
 <p>الطيران المدني CIVIL AVIATION</p>	<p>BAHRAIN FIR AIR NAVIGATION DIRECTORATE AERONAUTICAL INFORMATION SERVICES</p>	 <p>مملكة البحرين Kingdom of Bahrain وزارة المواصلات MINISTRY OF TRANSPORTATION</p>
<p>AIRAC SUP 08/14</p>	<p>EFF Date 29 May 2014</p>	

RECORD AIP SUPPLEMENT IN GEN 0.3

STATUS OF SUPPLEMENT ITEMS

VALID SUPPLEMENTS: 06/00, 07/00, 03/02, 02/04, 04/08, 02/10, 05/12, 08/12, 09/13, 14/13, 19/13, 21/13, 22/13, 23/13, 25/13, 01/14, 02/14, 06/14 AND 07/14

CANCELLED SUPPLEMENT: 05/14

NOTAM CANCELLED BY THIS AIP SUPPLEMENT: NIL

NR 08/14 REVISION/UPDATE OF HAMAD INTERNATIONAL AIRPORT - OTHH AD

1. INTRODUCTION

The purpose of this supplement is to add/update the published aerodrome information in the AIP Bahrain FIR for HAMAD INTERNATIONAL AIRPORT. Information in this AIP Supplement supersedes the information which is either duplicating or contradicting the already published information in the AIP Bahrain FIR.

2. VALIDITY

Effective Date : 29 MAY 2014
Period of Validity : Until Further Notice

3. CONTENT SUMMARY

3.1. The following are the information contained in this AIP Supplement:

- Magnetic Variation
- Revision of DOHA CTR (Lateral and vertical limits)
- Revision of ATS Communication facilities
- Removal of Standard Taxi Routes During Low Visibility Procedures
- Revision/Update of Aerodrome Operating Minima
- Addition/Revision of AD related Charts

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

HAMAD INTERNATIONAL AIRPORT – OTHH

OTHH AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

MAG VAR/Annual change : 2.29°E (JAN 2014) / 0.05°E

OTHH AD 2.17 – ATS AIRSPACE

a) 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 - 250317N 0511759E then clockwise 5NM arc centred on 250817.0N 0511820.0E to 251140N 0511416E - 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

b) Vertical Limits: SFC to 2500 ft.

OTHH AD 2.18 - ATS COMMUNICATION FACILITIES

Service Designation	Call Sign	Frequencies allocation (MHz)	Hours of Operation	Remarks
APP	Doha Radar	121.100	H24	Primary
	Doha Approach	119.725	H24	Primary
		120.600	H24	Secondary
	Doha Director	119.400	H24	Primary
		121.125	H24	Secondary
	Doha Departure	119.125	H24	
TWR	Emergency	121.500	H24	
	Emergency	243.000	H24	
	Hamad Tower East	118.525	H24	
		118.025	H24	
	Hamad Tower	118.225	H24	Secondary
	Hamad Clearance Delivery	118.375	H24	
GMC	Emergency	121.500	H24	
	Emergency	243.000	H24	
	Hamad Ground East	121.875	H24	Note 1
	Hamad Ground West	121.675	H24	Note 2
	Hamad Ground	121.925	H24	Secondary
	Hamad Apron	Hamad Apron East	120.225	H24
Hamad Apron West		120.875	H24	
Hamad Apron		119.150	H24	Secondary
ATIS	Hamad Information	126.850	H24	

Note 1 - Aircraft on Cargo Apron, Emiri Terminal and aircraft leaving Aircraft Maintenance area and Emiri Hangar area.

Note 2 - Aircraft parked on the North Node and General Aviation Apron.

OTHH AD 2.19 - RADIO NAVIGATION AND LANDING AIDS

MAG VAR of HHH DVOR/DME : 2.29°E / 2014

OTHH AD 2.22 - FLIGHT PROCEDURES

a) Instructions published in "OTHH AD 2.22.2.4 STANDARD TAXI ROUTES DURING LOW VISIBILITY PROCEDURES" are cancelled.

b) Data published in "OTHH AD 2.22.3 Minima" are superseded with the following new data.

Straight-in RWY	Aircraft Category			
	A	B	C	D
RWY 16L				
CAT 3B ILS	Approved	Approved	Approved	Approved
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
CAT 2 ILS	DA (H) 113 ft (100 ft) RA 100 ft	DA (H) 113 ft (100 ft) RA 100 ft	DA (H) 113 ft (100 ft) RA 100 ft	DA (H) 129 ft (116 ft) RA 118 ft
ALS out	RVR 300 m	RVR 300 m	RVR 300 m	RVR 300 m*/350 m
ILS	DA (H) 213 ft (200 ft)	DA (H) 213 ft (200 ft)	DA (H) 213 ft (200 ft)	DA (H) 220 ft (207 ft)
ALS out	RVR 550 m RVR 1200 m	RVR 550 m RVR 1200 m	RVR 550 m RVR 1200 m	RVR 550 m RVR 1200 m
LOC	MDA (H) 370 ft (357 ft)	MDA (H) 370 ft (357 ft)	MDA (H) 370 ft (357 ft)	MDA (H) 370 ft (357 ft)
ALS out	RVR 900 m RVR 1600 m	RVR 900 m RVR 1600 m	RVR 900 m RVR 1600 m	RVR 900 m RVR 1600 m
RNAV (LNAV/VNAV)	DA (H) 370 ft (357 ft)	DA (H) 370 ft (357 ft)	DA (H) 370 ft (357 ft)	DA (H) 370 ft (357 ft)
ALS out	RVR 900 m RVR 1600 m	RVR 900 m RVR 1600 m	RVR 900 m RVR 1600 m	RVR 900 m RVR 1600 m
RNAV (LNAV)	MDA (H) 570 ft (557 ft)	MDA (H) 570 ft (557 ft)	MDA (H) 570 ft (557 ft)	MDA (H) 570 ft (557 ft)
ALS out	RVR 1800 m RVR 2500 m	RVR 1800 m RVR 2500 m	RVR 1800 m RVR 2500 m	RVR 1800 m RVR 2500 m
VOR/DME	MDA (H) 1020 ft (1007 ft)	MDA (H) 1020 ft (1007 ft)	MDA (H) 1020 ft (1007 ft)	MDA (H) 1020 ft (1007 ft)
ALS out	RVR 4100 m RVR 4900 m	RVR 4100 m RVR 4900 m	RVR 4100 m RVR 4900 m	RVR 4100 m RVR 4900 m
RWY 16R				
CAT 3B ILS	Approved	Approved	Approved	Approved
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
CAT 2 ILS	DA (H) 113 ft (100 ft) RA 100 ft	DA (H) 113 ft (100 ft) RA 100 ft	DA (H) 113 ft (100 ft) RA 100 ft	DA (H) 132 ft (119 ft) RA 123 ft
ALS out	RVR 300 m	RVR 300 m	RVR 300 m	RVR 300 m*/350 m
ILS	DA (H) 213 ft (200 ft)	DA (H) 213 ft (200 ft)	DA (H) 213 ft (200 ft)	DA (H) 220 ft (207 ft)
ALS out	RVR 550 m RVR 1200 m	RVR 550 m RVR 1200 m	RVR 550 m RVR 1200 m	RVR 550 m RVR 1200 m
LOC	MDA (H) 370 ft (357 ft)	MDA (H) 370 ft (357 ft)	MDA (H) 370 ft (357 ft)	MDA (H) 370 ft (357 ft)
ALS out	RVR 900 m RVR 1600 m	RVR 900 m RVR 1600 m	RVR 900 m RVR 1600 m	RVR 900 m RVR 1600 m
RNAV (LNAV/VNAV)	DA (H) 380 ft (367 ft)	DA (H) 380 ft (367 ft)	DA (H) 380 ft (367 ft)	DA (H) 380 ft (367 ft)
ALS out	RVR 1000 m RVR 1700 m	RVR 1000 m RVR 1700 m	RVR 1000 m RVR 1700 m	RVR 1000 m RVR 1700 m

Straight-in RWY	Aircraft Category			
	A	B	C	D
RNAV (LNAV)	MDA (H) 570 ft (557 ft) RVR 1800 m	MDA (H) 570 ft (557 ft) RVR 1800 m	MDA (H) 570 ft (557 ft) RVR 1800 m	MDA (H) 570 ft (557 ft) RVR 1800 m
ALS out	RVR 2500 m	RVR 2500 m	RVR 2500 m	RVR 2500 m
VOR/DME	MDA (H) 410 ft (397 ft) RVR 1100 m	MDA (H) 410 ft (397 ft) RVR 1100 m	MDA (H) 410 ft (397 ft) RVR 1100 m	MDA (H) 410 ft (397 ft) RVR 1100 m
ALS out	RVR 1800 m	RVR 1800 m	RVR 1800 m	RVR 1800 m
RWY 34L				
CAT 3B ILS	Approved	Approved	Approved	Approved
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
CAT 2 ILS	DA (H) 184 ft (171 ft) RA 174 ft	DA (H) 200 ft (187 ft) RA 191 ft	DA (H) 213 ft (200 ft) RA 209 ft	DA (H) 226 ft (213 ft) NA
ALS out	RVR 450 m	RVR 450 m	RVR 450 m	RVR 450 m
CAT 2 ILS 4.0% Missed Approach Climb Gradient	DA (H) 113 ft (100 ft) RA 100 ft	DA (H) 113 ft (100 ft) RA 100 ft	DA (H) 113 ft (100 ft) RA 100 ft	DA (H) 132 ft (119 ft) RA 120 ft
ALS out	RVR 300 m	RVR 300 m	RVR 300 m	RVR 300 m*/350 m
ILS	DA (H) 301 ft (288 ft) RVR 650 m	DA (H) 310 ft (297 ft) RVR 650 m	DA (H) 320 ft (307 ft) RVR 700 m	DA (H) 330 ft (317 ft) RVR 700 m
ALS out	RVR 1400 m	RVR 1400 m	RVR 1400 m	RVR 1400 m
ILS 4.0% Missed Approach Climb Gradient	DA (H) 213 ft (200 ft) RVR 550 m	DA (H) 213 ft (200 ft) RVR 550 m	DA (H) 213 ft (200 ft) RVR 550 m	DA (H) 220 ft (207 ft) RVR 550 m
ALS out	RVR 1200 m	RVR 1200 m	RVR 1200 m	RVR 1200 m
LOC	MDA (H) 340 ft (327 ft) RVR 800 m	MDA (H) 340 ft (327 ft) RVR 800 m	MDA (H) 340 ft (327 ft) RVR 800 m	MDA (H) 340 ft (327 ft) RVR 800 m
ALS out	RVR 1500 m	RVR 1500 m	RVR 1500 m	RVR 1500 m
RNAV (LNAV/VNAV)	DA (H) 370 ft (357 ft) RVR 900 m	DA (H) 370 ft (357 ft) RVR 900 m	DA (H) 370 ft (357 ft) RVR 900 m	DA (H) 370 ft (357 ft) RVR 900 m
ALS out	RVR 1600 m	RVR 1600 m	RVR 1600 m	RVR 1600 m
RNAV (LNAV)	MDA (H) 570 ft (557 ft) RVR 1800 m	MDA (H) 570 ft (557 ft) RVR 1800 m	MDA (H) 570 ft (557 ft) RVR 1800 m	MDA (H) 570 ft (557 ft) RVR 1800 m
ALS out	RVR 2500 m	RVR 2500 m	RVR 2500 m	RVR 2500 m
VOR/DME	MDA (H) 530 ft (517 ft) RVR 1600 m	MDA (H) 530 ft (517 ft) RVR 1600 m	MDA (H) 530 ft (517 ft) RVR 1600 m	MDA (H) 530 ft (517 ft) RVR 1600 m
ALS out	RVR 2400 m	RVR 2400 m	RVR 2400 m	RVR 2400 m
RWY 34R				
CAT 3B ILS	Approved	Approved	Approved	Approved
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
CAT 2 ILS	DA (H) 113 ft (100 ft) RA 100 ft	DA (H) 124 ft (111 ft) RA 114 ft	DA (H) 137 ft (124 ft) RA 132 ft	DA (H) 156 ft (143 ft) RA 151 ft
ALS out	RVR 300 m	RVR 300 m	RVR 400 m	RVR 450 m
ILS	DA (H) 213 ft (200 ft) RVR 550 m	DA (H) 213 ft (200 ft) RVR 550 m	DA (H) 222 ft (209 ft) RVR 550 m	DA (H) 235 ft (222 ft) RVR 550 m
ALS out	RVR 1200 m	RVR 1200 m	RVR 1200 m	RVR 1200 m

Straight-in RWY	Aircraft Category			
	A	B	C	D
LOC ALS out	MDA (H) 320 ft (307 ft) RVR 700 m RVR 1400 m	MDA (H) 320 ft (307 ft) RVR 700 m RVR 1400 m	MDA (H) 320 ft (307 ft) RVR 700 m RVR 1400 m	MDA (H) 320 ft (307 ft) RVR 700 m RVR 1400 m
RNAV (LNAV/VNAV) ALS out	DA (H) 310 ft (297 ft) RVR 650 m RVR 1400 m	DA (H) 310 ft (297 ft) RVR 650 m RVR 1400 m	DA (H) 310 ft (297 ft) RVR 650 m RVR 1400 m	DA (H) 310 ft (297 ft) RVR 650 m RVR 1400 m
RNAV (LNAV) ALS out	MDA (H) 410 ft (397 ft) RVR 1100 m RVR 1800 m	MDA (H) 410 ft (397 ft) RVR 1100 m RVR 1800 m	MDA (H) 410 ft (397 ft) RVR 1100 m RVR 1800 m	MDA (H) 410 ft (397 ft) RVR 1100 m RVR 1800 m
VOR/DME ALS out	MDA (H) 1360 ft (1347 ft) RVR 4600 m RVR 5000 m	MDA (H) 1360 ft (1347 ft) RVR 4600 m RVR 5000 m	MDA (H) 1360 ft (1347 ft) RVR 4600 m RVR 5000 m	MDA (H) 1360 ft (1347 ft) RVR 4600 m RVR 5000 m

* 300 m may be used for Category D aeroplane conducting an auto-land.

Circle to Land	100 kt	135 kt	180 kt	205 kt
After ILS 16L, LOC 16L, RNAV 16L, ILS 16R, LOC 16R, RNAV 16R, VOR 16R, ILS 34L, LOC 34L, RNAV 34L, VOR 34L, ILS 34R, LOC 34R, RNAV 34R.	MDA (H) 620 ft (607 ft) VIS 1500 m	MDA (H) 620 ft (607 ft) VIS 1600 m	MDA (H) 1240 ft (1227 ft) VIS 2400 m	MDA (H) 1240 ft (1227 ft) VIS 3600 m
After VOR 16L	MDA (H) 1020 ft (1007 ft) VIS 1500 m	MDA (H) 1020 ft (1007 ft) VIS 1600 m	MDA (H) 1240 ft (1227 ft) VIS 2400 m	MDA (H) 1240 ft (1227 ft) VIS 3600 m
After VOR 34R	MDA (H) 1360 ft (1347 ft) VIS 1500 m	MDA (H) 1360 ft (1347 ft) VIS 1600 m	MDA (H) 1360 ft (1347 ft) VIS 2400 m	MDA (H) 1360 ft (1347 ft) VIS 3600 m

Take-off RVR/Visibility for Runway 16L, 16R, 34L & 34R						
LVP must be in force					Runway edge lighting and/or centre line marking (DAY only)	NIL (DAY only)
	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)			
A	150 m	200 m	250 m	-	500 m	
B						
C						
D	200 m	250 m	300 m			

All charts Published in “OTHH AD 2.24 CHARTS RELATED TO AN AERODROME” are hereby cancelled.

List of new/revised charts for OTHH:

- AERODROME CHART
- AIRCRAFT PARKING DOCKING CHART
- AERODROME OBSTACLE CHART - ICAO Type A 16L/34R
- AERODROME OBSTACLE CHART - ICAO Type A 16R/34L
- PRECISION APPROACH TERRAIN CHART – ICAO RWY 16L
- PRECISION APPROACH TERRAIN CHART – ICAO RWY 34R
- PRECISION APPROACH TERRAIN CHART – ICAO RWY 16R
- PRECISION APPROACH TERRAIN CHART – ICAO RWY 34L
- IAC - ICAO RWY 16L ILS
- IAC - ICAO RWY 16L VOR
- IAC - ICAO RWY 16L RNAV (GNSS)
- IAC - ICAO RWY 16R ILS
- IAC - ICAO RWY 16R VOR
- IAC - ICAO RWY 16R RNAV (GNSS)
- IAC - ICAO RWY 34L ILS
- IAC - ICAO RWY 34L VOR
- IAC - ICAO RWY 34L RNAV (GNSS)
- IAC - ICAO RWY 34R ILS
- IAC - ICAO RWY 34R VOR
- IAC - ICAO RWY 34R RNAV (GNSS)
- SID - ICAO RWY 16L BATHA 1M RNAV
- SID - ICAO RWY 16L BUNDU 1M RNAV
- SID - ICAO RWY 16L ALSEM 1M, KIROS 1M, NAMLA 1M RNAV
- SID - ICAO RWY 16L PATOM 1M RNAV
- SID - ICAO RWY 16L SALWA 1M RNAV
- SID - ICAO RWY 16L/R LOXUL 1C/1M
- SID - ICAO RWY 16R BATHA 1C RNAV
- SID - ICAO RWY 16R ALSEM 1C, BUNDU 1C, NAMLA 1C RNAV
- SID - ICAO RWY 16R KIROS 1C, PATOM 1C RNAV
- SID - ICAO RWY 16R SALWA 1C RNAV
- SID - ICAO RWY 34L BATHA 1W RNAV
- SID - ICAO RWY 34L ALSEM 1W, BUNDU 1W, NAMLA 1W RNAV
- SID - ICAO RWY 34L KIROS, PATOM 1W RNAV
- SID - ICAO RWY 34L SALWA 1W RNAV
- SID - ICAO RWY 34L/R SIDS MUXOP 1E/ 1W
- SID - ICAO RWY 34R BATHA 1E, SALWA 1E RNAV
- SID - ICAO RWY 34R ALSEM 1E, BUNDU 1E, NAMLA 1E RNAV
- SID - ICAO RWY 34R KIROS 1E, PATOM 1E RNAV
- STAR - ICAO RWY 16L BAYAN 1M, GINTO 1M, MODED 1M
- STAR - ICAO RWY 16R BAYAN 1C, GINTO 1C, MODED 1C
- STAR - ICAO RWY 34L BAYAN 1W, GINTO 1W, MODED 1W
- STAR - ICAO RWY 34R BAYAN 1E, GINTO 1E, MODED 1E
- ATSMAC ATC SURVEILLANCE MINIMUM ALTITUDE CHART – ICAO
- BIRD CONCENTRATIONS

AERODROME CHART - ICAO

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

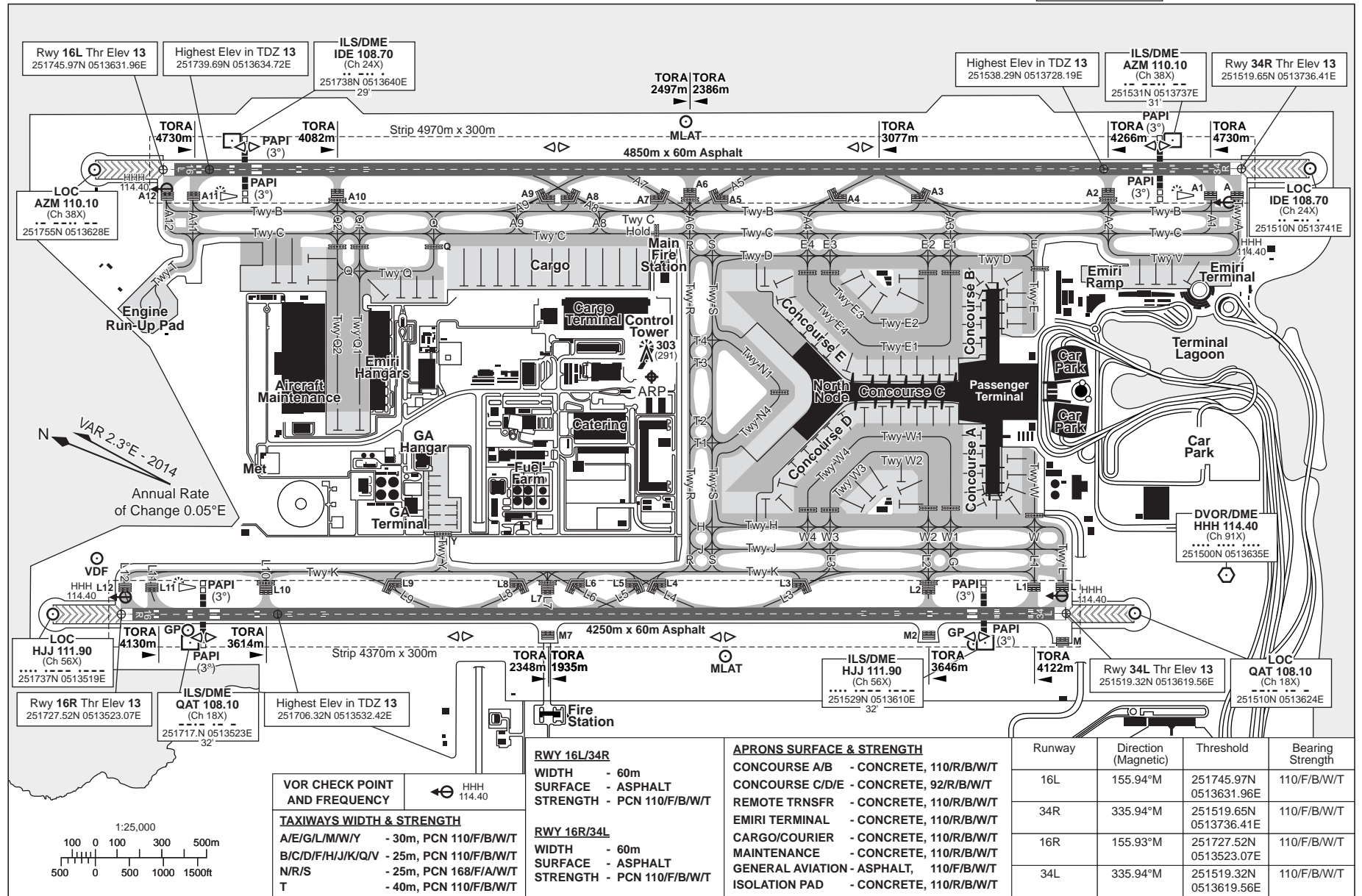
ARP
251628.43N
0513630.16E

AD ELEV 13FT

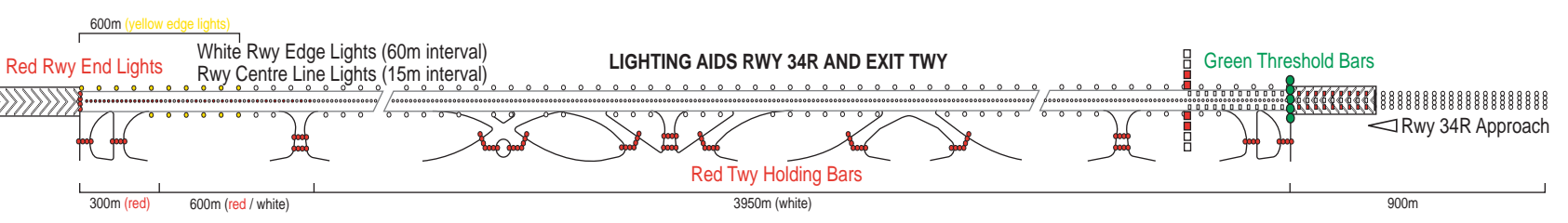
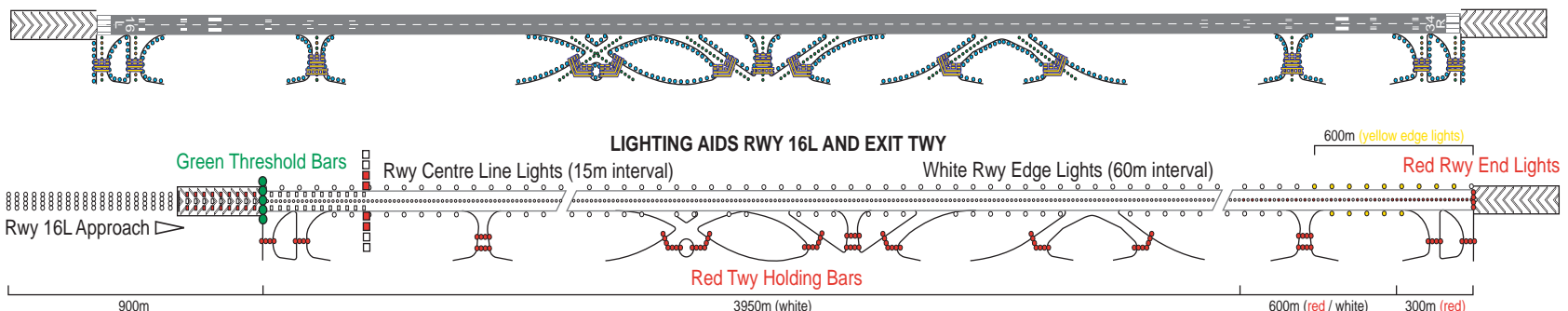
ATIS Hamad Terminal Information
126.850

