAT of ILS/MLS *(VOR/ILS/MLS declination)*	IDENT	Frequency	Hours of Operation	Position of transmitting antenna co-ordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
DVOR/DME 2° 14' E (May 2012)	HHH	114.40 MHz CH 91X	H24	251459.66N 0513634.80E	39.27 ft	
LOC RWY 16L ILS CAT III	IDE	108.70 MHz	H24	251510.34N 0513740.51E		Distance from threshold 16L 5158.71 m
GP RWY 16L		330.50 MHz	H24	251738.19N 0513640.39E		3° ILS Ref Datum Hgt 50 ft
ILS DME RWY 16L	IDE	CH 24X	H24	251738.20N 0513640.43E	32.12 ft	Co-located with GP, DIST zero TDZ
LOC RWY 34R ILS CAT III	AZM	110.10 MHz	H24	251755.28N 0513627.86E		Distance from threshold 34R 5158.63 m
GP RWY 34R		334.40 MHz	H24	251530.57N 0513736.60E		3° ILS Ref Datum Hgt 50 ft
ILS DME RWY 34R	AZM	CH 38X	H24	251530.56N 0513736.56E	31.36 ft	Co-located with GP, DIST zero TDZ
LOC RWY 16R ILS CAT III	QAT	108.10 MHz	H24	251509.98N 0513623.68E		Distance from threshold 16R 4559.70 m
GP RWY 16R		334.70 MHz	H24	251716.61N 0513522.87E		3° ILS Ref Datum Hgt 50 ft
ILS DME RWY 16R	QAT	CH 18X	H24	251716.62N 0513522.92E	32.64 ft	Co-located with GP, DIST zero TDZ
LOC RWY 34L ILS CAT III	HJJ	111.90 MHz	H24	251736.83N 0513518.96E		Distance from threshold 34L 4558.67 m
GP RWY 34L		331.10 MHz	H24	251528.74N 0513610.37E		3° ILS Ref Datum Hgt 50 ft
ILS DME RWY 34L	HJJ	CH 56X	H24	251528.73N 0513610.33E	31.53 ft	Co-located with GP, DIST zero TDZ
MM (for all 4 runways)		75 MHz	H24			

OTHH AD 2.20 — LOCAL TRAFFIC REGULATIONS

1. Airport Regulations

1.1 Airport By-Law 2010
NDIA Aerodrome Manual v.1 - 1 JUNE 2012;
NDIA Safety Management System v.1 - JULY 2012
Airport Emergency Plan NDIA v.1 - JULY 2012;
Disabled Aircraft Recovery Plan - 1 NOV 2010
NDIA Airside Vehicle Operating Rules - JULY 2012
Interim Wildlife Hazard Management Plan v.1 - May 2012

2. Taxiing to and from stands

To be developed

3. Parking Area for Small Aircraft (General Aviation)

3.1 General Aviation Apron - Stands Y1 - Y9 (9 code C stands)

4. Parking Area For Helicopters

To be developed

5. Apron - Taxiing during winter conditions

Not Applicable

6. Taxiing Limitations

6.1 See Low Visibility Taxiing Route charts (AD 2.24)

7. School and Training Flights - Technical Test Flights - Use of Runways

To be developed

8. Helicopter Traffic - Limitation

To be developed

9. Removal of Disabled Aircraft from Runways

9.1 All aircraft types including A380 (see AD 2.6)

OTHH AD 2.21 — NOISE ABATEMENT PROCEDURES

Nil

OTHH AD 2.22 — FLIGHT PROCEDURES

1. General

To be developed

2. Minima

To be developed

3. Authorisation

To be developed

4. Low Visibility Procedures

4.1 As authorised by QATAR CIVIL AVIATION AUTHORITY, Low Visibility Procedures (LVPs) will be instituted at HAMAD INTERNATIONAL airport whenever the official meteorological visibility condition is 600 m or less, or whenever the cloud base is 300 ft or less.

4.2 The procedures will ensure protection of the ILS localizer and glide path 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.

4.3 LVPs 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.

4.4 STANDARD TAXI ROUTES DURING LOW VISIBILITY PROCEDURES

Stand Number (s)	Departure/Arrival	Runway	Standard Taxi Route
V1 - V5	Departure	RWY 34R	Taxi via TWY V and TWY A to ILS CAT II/III holding point for RWY 34R
		RWY 16L	Taxi via TWY V, TWY C and TWY A12 to ILS CAT II/III holding point for RWY 16L
	Arrival	RWY 34R	Vacate at convenient TWY then via TWY C and TWY V to allocated stand
		RWY 16L	Vacate at convenient TWY then via TWY C and TWY V to allocated stand
F1 - F11	Departure	RWY34R	Taxi via TWY C and TWY A to ILS CAT II/III holding point for RWY 34R
		RWY 16L	Taxi via TWY C and TWY A12 to ILS CAT II/III holding point for RWY 16L
	Arrival	RWY 34R	Vacate at convenient TWY then via TWY C to allocated stand
		RWY 16L	Vacate at convenient TWY then via TWY C to allocated stand
B2, B4, B6, B8 (if pushed to face East)	Departure	RWY34R	Taxi via TWY E, TWY C and TWY A to ILS CAT II/III holding point for RWY 34R
		RWY 16L	Taxi via TWY E, TWY C and TWY A12 to ILS CAT II/III holding point for RWY 16L
	Arrival	RWY 34R	Vacate at convenient TWY then via TWY C and TWY E to allocated stand
		RWY 16L	Vacate at convenient TWY then via TWY C and TWY E to allocated stand
B9(if pushed to face South), B10(if pushed to face South),B8(if pushed to face South)	Departure	RWY34R	Taxi via TWY D, TWY E, TWY C and TWY A to ILS CAT II/III holding point for RWY 34R
		RWY 16L	Taxi via TWY D, TWY E, TWY C and TWY A12 to ILS CAT II/III holding point for RWY 16L
	Arrival	RWY 34R	Vacate at convenient TWY then via TWY C, TWY E1 and TWY D to allocated stand
		RWY 16L	Vacate at convenient TWY then via TWY C, TWY E1 and TWY D to allocated stand
B9(if pushed to face North), B10(if pushed to face North)	Departure	RWY34R	Taxi via TWY D, TWY E1, TWY C and TWY A to ILS CAT II/III holding point for RWY 34R
		RWY 16L	Taxi via TWY D, TWY E1, TWY C and TWY A to ILS CAT II/III holding point for RWY 16L
	Arrival	RWY 34R	Vacate at convenient TWY then via TWY C, TWY E1 and TWY D to allocated stand

		RWY 16L	Vacate at convenient TWY then via TWY C, TWY E1 and TWY D to allocated stand
C13, C11, C9, C7, C5, C3, C1, B1, B3, B5, B7, B9(if pushed to face East)	Departure	RWY34R	Taxi via TWY E1, TWY C and TWY A to ILS CAT II/III holding point for RWY 34R
		RWY 16L	Taxi via TWY E1, TWY E4, TWY C and TWY A to ILS CAT II/III holding point for RWY 16L
	Arrival	RWY 34R	Vacate at convenient TWY then via TWY C, TWY E4 and TWY E1 to allocated stand
		RWY 16L	Vacate at convenient TWY then via TWY C and TWY E1 to allocated stand
G1 - G3	Departure	RWY34R	Taxi via TWY E2, TWY C and TWY A to ILS CAT II/III holding point for RWY 34R
		RWY 16L	Taxi via TWY E2, TWY E3, TWY C and TWY A to ILS CAT II/III holding point for RWY 16L
	Arrival	RWY 34R	Vacate at convenient TWY then via TWY C, TWY E3 and TWY E2 to allocated stand
		RWY 16L	Vacate at convenient TWY then via TWY C and TWY E3 to allocated stand
G4 - G6	Departure	RWY34R	Taxi via TWY E3, TWY E2, TWY C and TWY A to ILS CAT II/III holding point for RWY 34R
		RWY 16L	Taxi via TWY E3, TWY C and TWY A to ILS CAT II/III holding point for RWY 16L
	Arrival	RWY 34R	Vacate at convenient TWY then via TWY C and TWY E3 to allocated stand
		RWY 16L	Vacate at convenient TWY then via TWY C, TWY E2 and TWY E3 to allocated stand

5. Procedures for VFR Flights

Not applicable

OTHH AD 2.23 — ADDITIONAL INFORMATION

1. Areas in the AD where birds are observed

1.1 A study has been conducted by AD Operator (Interim Wildlife Hazard Management Plan/ version 1/May 2012). Chart is available at AD 2.24.

2. Surface Movement Guidance, Control System and Markings

2.1 Stand identification / taxiway guide lines / visual docking / parking guidance system.

2.2 Nosewheel guidelines on taxiways and aprons.

2.3 Nose-in parking is mandatory. Exemptions only given in special cases with specific authorization from ATC & AD Operator.

2.4 A follow-me vehicle will be provided for all non-standard parking.

2.5 Parking stands are equipped with advanced visual docking system, A-VDGS.

2.6 A-VDGS - The Advanced-Visual Docking Guidance System is an aircraft parking aid for airport and aircraft safety and efficiency.

2.6.1 General Safety Measures

2.6.1.1 The A-VDGS has a built-in error detection program to inform the aircraft pilot of impending dangers during the docking procedure.

2.6.1.2 If the pilot is unsure of the information being shown on the A-VDGS display unit, he / she must immediately stop the aircraft and obtain further information for clearance.

2.6.1.3 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.

2.6.1.4 The pilot shall not enter the stand area, unless the aircraft type displayed is equal to the approaching aircraft.

2.6.1.5 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 2.6 of Docking Procedures).

2.6.1.6 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.

2.6.1.7 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.

3. Stand Docking Procedures

3.1 No Marshall will be present in bays equipped with A-VDGS. In the event of malfunction of A-VDGS, pilots should hold position and inform ATC

START-OF-DOCKING The system is started by pressing one of the aircraft type buttons on the Operator Panel. When the button has been pressed, WAIT will be displayed.	
CAPTURE The floating 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 PROCEED BEYOND THE BRIDGE, UNLESS THE ARROWS HAVE BEEN SUPERSEDED BY THE CLOSING RATE BAR.	
TRACKING When the aircraft has been caught by the laser, the floating arrow is replaced by the yellow centreline indicator. A flashing red arrow indicates the direction to turn. The vertical yellow arrow shows position in relation to the centreline. This indicator gives correct position and azimuth guidance.	
CLOSING RATE The closing rate is the final countdown from a specific distance to the stop position. A yellow vertical closing rate bar/centre line indicator appears with or without a digital countdown, depending on the configuration. The closing rate bar represents the distance from stop, it consists of a number of rows representing for example 0.3 m or 0.6 m per row, depending on the configuration requirements. Each row turns off as the aircraft approaches stop (reducing the length of the bar, bottom upwards) and as the last row turns off, less than the interval for one row remains until STOP appears.	