DOHA APP 119.40
DIRECTOR 120.60
TWR 118.525
GMC 121.875

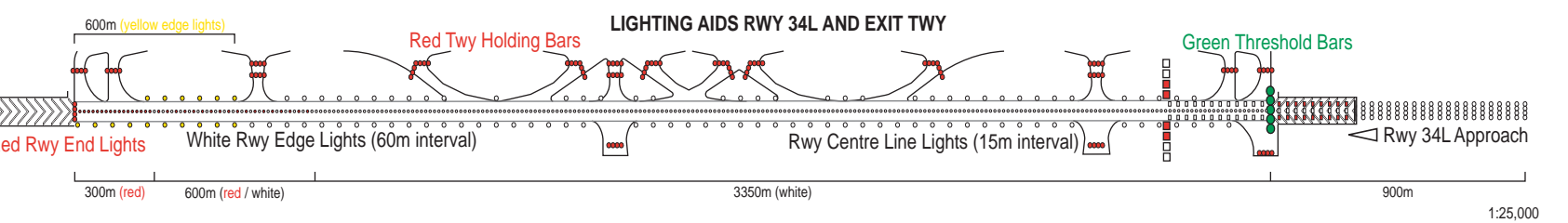
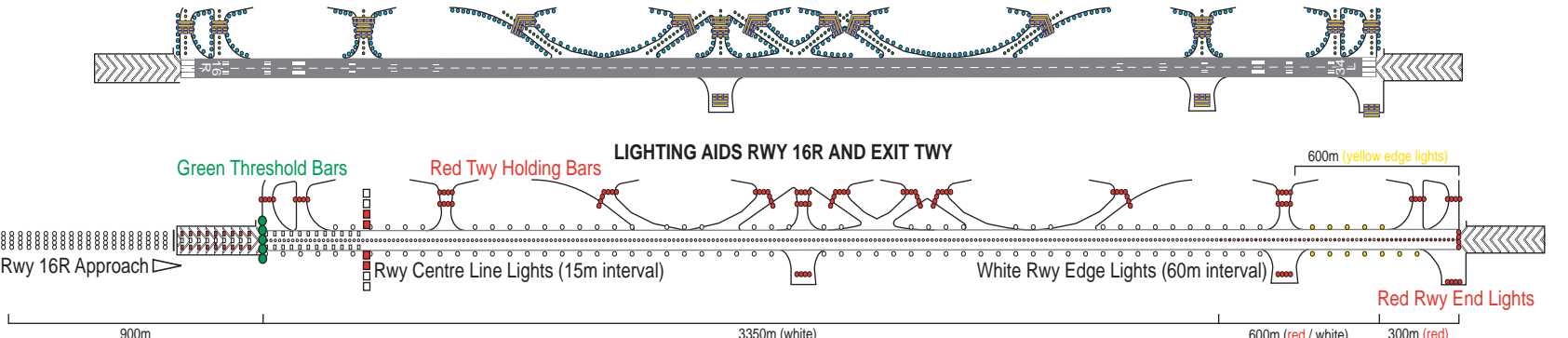
**HAMAD Intl.
OTH**



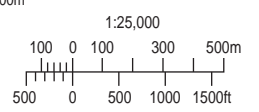
MARKING AIDS RWY 16L/34R AND EXIT TWY / TWY CENTRELINE AND EDGE LIGHTING



MARKING AIDS RWY 16R/34L AND EXIT TWY / TWY CENTRELINE AND EDGE LIGHTING



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

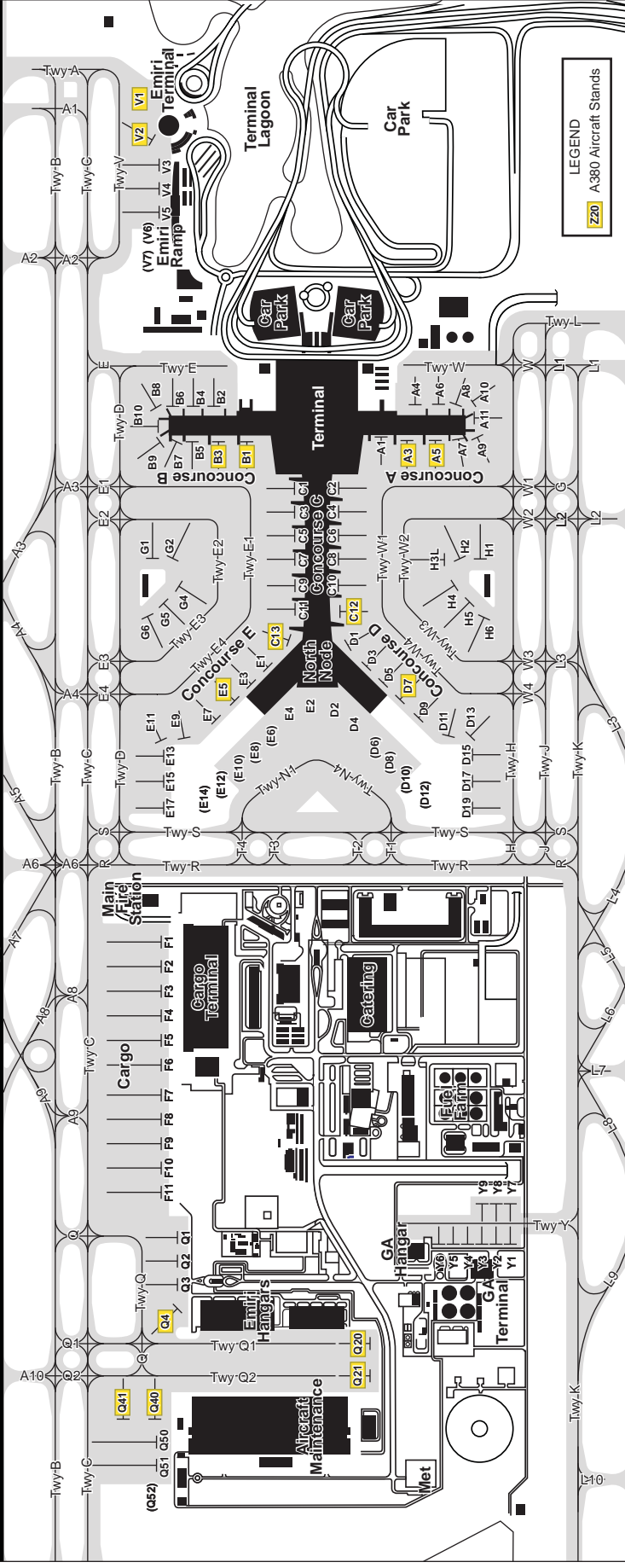
ATIS Hamad Terminal Information
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DOHA APP 119.40
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**HAMAD Intl.
OTTH**

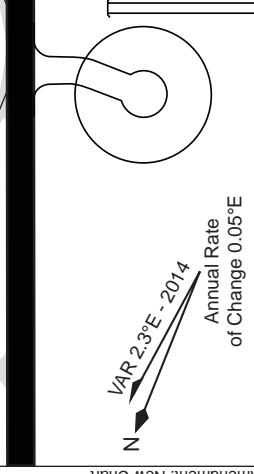
A1	251540.56N 0513641.08E	B1	To be surveyed	C1	251548.15N 0513648.22E	C11	To be surveyed	D8	To be surveyed	E2	To be surveyed	E12	To be surveyed	F6	251646.88N 0513637.82E
A3	To be surveyed	B2	251543.04N 0513659.30E	C2	To be surveyed	C12	To be surveyed	D9	To be surveyed	E3	To be surveyed	E13	To be surveyed	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 0513634.88E	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	251680.17N 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	251533.35N 0513633.24E	B9	251546.94N 0513703.71E	C9	251557.09N 0513644.28E	D6	To be surveyed	D19	To be surveyed	E10	To be surveyed	F4	251642.30N 0513639.84E	G4	251601.42N 0513656.29E
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		

RWY 16L/34R



RWY 16R/34L

G5	251603.48N 0513657.18E	Q3	251706.77N 0513627.00E	V2R/V2L	251520.88N 0513716.29E	Y5	251652.80N 0513630.60E
G6	251605.33N 0513656.09E	Q4	251706.88N 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 0513714.06E	Y7	251646.80N 0513556.46E
H2	251548.63N 0513627.90E	Q21	251708.14N 0513603.46E	V5	251527.19N 0513713.08E	Y8	251647.33N 0513557.92E
H3L	To be surveyed	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	251722.35N 0513627.78E	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	251704.58N 0513627.97E	V1	To be surveyed	Y4	251652.27N 0513559.13E		



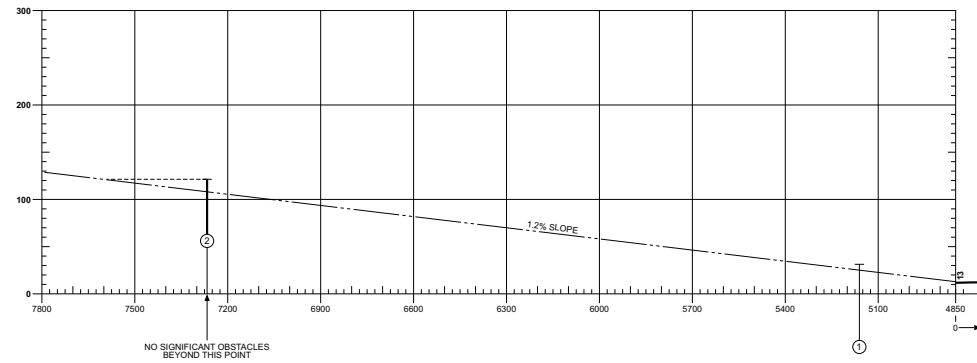
Amendment: New Chart

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART - ICAO TYPE A OPERATING LIMITATIONS

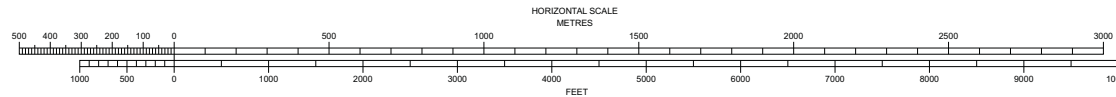
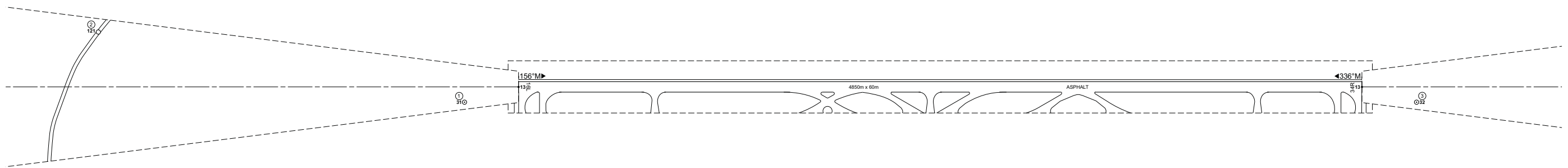
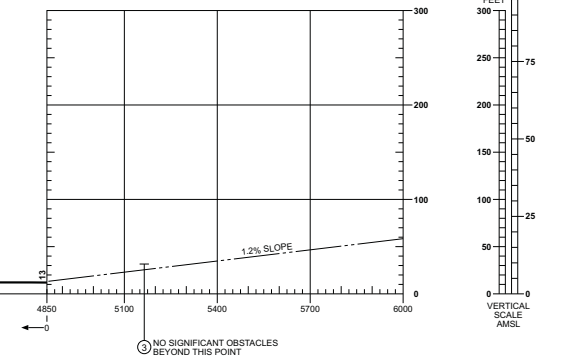
DOHA/Hamad Intl. (OTHH)
16L/34R - QATAR

MAGNETIC VARIATION 2°E (2014)



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	

OVERALL RUNWAY GRADIENT 1:161667



ORDER OF ACCURACY: Horizontal 3m; Vertical 1ft
CHANGE: NEW CHART
Aerodrome information current SEPTEMBER 2013
Based on survey dated JULY 2013

LEGEND		
	PLAN	PROFILE
IDENTIFICATION NUMBER	①	⊕
HEIGHT AMSL	32	⊕
POLE, TOWER, SPIRE, ANTENNA, ETC.	⊙	⊕
MOBILE OBSTACLE	⊖	⊕

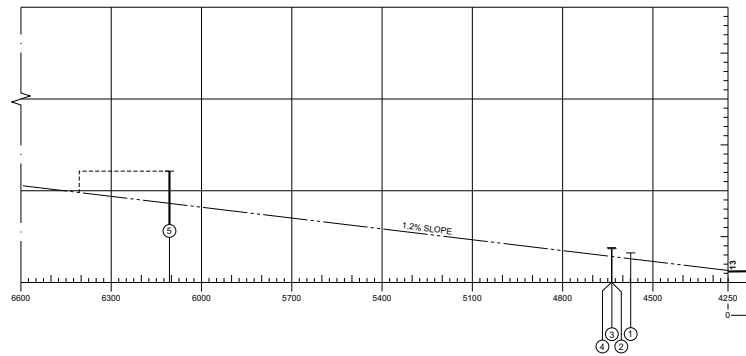
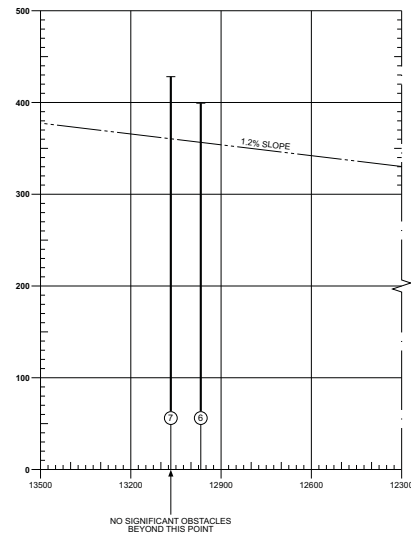
16L/34R - DOHA/Hamad Intl. (OTHH)

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

AERODROME OBSTACLE CHART - ICAO
TYPE A OPERATING LIMITATIONS

DOHA/Hamad Intl. (OTHH)
16R/34L - QATAR

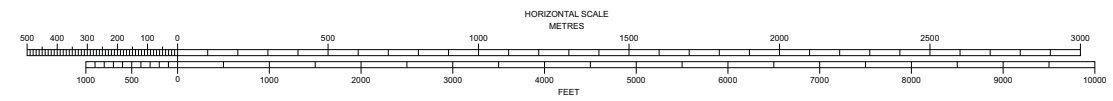
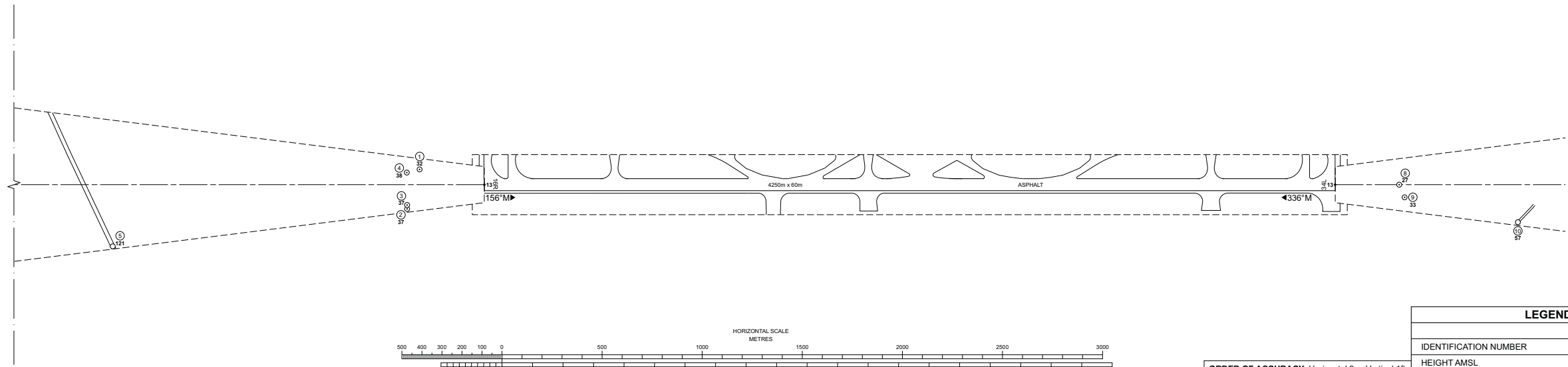
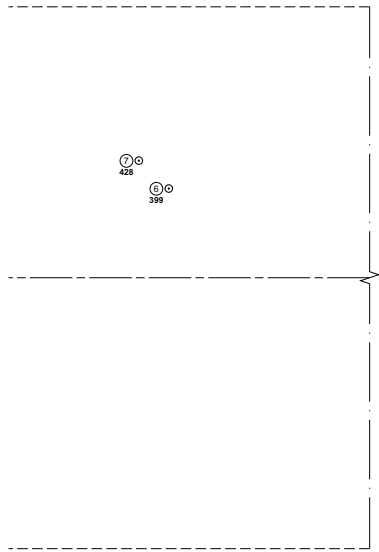
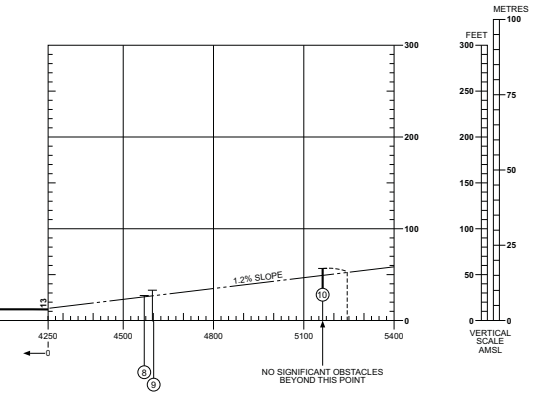
MAGNETIC VARIATION 2°E (2014)



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

OVERALL RUNWAY GRADIENT 1:212500



ORDER OF ACCURACY: Horizontal 3m; Vertical 1ft
CHANGE: NEW CHART
Aerodrome information current SEPTEMBER 2013
Based on survey dated JULY 2013

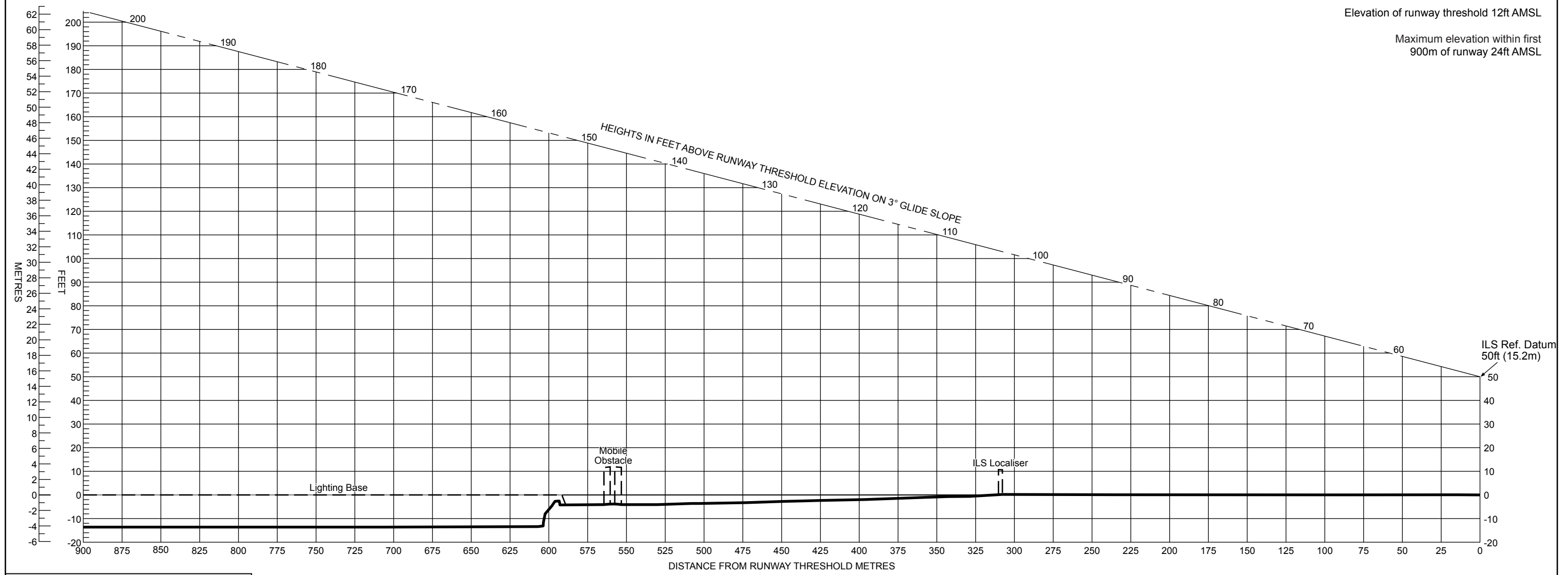
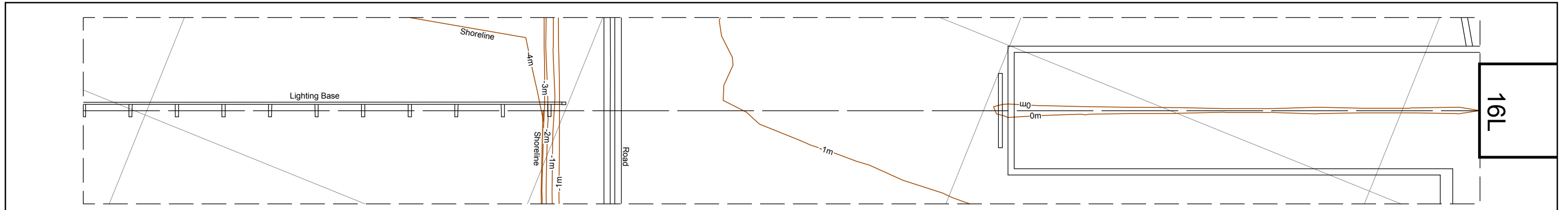
LEGEND		
	PLAN	PROFILE
IDENTIFICATION NUMBER	⊙	⊙
HEIGHT AMSL	27	⊙
POLE, TOWER, SPIRE, ANTENNA, ETC.	⊙	⊙
BUILDING	◆	◆
MOBILE OBSTACLE	⊙	⊙

16R/34L - DOHA/Hamad Intl. (OTHH)

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

PRECISION APPROACH TERRAIN CHART - ICAO

DOHA/Hamad Intl. (OTHH)
RUNWAY 16L



LEGEND	
BUILDING OR LARGE STRUCTURE	
CENTRELINE PROFILE	
DEVIATION OF ±10ft (3m) IN HEIGHT FROM CENTRELINE PROFILE	

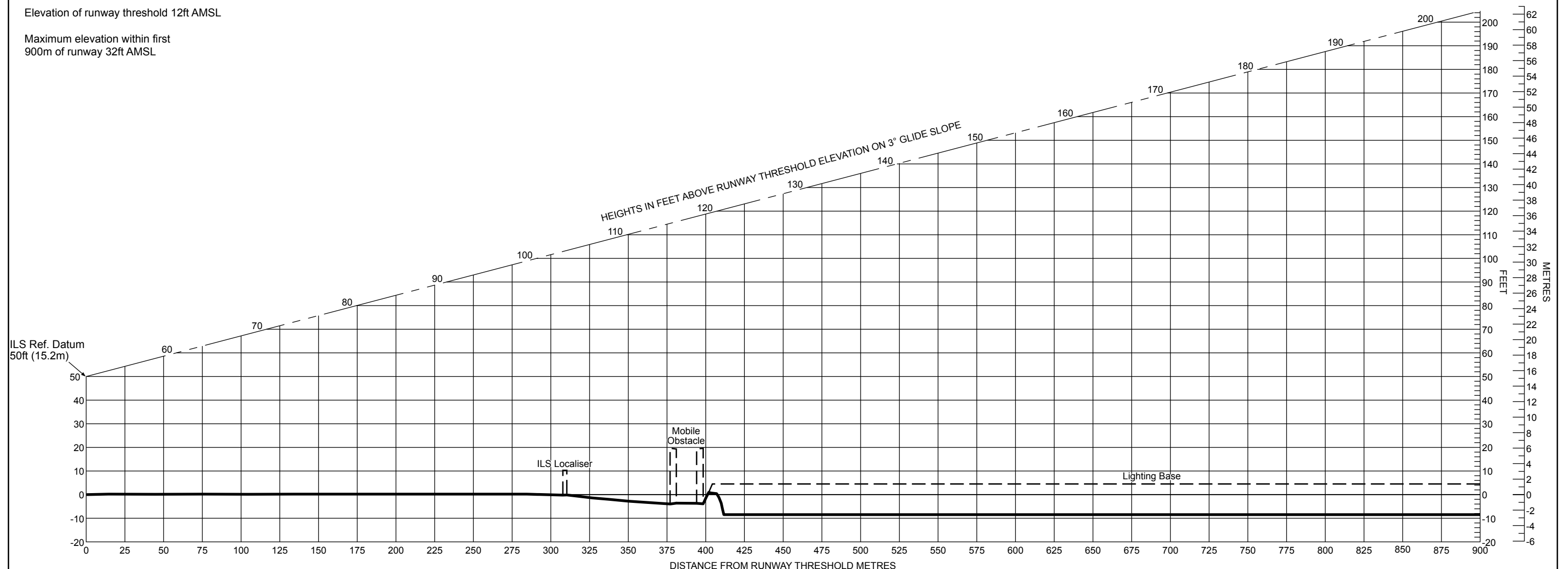
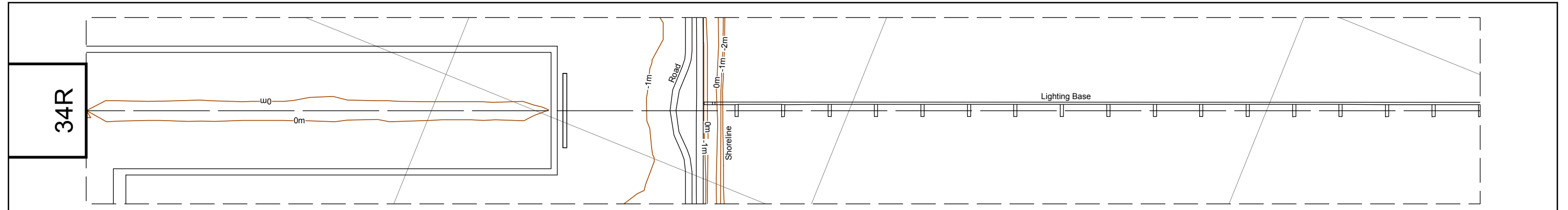
HORIZONTAL SCALE 1:2500
VERTICAL SCALE 1:500
CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RUNWAY THRESHOLD

CHANGE: NEW CHART
Aerodrome information current JAN 2013 V2
Based on survey dated JUN 2012

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

PRECISION APPROACH TERRAIN CHART - ICAO

DOHA/Hamad Intl. (OTHH)
RUNWAY 34R



LEGEND	
BUILDING OR LARGE STRUCTURE	■
CENTRELINE PROFILE	—
DEVIATION OF ±10ft (3m) IN HEIGHT FROM CENTRELINE PROFILE	- - -

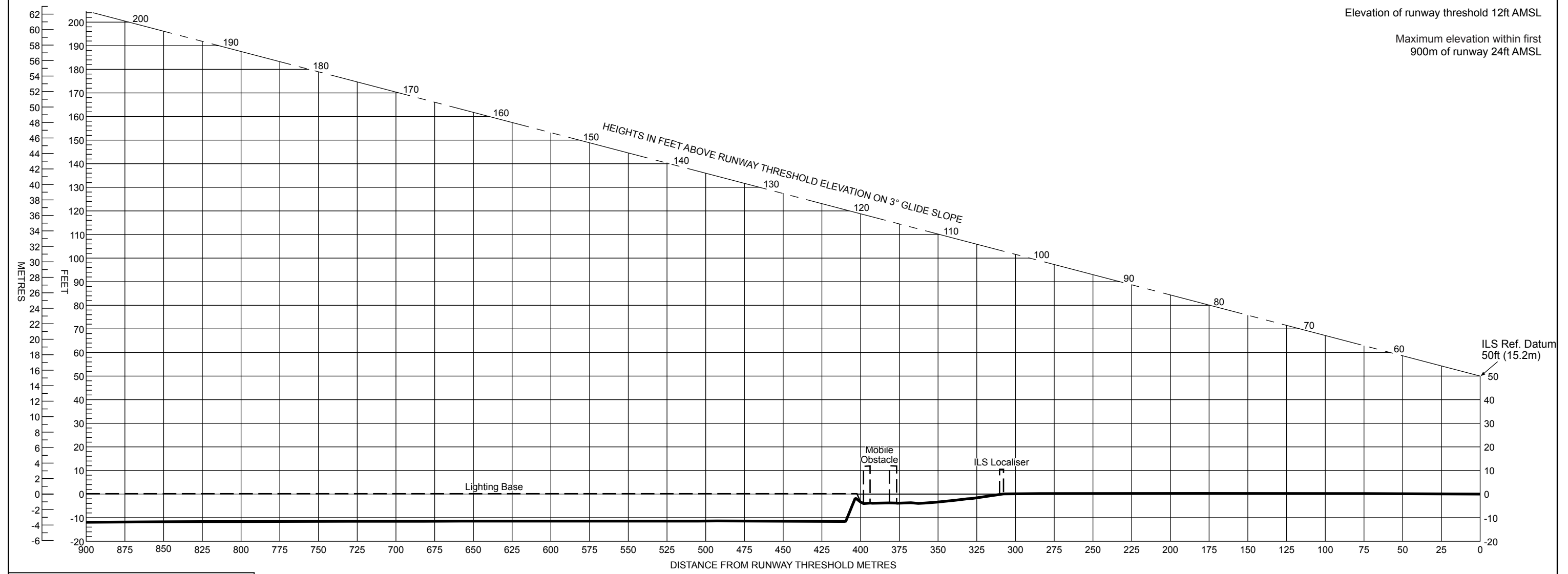
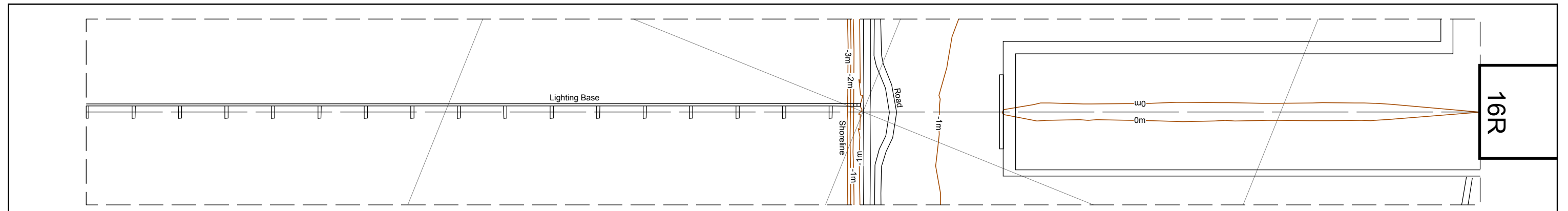
HORIZONTAL SCALE 1:2500
VERTICAL SCALE 1:500
CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RUNWAY THRESHOLD

CHANGE: NEW SURVEY
Aerodrome information current JAN 2013 V2
Based on survey dated JUN 2012

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

PRECISION APPROACH TERRAIN CHART - ICAO

DOHA/Hamad Intl. (OTHH)
RUNWAY 16R



LEGEND	
BUILDING OR LARGE STRUCTURE	
CENTRELINE PROFILE	
DEVIATION OF ±10ft (3m) IN HEIGHT FROM CENTRELINE PROFILE	

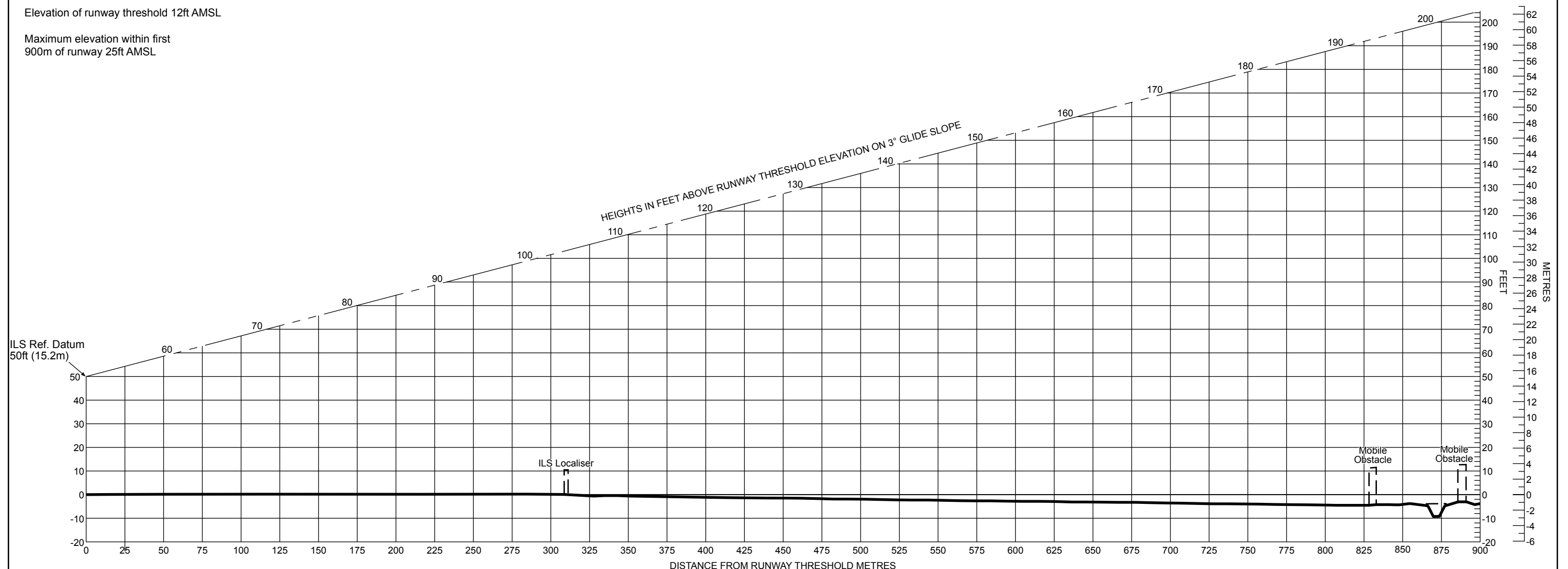
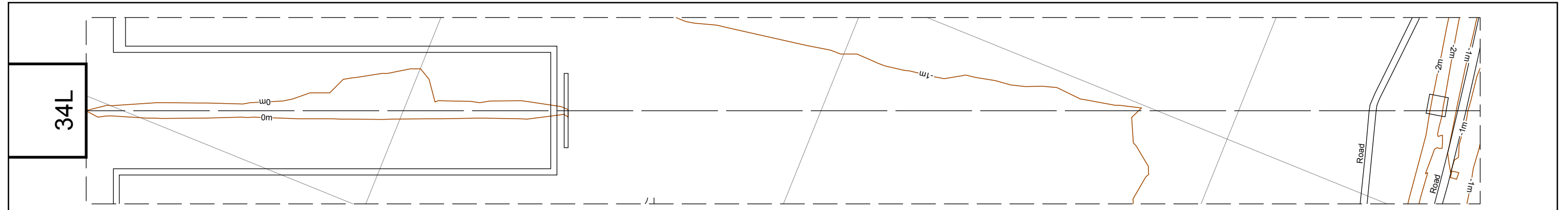
HORIZONTAL SCALE 1:2500
VERTICAL SCALE 1:500
CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RUNWAY THRESHOLD

CHANGE: NEW CHART
Aerodrome information current JAN 2013 V2
Based on survey dated JUN 2012

ELEVATIONS IN FEET
ALL OTHER DIMENSIONS IN METRES

PRECISION APPROACH TERRAIN CHART - ICAO

DOHA/Hamad Intl. (OTHH)
RUNWAY 34L



LEGEND	
BUILDING OR LARGE STRUCTURE	
CENTRELINE PROFILE	
DEVIATION OF ±10ft (3m) IN HEIGHT FROM CENTRELINE PROFILE	

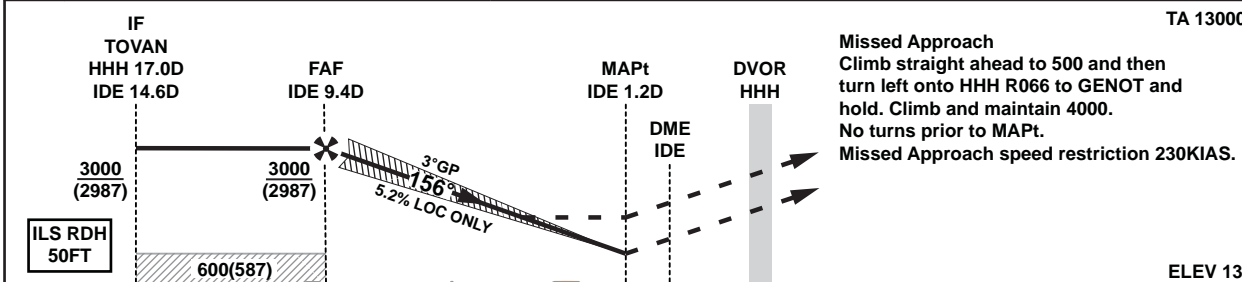
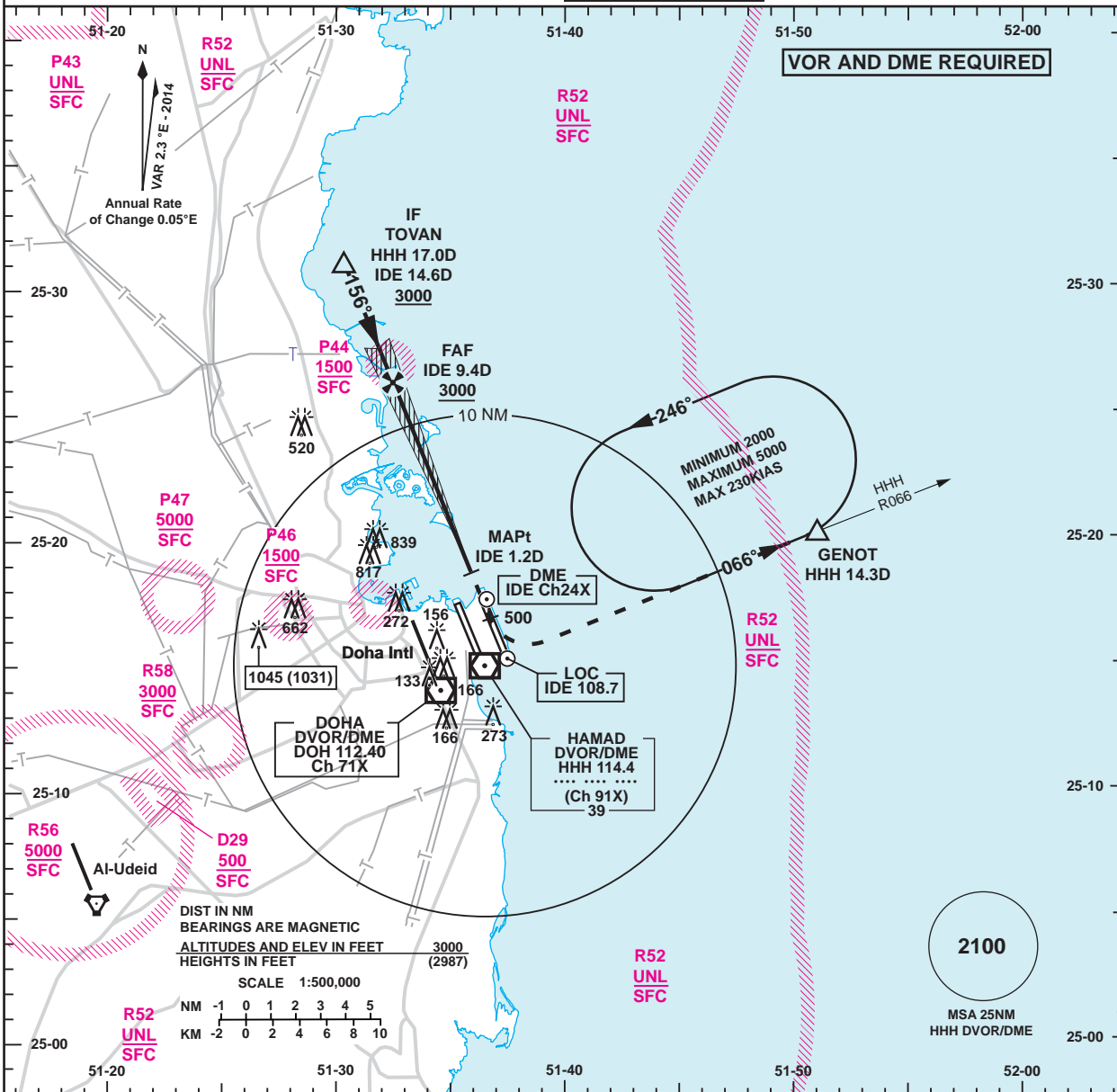
HORIZONTAL SCALE 1:2500
VERTICAL SCALE 1:500
CONTOURS AND HEIGHTS ARE RELATED TO ELEVATION OF RUNWAY THRESHOLD

CHANGE: NEW SURVEY
Aerodrome information current JAN 2013 V2
Based on survey dated JUN 2012

INSTRUMENT APPROACH CHART - ICAO
AD ELEV 13
HEIGHTS RELATED TO THR RWY 16L

DOHA APP 119.40
 DIRECTOR 120.60
 TWR 118.525
 GMC 121.875

DOHA/Hamad Intl. (OTHH)
ILS RWY 16L
ACFT CAT A,B,C,D



DME	9	8	7	6	5	4	3	2
ALT (5.2%)	2880	2570	2250	1930	1610	1290	980	660

OCA (OCH)		A	B	C	D
Straight in Approach	ILS CAT I	180 (167)	192 (179)	205 (192)	220 (207)
	ILS CAT II	83 (70)	95 (82)	109 (96)	129 (116)
	LOC ONLY	370 (357)			
Circling		620 (607)		1240 (1227)	

1. IDE DME zero ranged to TDZ.
 2. CAT IIIA and CAT IIIB APPROVED
 3. HOLD at GENOT protected for sector 3 Entry only.

LOC only Approach: MAPt at IDE 1.2D		80	100	120	140	160	180
Speed	KT						
Time	MIN:SEC	Timing Not Authorized					
Rate of Descent	FT/MIN	420	530	640	740	850	960

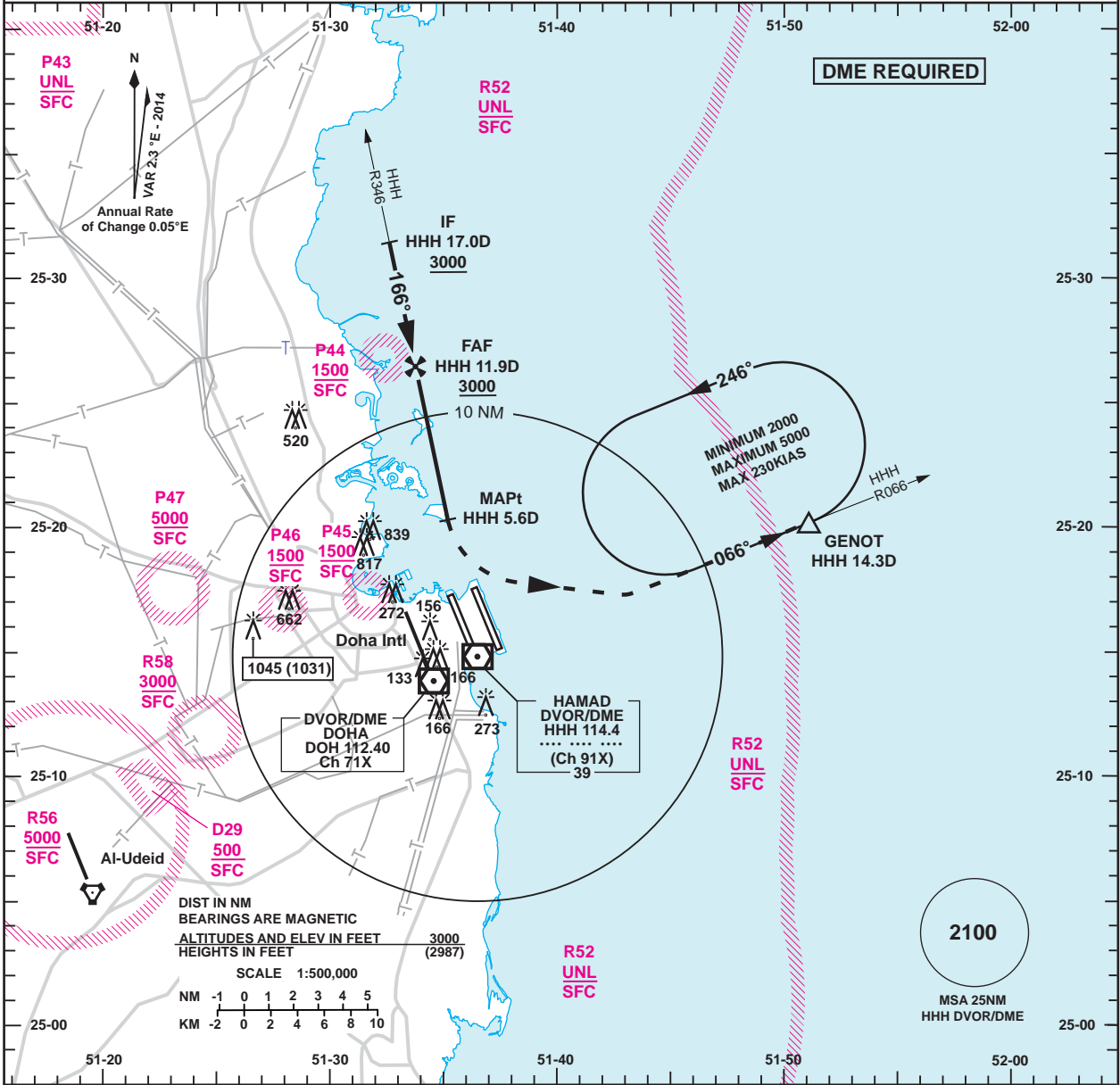
Amendment: New Chart

INSTRUMENT APPROACH CHART - ICAO

**AD ELEV 13
HEIGHTS RELATED TO AD ELEV**

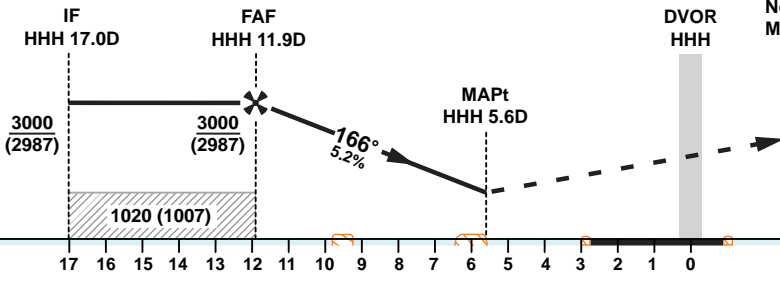
DOHA APP 119.40
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
VOR RWY 16L
ACFT CAT A,B,C,D**



TA 13000

Missed Approach
Turn left onto HHH R066 to GENOT and hold.
Climb and maintain 4000.
No turns prior to the MAPt.
Missed Approach speed restriction 230KIAS.



ELEV 13
DME HHH

DME	11	10	9	8	7	6
ALT (5.2%)	2730	2420	2100	1780	1460	1140

OCA (OCH)		A	B	C	D
Straight in Approach	VOR	1020 (1007)			
Circling		1020 (1007)		1240 (1227)	

1. CAUTION - Final Approach Track offset from runway centre line by 10°.
2. HOLD at GENOT protected for sector 3 Entry only.

VOR Approach: MAPt at HHH 5.6D

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
Rate of Descent	FT/MIN	420	530	640	740	850	960

Amendment: New Chart

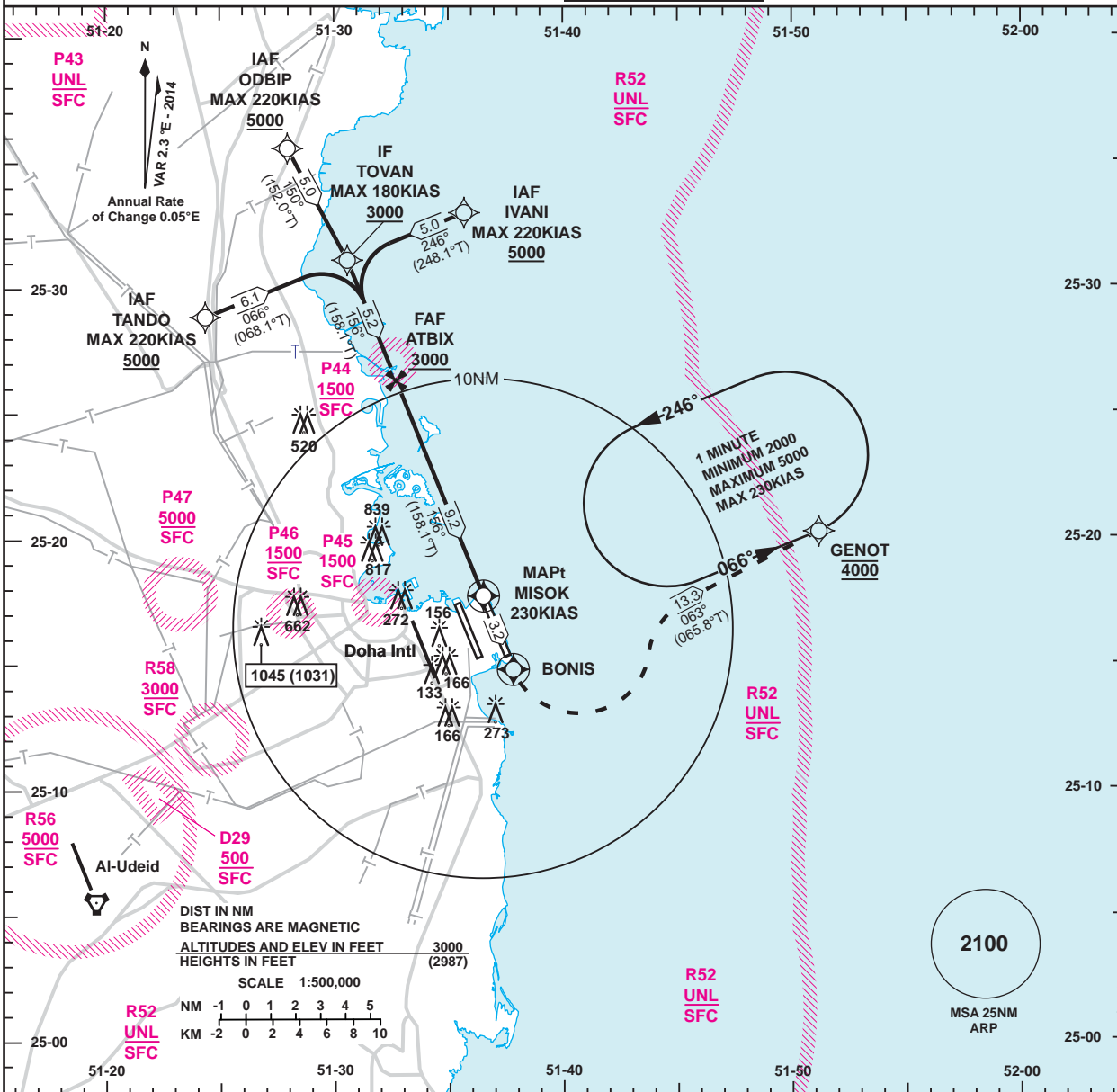
INSTRUMENT
APPROACH
CHART - ICAO

AD ELEV 13
HEIGHTS RELATED
TO AD ELEV

MIN TEMP
15°C

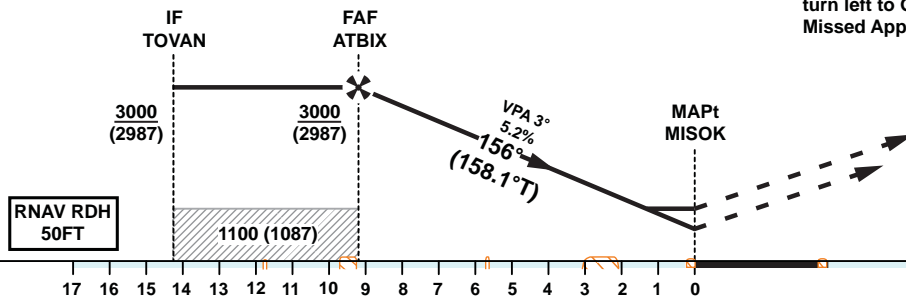
DOHA APP 119.40
DIRECTOR 120.60
TWR 118.525
GMC 121.875

DOHA/Hamad Intl. (OTHH)
RNAV (GNSS) RWY 16L
ACFT CAT A,B,C,D



TA 13000

Missed Approach
Climb straight ahead to BONIS. At BONIS ,
turn left to GENOT. Climb and maintain 4000.
Missed Approach speed restriction 230KIAS.