ALIGNED TO CENTRE The aircraft is at the displayed distance from the stop position. The absence of any direction arrow indicates an aircraft on the centre line.	
SLOW (DECREASE SPEED) Safedock is configured with a slowdown active zone (optional distances set from the stop position, standard 6-24 meters) according to an acceptable docking speed (optional max allowed speed, standard 2 m/s). Note: When 2 m/s is rounded down to a single digit, it is approximately 7 km/h, 4 mph or 3 knots. If the aircraft is approaching faster than the accepted speed, the system will show SLOW as a warning to the pilots.	
AZIMUTH GUIDANCE The aircraft is at the displayed distance from the stop-position. The yellow arrow indicates an aircraft to the right of the centreline, and the red flashing arrow indicates the direction to turn.	
STOP POSITION REACHED When the correct stop-position is reached, the display will show STOP with a red border or with red lights.	
DOCKING COMPLETED When the aircraft has parked, OK will be displayed.	

OVERSHOOT If the aircraft has overshot the stop-position, TOO FAR will be displayed	
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 pre-configured time	
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 BEYOND THE BRIDGE, UNLESS THE "WAIT" MESSAGE HAS BEEN SUPERSEDED BY THE CLOSING RATE BAR.	
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 PILOT MUST NOT PROCEED BEYOND THE BRIDGE WITHOUT MANUAL GUIDANCE, UNLESS THE WAIT MESSAGE HAS BEEN SUPERSEDED BY THE CLOSING RATE BAR.	

SLOW (IN ABNORMAL SITUATIONS) This display can be shown for two reasons: **A) BAD WEATHER CONDITION** During heavy fog, rain or snow, the visibility for the docking system can be reduced. When the system is activated and in capture mode, the display will disable the floating arrows and display SLOW and the Aircraft Type. As soon as the system detects the approaching aircraft, the vertical 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 far out from the bridge or PBB area, the display will show SLOW. As soon as the system detects the approaching aircraft, the vertical closing rate bar will re-appear. THE PILOT MUST NOT PROCEED BEYOND THE BRIDGE, UNLESS THE CLOSING RATE BAR IS SHOWN.	
GATE BLOCKED If an object is found blocking the approach to gate/apron view from the Safedock to the planned stop position for the aircraft, the docking procedure will be halted with a WAIT and GATE BLOCK message. The docking procedure will resume as soon as the blocking object has been removed. THE PILOT MUST NOT PROCEED BEYOND THE BRIDGE WITHOUT MANUAL GUIDANCE, UNLESS THE WAIT MESSAGE HAS BEEN SUPERSEDED BY THE CLOSING RATE BAR.	
VIEW BLOCKED If the view towards the approaching aircraft is hindered, for example internally in the unit on the laser lens or on the laser window by dirt, or another obstacle in the closest view area, the Safedock will report a View blocked condition. Once the system is able to see the aircraft through the hinder, the message will be replaced with a closing rate display. THE PILOT MUST NOT PROCEED BEYOND THE BRIDGE WITHOUT MANUAL GUIDANCE, UNLESS THE WAIT MESSAGE HAS BEEN SUPERSEDED BY THE CLOSING RATE BAR.	
SBU STOP Any unrecoverable error during the docking procedure will generate an SBU (safety back-up) condition. The display will show the text STOP SBU. A MANUAL BACKUP PROCEDURE MUST BE USED FOR DOCKING GUIDANCE.	

TOO FAST If the aircraft approaches with a speed higher than the docking system can handle, the message STOP TOO FAST will be displayed. The docking system must be re-started or the docking procedure completed by manual guidance.	
EMERGENCY STOP When the Emergency Stop button is pressed, STOP is displayed.	
CHOCKS ON CHOCK 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.	
ERROR If a system error occurs, the message ERROR is displayed with an error code. The code is used for maintenance purposes and explained elsewhere.	
SYSTEM BREAKDOWN/POWER FAILURE In case of a severe system failure or power failure, the display will go black. A manual backup procedure must be used for docking guidance.	

OTHH AD 2.24 — CHARTS RELATED TO THE AERODROME

Chart Name
Aerodrome Chart – ICAO
Aircraft Parking/Docking Chart – ICAO
Low Visibility Taxiing Routes (Arrivals)
Low Visibility Taxiing Routes (Departures)
Aerodrome Lighting Chart – ICAO
Aerodrome Obstacle Chart – ICAO Type A 16L/34R
Aerodrome Obstacle Chart – ICAO Type A 16R/34L
Departure Chart - 16/34 Radar Sierra 16/November 34
ATC Surveillance Minimum Altitude Chart – ICAO
Instrument Approach Chart ILS/VDOR/DME RWY 16L – ICAO
Instrument Approach Chart DVOR/DME RWY 16L – ICAO
Instrument Approach Chart ILS/DVOR/DME RWY 34R – ICAO
Instrument Approach Chart DVOR/DME RWY 34R – ICAO
Visual Approach Chart – ICAO (refer to OTBD Visual Approach Chart)
Bird Concentration Chart

AERODROME CHART - ICAO

DISTANCES IN METRES.
ALTITUDES, ELEVATIONS
AND HEIGHTS IN FEET.

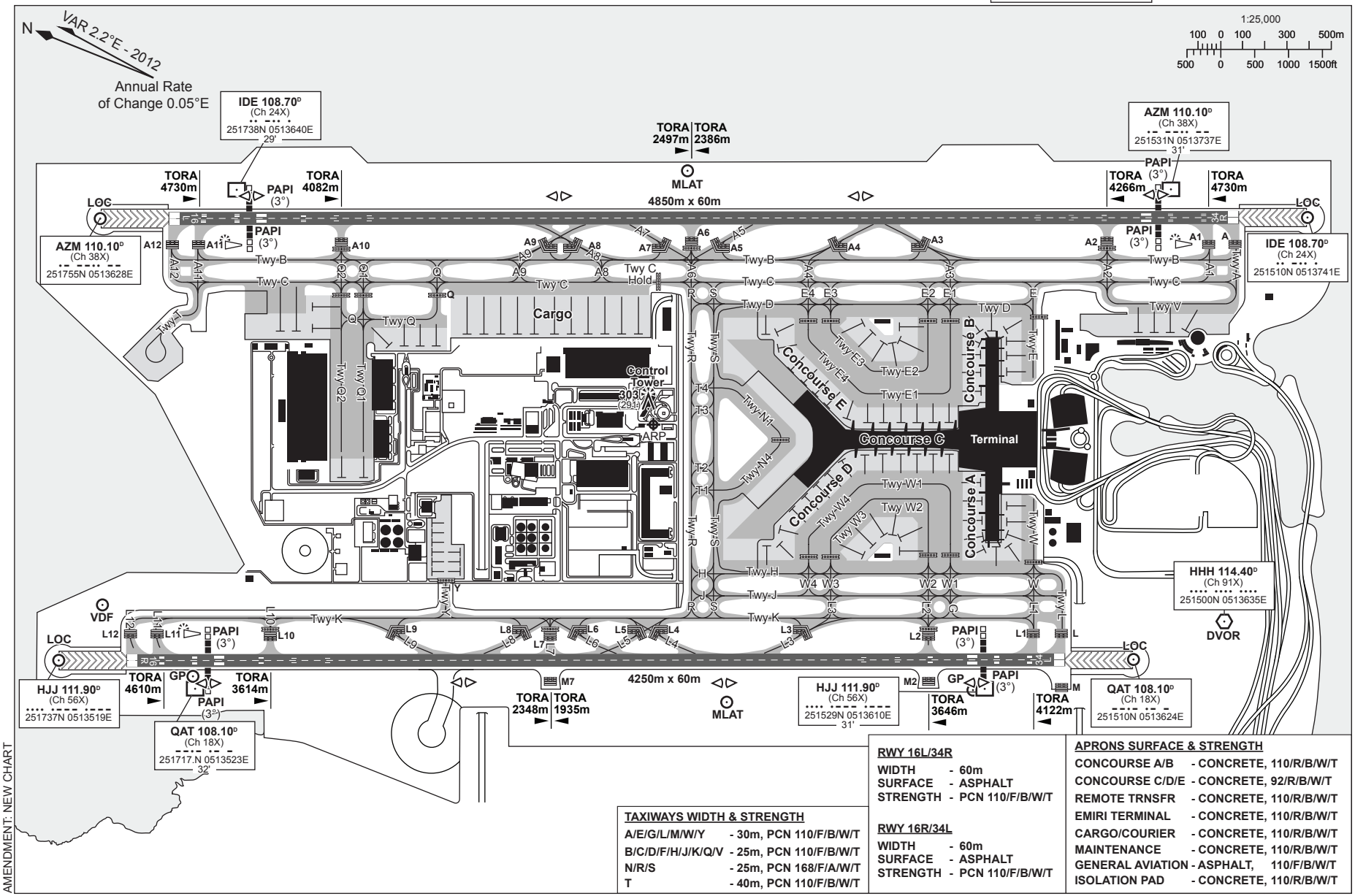
ARP
251628.43N
0513630.16E

AD ELEV 13FT

ATIS Hamad Terminal Information
126.850

DOHA APP	121.10	119.40
	121.50	243.00
TWR	118.525	
GMC	121.875	

HAMAD Intl.
OTHH



TAXIWAYS WIDTH & STRENGTH

A/E/G/L/M/W/Y	- 30m, PCN 110/F/B/W/T
B/C/D/F/H/J/K/Q/V	- 25m, PCN 110/F/B/W/T
N/R/S	- 25m, PCN 168/F/A/W/T
T	- 40m, PCN 110/F/B/W/T

RWY 16L/34R

WIDTH	- 60m
SURFACE	- ASPHALT
STRENGTH	- PCN 110/F/B/W/T

RWY 16R/34L

WIDTH	- 60m
SURFACE	- ASPHALT
STRENGTH	- PCN 110/F/B/W/T

APRONS SURFACE & STRENGTH

CONCOURSE A/B	- CONCRETE, 110/R/B/W/T
CONCOURSE C/D/E	- CONCRETE, 92/R/B/W/T
REMOTE TRNSFR	- CONCRETE, 110/R/B/W/T
EMIRI TERMINAL	- CONCRETE, 110/R/B/W/T
CARGO/COURIER	- CONCRETE, 110/R/B/W/T
MAINTENANCE	- CONCRETE, 110/R/B/W/T
GENERAL AVIATION	- ASPHALT, 110/F/B/W/T
ISOLATION PAD	- CONCRETE, 110/R/B/W/T