Distance from MAPt	9	8	7	6	5	4	3	2
ALT (3.0%VPA)	2930	2620	2300	1980	1660	1340	1020	700

OCA (OCH)		A	B	C	D
Straight in Approach	LNAV/VNAV	370 (357)			
	LNAV	570 (557)			
Circling		620 (607)		1240 (1227)	

1. HOLD at GENOT protected for sector 3 Entry only.

RNAV Approach: MAPt at MISOK

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
Rate of Descent	FT/MIN	420	530	640	740	850	960

Amendment: New Chart

Instrument Approach Procedure Coding Tables

OTHH RNAV(GNSS) RWY 16L TANDO

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (*)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	IF	TANDO	-		2.3			+5000	-220				RNP1.0
2	TF	TOVAN	-	066 (068.1)	2.3	6.1	R	+3000	-180				RNP1.0

OTHH RNAV(GNSS) RWY 16L ODBIP

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (*)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	IF	ODBIP	-		2.3			+5000	-220				RNP1.0
2	TF	TOVAN	-	150 (152.0)	2.3	5.0		+3000	-180				RNP1.0

OTHH RNAV(GNSS) RWY 16L IVANI

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (*)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	IF	IVANI	-		2.3			+5000	-220				RNP1.0
2	TF	TOVAN	-	248 (248.1)	2.3	5.0	L	+3000	-180				RNP1.0

OTHH RNAV(GNSS) RWY 16L FINAL

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (*)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	IF	TOVAN	-		2.3			+3000	-180				RNP1.0
2	TF	ATBIX	-	156 (158.1)	2.3	5.2		+3000	-180				RNP0.3
3	TF	MISOK	Y	156 (158.1)	2.3	9.2			-180	13 / 50	3.0		RNP0.3
4	CF	BONIS	Y	156 (158.2)	2.3	-	L		-230				RNP1.0
5	TF	GENOT	-	063 (065.8)	2.3	13.3		@4000	-230				RNP1.0
6	HM	GENOT	Y	066 (068.3)	2.3	4.3	L	@4000	-230				RNP1.0

OTHH RNAV(GNSS) RWY 16L TANDO

WP	Latitude	Longitude	Function
TANDO	252853.68N	0512422.68E	IAF
TOVAN	253109.81N	0513037.05E	IF

OTHH RNAV(GNSS) RWY 16L ODBIP

WP	Latitude	Longitude	Function
ODBIP	253537.40N	0512800.00E	IAF
TOVAN	253109.81N	0513037.05E	IF

OTHH RNAV(GNSS) RWY 16L IVANI

WP	Latitude	Longitude	Function
IVANI	253302.21N	0513944.87E	IAF
TOVAN	253109.81N	0513037.05E	IF

OTHH RNAV(GNSS) RWY 16L FINAL

WP	Latitude	Longitude	Function
TOVAN	253109.81N	0513037.05E	IF
ATBIX	252621.31N	0513244.59E	FAF
MISOK	251745.97N	0513631.96E	MAP1
BONIS	251449.85N	0513749.52E	
GENOT	252018.11N	0515114.66E	

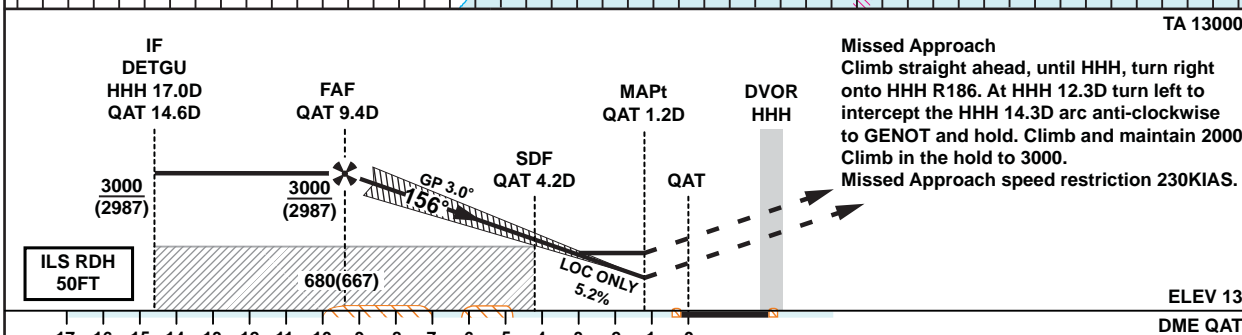
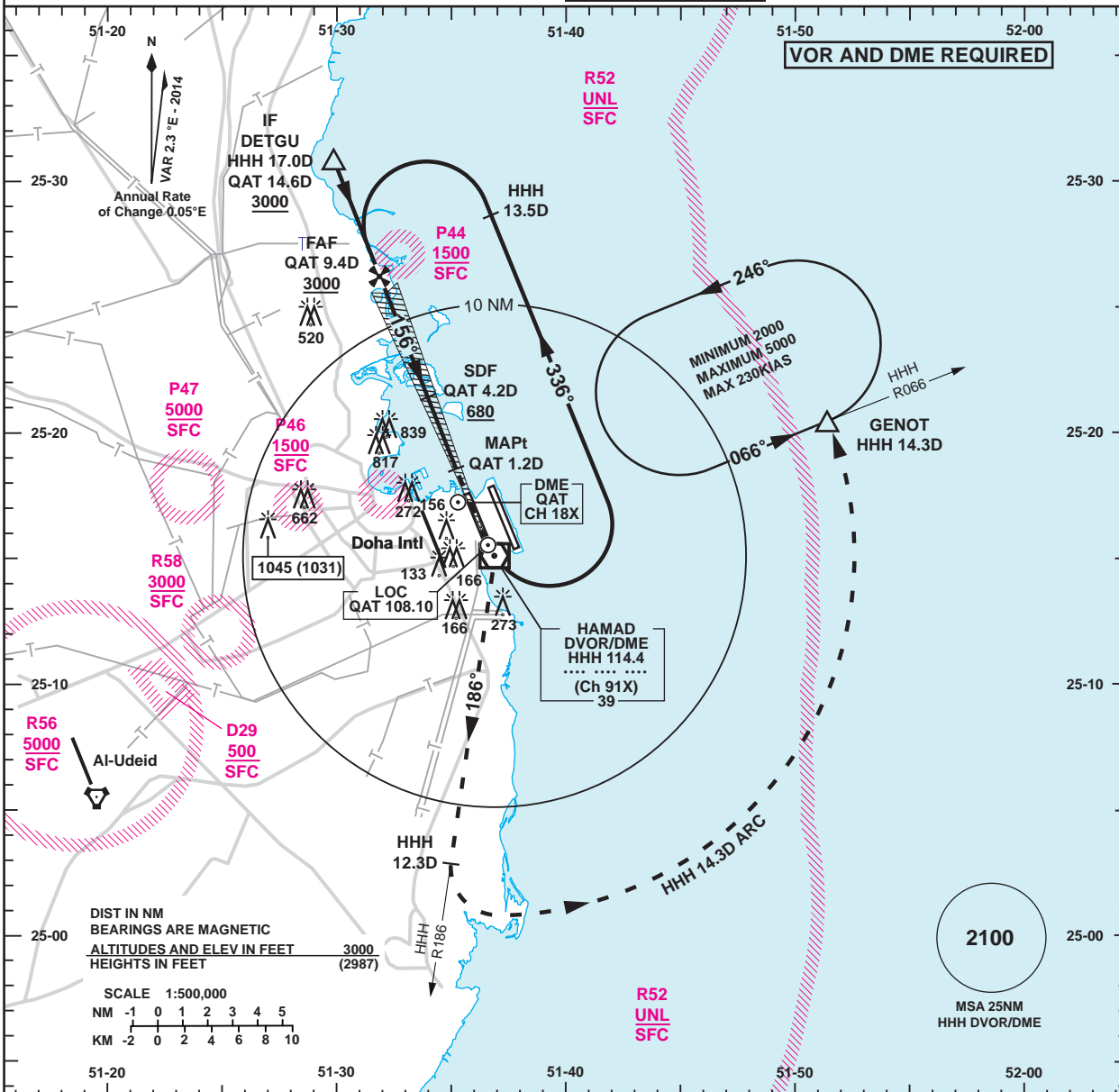
Instrument Approach Waypoint Tables

INSTRUMENT APPROACH CHART - ICAO

**AD ELEV 13
HEIGHTS RELATED TO THR RWY 16R**

DOHA APP 119.40
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
ILS RWY 16R
ACFT CAT A,B,C,D**



DME		9	8	7	6	5	4	3	2	1
ALT (5.2%)		2880	2570	2250	1930	1610	1290	980	660	340

OCA (OCH)		A	B	C	D
Straight in Approach	ILS CAT I	181 (168)	192 (179)	205 (192)	220 (207)
	ILS CAT II	87 (74)	99 (86)	112 (99)	132 (119)
	LOC ONLY	370 (357)			
Circling		620 (607)		1240 (1227)	

1. QAT DME zero ranged to TDZ.		LOC only Approach: MAPt at QAT 1.2D							
2. Aircraft to commence initial Racetrack at 3000 (2987).		Speed	KT	80	100	120	140	160	180
3. Racetrack to be used only in case of communications failure.		Time	MIN:SEC	Timing Not Authorized					
4. CAT IIIA and CAT IIIB APPROVED.		Rate of Descent	FT/MIN	420	530	640	740	850	960
5. HOLD at GENOT protected for sector 3 Entry only.									

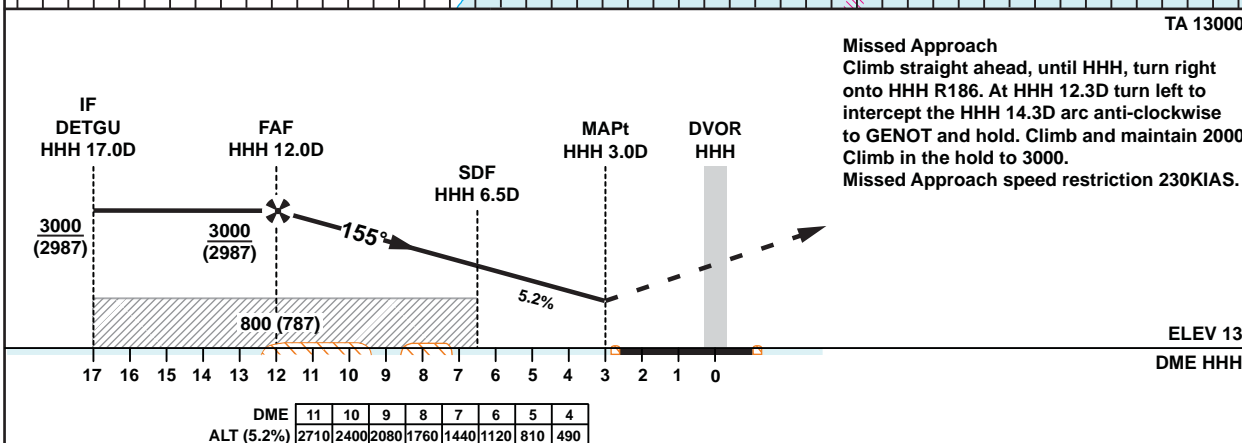
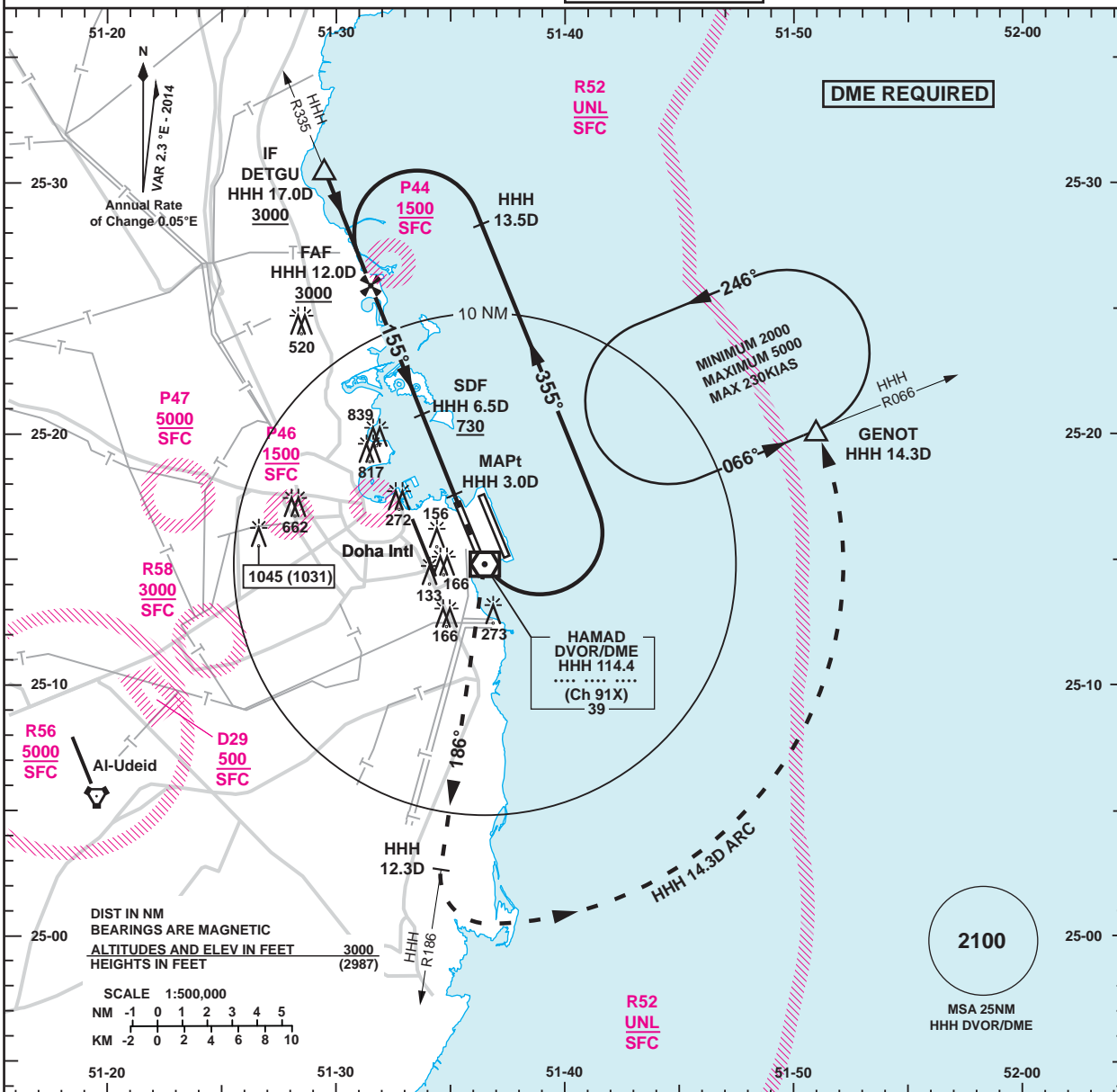
Amendment: New Chart

**INSTRUMENT
APPROACH
CHART - ICAO**

**AD ELEV 13
HEIGHTS RELATED
TO AD ELEV**

DOHA APP 119.40
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
VOR RWY 16R
ACFT CAT A,B,C,D**



OCA (OCH)		A	B	C	D
Straight in Approach	VOR	410 (397)			
Circling		620 (607)		1240 (1227)	

1. Aircraft to commence initial Racetrack at 3000 (2987).
2. Racetrack to be used only in case of communications failure.
3. HOLD at GENOT protected for sector 3 Entry only.

VOR Approach: MAPt at HHH 3.0D

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
Rate of Descent	FT/MIN	420	530	640	740	850	960

Amendment: New Chart

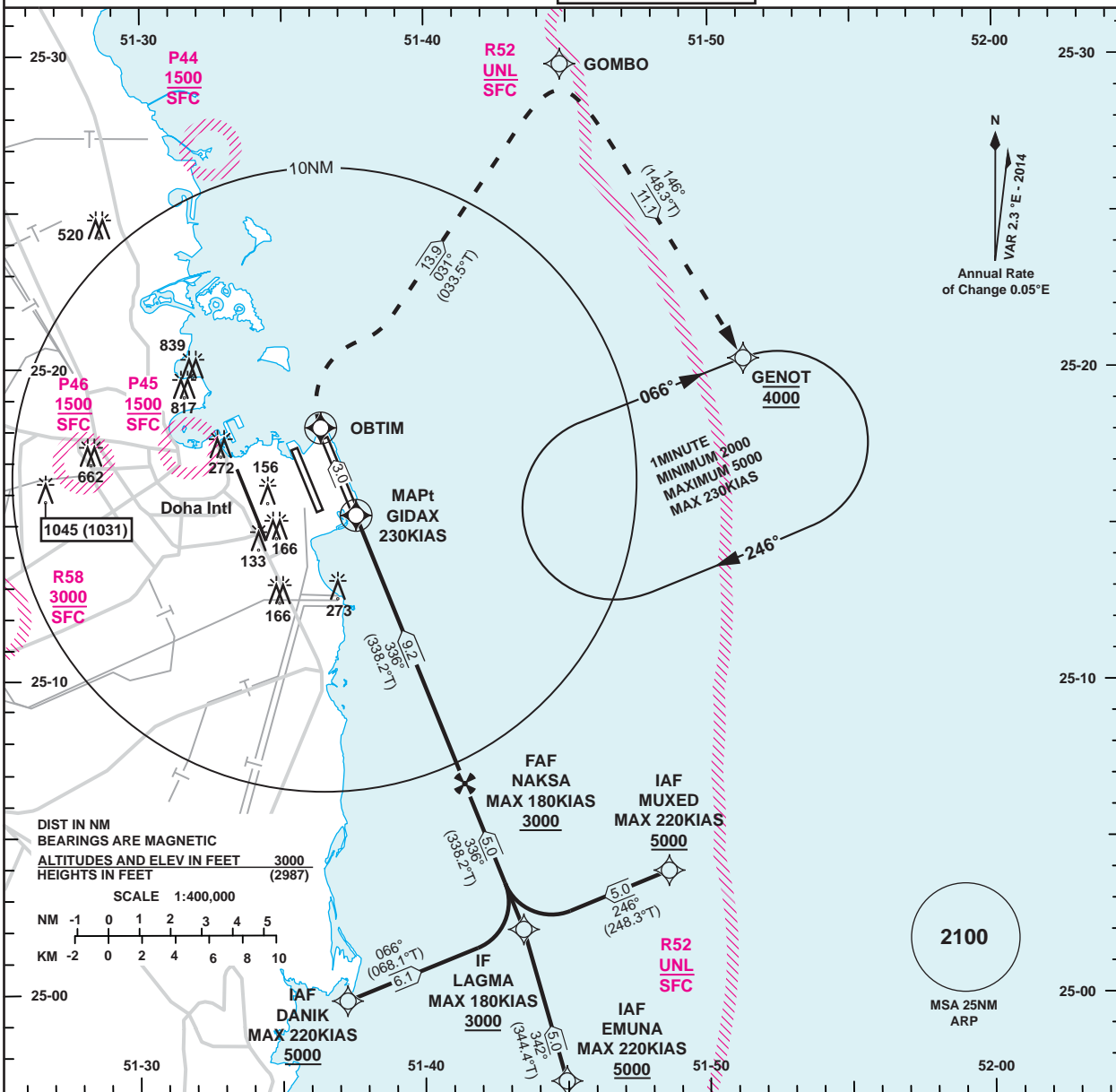
INSTRUMENT APPROACH CHART - ICAO

**AD ELEV 13
HEIGHTS RELATED TO AD ELEV**

MIN TEMP 15°C

DOHA APP 119.40
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV (GNSS) RWY 34R
ACFT CAT A,B,C,D**

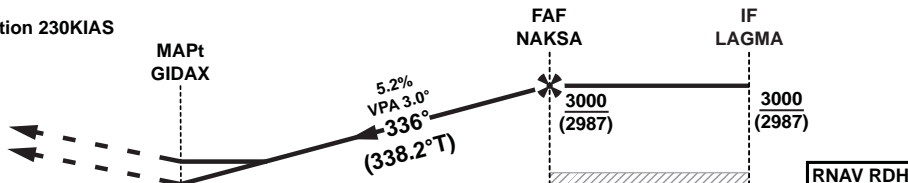


TA 13000

Missed Approach

Climb straight ahead to **OBTIM**. At **OBTIM** turn right to **GOMBO** then right to **GENOT**. Climb and maintain 4000.

Missed Approach speed restriction 230KIAS



ELEV 13

THR RWY 34R

Distances from MAPt	2	3	4	5	6	7	8	9
ALT (3.0% VPA)	700	1020	1340	1660	1980	2300	2620	2930

OCA (OCH)		A	B	C	D
Straight in Approach	LNAV/VNAV	310 (297)			
	LNAV	410 (397)			
Circling		620 (607)		1240 (1227)	

1. HOLD at GENOT protected for sector 3 Entry only.

RNAV Approach: MAPt at GIDAX

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
Rate of Descent	FT/MIN	420	530	640	740	850	960

Amendment: New Chart

Instrument Approach Procedure Coding Tables

OTHH RNAV(GNSS) RWY 34R DANIK

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH (ft)	VPA (°)	Ac Center Wpt Ident/radius (NM)	Navigational_Performance
1	IF	DANIK	-		2.3			+5000	-220				RNP1.0
2	TF	LAGMA	-	066 (068.1)	2.3	6.1	L	+3000	-180				RNP1.0

OTHH RNAV(GNSS) RWY 34R EMUNA

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH (ft)	VPA (°)	Ac Center Wpt Ident/radius (NM)	Navigational_Performance
1	IF	EMUNA	-		2.3			+5000	-220				RNP1.0
2	TF	LAGMA	-	342 (344.4)	2.3	5.0		+3000	-180				RNP1.0

OTHH RNAV(GNSS) RWY 34R MUXED

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH (ft)	VPA (°)	Ac Center Wpt Ident/radius (NM)	Navigational_Performance
1	IF	MUXED	-		2.3			+5000	-220				RNP1.0
2	TF	LAGMA	-	246 (248.3)	2.3	5.0	R	+3000	-180				RNP1.0

OTHH RNAV(GNSS) RWY 34R FINAL

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH (ft)	VPA (°)	Ac Center Wpt Ident/radius (NM)	Navigational_Performance
1	IF	LAGMA	-		2.3			+3000	-180				RNP1.0
2	TF	NAKSA	-	336 (338.2)	2.3	5.0		+3000	-180				RNP0.3
3	TF	GIDAX	Y	336 (338.2)	2.3	9.2			-180	13 / 50	3.0		RNP0.3
4	CF	OBTIM	Y	336 (338.2)	2.3	-			-230				RNP1.0
5	TF	GOMBO	-	031 (033.5)	2.3	13.9	R		-230				RNP1.0
6	TF	GENOT	-	146 (148.3)	2.3	11.1		@4000	-230				RNP1.0
7	HM	GENOT	Y	066 (068.3)	2.3	4.3	R	@4000	-230				RNP1.0

Instrument Approach Waypoint Tables

OTHH RNAV(GNSS) RWY 34R DANIK

WP	Latitude	Longitude	Function
DANIK	246948.49N	0513712.89E	IAF
LAGMA	250204.62N	0514325.78E	IF

OTHH RNAV(GNSS) RWY 34R EMUNA

WP	Latitude	Longitude	Function
EMUNA	245712.86N	0514455.31E	IAF
LAGMA	250204.62N	0514325.78E	IF

OTHH RNAV(GNSS) RWY 34R MUXED

WP	Latitude	Longitude	Function
MUXED	250356.10N	0514832.78E	IAF
LAGMA	250204.62N	0514325.78E	IF

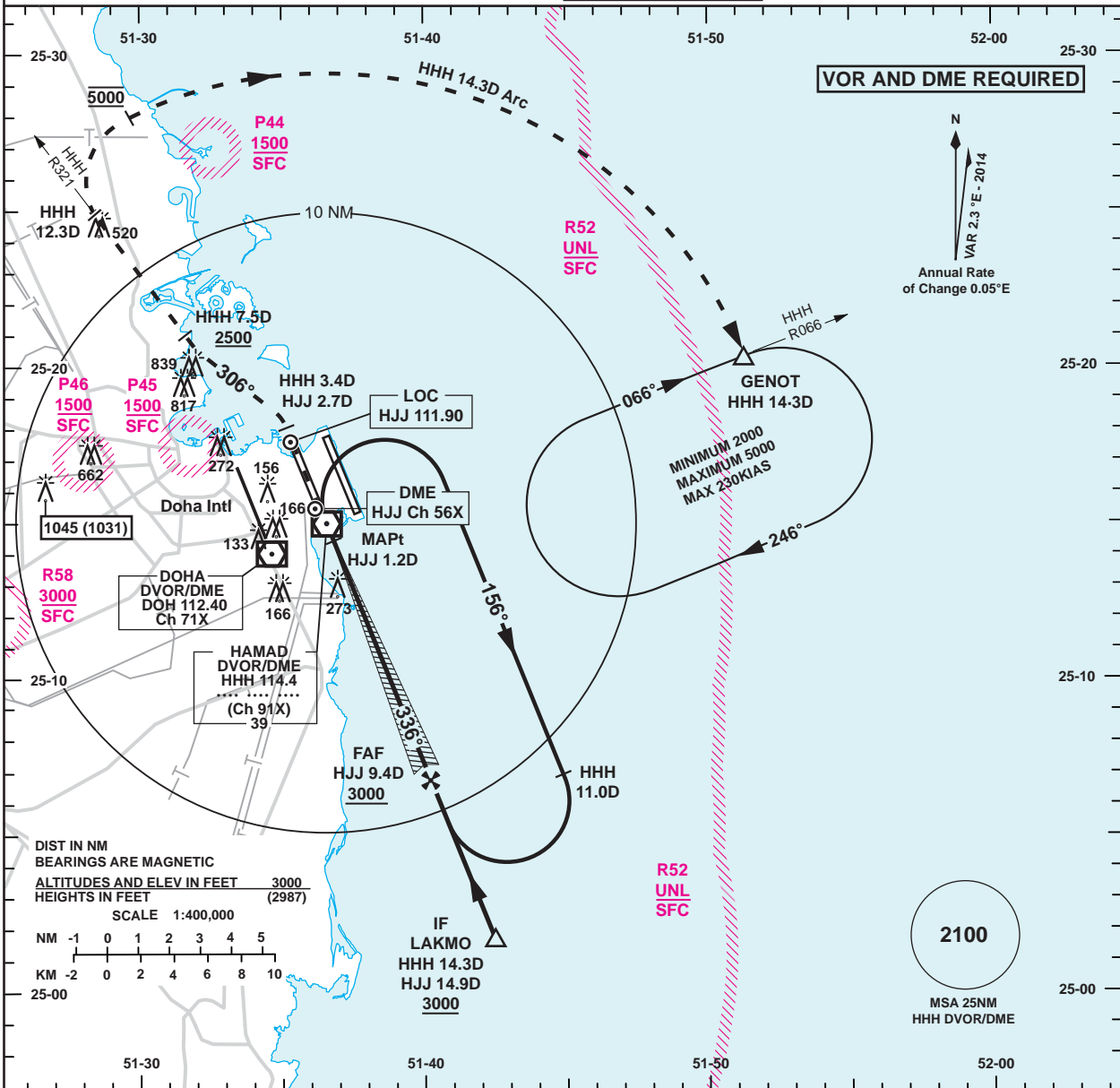
OTHH RNAV (GNSS) RWY 34R FINAL

WP	Latitude	Longitude	Function
LAGMA	250204.62N	0514325.78E	IF
NAKSA	250644.17N	0514123.09E	FAF
GIDAX	251519.65N	0513736.41E	MAPR
OBTIM	251807.32N	0513622.55E	
GOMBO	252944.22N	0514450.16E	
GENOT	252018.11N	0515114.68E	

INSTRUMENT APPROACH CHART - ICAO
AD ELEV 13
HEIGHTS RELATED TO THR ELEV 34L

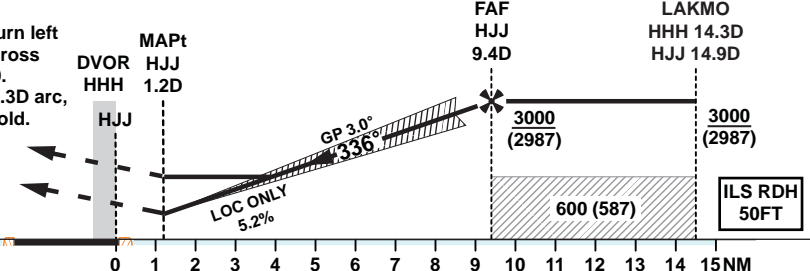
DOHA APP 119.40
 DIRECTOR 120.60
 TWR 118.525
 GMC 121.875

DOHA/Hamad Intl. (OTHH)
ILS RWY 34L
ACFT CAT A,B,C,D



TA 13000

Missed Approach
 Climb straight ahead, at HJJ 2.7D (HHH 3.4D), turn left onto track 306° to intercept HHH R321 (do not cross HHH R318) crossing HHH 7.5D at or above 2500. At HHH 12.3D turn right to intercept the HHH 14.3D arc, at 5000, proceeding clockwise to GENOT and hold. Climb and maintain 5000. Missed Approach speed restriction 230KIAS.



ELEV 13
 DME HJJ

OCA (OCH)		A		B		C		D	
Straight in Approach	ILS CAT I 2.5%	301	(288)	310	(297)	320	(307)	330	(317)
	ILS CAT I 4.0%	181	(168)	192	(179)	205	(192)	220	(207)
	ILS CAT II 2.5%	184	(171)	200	(187)	213	(200)	226	(213)
	ILS CAT II 4.0%	86	(73)	99	(86)	111	(98)	132	(119)
LOC		340 (327)							
Circling		620 (607)				1240 (1227)			

- HJJ DME zero ranged to TDZ.
- Aircraft to commence initial racetrack at 3000 (2987).
- Revert back to 2.5% climb gradient at passing HJJ 2.7D or HHH 3.4D.
- Racetrack to be used only in the case of communications failure.
- CAT IIIA and CAT IIIB APPROVED.
- HOLD at GENOT protected for sector 3 Entry only.

LOC only Approach: MAPt at HJJ 1.2D

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
Rate of Descent	FT/MIN	420	530	640	740	850	960

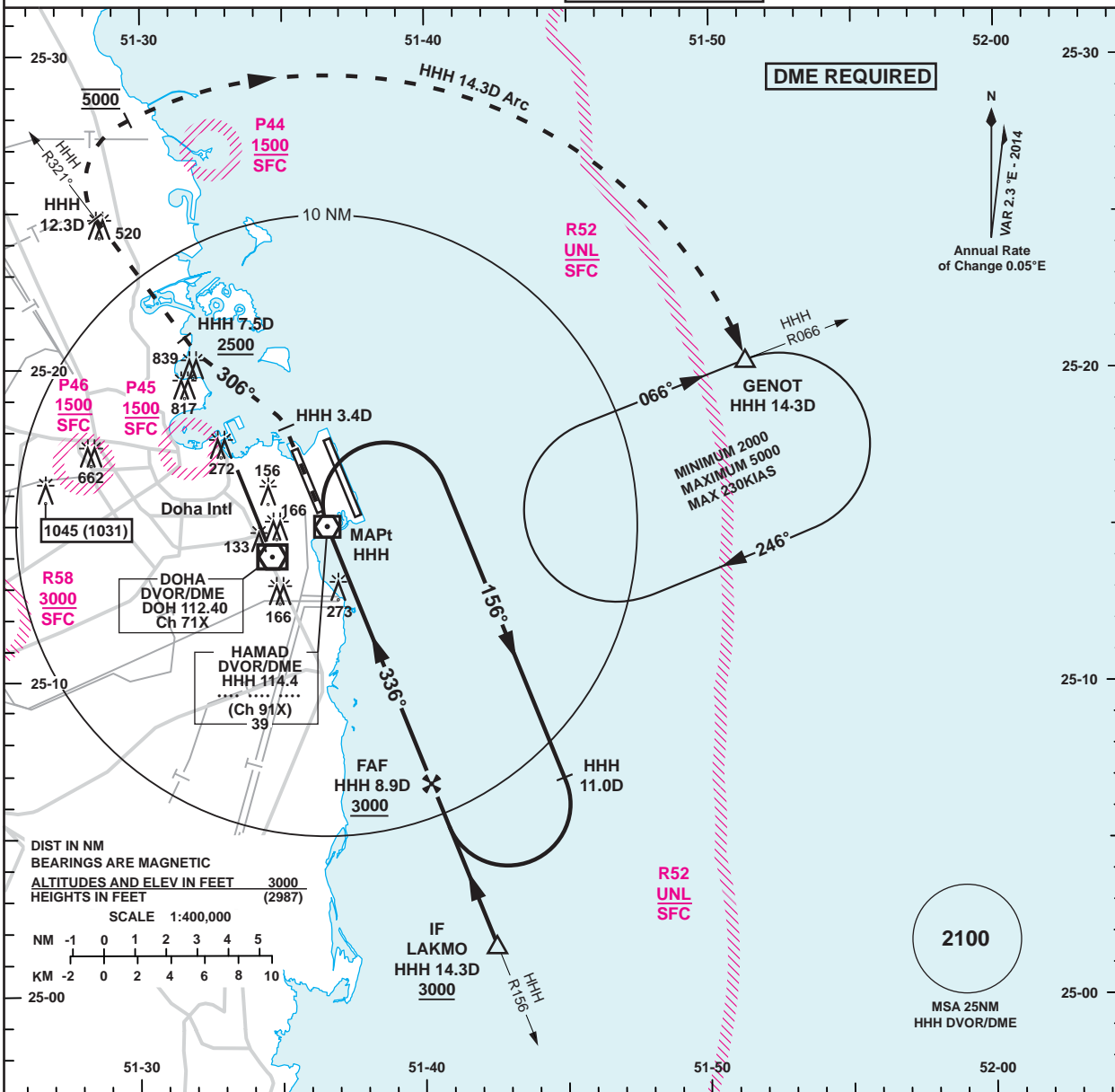
Amendment: New Chart

INSTRUMENT APPROACH CHART - ICAO

**AD ELEV 13
HEIGHTS RELATED TO AD ELEV**

DOHA APP 119.40
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
VOR RWY 34L
ACFT CAT A,B,C,D**

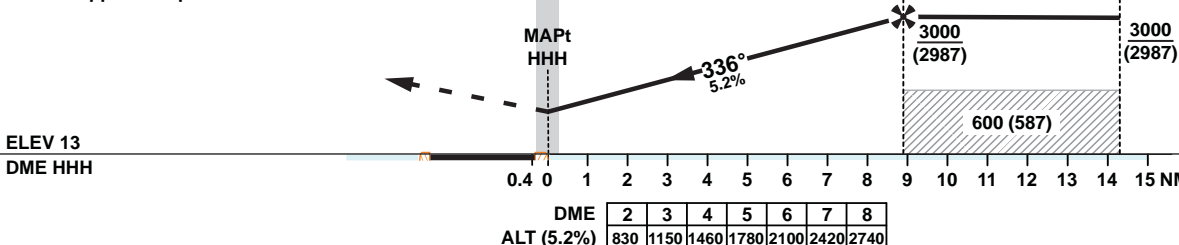


TA 13000

Missed Approach

Climb straight ahead, at HHH 3.4D, turn left onto track 306° to intercept HHH R321 (do not cross HHH R318) crossing HHH 7.5D at or above 2500. At HHH 12.3D turn right to intercept the HHH 14.3D arc at 5000, proceeding clockwise to GENOT and hold. Climb and maintain 5000.
Missed Approach speed restriction 230KIAS

Missed Approach speed restriction 230KIAS



OCA (OCH)		A	B	C	D
Straight in Approach	VOR	530 (517)			
Circling		620 (607)		1240 (1227)	

1. Aircraft to commence initial Racetrack at or below 3000 (2987).
2. Racetrack to be used only in case of communications failure.
3. HOLD at GENOT protected for sector 3 Entry only.

VOR Approach: MAPt HHH.

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
Rate of Descent	FT/MIN	420	530	640	740	850	960

Amendment: New Chart

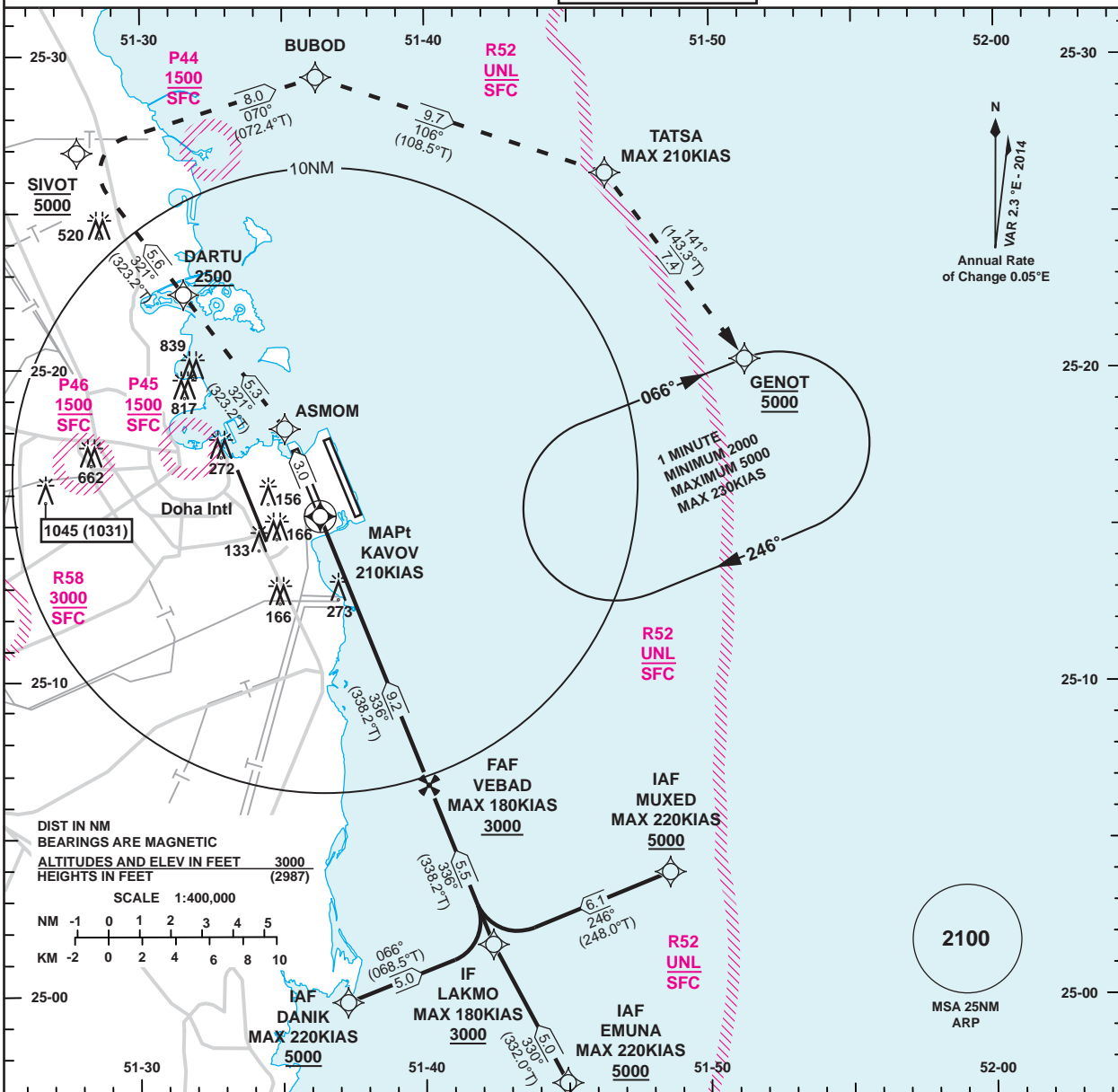
INSTRUMENT APPROACH CHART - ICAO

**AD ELEV 13
HEIGHTS RELATED TO AD ELEV**

MIN TEMP 15°C

DOHA APP 119.40
DIRECTOR 120.60
TWR 118.525
GMC 121.875

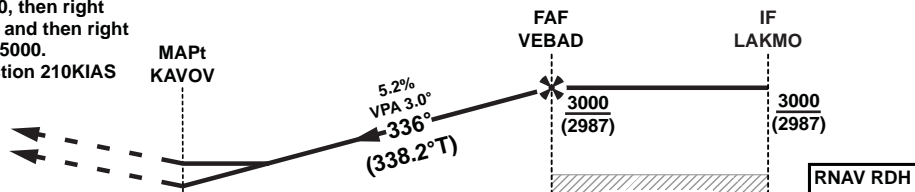
**DOHA/Hamad Intl. (OTHH)
RNAV (GNSS) RWY 34L
ACFT CAT A,B,C,D**



TA 13000

Missed Approach

Climb straight ahead to ASMOM. At ASMOM turn left to DARTU, at or above 2500, then straight ahead to SIVOT, at 5000, then right to BUBOD, then right to TATSA and then right to GENOT. Climb and maintain 5000.
Missed Approach speed restriction 210KIAS



ELEV 13

THR RWY 34L

Distances from MAPt	2	3	4	5	6	7	8	9
ALT (3.0% VPA)	700	1020	1340	1660	1980	2300	2620	2930

OCA (OCH)		A	B	C	D
Straight in Approach	LNAV/VNAV	370 (357)			
	LNAV	570 (557)			
Circling		620 (607)		1240 (1227)	

1. HOLD and GENOT protected for sector 3 Entry only.

RNAV Approach: MAPt at KAVOV

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
Rate of Descent	FT/MIN	420	530	640	740	850	960

Amendment: New Chart

Instrument Approach Procedure Coding Tables

OTHH RNAV(GNSS) RWY 34L DANIK

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_LAKMO	THR Elev_TCH (ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	IF	DANIK	-		2.3			+8000	-220				RNP1.0
2	TF	LAKMO	-	066 (066.5)	2.3	5.0	L	+3000	-180				RNP1.0

OTHH RNAV(GNSS) RWY 34L EMUNA

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_LAKMO	THR Elev_TCH (ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	IF	EMUNA	-		2.3			+8000	-220				RNP1.0
2	TF	LAKMO	-	330 (332.0)	2.3	5.0		+3000	-180				RNP1.0

OTHH RNAV(GNSS) RWY 34L MUXED

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_LAKMO	THR Elev_TCH (ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	IF	MUXED	-		2.3			+8000	-220				RNP1.0
2	TF	LAKMO	-	246 (248.0)	2.3	6.1	R	+3000	-180				RNP1.0

OTHH RNAV(GNSS) RWY 34L FINAL

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_LAKMO	THR Elev_TCH (ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	IF	LAKMO	-		2.3			+3000	-180				RNP1.0
2	TF	VEBAD	-	336 (338.2)	2.3	5.5		+3000	-180				RNP0.3
3	TF	KAVOV	Y	336 (338.2)	2.3	9.2			-180	13 / 50	3.0		RNP0.3
4	CF	ASMDM	-	336 (338.2)	2.3	-			-210				RNP1.0
5	TF	DARTU	-	324 (323.2)	2.3	5.3			-210				RNP1.0
6	TF	SIVOT	-	324 (323.1)	2.3	5.6	R	@5000	-210				RNP1.0
7	TF	BUBOD	-	070 (072.4)	2.3	8.0			-210				RNP1.0
8	TF	TATSA	-	106 (108.5)	2.3	9.7			-210				RNP1.0
9	TF	GENOT	-	141 (143.3)	2.3	7.4		@5000	-230				RNP1.0
10	HM	GENOT	Y	066 (068.3)	2.3	4.3	R	@5000	-230				RNP1.0

OTHH RNAV(GNSS) RWY 34L DANIK

WP	Latitude	Longitude	Function
DANIK	245948.49N	0513712.89E	IAF
LAKMO	250138.57N	0514220.38E	IF

OTHH RNAV(GNSS) RWY 34L EMUNA

WP	Latitude	Longitude	Function
EMUNA	245712.86N	0514455.31E	IAF
LAKMO	250138.57N	0514220.38E	IF

OTHH RNAV(GNSS) RWY 34L MUXED

WP	Latitude	Longitude	Function
MUXED	250356.10N	0514832.78E	IAF
LAKMO	250138.57N	0514220.38E	IF

OTHH RNAV(GNSS) RWY34L FINAL

WP	Latitude	Longitude	Function
LAKMO	250138.57N	0514220.38E	IF
VEBAD	250643.86N	0514006.34E	FAF
KAVOV	251519.32N	0513819.58E	MAPR
ASMDM	251806.98N	0513505.67E	
DARTU	252224.62N	0513133.18E	
SIVOT	252655.93N	0512749.08E	
BUBOD	252920.40N	0513612.95E	
TATSA	252815.54N	0514621.68E	
GENOT	252018.11N	0515114.68E	

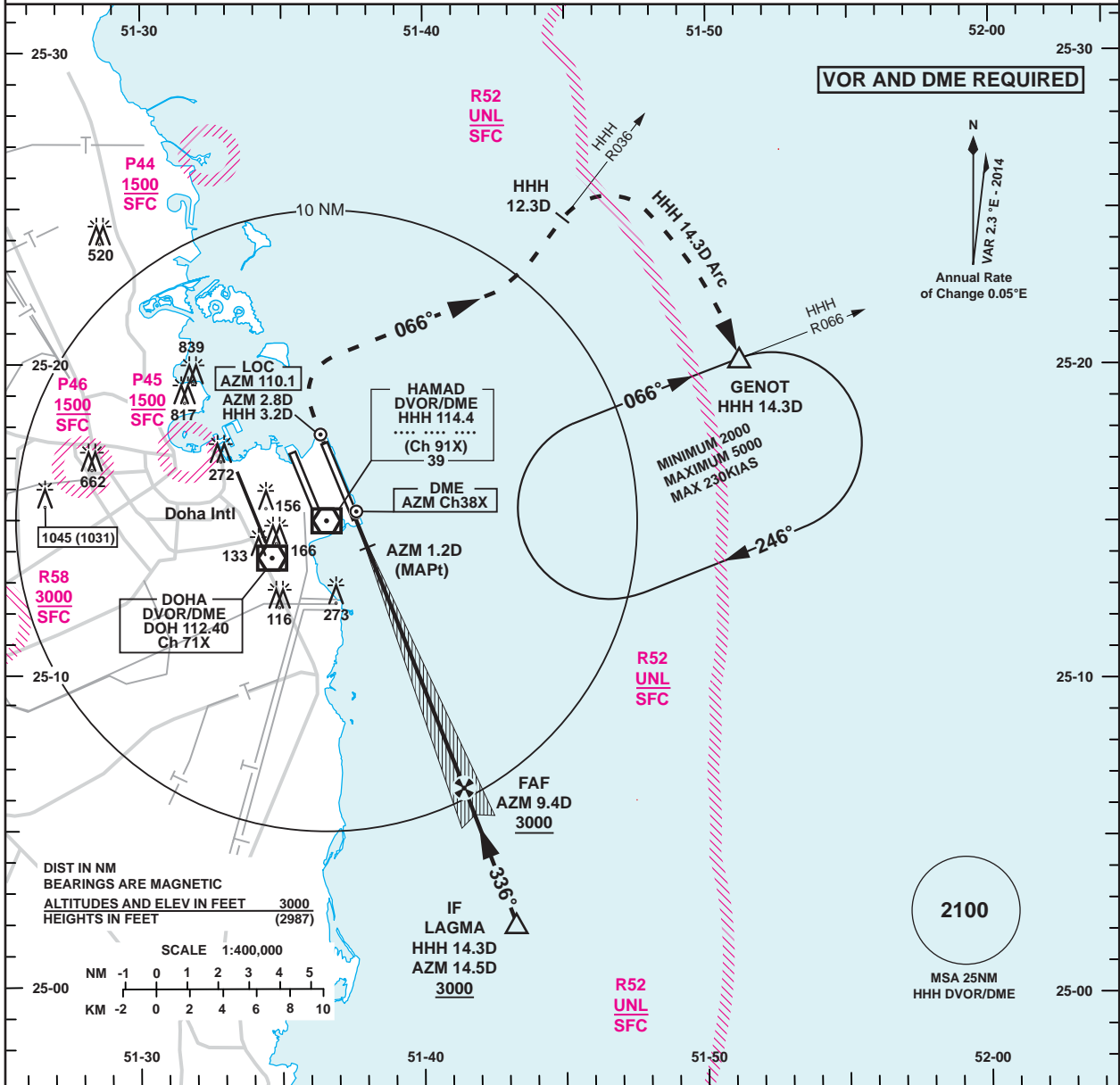
Instrument Approach Waypoint Tables

INSTRUMENT APPROACH CHART - ICAO

**AD ELEV 13
HEIGHTS RELATED TO THR RWY 34R**

DOHA APP 119.40
DIRECTOR 120.60
TWR 118.525
GMC 121.875

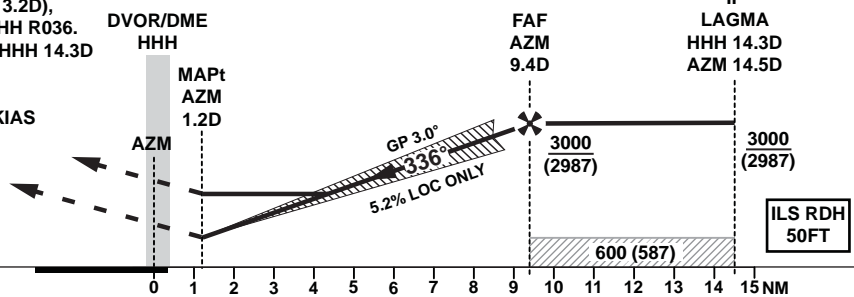
**DOHA/Hamad Intl. (OTHH)
ILS RWY 34R
ACFT CAT A,B,C,D**



TA 13000

Missed Approach

Climb straight ahead, at AZM 2.8D (HHH 3.2D), turn right onto Track 066° 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. Missed Approach speed restriction 230KIAS



ELEV 13
DME AZM

DME	1	2	3	4	5	6	7	8	9
ALT (5.2%)	340	660	980	1290	1610	1930	2250	2570	2880

OCA (OCH)		A	B	C	D
Straight in Approach	ILS CAT I	199 (186)	210 (197)	222 (209)	235 (222)
	ILS CAT II	111 (98)	124 (111)	137(124)	156 (143)
	LOC ONLY	320 (307)			
Circling		620 (607)		1240 (1227)	

1. AZM DME zero ranged to TDZ.
2. CAT IIIA and CAT111B APPROVED.
3. HOLD at GENOT protected for sector 3 Entry only.

LOC only Approach: MAPt at AZM 1.2D

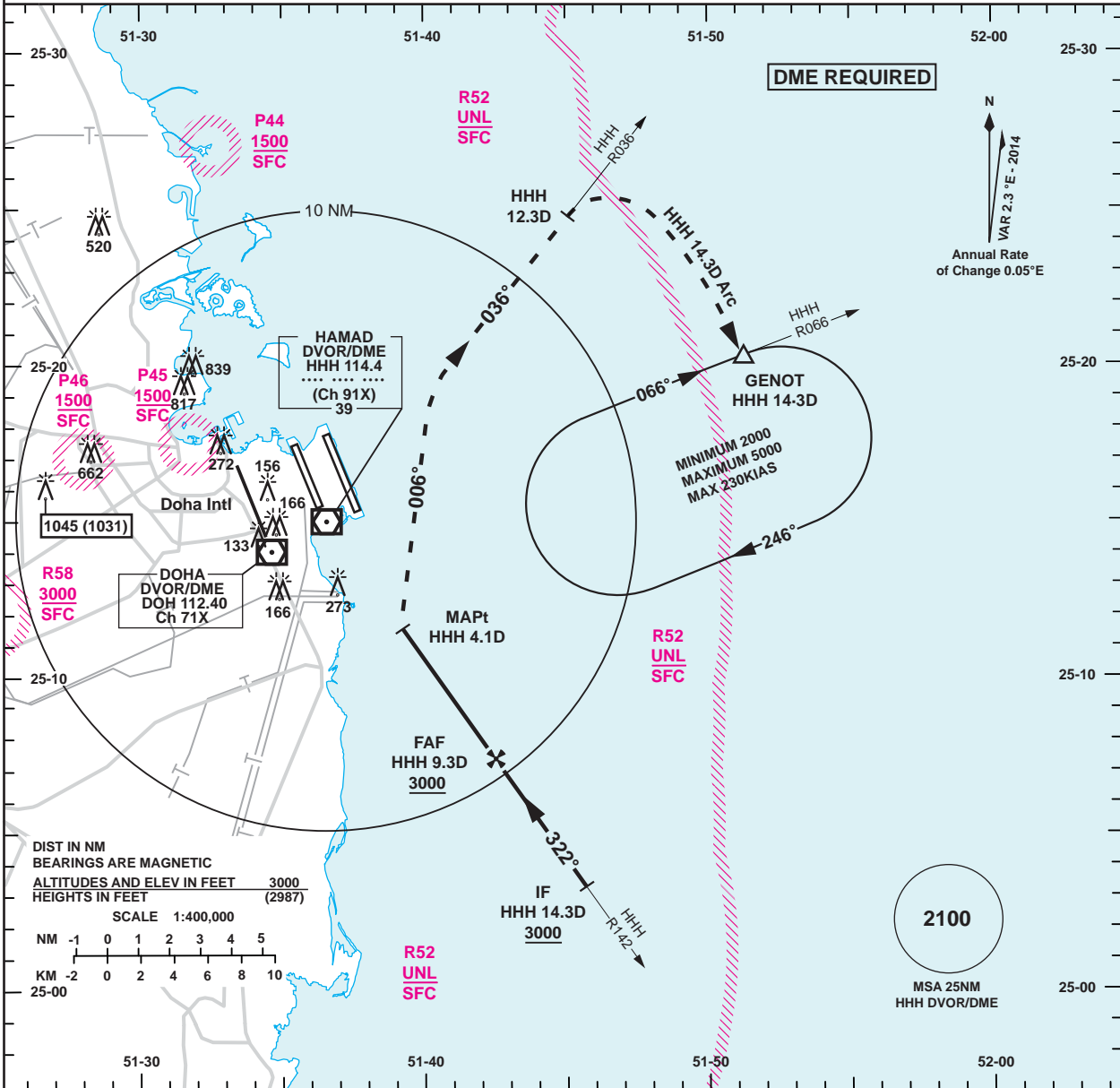
Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
Rate of Descent	FT/MIN	420	530	640	740	850	960

Amendment: New Chart

INSTRUMENT APPROACH CHART - ICAO
AD ELEV 13
HEIGHTS RELATED TO AD ELEV

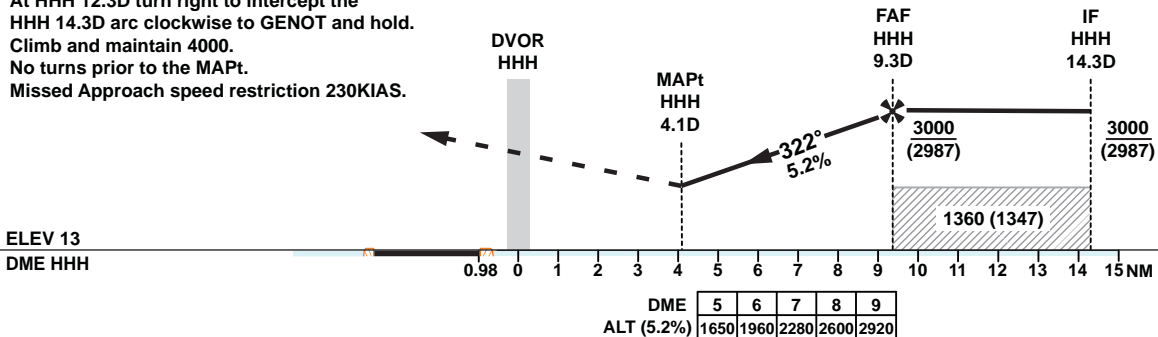
DOHA APP 119.40
 DIRECTOR 120.60
 TWR 118.525
 GMC 121.875

DOHA/Hamad Intl. (OTHH)
VOR RWY 34R
ACFT CAT A,B,C,D



TA 13000

Missed Approach
 Turn right heading 006° 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.
 Missed Approach speed restriction 230KIAS.