AMENDMENT: NEW CHART

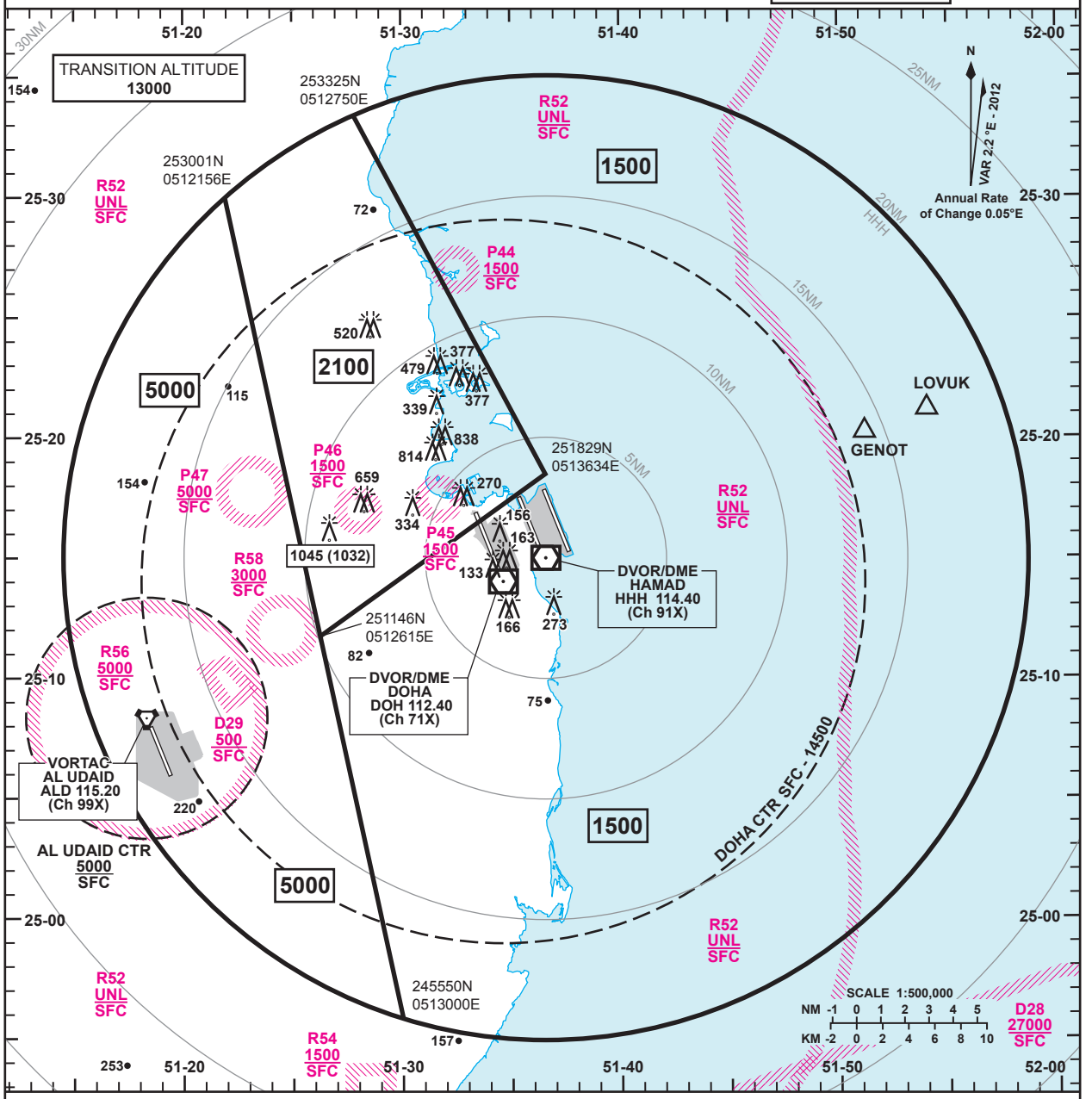
ATC SURVEILLANCE MINIMUM ALTITUDE CHART - ICAO

AD ELEV 13FT HEIGHTS RELATED TO THR RWY 16

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET 3000
HEIGHTS IN FEET (2965)

DOHA APP	121.10 119.40 121.50 243.00
TWR	118.525
GMC	121.875

HAMAD Intl.



LOSS OF COMMUNICATION PROCEDURES

Initial Approach

Continue visually or by means of an appropriate approved final approach aid. If not possible proceed at **2100**, or last assigned level if higher to **GENOT** if runway 34R is in use or **LOVUK** if runway 16L is in use.

Intermediate and Final Approach

Continue visually or by means of an appropriate final approach aid. If not possible follow the Missed Approach Procedure to **GENOT** if runway 34R is in use or **LOVUK** if runway 16L is in use.

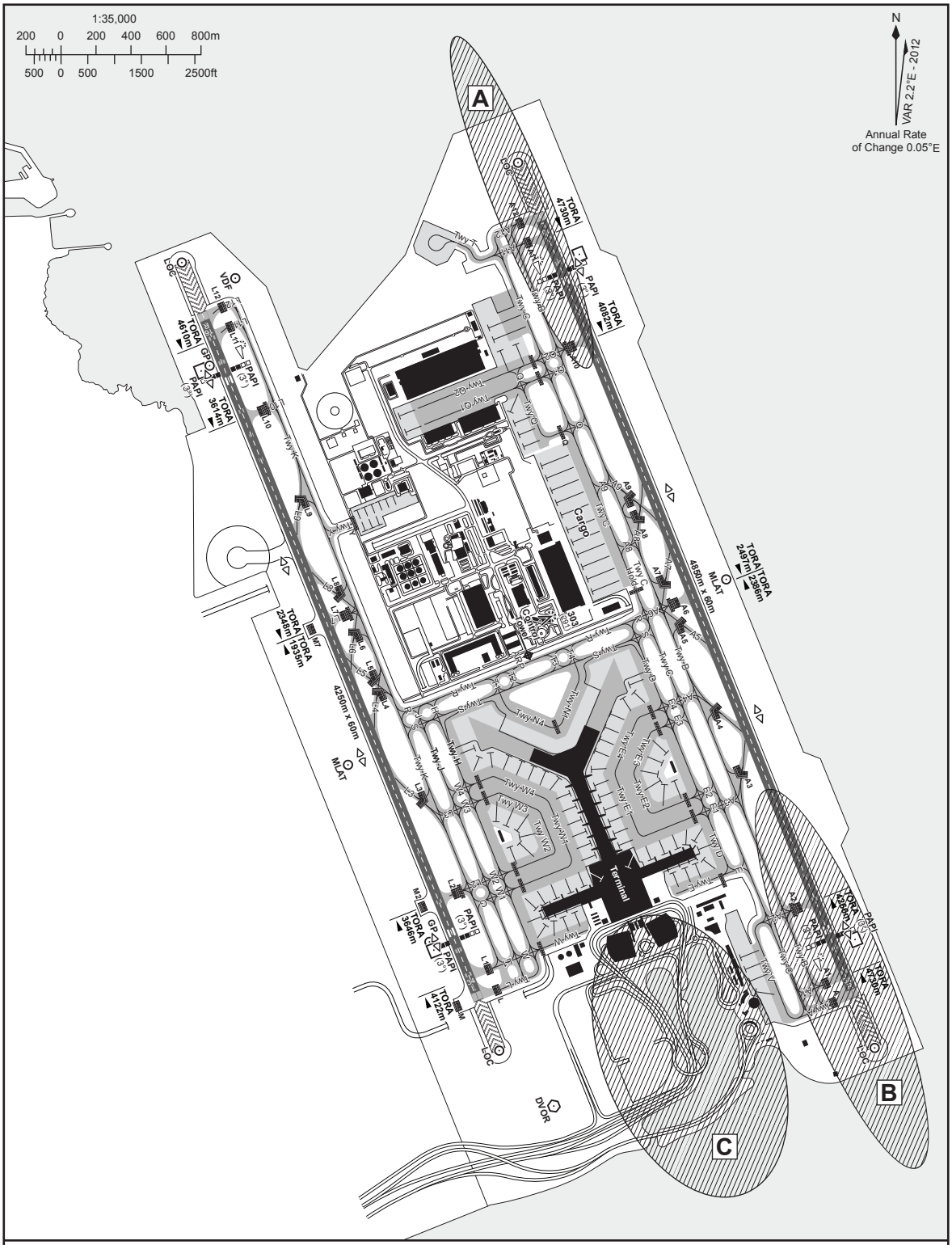
GENERAL INFORMATION

1 - Levels shown are based on QNH.
2 - The minimum levels shown within the ATC Surveillance Minimum Altitude Area (SMAA) provides 300m of obstacle clearance over all obstacles within the SMAA and within a 3NM buffer area. It also provides separation from all Danger, Prohibited and Restricted areas within the SMAA.
3 - SMAA do not constitute controlled airspace.
4 - **This chart may only be used for cross-checking of altitudes assigned when in receipt of an ATC Surveillance service.**

Amendment: New Chart

BIRD CONCENTRATIONS CHART - ICAO

HAMAD Intl.
OTHH



Areas with concentrations of birds

A Elevated Runway Approach Lights + part of the runway 16L

B Elevated Runway Approach Lights + part of the runway 34R
(the concentration of birds in area B is more important than in area A)

C Emiri Terminal +Terminal lagoon + part of the sea

AMENDMENT: NEW CHART

INSTRUMENT APPROACH CHART - ICAO

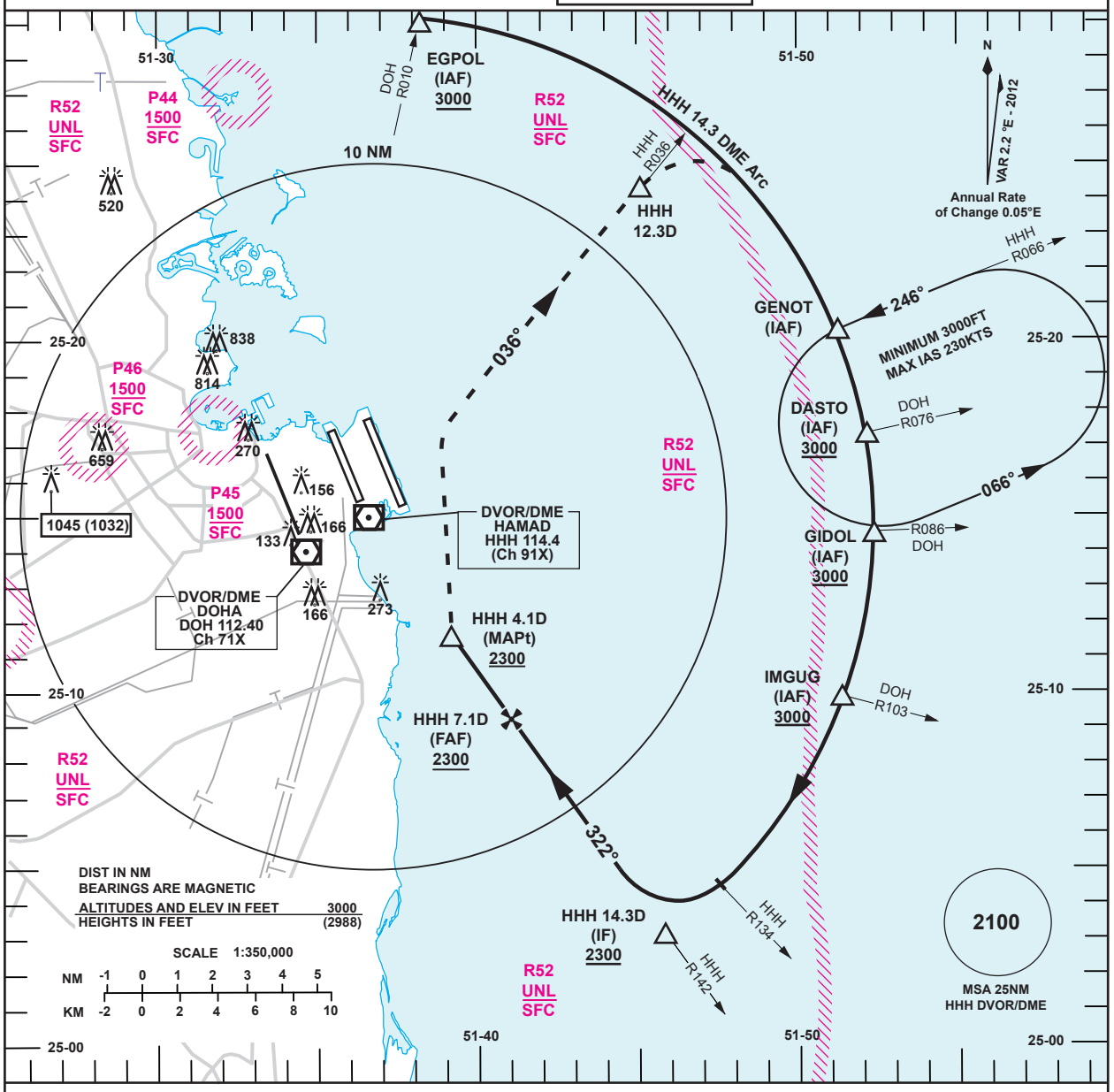
AD ELEV 13FT
HEIGHTS RELATED TO THR RWY 34R

DOHA APP	121.10	119.40
	121.50	243.00
TWR	118.525	
GMC	121.875	

HAMAD INTL.

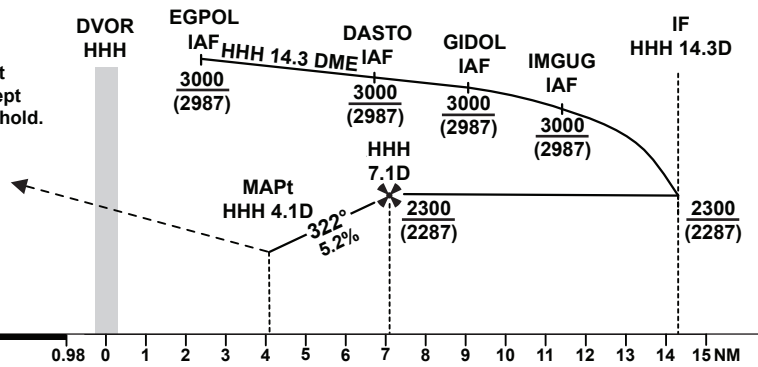
DVOR/DME RWY 34R

ALL ACFT CATEGORIES



TA 13000 FT

Missed Approach.
Turn right as soon as practicable to intercept HHH R036. At HHH 12.3D turn right to intercept the HHH 14.3D arc clockwise to GENOT and hold.
Climb and maintain 4000'
No turns prior to the MAPt.



OCA (OCH)		A	B	C	D	E
Straight in Approach	DVOR/DME	1360 (1347)				
Circling		1360 (1347)				

DVOR/DME Approach: MAPt at HHH 4.1D

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
	FT/MIN						

Amendment: New Chart

INSTRUMENT APPROACH CHART - ICAO

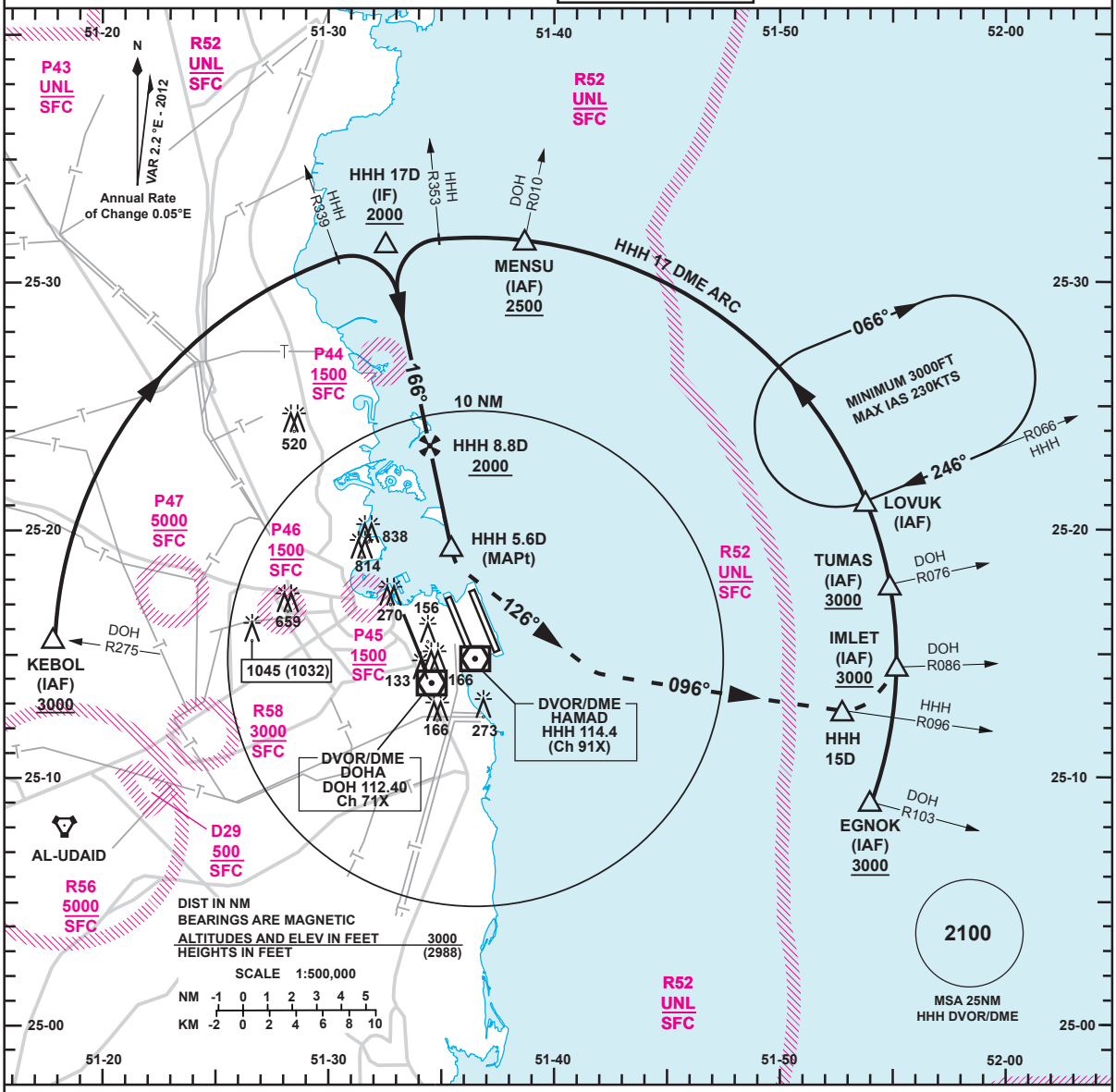
AD ELEV 13FT
HEIGHTS RELATED TO THR RWY 16L

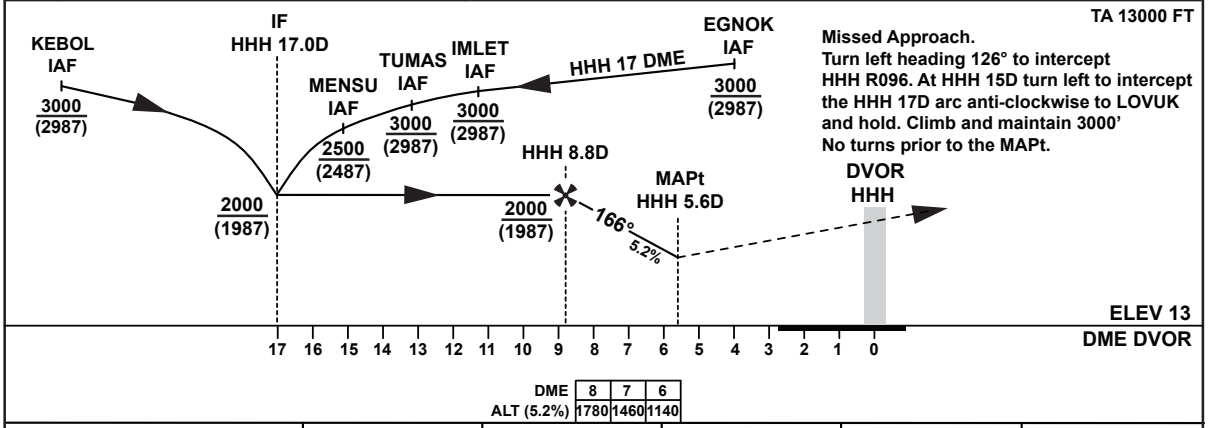
DOHA APP	121.10	119.40
	121.50	243.00
TWR	118.525	
GMC	121.875	

HAMAD INTL.

DVOR/DME RWY 16L

ALL ACFT CATEGORIES





OCA (OCH)	A	B	C	D	E
Straight in Approach — DVOR/DME	1020 (HAT 1007)				
Circling	1020 (HAA 1007)		1240 (HAA 1227)		1330 (HAA1317)