OCA (OCH)		A	B	C	D
Straight in Approach	VOR	1360 (1347)			
Circling		1360 (1347)			

1. CAUTION - Final Approach Track offset from runway centre line by 014°.
2. HOLD at GENOT protected for sector 3 Entry only.

DVOR/DME Approach: MAPt at HHH 4.1D

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
Rate of descent	FT/MIN	420	530	640	740	850	960

Amendment: New Chart

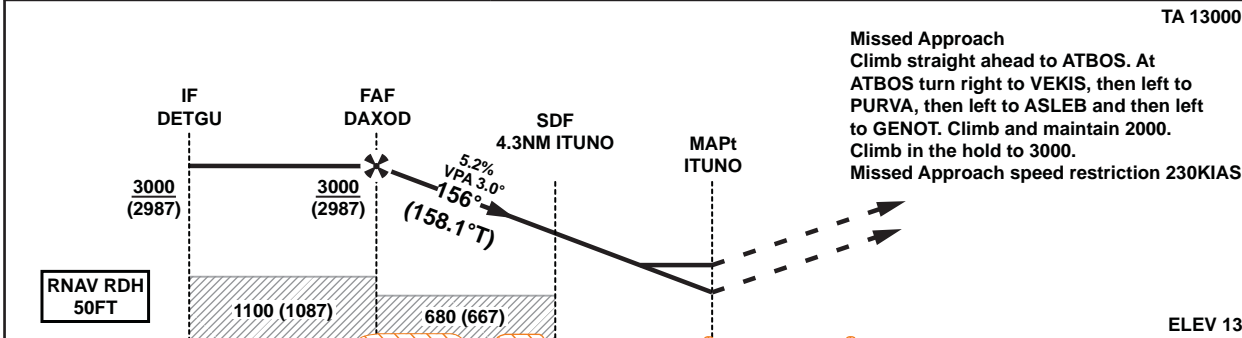
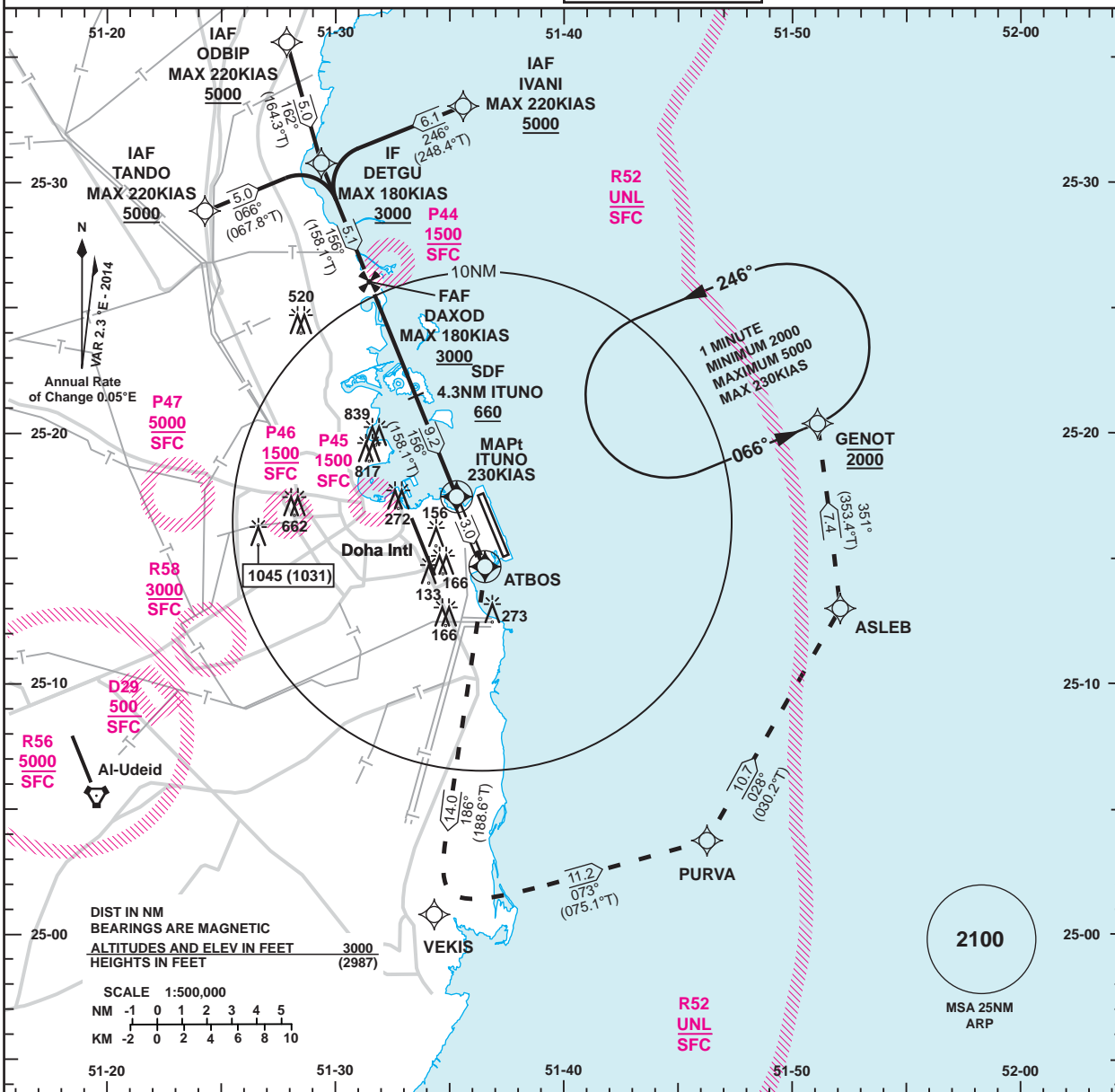
INSTRUMENT
APPROACH
CHART - ICAO

AD ELEV 13
HEIGHTS RELATED
TO AD ELEV

MIN TEMP
15°C

DOHA APP 119.40
DIRECTOR 120.60
TWR 118.525
GMC 121.875

DOHA/Hamad Intl. (OTHH)
RNAV (GNSS) RWY 16R
ACFT CAT A,B,C,D



Distance from MAPt ALT (3.0°VPA)	9	8	7	6	5	4	3	2
	2930	2620	2300	1980	1660	1340	1020	700

OCA (OCH)		A	B	C	D
Straight in Approach	LNAV/VNAV	380 (367)			
	LNAV	570 (557)			
Circling		620 (607)		1240 (1227)	

1. HOLD at GENOT protected for sector 3 Entry only.

RNAV Approach: MAPt ITUNO

Speed	KT	80	100	120	140	160	180
Time	MIN:SEC	Timing Not Authorized					
Rate of Descent	FT/MIN	420	530	640	740	850	960

Amendment: New Chart

Instrument Approach Procedure Coding Tables

OTHH RNAV(GNSS) RWY 16R TANDO

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt. Ident./radius (NM)	Navigational_Performance
1	IF	TANDO	-		2.3			+5000	-220				RNP1.0
2	TF	DETCU	-	066 (067.8)	2.3	5.0	R	+3000	-180				RNP1.0

OTHH RNAV(GNSS) RWY 16R ODBIP

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt. Ident./radius (NM)	Navigational_Performance
1	IF	ODBIP	-		2.3			+5000	-220				RNP1.0
2	TF	DETCU	-	162 (164.3)	2.3	5.0		+3000	-180				RNP1.0

OTHH RNAV(GNSS) RWY 16R IVANI

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt. Ident./radius (NM)	Navigational_Performance
1	IF	IVANI	-		2.3			+5000	-220				RNP1.0
2	TF	DETCU	-	246 (248.4)	2.3	6.1	L	+3000	-180				RNP1.0

OTHH RNAV(GNSS) RWY 16R FINAL

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt. Ident./radius (NM)	Navigational_Performance
1	IF	DETCU	-		2.3			+3000	-180				RNP1.0
2	TF	DAXOD	-	156 (158.1)	2.3	5.1		+3000	-180				RNP0.3
3	TF	ITUNO	Y	156 (158.1)	2.3	9.2			-180	13 / 50	3.0		RNP0.3
4	CF	ATBOS	Y	156 (158.2)	2.3	-			-230				RNP1.0
5	TF	VEKIS	-	186 (188.6)	2.3	14.0	L		-230				RNP1.0
6	TF	PURVA	-	073 (075.1)	2.3	11.2			-230				RNP1.0
7	TF	ASLEB	-	028 (030.2)	2.3	10.7			-230				RNP1.0
8	TF	GENOT	-	351 (353.4)	2.3	7.4		@2000	-230				RNP1.0
9	HM	GENOT	Y	066 (068.3)	2.3	4.3	L	@3000	-230				RNP1.0

Instrument Approach Waypoint Tables

OTHH RNAV(GNSS) RWY 16R TANDO

WP	Latitude	Longitude	Function
TANDO	252853.68N	0512422.68E	IAF
DETCU	253047.17N	0512929.86E	IF

OTHH RNAV(GNSS) RWY 16R ODBIP

WP	Latitude	Longitude	Function
ODBIP	253537.40N	0512800.00E	IAF
DETCU	253047.17N	0512929.86E	IF

OTHH RNAV(GNSS) RWY 16R IVANI

WP	Latitude	Longitude	Function
IVANI	253302.21N	0513544.87E	IAF
DETCU	253047.17N	0512929.86E	IF

OTHH RNAV(GNSS) RWY16R FINAL

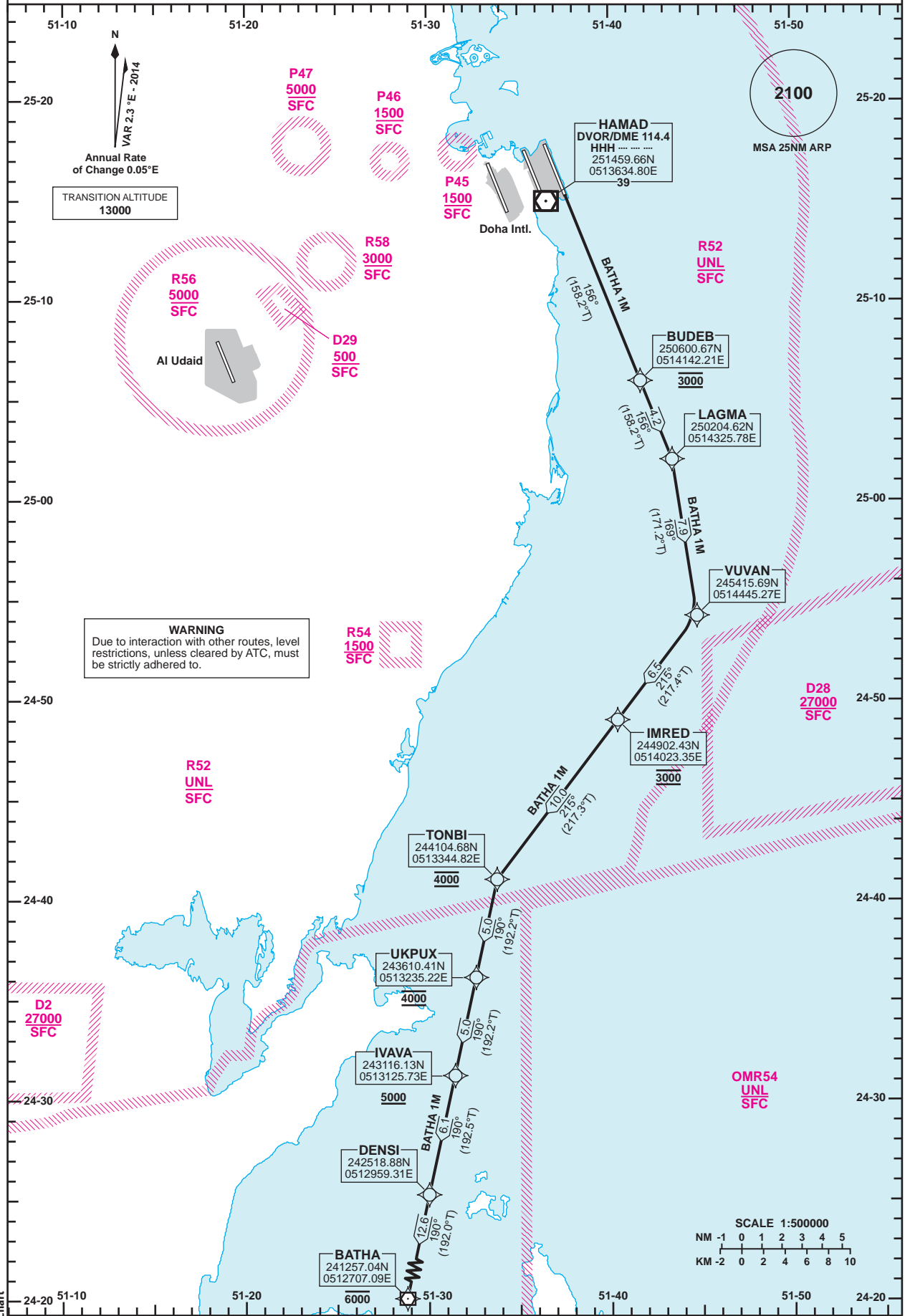
WP	Latitude	Longitude	Function
DETCU	253047.17N	0512929.86E	IF
DAXOD	252602.84N	0513135.62E	FAF
ITUNO	251727.52N	0513523.07E	MAP1
ATBOS	251439.85N	0513636.94E	
VEKIS	250047.55N	0513419.39E	
PURVA	250341.28N	0514617.29E	
ASLEB	251255.45N	0515211.43E	
GENOT	252018.11N	0515114.66E	

**STANDARD DEPARTURE
CHART - INSTRUMENT
(SID) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 16L
BATHA 1M**



Route Designator	Routeing
BATHA 1M	BUDEB [T158.2;A3000] - LAGMA - VUVAN - IMRED [A3000] - TONBI [A4000] - UKPUX [A4000] - IVAVA [A5000+] - DENSI - BATHA [A6000-]

Amendment: New Chart

Standard Instrument Departure Coding Table

HAMAD INTERNATIONAL RNAV Standard Instrument Departure BATHA 1M

OTHH RNAV SID BATHA 1M

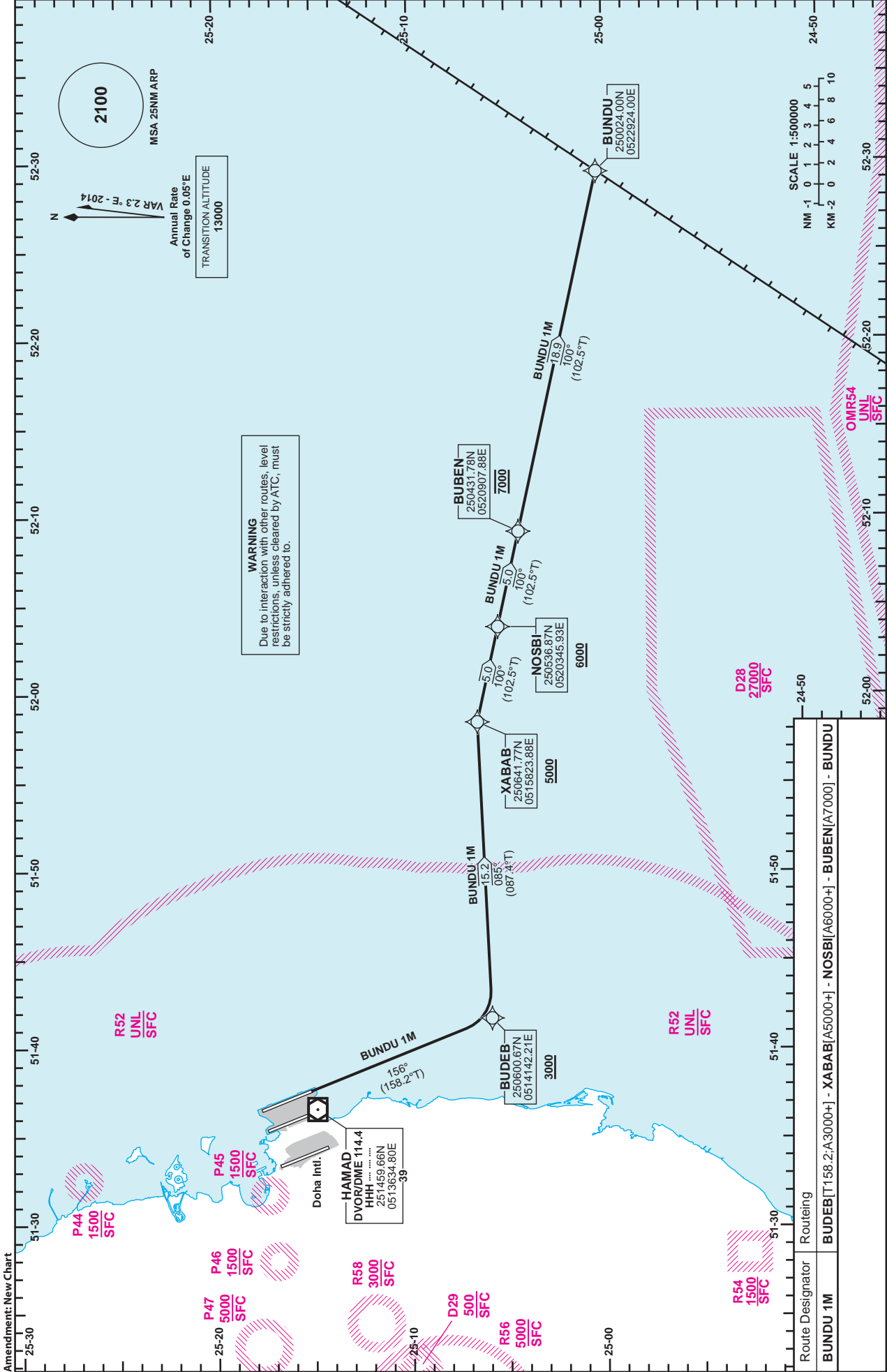
Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH (ft)	VPA (°)	Arc Center_Wpt Ident/radius (NM)	Navigational_Performance
1	CF	BUDEB	-	156 (158.2)	2.3	-		@3000					RNP 1.0
2	TF	LAGWA	-	156 (158.2)	2.3	4.2		-					RNP 1.0
3	TF	VUVAN	-	169 (171.2)	2.3	7.9		-					RNP 1.0
4	TF	IMRED	-	215 (217.4)	2.3	6.5		@3000					RNP 1.0
5	TF	TONBI	-	215 (217.3)	2.3	10.0		@4000					RNP 1.0
6	TF	UKPUX	-	190 (192.2)	2.3	5.0		@4000					RNP 1.0
7	TF	NAVA	-	190 (192.2)	2.3	5.0		+5000					RNP 1.0
8	TF	DENSI	-	190 (192.5)	2.3	6.1							RNP 1.0
9	TF	BATHA	-	190 (192.0)	2.3	12.6		-6000					RNP 1.0

**STANDARD DEPARTURE
CHART - INSTRUMENT
(SID) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 16L
BUNDU 1M**



2100
MSA 25NM ARP
Annual Rate of Change 0.05° E
VAR 2.3° E - 2014
TRANSITION ALTITUDE
13000

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

Amendment: New Chart

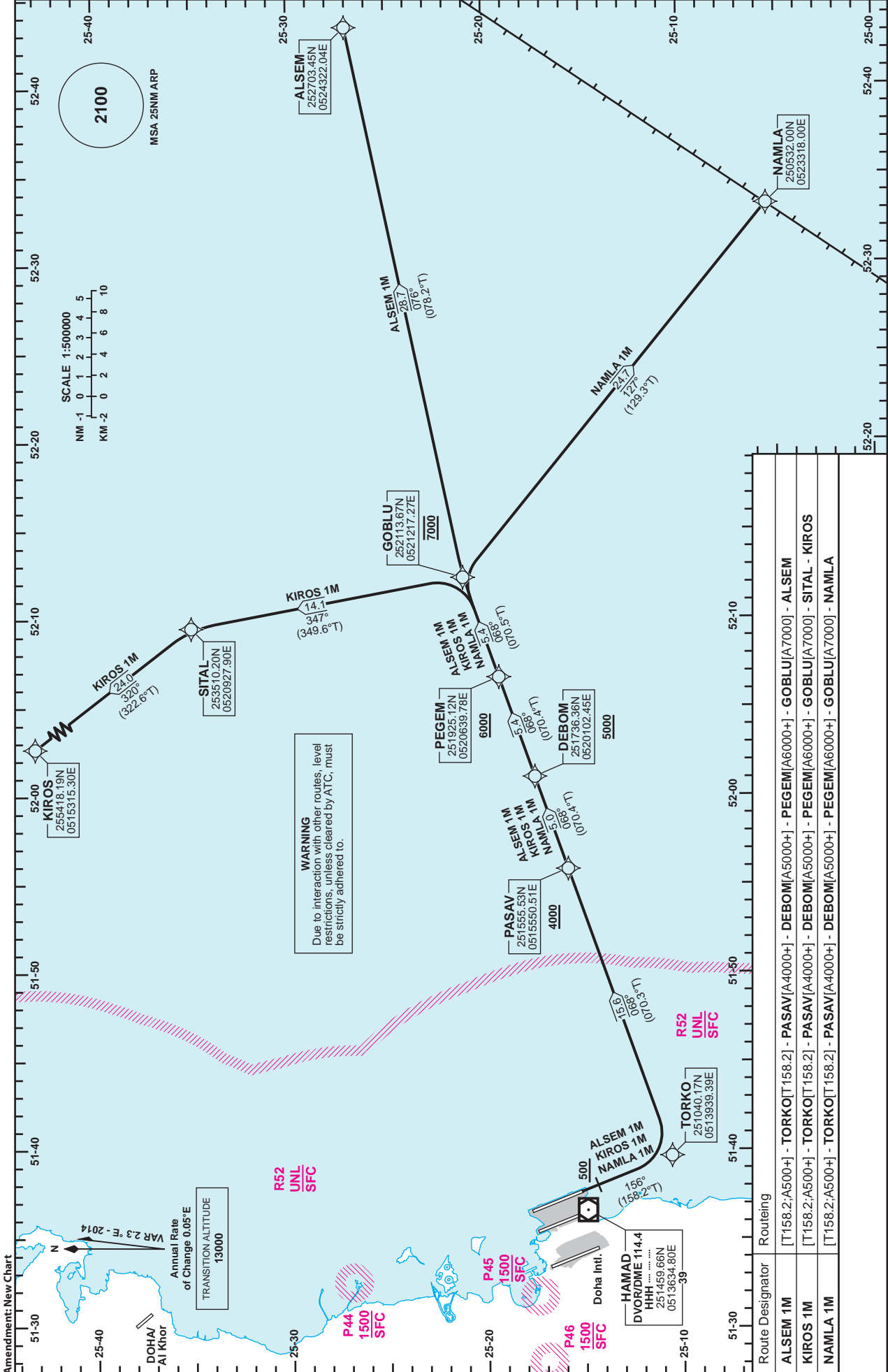
Route Designator	Routing
BUNDU 1M	BUDEB[T158.2:A3000+J] - XABAB[A5000+J] - NOSBI[A6000+J] - BUBEN[A7000] - BUNDU

**STANDARD DEPARTURE
CHART - INSTRUMENT
(SID) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 16L
ALSEM 1M /KIROS 1M /NAMLA 1M**



Standard Instrument Departure Coding Table

HAMAD INTERNATIONAL RNAV Standard Instrument Departure ALSEM 1M, KIROS 1M, NAMLA 1M