DVOR/DME Approach: MAPt at HHH 5.6D

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
	FT/MIN						

Amendment: New Chart

INSTRUMENT APPROACH CHART - ICAO

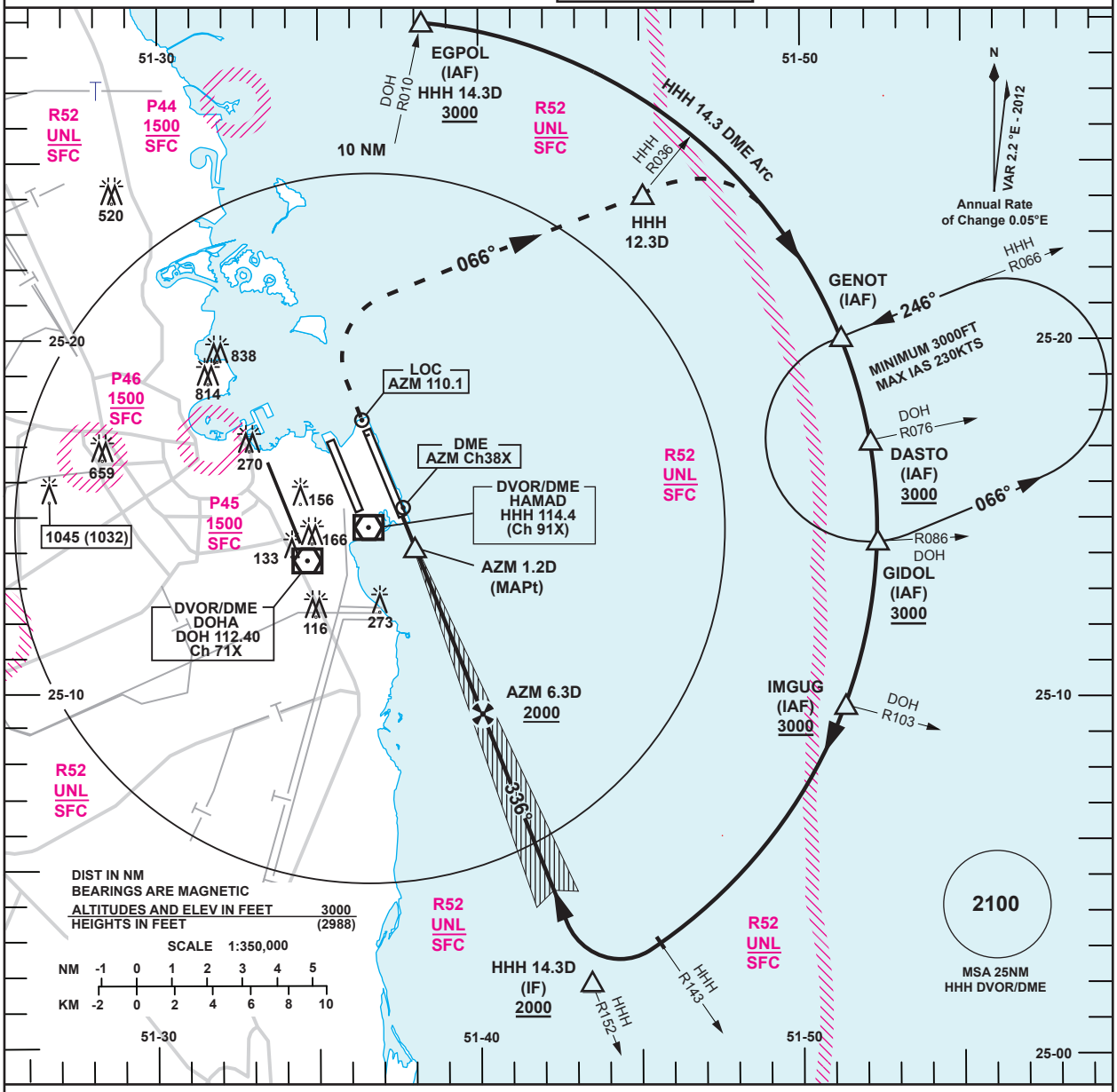
AD ELEV 13FT
HEIGHTS RELATED TO THR RWY 34R

DOHA APP	121.10	119.40
	121.50	243.00
TWR	118.525	
GMC	121.875	

HAMAD INTL.

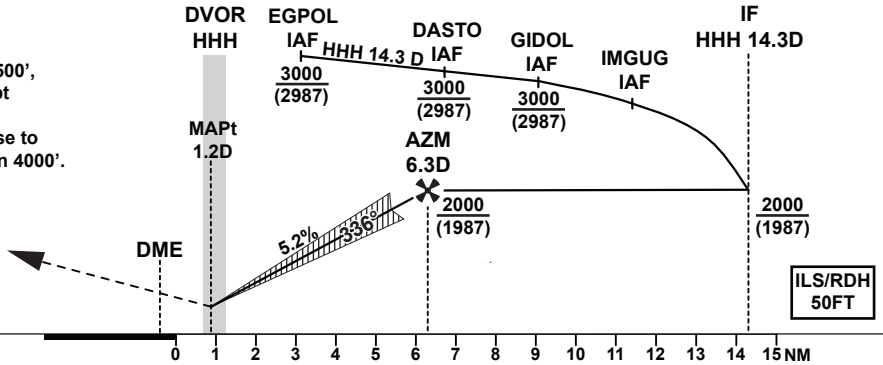
ILS/DVOR/DME RWY 34R

ALL AIRCRAFT CATEGORIES



TA 1300 FT

Missed Approach.
Climb straight ahead until reaching 500', turn right onto Track 066° to intercept HHH R036. At 12.3D turn right to intercept the HHH 14.3D arc clockwise to GENOT and hold. Climb and maintain 4000'.



ELEV 13
DME

DME	2	3	4	5	6
ALT (5.2%)	660	980	1290	1610	1930

OCA (OCH)		A	B	C	D	E
Straight in Approach	ILS CAT I	154 (HAT 141)	166(HAT 153)	174 (HAT 161)	185 (HAT 172)	205 (HAT 192)
	LOC ONLY	270 (HAT 257)				
Circling		600 (587)		1240 (1227)		1330 (1317)

HHH reads zero at TDZ

LOC only Approach: MAPt at AZM 1.2D

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
	FT/MIN						

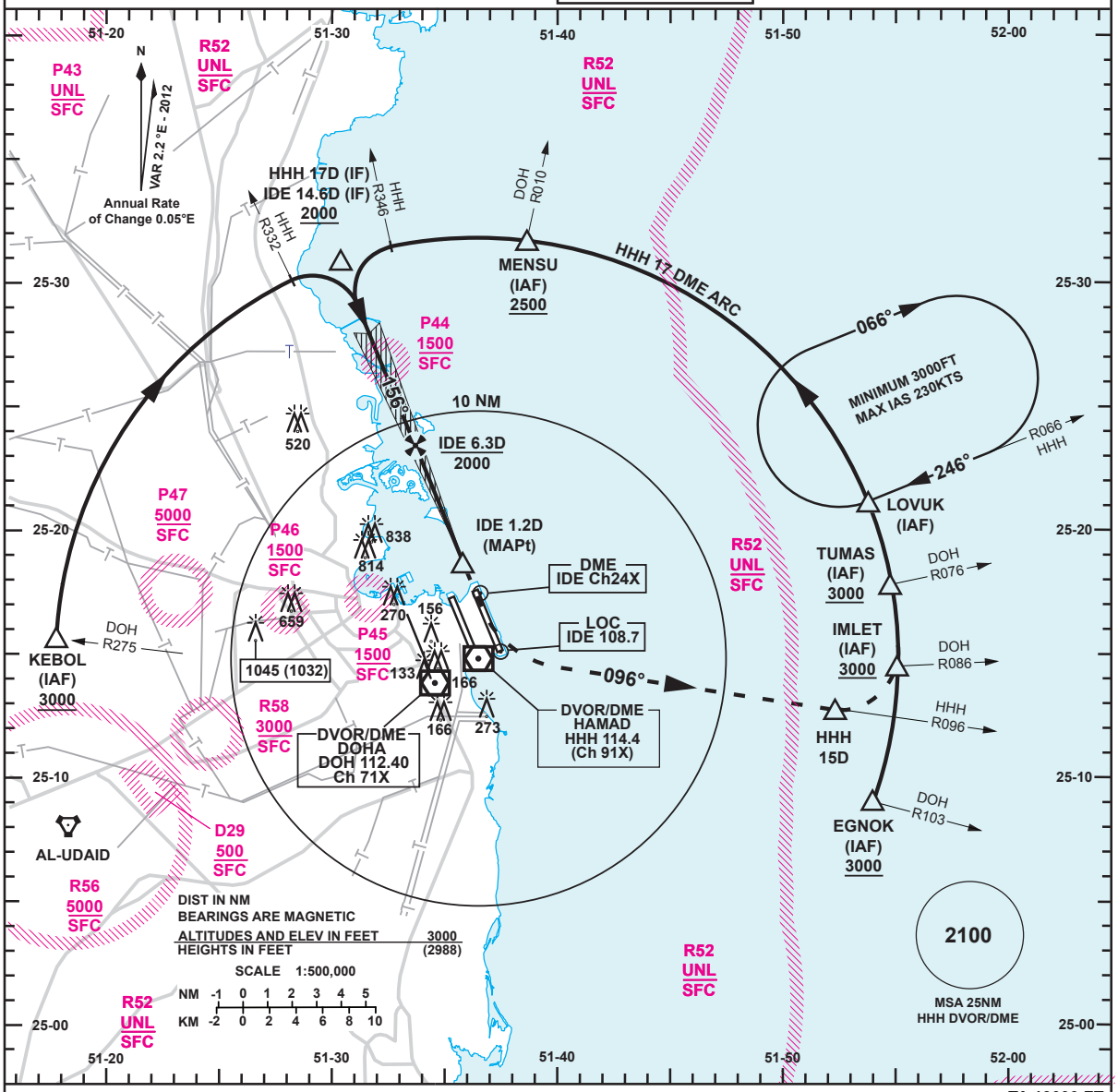
Amendment: New Chart

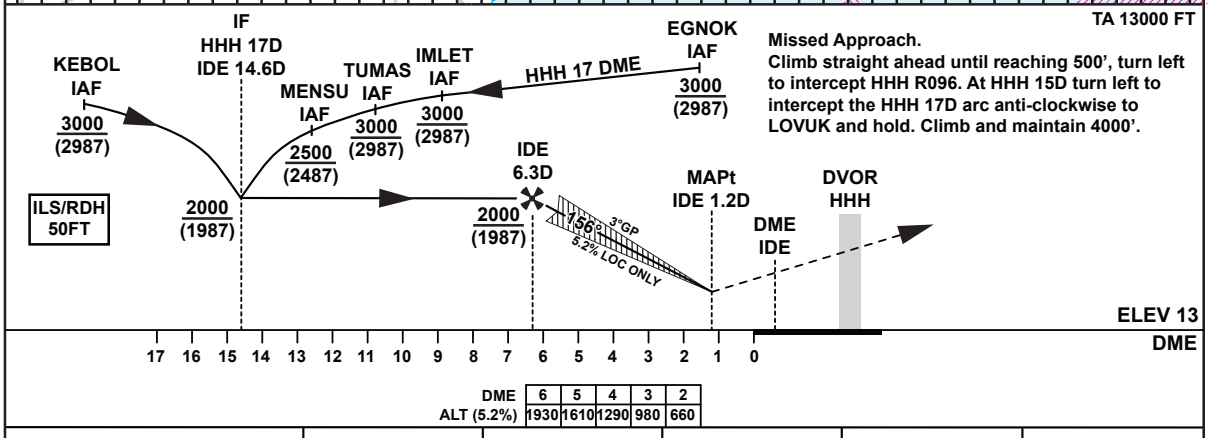
INSTRUMENT APPROACH CHART - ICAO

AD ELEV 13FT
HEIGHTS RELATED TO THR RWY 16L

DOHA APP 121.10 119.40
121.50 243.00
TWR 118.525
GMC 121.875

HAMAD INTL.
ILS/DVOR/DME RWY 16L
ALL ACFT CATEGORIES





OCA (OCH)		A	B	C	D	E
Straight in Approach	ILS CAT I	155 (HAT 142)	167(HAT 154)	175 (HAT 162)	186 (HAT 173)	205 (HAT 192)
	LOC ONLY	370 (HAT 357)				
Circling		600 (HAA 587)		1240 (HAA 1227)		1330 (HAA1317)

HHH DME reads zero at TDZ

LOC only Approach: MAPt at IDE 1.2D

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
	FT/MIN						

Amendment: New Chart

AERODROME LIGHTING CHART - ICAO

DISTANCES IN METRES.
ALTITUDES, ELEVATIONS
AND HEIGHTS IN FEET.

ARP
251628.43N
0513630.16E

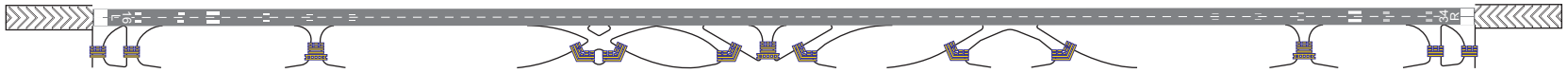
AD ELEV 13FT

ATIS Hamad Terminal Information
126.850

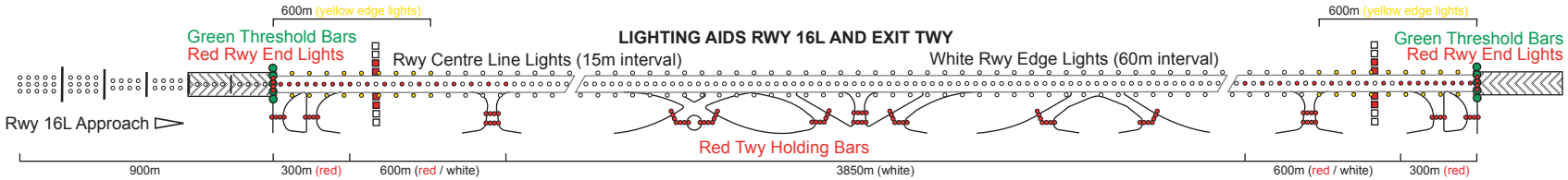
DOHA APP	121.10	119.40
	121.50	243.00
TWR	118.525	
GMC	121.875	