OTHH RNAV SID ALSEM 1M

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CA	-	-	156 (158.2)	2.3	-	-	+500					RNP 1.0
2	CF	TORKO	-	156 (158.2)	2.3	-	-	-					RNP 1.0
3	TF	PASAV	-	068 (070.3)	2.3	15.6		+4000					RNP 1.0
4	TF	DEBOM	-	068 (070.4)	2.3	5.0		+5000					RNP 1.0
5	TF	PEGEM	-	068 (070.4)	2.3	5.4		+6000					RNP 1.0
6	TF	GOBLU	-	068 (070.5)	2.3	5.4		@7000					RNP 1.0
7	TF	ALSEM	-	076 (078.2)	2.3	28.7		-					RNP 1.0

OTHH RNAV SID KIROS 1M

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CA	-	-	156 (158.2)	2.3	-	-	+500					RNP1.0
2	CF	TORKO	-	156 (158.2)	2.3	-	-	-					RNP1.0
3	TF	PASAV	-	068 (070.3)	2.3	15.6		+4000					RNP1.0
4	TF	DEBOM	-	068 (070.4)	2.3	5.0		+5000					RNP1.0
5	TF	PEGEM	-	068 (070.4)	2.3	5.4		+6000					RNP1.0
6	TF	GOBLU	-	068 (070.5)	2.3	5.4		@7000					RNP1.0
7	TF	SITAL	-	347 (349.6)	2.3	14.1		-					RNP1.0
8	TF	KIROS	-	320 (322.6)	2.3	24.0		-					RNP1.0

OTHH RNAV SID NAMLA 1M

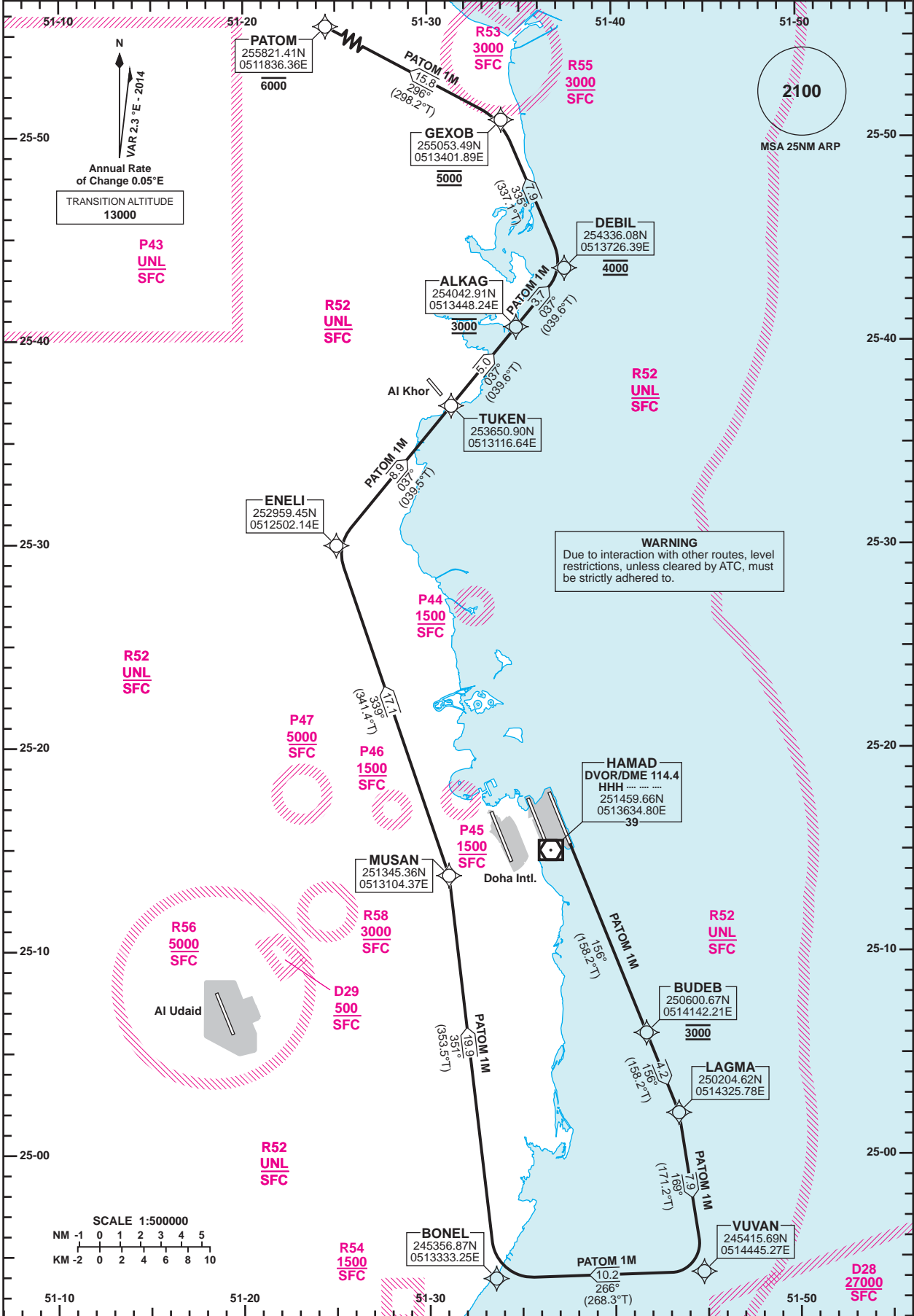
Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CA	-	-	156 (158.2)	2.3	-	-	+500					RNP1.0
2	CF	TORKO	-	156 (158.2)	2.3	-	-	-					RNP1.0
3	TF	PASAV	-	068 (070.3)	2.3	15.6		+4000					RNP1.0
4	TF	DEBOM	-	068 (070.4)	2.3	5.0		+5000					RNP1.0
5	TF	PEGEM	-	068 (070.4)	2.3	5.4		+6000					RNP1.0
6	TF	GOBLU	-	068 (070.5)	2.3	5.4		@7000					RNP1.0
7	TF	NAMLA	-	127 (129.3)	2.3	24.7		-					RNP1.0

**STANDARD DEPARTURE
CHART - INSTRUMENT
(SID) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 16L
PATOM 1M**



Route Designator	Routing
PATOM 1M	BUDEB[T158.2;A3000] - LAGMA - VUVAN[R] - BONEL - MUSAN - ENELI - TUKEN - ALKAG[A3000] - DEBIL[A4000] - GEXOB[A5000] - PATOM[A6000]

Amendment: New Chart

Standard Instrument Departure Coding Table

HAMAD INTERNATIONAL RNAV Standard Instrument Departure PATOM 1M

OTHH RNAV SID PATOM 1M

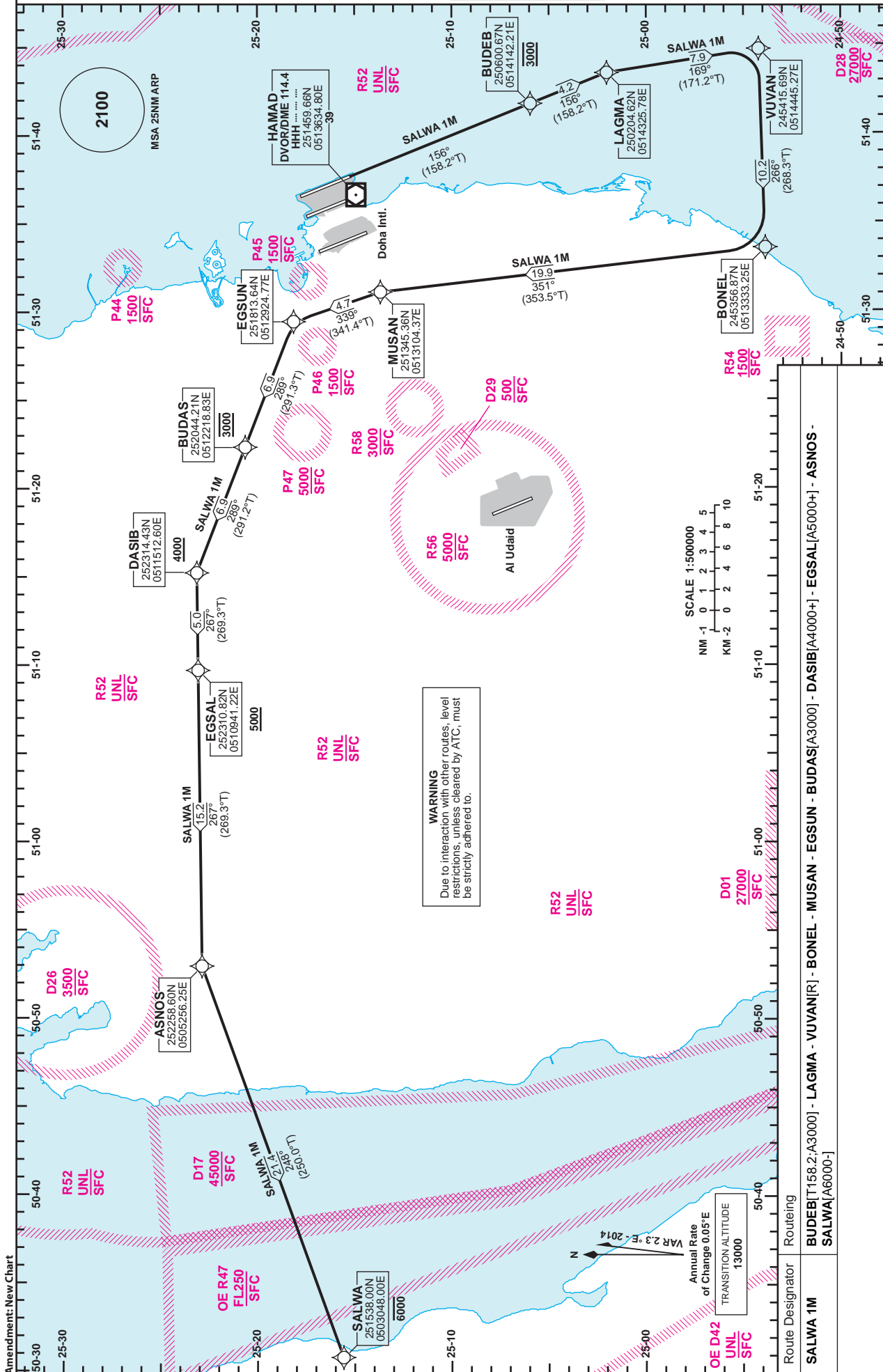
Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center_Wpt Ident/radius (NM)	Navigational_Performance
1	CF	BUDEB	-	156 (158.2)	2.3	-		@3000					RNP1.0
2	TF	LAGWA	-	156 (158.2)	2.3	4.2		-					RNP1.0
3	TF	VUVAN	-	169 (171.2)	2.3	7.9	R	-					RNP1.0
4	TF	BONEL	-	266 (268.3)	2.3	10.2		-					RNP1.0
5	TF	MUSAN	-	351 (353.5)	2.3	19.9		-					RNP1.0
6	TF	ENELI	-	339 (341.4)	2.3	17.1		-					RNP1.0
7	TF	TUKEN	-	037 (039.5)	2.3	8.9		-					RNP1.0
8	TF	ALKAG	-	037 (039.6)	2.3	5.0		@3000					RNP1.0
9	TF	DEBIL	-	037 (039.6)	2.3	3.7		@4000					RNP1.0
10	TF	GEXOB	-	335 (337.1)	2.3	7.9		@5000					RNP1.0
11	TF	PATOM	-	296 (298.2)	2.3	15.8		-6000					RNP1.0

**STANDARD DEPARTURE
CHART - INSTRUMENT
(SID) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 16L
SALWA 1M**



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
KIM-2 0 2 4 6 8 10

Route Designator	Routing
SALWA 1M	BUDEB(T158.2;A3000) - LAGMA - VUVAN(R) - BONEI - MUSAN - EGSUN - BUDAS(A3000) - DASIB(A4000+) - EGSAL(A5000+) - ASNOS - SALWA(A6000+)

Amendment: New Chart

Standard Instrument Departure Coding Table

HAMAD INTERNATIONAL RNAV Standard Instrument Departure SALWA 1M

OTHH RNAV SID SALWA 1M

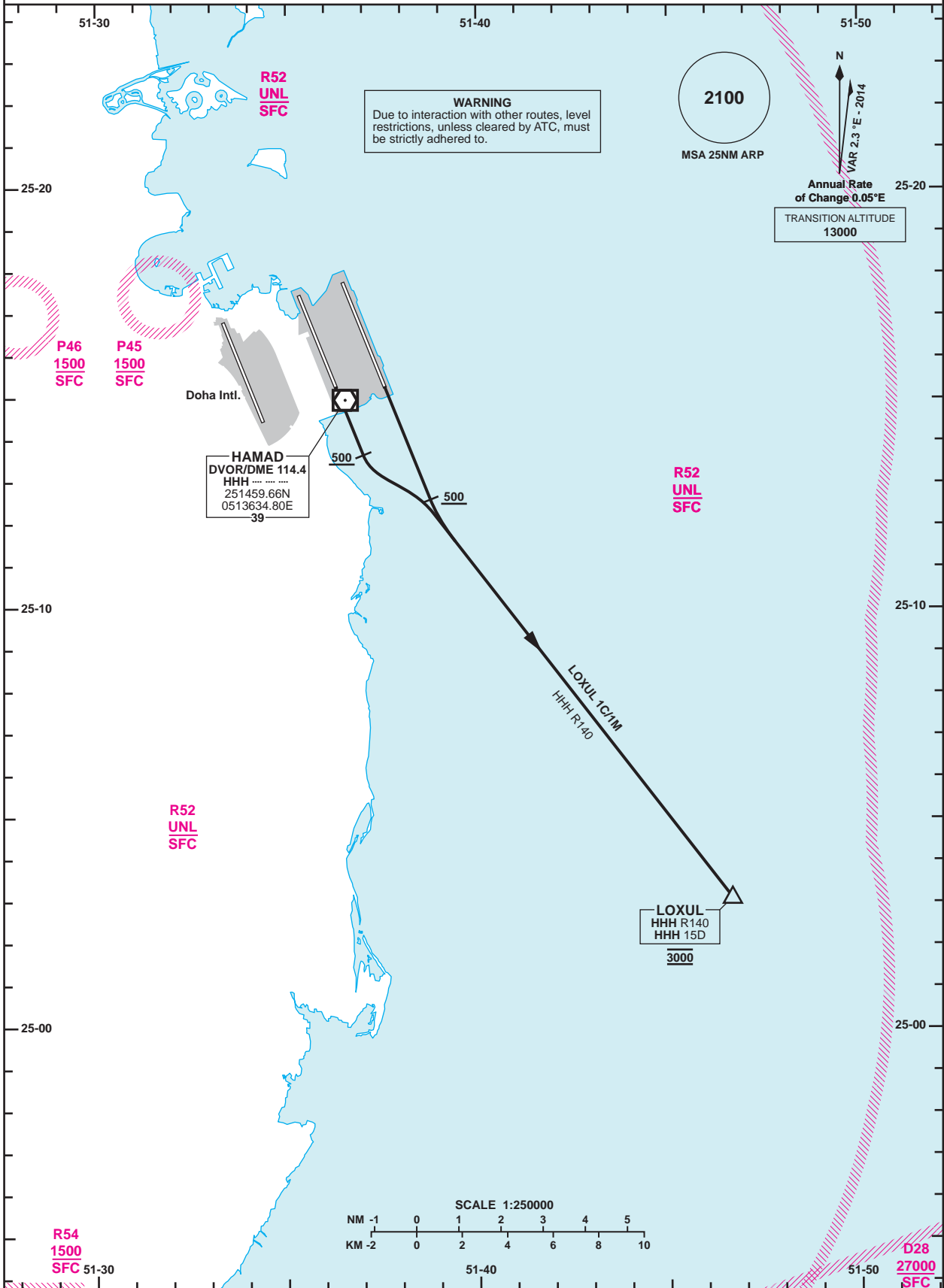
Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center_Wpt Ident/radius (NM)	Navigational_Performance
1	CF	BUDEB	-	156 (158.2)	2.3	-		@3000					RNP1.0
2	TF	LAGWA	-	156 (158.2)	2.3	4.2							RNP1.0
3	TF	VUVAN	-	169 (171.2)	2.3	7.9	R						RNP1.0
4	TF	BONEL	-	266 (268.3)	2.3	10.2							RNP1.0
5	TF	MUSAN	-	351 (353.5)	2.3	19.9							RNP1.0
6	TF	EGSUN	-	339 (341.4)	2.3	4.7							RNP1.0
7	TF	BUDAS	-	289 (291.3)	2.3	6.9		@3000					RNP1.0
8	TF	DASIB	-	289 (291.2)	2.3	6.9		+4000					RNP1.0
9	TF	EGSAL	-	267 (269.3)	2.3	5.0		+5000					RNP1.0
10	TF	ASNOS	-	267 (269.3)	2.3	15.2							RNP1.0
11	TF	SALWA	-	248 (250.0)	2.3	21.4		-6000					RNP1.0

**STANDARD DEPARTURE
CHART - INSTRUMENT
(SID) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RWY 16L/R
LOXUL 1C/1M**



Rwy	Route Designator	Routeing
16L	LOXUL 1M	Climb straight ahead to 500 . Turn left to intercept HHH R140 to LOXUL (HHH 15D) at 3000 . Continue as directed.
16R	LOXUL 1C	Climb straight ahead to 500 . Turn left to intercept HHH R140 to LOXUL (HHH 15D) at 3000 . Continue as directed.

GENERAL INFORMATION : 1. Rwy16R - 4% CG required until passing 700.

Rwy	Primary SIDs	Initial Contact	Initial Altitude	Radio Fail Procedures
16L	LOXUL 1M	DEPs	Cross HHH D10 at 3000	Execute three left-hand orbits at LOXUL at 3000. Continue left-hand orbit climbing to 5000. Proceed direct to first enroute waypoint then continue as flight planned or proceed direct to HHH VOR and follow the ILS 16R approach procedure to land at OTHH
16R	LOXUL 1C	DEPs	3000	

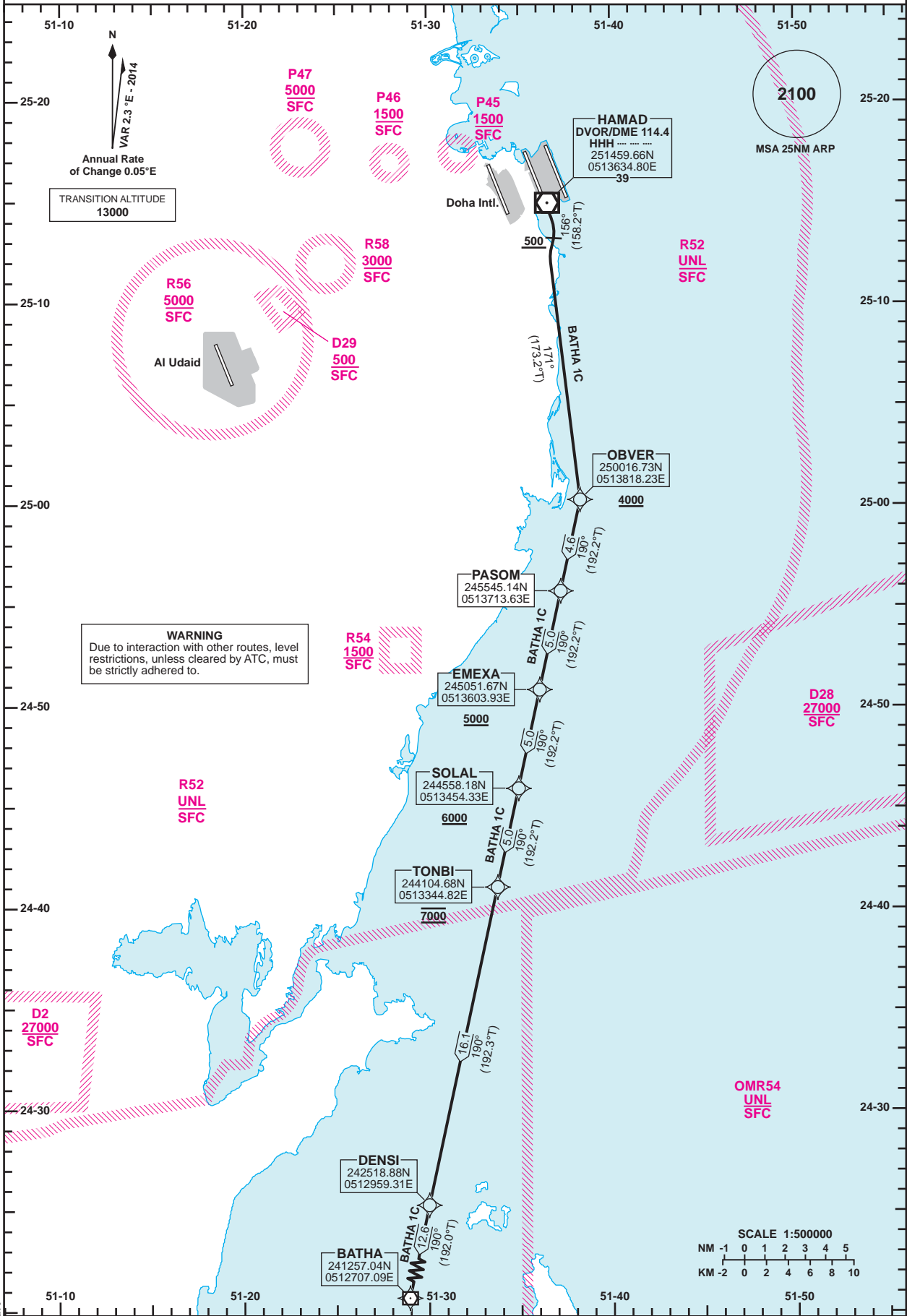
Amendment: New Chart

**STANDARD DEPARTURE
CHART - INSTRUMENT
(SID) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 16R
BATHA 1C**



Amendment: New Chart

Route Designator	Routing
BATHA 1C	[T158.2;A500+] - OBVER[T173.2;A4000+] - PASOM - EMEXA[A5000+] - SOLAL[A6000+] - TONBI[A7000] - DENSI - BATHA

- GENERAL INFORMATION**
1. Close-in obstacles exist for Rwy 16R departures.
 2. 3.5% CG required to 600.

Standard Instrument Departure Coding Table

HAMAD INTERNATIONAL RNAV Standard Instrument Departure BATHA 1C

OTHH RNAV SID BATHA 1C

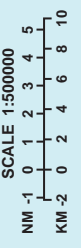
Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CA	-	-	156 (158.2)	2.3	-	-	+500					RNP1.0
2	CF	OBVER	-	171 (173.2)	2.3	-	-	+4000					RNP1.0
3	TF	PASOM	-	190 (192.2)	2.3	4.6	-	-					RNP1.0
4	TF	EMEXA	-	190 (192.2)	2.3	5.0	-	+5000					RNP1.0
5	TF	SOLAL	-	190 (192.2)	2.3	5.0	-	+6000					RNP1.0
6	TF	TONBI	-	190 (192.2)	2.3	5.0	-	@7000					RNP1.0
7	TF	DENSI	-	190 (192.3)	2.3	16.1	-	-					RNP1.0
8	TF	BATHA	-	190 (192.0)	2.3	12.6	-	-					RNP1.0

STANDARD DEPARTURE CHART - INSTRUMENT (SID) - ICAO

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

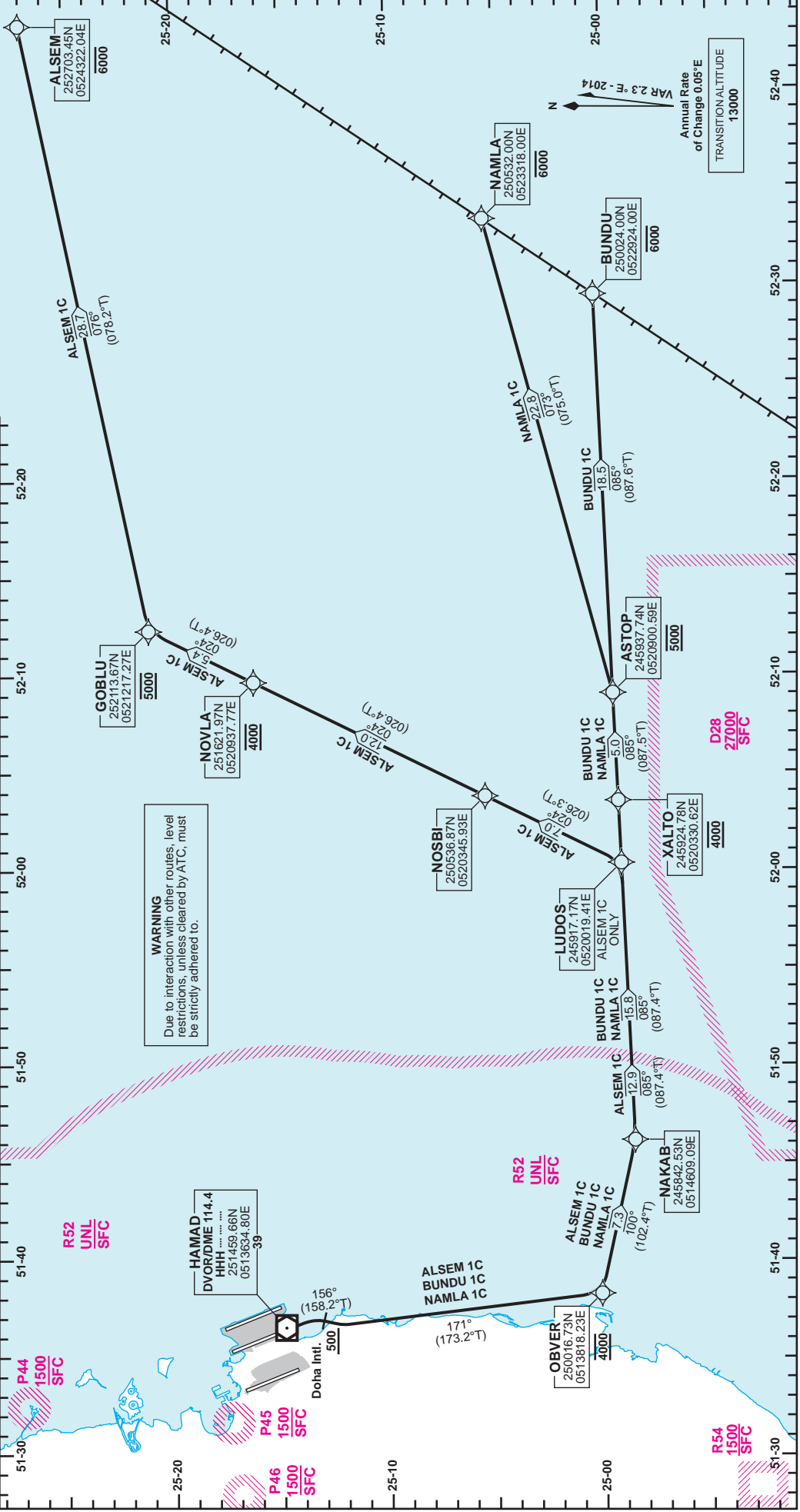
DOHA/Hamad Intl. (OTHH)
RNAV RWY 16R
ALSEM 1C / BUNDU 1C / NAMLA 1C



Amendment: New Chart

Route Designator	Routing
ALSEM 1C	[T158.2;A5000+] - OBVER[T173.2;A4000] - NAKAB - LUDOS - NOSBI - NOVLA[A4000] - GOBLU[A5000] - ALSEM[A6000]-
BUNDU 1C	[T158.2;A5000+] - OBVER[T173.2;A4000] - NAKAB - XALTO[A4000] - ASTOPI[A5000] - BUNDU[A6000]-
NAMLA 1C	[T158.2;A5000+] - OBVER[T173.2;A4000] - NAKAB - XALTO[A4000] - ASTOPI[A5000] - NAMLA[A6000]-

GENERAL INFORMATION
1. Close-in obstacles exist for Rwy 16R departures.
2. 3.5% CG required to 600.