HAMAD Intl.
OTHH

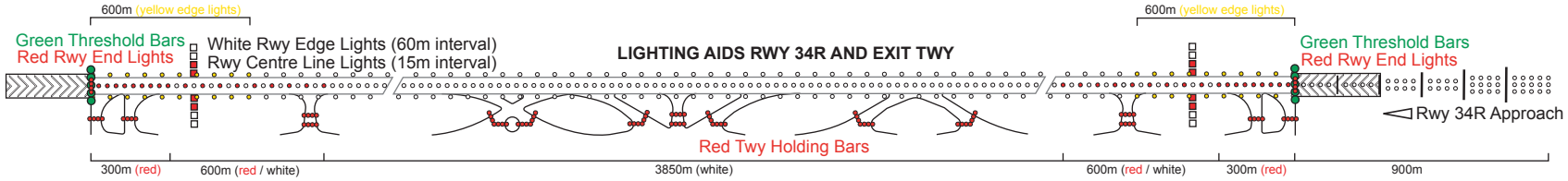
MARKING AIDS RWY 16L/34R AND EXIT TWY



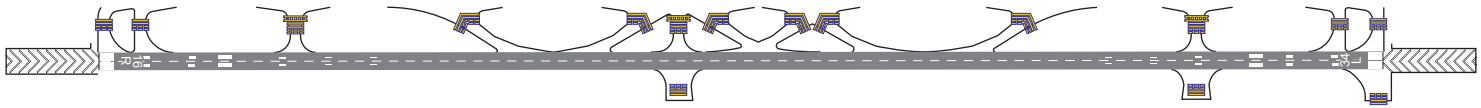
LIGHTING AIDS RWY 16L AND EXIT TWY



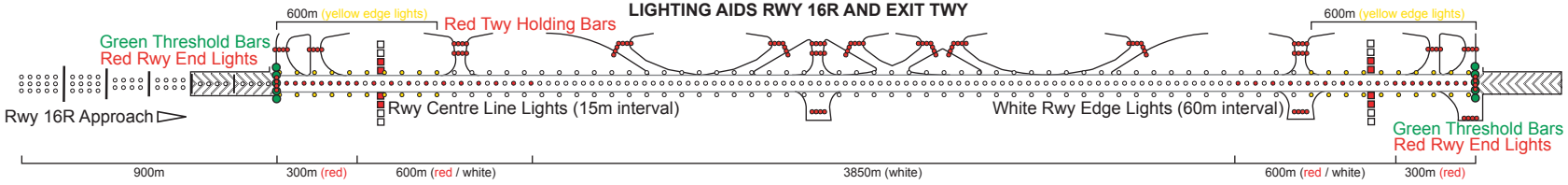
LIGHTING AIDS RWY 34R AND EXIT TWY



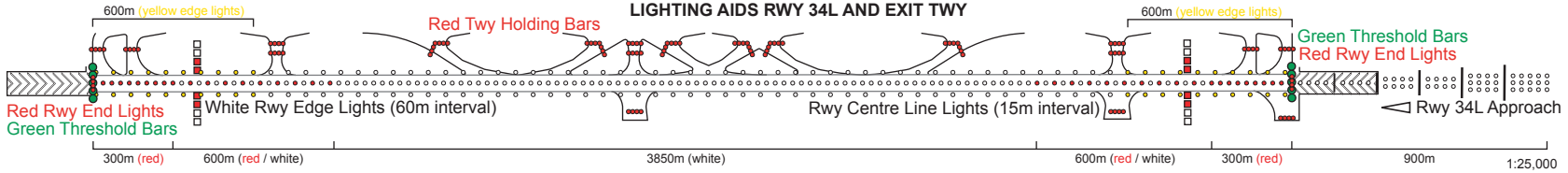
MARKING AIDS RWY 16R/34L AND EXIT TWY



LIGHTING AIDS RWY 16R AND EXIT TWY



LIGHTING AIDS RWY 34L AND EXIT TWY



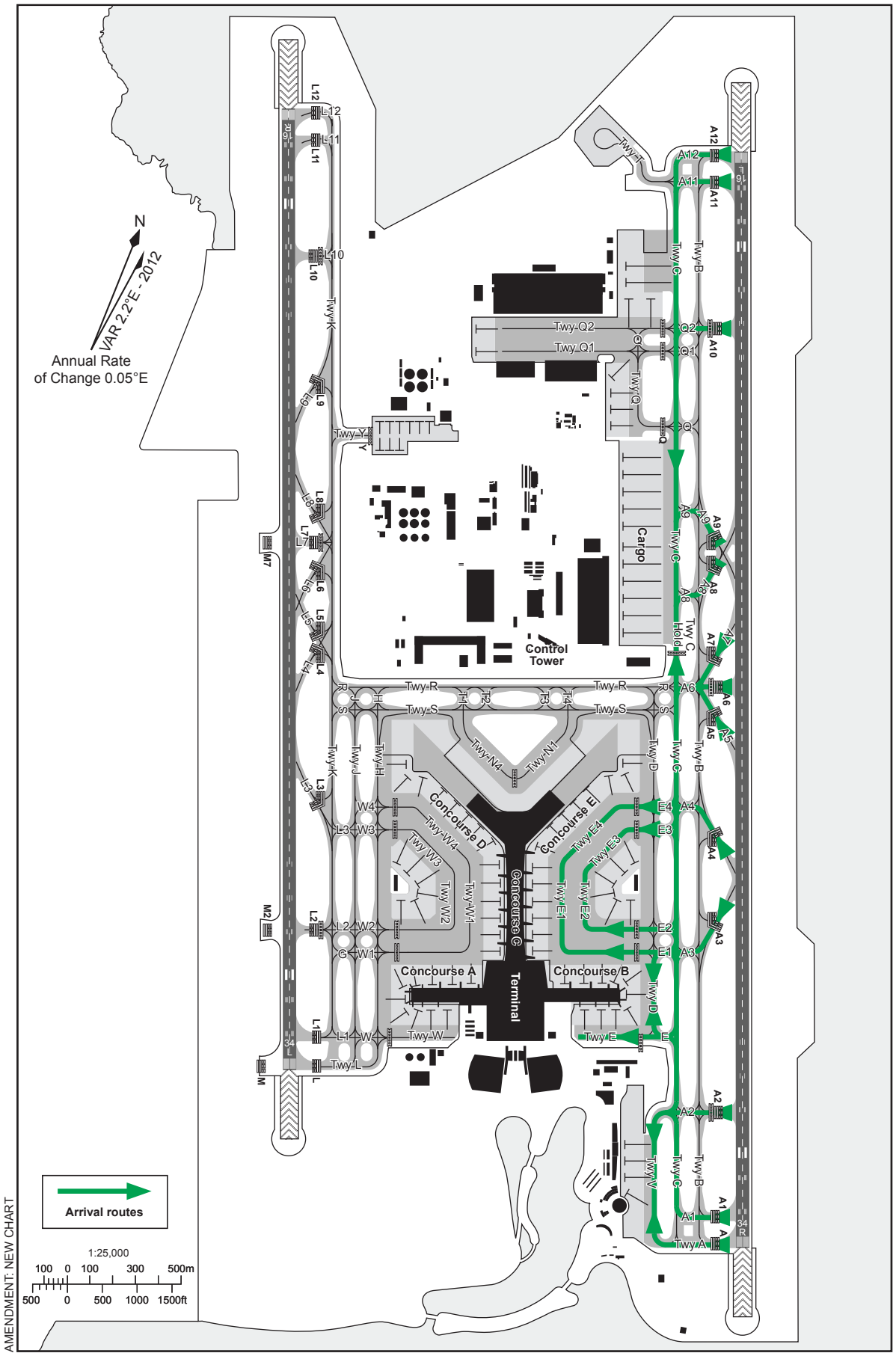
1:25,000

100 0 100 300 500m
500 0 500 1000 1500ft

AMENDMENT: NEW CHART

LOW VISIBILITY TAXI ROUTE (ARRIVAL)
CHART - ICAO

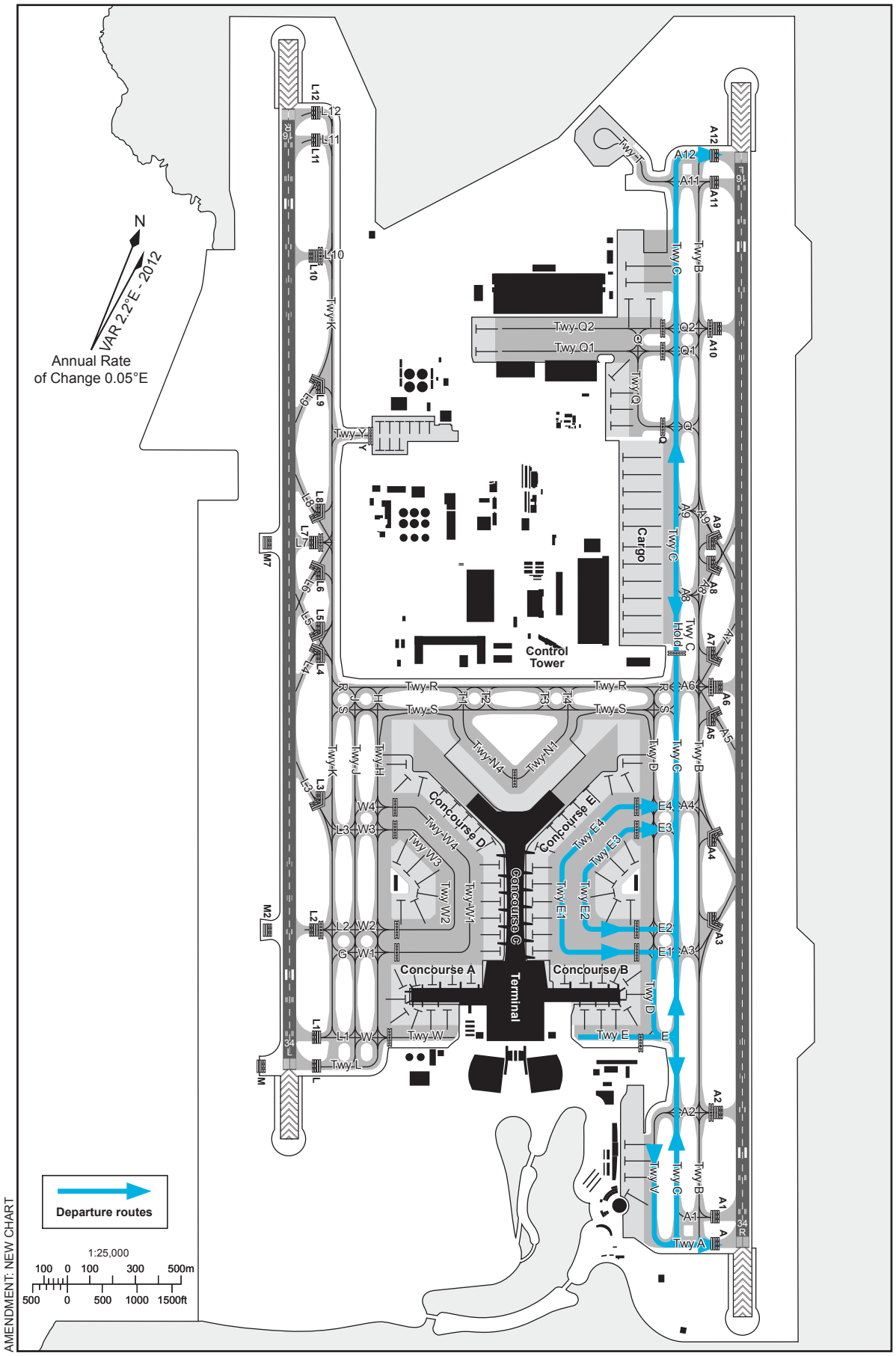
HAMAD Intl.
OTHH



AMENDMENT: NEW CHART

LOW VISIBILITY TAXI ROUTE (DEPARTURE) CHART - ICAO

HAMAD Intl.
OTHH



AMENDMENT: NEW CHART

AIRCRAFT PARKING/DOCKING CHART - ICAO

DISTANCES IN METRES.
ALTITUDES, ELEVATIONS
AND HEIGHTS IN FEET.

ARP
251628.43N
0513630.16E

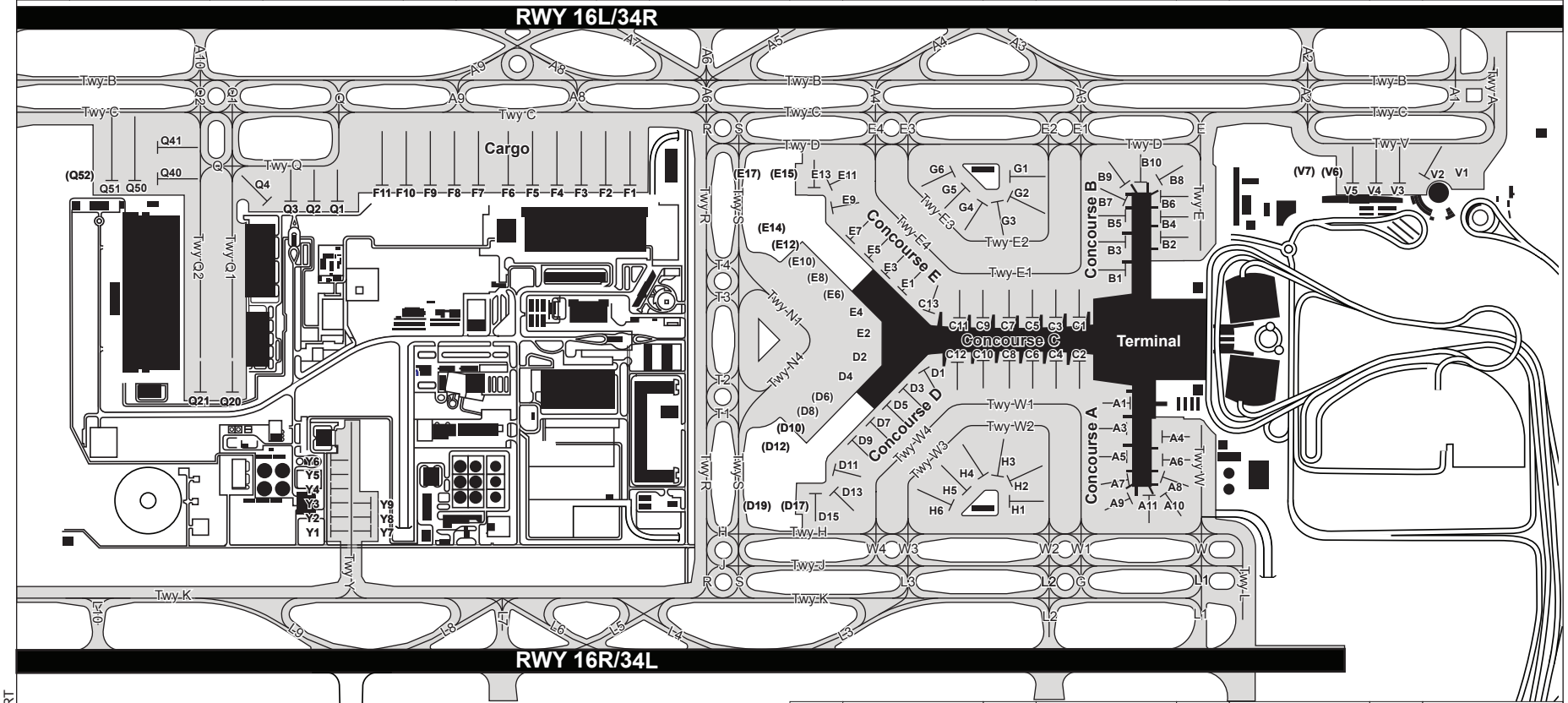
AD ELEV 13FT

ATIS Hamad Terminal Information
126.850

DOHA APP 121.10 119.40
121.50 243.00
TWR 118.525
GMC 121.875

HAMAD Intl.
OTHH

A1	251540.55N 0513641.08E	B1	To be surveyed	C1	251548.15N 0513648.22E	C11	251559.28N 0513643.31E	D8	To be surveyed	E2	To be surveyed	E12	To be surveyed	F6	251646.89N 0513637.82E
A3	To be surveyed	B2	251543.04N 0513659.30E	C2	To be surveyed	C12	To be surveyed	D9	To be surveyed	E3	To be surveyed	E13	To be surveyed	F7	251649.65N 0513636.60E
A4	251535.70N 0513639.15E	B3	251546.56N 0513657.64E	C3	251550.34N 0513647.25E	C13	251602.32N 0513642.64E	D10	To be surveyed	E4	To be surveyed	E14	To be surveyed	F8	251651.95N 0513635.60E
A5	To be surveyed	B4	251543.92N 0513701.71E	C4	To be surveyed	D1	To be surveyed	D11	To be surveyed	E5	To be surveyed	E15	To be surveyed	F9	251654.24N 0513634.58E
A6	251534.82N 0513636.75E	B5	251547.55N 0513700.29E	C5	251552.52N 0513646.29E	D2	To be surveyed	D12	To be surveyed	E6	To be surveyed	E17	To be surveyed	F10	251656.53N 0513633.57E
A7	To be surveyed	B6	251544.74N 0513703.87E	C6	To be surveyed	D3	To be surveyed	D13	To be surveyed	E7	To be surveyed	F1	251635.43N 0513642.87E	F11	251658.82N 0513632.56E
A8	251534.12N 0513634.89E	B7	251548.25N 0513701.97E	C7	251554.71N 0513645.33E	D4	To be surveyed	D15	To be surveyed	E8	To be surveyed	F2	251637.72N 0513641.86E	G1	251600.17N 0513659.62E
A9	To be surveyed	B8	251545.46N 0513705.50E	C8	To be surveyed	D5	To be surveyed	D17	To be surveyed	E9	To be surveyed	F3	251640.01N 0513640.85E	G2	251559.46N 0513657.63E
A10	251533.33N 0513633.24E	B9	251548.94N 0513703.71E	C9	251557.09N 0513644.28E	D6	To be surveyed	D19	To be surveyed	E10	To be surveyed	F4	251642.30N 0513639.84E	G3	251600.24N 0513656.78E
A11	251534.92N 0513632.39E	B10	251547.34N 0513704.53E	C10	To be surveyed	D7	To be surveyed	E1	To be surveyed	E11	To be surveyed	F5	251644.60N 0513638.83E	G4	251601.42N 0513656.29E



AMENDMENT: NEW CHART

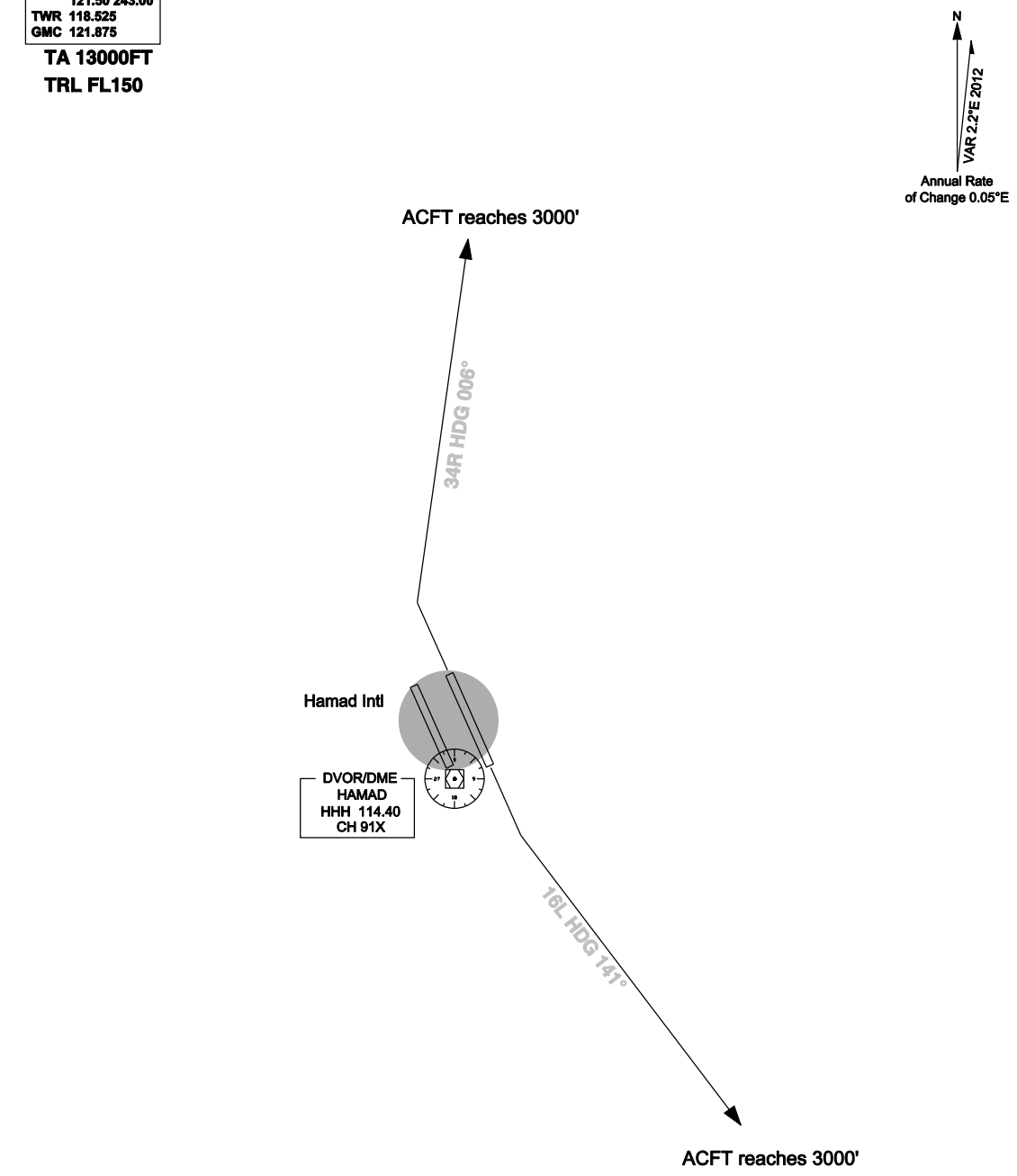
G5	251603.48N 0513657.18E	Q3	251706.77N 0513627.00E	V2	251520.88N 0513716.23E	Y5	251652.80N 0513600.60E
G6	251605.33N 0513658.05E	Q4	251708.88N 0513626.22E	V3	251522.82N 0513715.02E	Y6	251653.33N 0513602.06E
H1	251547.90N 0513625.92E	Q20	251705.13N 0513604.79E	V4	251525.01N 0513714.05E	Y7	251646.80N 0513556.46E
H2	251548.63N 0513627.90E	Q21	251708.14N 0513603.46E	V5	251527.19N 0513713.09E	Y8	251647.33N 0513557.92E
H3	251549.73N 0513627.91E	Q40	251720.28N 0513624.13E	V6	To be surveyed	Y9	251647.86N 0513559.38E
H4	251550.89N 0513627.38E	Q41	251721.45N 0513627.36E	V7	To be surveyed		
H5	251551.82N 0513625.17E	Q50	251722.33N 0513622.76E	Y1	251650.67N 0513554.76E		
H6	251552.61N 0513623.13E	Q51	251724.52N 0513621.80E	Y2	251651.20N 0513556.22E		
Q1	251702.40N 0513628.93E	Q52	To be surveyed	Y3	251651.73N 0513557.68E		
Q2	251704.59N 0513627.97E	V1	To be surveyed	Y4	251652.27N 0513559.13E		

SIERRA 16, NOVEMBER 34
RADAR DEPARTURES

APP 121.10 119.40
121.50 243.00
TWR 118.525
GMC 121.875

TA 13000FT
TRL FL150

RUNWAYS 16L/34R



1. Maintain listening watch on tower frequency until airborne, and then change frequency to the allocated frequency for radar control.
2. Close in obstacles exist.

Gnd speed - Kts	75	100	150	200	250
285' per min	365	475	712	949	1140

CHART NOT TO SCALE

DEPARTURE	RWY	ROUTEING
SIERRA 16	16L	Climb straight ahead to 500', turn left on heading 141° and continue climb to 3000'
NOVEMBER 34	34R	Climb straight ahead to 500', turn right on heading 006° and continue climb to 3000'

Amendment: New Chart.

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART - ICAO

TYPE A OPERATING LIMITATIONS

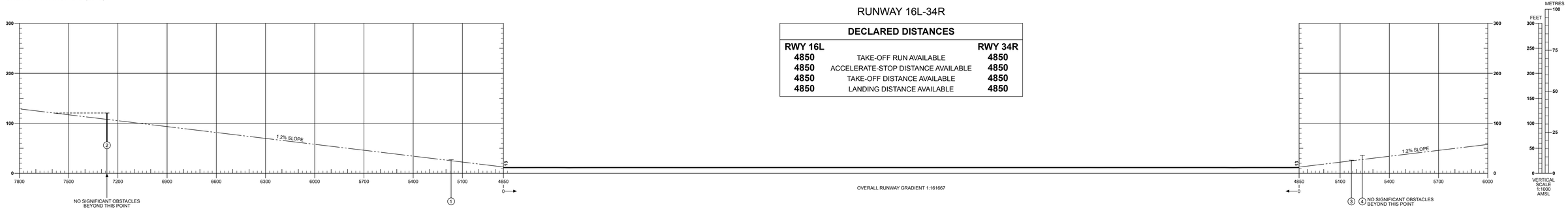
HAMAD INTL. - OTHH

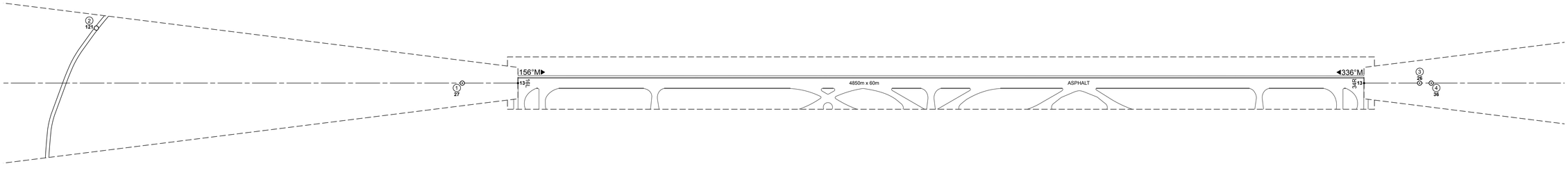
16L/34R - QATAR

MAGNETIC VARIATION 2°E (2012)

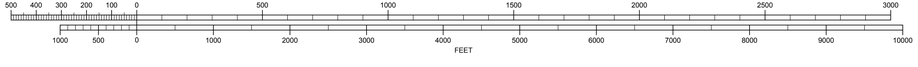
RUNWAY 16L-34R

DECLARED DISTANCES		
RWY 16L		**RWY 34R**
4850	TAKE-OFF RUN AVAILABLE	**4850**
4850	ACCELERATE-STOP DISTANCE AVAILABLE	**4850**
4850	TAKE-OFF DISTANCE AVAILABLE	**4850**
4850	LANDING DISTANCE AVAILABLE	**4850**





HORIZONTAL SCALE 1:10000



LEGEND		
	PLAN	PROFILE
IDENTIFICATION NUMBER	④	④
HEIGHT AMSL	36	
POLE, TOWER, SPIRE, ANTENNA, ETC.	⊙	
MOBILE OBSTACLE		

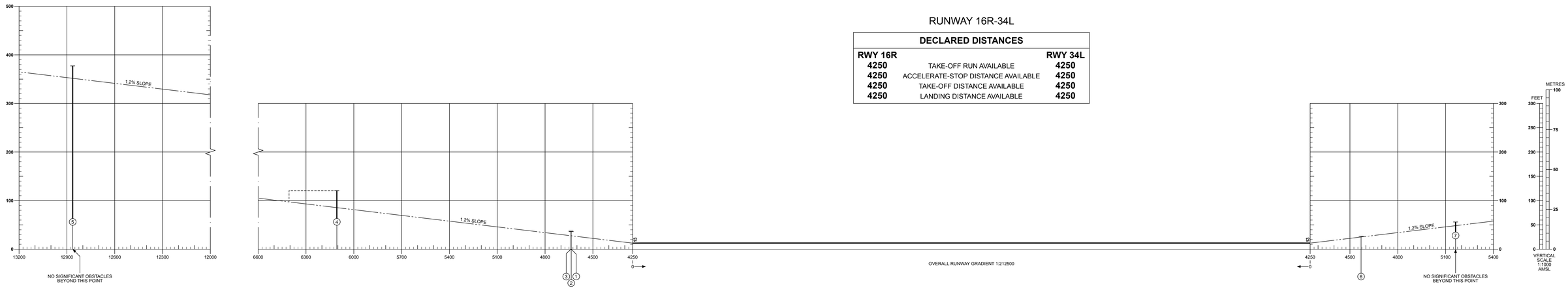
ORDER OF ACCURACY: Horizontal 3m; Vertical 1ft
CHANGE: NEW CHART
Aerodrome information current JUL 2012
Based on survey dated JUNE 2012

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART - ICAO
TYPE A OPERATING LIMITATIONS

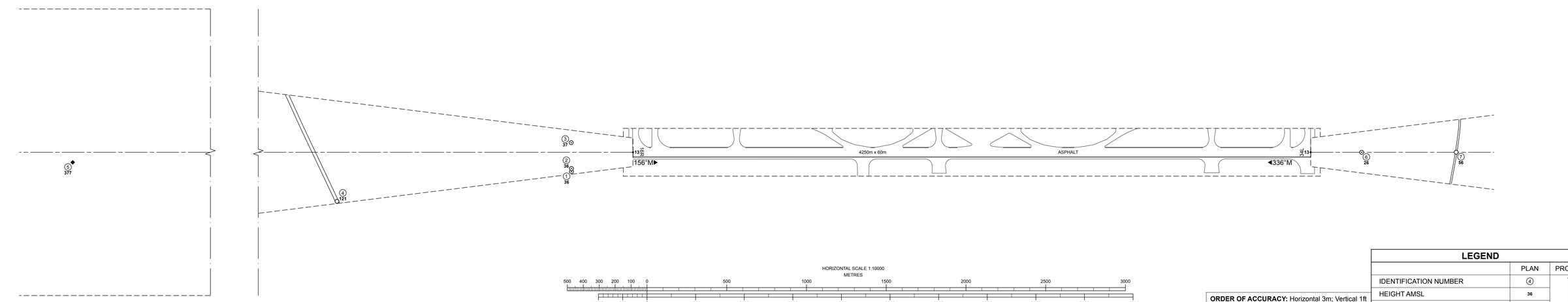
HAMAD INTL. - OTHH
16R/34L - QATAR

MAGNETIC VARIATION 2°E (2012)



RUNWAY 16R-34L

DECLARED DISTANCES		
RWY 16R		**RWY 34L**
4250	TAKE-OFF RUN AVAILABLE	**4250**
4250	ACCELERATE-STOP DISTANCE AVAILABLE	**4250**
4250	TAKE-OFF DISTANCE AVAILABLE	**4250**
4250	LANDING DISTANCE AVAILABLE	**4250**



HORIZONTAL SCALE 1:10000
METRES
FEET

LEGEND		
	PLAN	PROFILE
IDENTIFICATION NUMBER	④	
HEIGHT AMSL	36	
POLE, TOWER, SPIRE, ANTENNA, ETC.	⊙	④
BUILDING	◆	
MOBILE OBSTACLE		

ORDER OF ACCURACY: Horizontal 3m; Vertical 1ft	
CHANGE: NEW CHART	
Aerodrome information current JUL 2012	
Based on survey dated JUNE 2012	