VAR 2.3° E - 2014
Annual Rate of Change 0.05° E
TRANSITION ALTITUDE 13000

Standard Instrument Departure Coding Table

HAMAD INTERNATIONAL RNAV Standard Instrument Departure ALSEM 1C, BUNDU 1C, NAMLA 1C

OTHH RNAV SID ALSEM 1C

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CA		-	156 (158.2)	2.3	-		+500					RNP1.0
2	CF	OBVER	-	171 (173.2)	2.3	-		@4000					RNP1.0
3	TF	NAKAB	-	100 (102.4)	2.3	7.3							RNP1.0
4	TF	LUDOS	-	085 (087.4)	2.3	12.9							RNP1.0
5	TF	NOSBI	-	024 (026.3)	2.3	7.0							RNP1.0
6	TF	NOVLA	-	024 (026.4)	2.3	12.0		@4000					RNP1.0
7	TF	GOBLU	-	024 (026.4)	2.3	5.4		@5000					RNP1.0
8	TF	ALSEM	-	076 (078.2)	2.3	28.7		-6000					RNP1.0

OTHH RNAV SID BUNDU 1C

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CA		-	156 (158.2)	2.3	-		+500					RNP1.0
2	CF	OBVER	-	171 (173.2)	2.3	-		@4000					RNP1.0
3	TF	NAKAB	-	100 (102.4)	2.3	7.3							RNP1.0
4	TF	XALTO	-	085 (087.4)	2.3	15.8		@4000					RNP1.0
5	TF	ASTOP	-	085 (087.5)	2.3	5.0		@5000					RNP1.0
6	TF	BUNDU	-	085 (087.6)	2.3	18.5		-6000					RNP1.0

OTHH RNAV SID NAMLA 1C

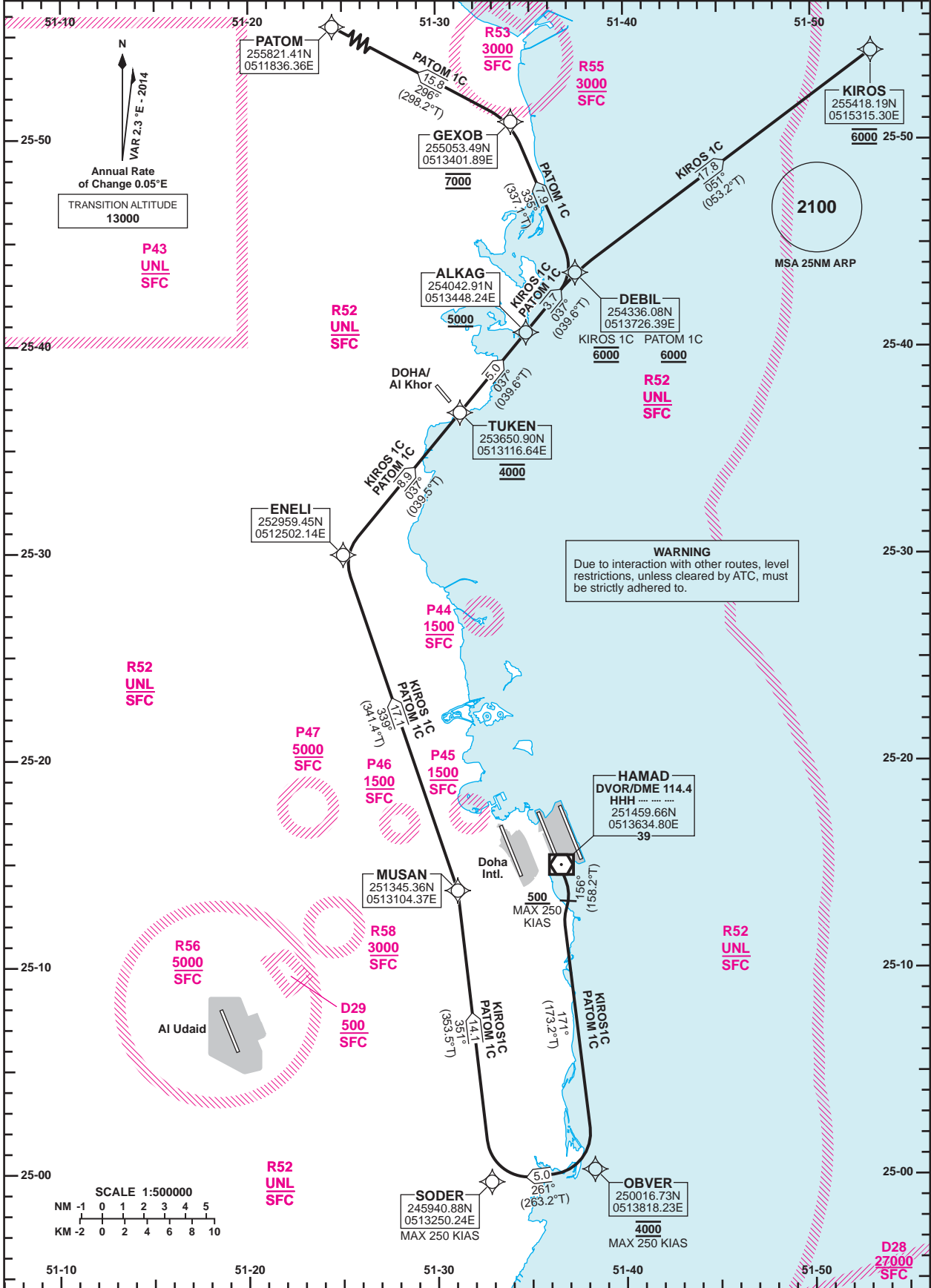
Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CA		-	156 (158.2)	2.3	-		+500					RNP1.0
2	CF	OBVER	-	171 (173.2)	2.3	-		@4000					RNP1.0
3	TF	NAKAB	-	100 (102.4)	2.3	7.3							RNP1.0
4	TF	XALTO	-	085 (087.4)	2.3	15.8		@4000					RNP1.0
5	TF	ASTOP	-	085 (087.5)	2.3	5.0		@5000					RNP1.0
6	TF	NAMLA	-	073 (075.0)	2.3	22.8		-6000					RNP1.0

**STANDARD DEPARTURE
CHART - INSTRUMENT
(SID) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 16R
KIROS 1C /PATOM 1C**



Route Designator	Routing
KIROS 1C	[T158.2;A500+;K250-] - OBVER [R;T173.2;A4000;K250-] - SODER [R;K250-] - MUSAN - ENELI - TUKEN [A4000] - ALKAG [A5000+] - DEBIL [A6000] - KIROS [A6000]
PATOM 1C	[T158.2;A500+;K250-] - OBVER [R;T173.2;A4000;K250-] - SODER [R;K250-] - MUSAN - ENELI - TUKEN [A4000] - ALKAG [A5000+] - DEBIL [A6000+] - GEXOB [A7000] - PATOM

GENERAL INFORMATION
1. Close-in obstacles exist for Rwy 16R departures.
2. 3.5% CG required to 600.

Amendment: New Chart

Standard Instrument Departure Coding Table

HAMAD INTERNATIONAL RNAV Standard Instrument Departure KIROS 1C, PATOM 1C

OTHH RNAV SID KIROS 1C

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CA	-	-	156 (158.2)	2.3	-		+500	-250				RNP1.0
2	CF	OBVER	-	171 (173.2)	2.3	-	R	@4000	-250				RNP1.0
3	TF	SODER	-	261 (263.2)	2.3	5.0	R		-250				RNP1.0
4	TF	MUSAN	-	351 (353.5)	2.3	14.1							RNP1.0
5	TF	ENELI	-	339 (341.4)	2.3	17.1		@4000					RNP1.0
6	TF	TUKEN	-	037 (039.5)	2.3	8.9		@4000					RNP1.0
7	TF	ALKAG	-	037 (039.6)	2.3	5.0		+5000					RNP1.0
8	TF	DEBIL	-	037 (039.6)	2.3	3.7		@6000					RNP1.0
9	TF	KIROS	-	051 (053.2)	2.3	17.8		@6000					RNP1.0

OTHH RNAV SID PATOM 1C

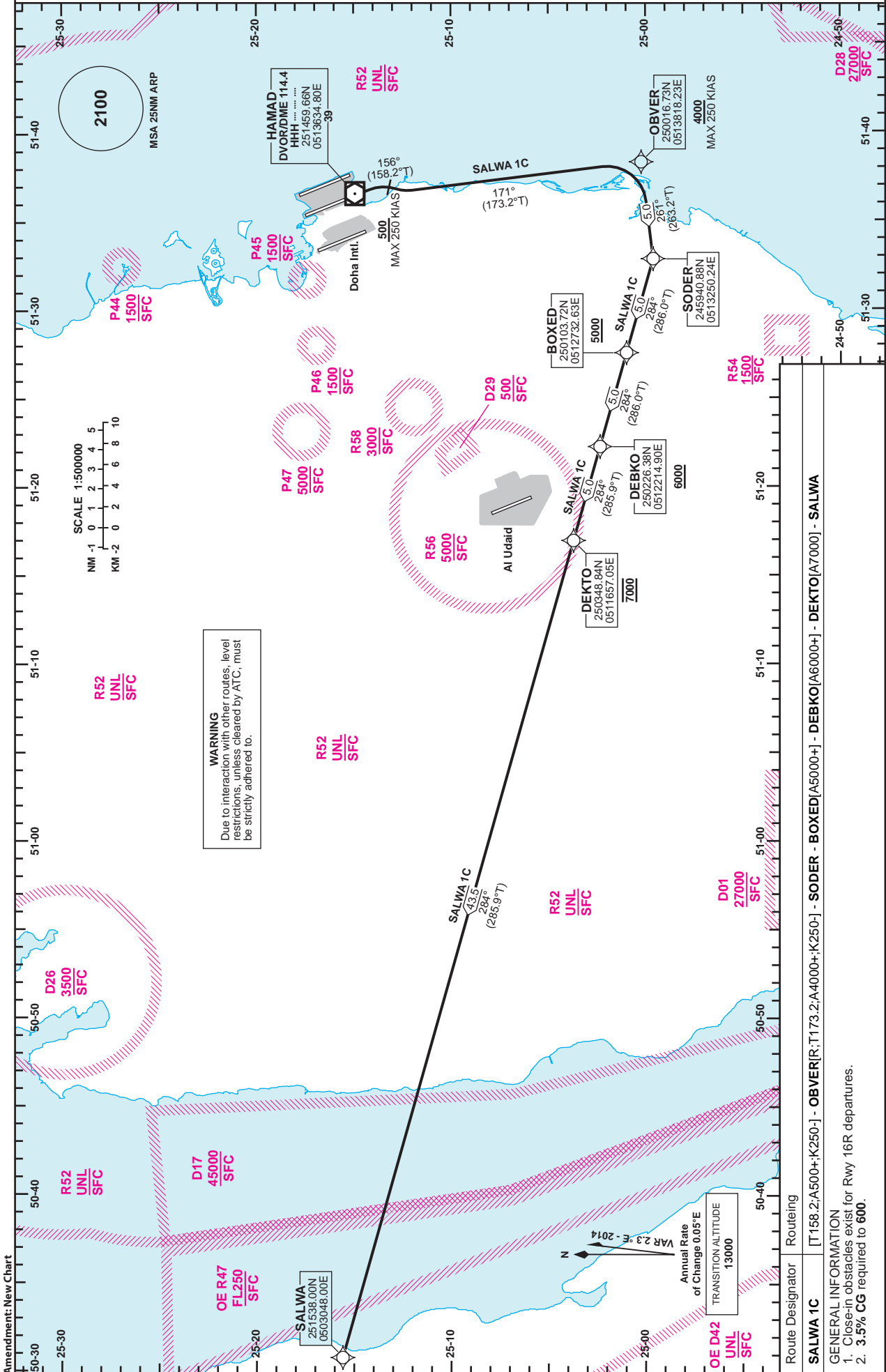
Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CA	-	-	156 (158.2)	2.3	-		+500	-250				RNP1.0
2	CF	OBVER	-	171 (173.2)	2.3	-	R	@4000	-250				RNP1.0
3	TF	SODER	-	261 (263.2)	2.3	5.0	R		-250				RNP1.0
4	TF	MUSAN	-	351 (353.5)	2.3	14.1		-					RNP1.0
5	TF	ENELI	-	339 (341.4)	2.3	17.1		-					RNP1.0
6	TF	TUKEN	-	037 (039.5)	2.3	8.9		@4000					RNP1.0
7	TF	ALKAG	-	037 (039.6)	2.3	5.0		+5000					RNP1.0
8	TF	DEBIL	-	037 (039.6)	2.3	3.7		+6000					RNP1.0
9	TF	GEXOB	-	335 (337.1)	2.3	7.9		@7000					RNP1.0
10	TF	PATOM	-	296 (298.2)	2.3	15.8		-					RNP1.0

**STANDARD DEPARTURE
CHART - INSTRUMENT
(SID) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 16R
SALWA 1C**



GENERAL INFORMATION
1. Close-in obstacles exist for Rwy 16R departures.
2. 3.5% CG required to 600.

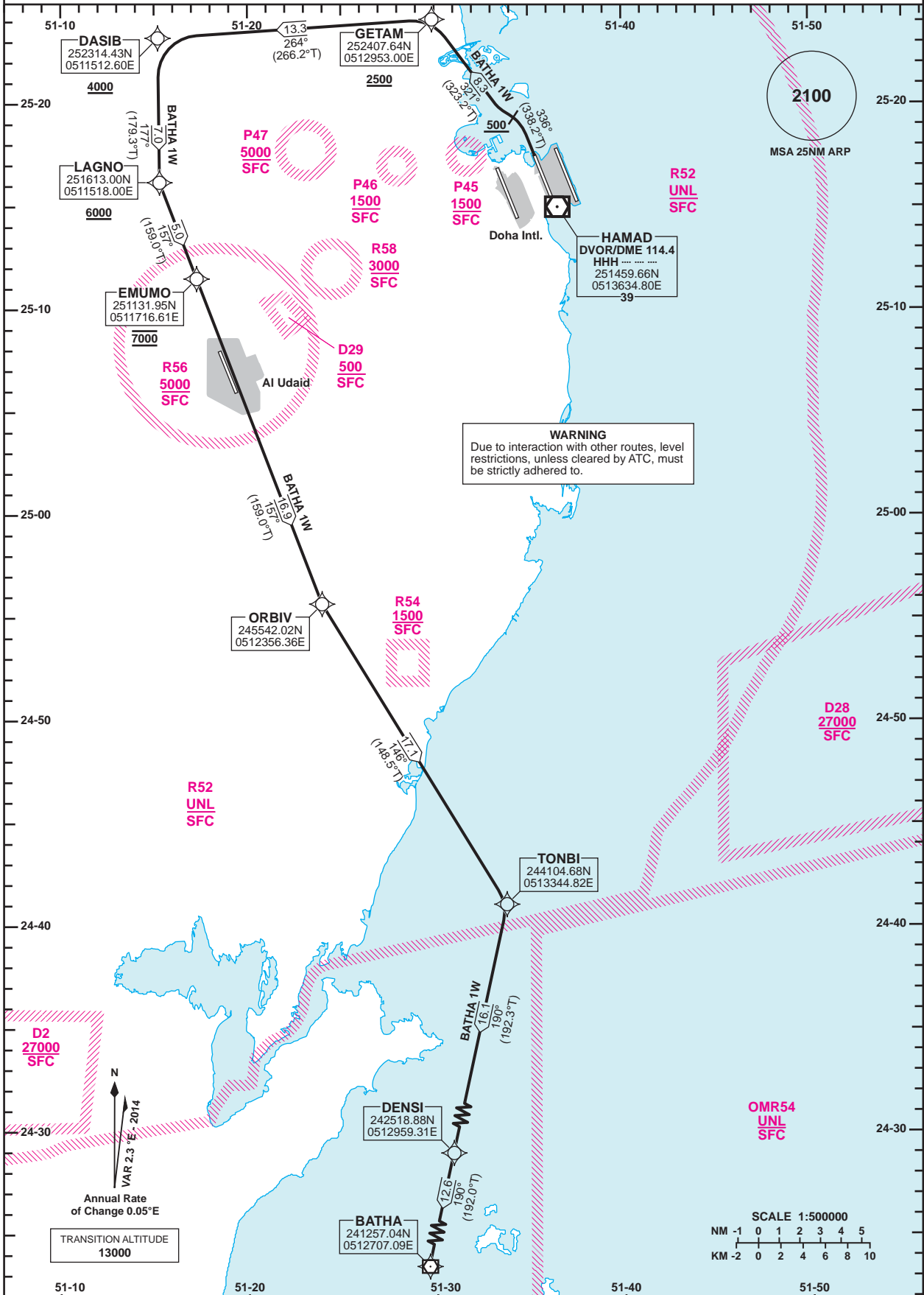
Amendment: New Chart

**STANDARD DEPARTURE
CHART - INSTRUMENT
(SID) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 34L
BATHA 1W**



Route Designator	Routing
BATHA 1W	[T338.2; A500+] - GETAM[T323.2; A2500+] - DASIB[A4000+] - LAGNO[A6000+] - EMUMO[A7000] - ORBIV - TONBI - DENSI - BATHA

- GENERAL INFORMATION**
1. Close-in obstacles exist for Rwy 34L departures.
 2. 4.8% CG required to 1200.

Amendment: New Chart

Standard Instrument Departure Coding Table

HAMAD INTERNATIONAL RNAV Standard Instrument Departure BATHA 1W

OTHH RNAV SID BATHA 1W

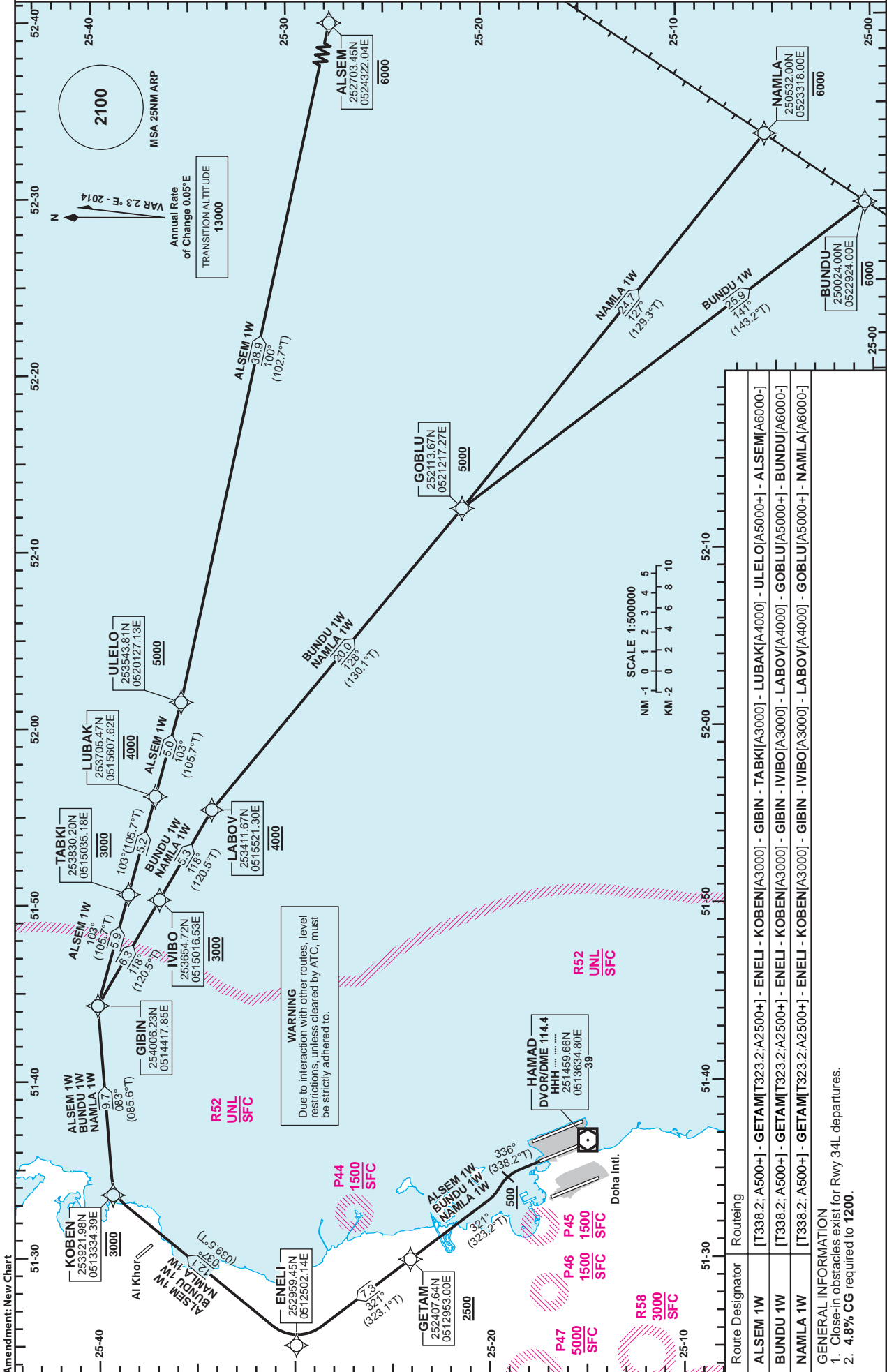
Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH (ft)	VPA (°)	Arc Center_Wpt Ident/radius (NM)	Navigational_Performance
1	CA	-	-	336 (336.2)	2.3	-	-	+500					RNP 1.0
2	CF	GETAM	-	321 (323.2)	2.3	-	-	+2500					RNP 1.0
3	TF	DASIB	-	264 (266.2)	2.3	13.3		+4000					RNP 1.0
4	TF	LAGNO	-	177 (179.3)	2.3	7.0		+6000					RNP 1.0
5	TF	EMJMO	-	157 (159.0)	2.3	5.0		@7000					RNP 1.0
6	TF	ORBIV	-	157 (159.0)	2.3	16.9		-					RNP 1.0
7	TF	TONBI	-	146 (148.5)	2.3	17.1		-					RNP 1.0
8	TF	DENSI	-	190 (192.3)	2.3	16.1		-					RNP 1.0
9	TF	BATHA	-	190 (192.0)	2.3	12.6		-					RNP 1.0

**STANDARD DEPARTURE
CHART - INSTRUMENT
(SID) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 34L
ALSEM 1W/BUNDU 1W/NAMLA 1W**



Route Designator	Routing
ALSEM 1W	[T338.2; A500+] - GETAM[T323.2; A2500+] - ENELI - KOBEN[A3000] - GIBIN - TABKI[A3000] - LUBAK[A4000] - ULELO[A5000+] - ALSEM[A6000-]
BUNDU 1W	[T338.2; A500+] - GETAM[T323.2; A2500+] - ENELI - KOBEN[A3000] - GIBIN - IVIBO[A4000] - GOBLU[A5000+] - BUNDU[A6000-]
NAMLA 1W	[T338.2; A500+] - GETAM[T323.2; A2500+] - ENELI - KOBEN[A3000] - GIBIN - IVIBO[A4000] - GOBLU[A5000+] - NAMLA[A6000-]

GENERAL INFORMATION
1. Close-in obstacles exist for Rwy 34L departures.
2. 4.8% CG required to 1200.

Amendment: New Chart

Standard Instrument Departure Coding Table

HAMAD INTERNATIONAL RNAV Standard Instrument Departure ALSEM 1W, BUNDU 1W, NAMLA 1W

OTHH RNAV SID ALSEM 1W

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CA	-	-	336 (338.2)	2.3	-	-	+500					RNP 1.0
2	CF	GETAM	-	321 (323.2)	2.3	-	-	+2500					RNP 1.0
3	TF	ENELI	-	321 (323.1)	2.3	7.3	-	-					RNP 1.0
4	TF	KOBEN	-	037 (039.5)	2.3	12.1	-	@3000					RNP 1.0
5	TF	GIBIN	-	083 (085.6)	2.3	9.7	-	-					RNP 1.0
6	TF	TABKI	-	103 (105.7)	2.3	5.9	-	@3000					RNP 1.0
7	TF	LUBAK	-	103 (105.7)	2.3	5.2	-	@4000					RNP 1.0
8	TF	UILELO	-	103 (105.7)	2.3	5.0	-	+5000					RNP 1.0
9	TF	ALSEM	-	100 (102.7)	2.3	38.9	-	-6000					RNP 1.0

OTHH RNAV SID BUNDU 1W

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CA	-	-	336 (338.2)	2.3	-	-	+500					RNP1.0
2	CF	GETAM	-	321 (323.2)	2.3	-	-	+2500					RNP1.0
3	TF	ENELI	-	321 (323.1)	2.3	7.3	-	-					RNP1.0
4	TF	KOBEN	-	037 (039.5)	2.3	12.1	-	@3000					RNP1.0
5	TF	GIBIN	-	083 (085.6)	2.3	9.7	-	-					RNP1.0
6	TF	IVBO	-	118 (120.5)	2.3	6.3	-	@3000					RNP1.0
7	TF	LABOV	-	118 (120.5)	2.3	5.3	-	@4000					RNP1.0
8	TF	GOBLU	-	128 (130.1)	2.3	20.0	-	+5000					RNP1.0
9	TF	BUNDU	-	141 (143.2)	2.3	25.9	-	-6000					RNP1.0

OTHH RNAV SID NAMLA 1W

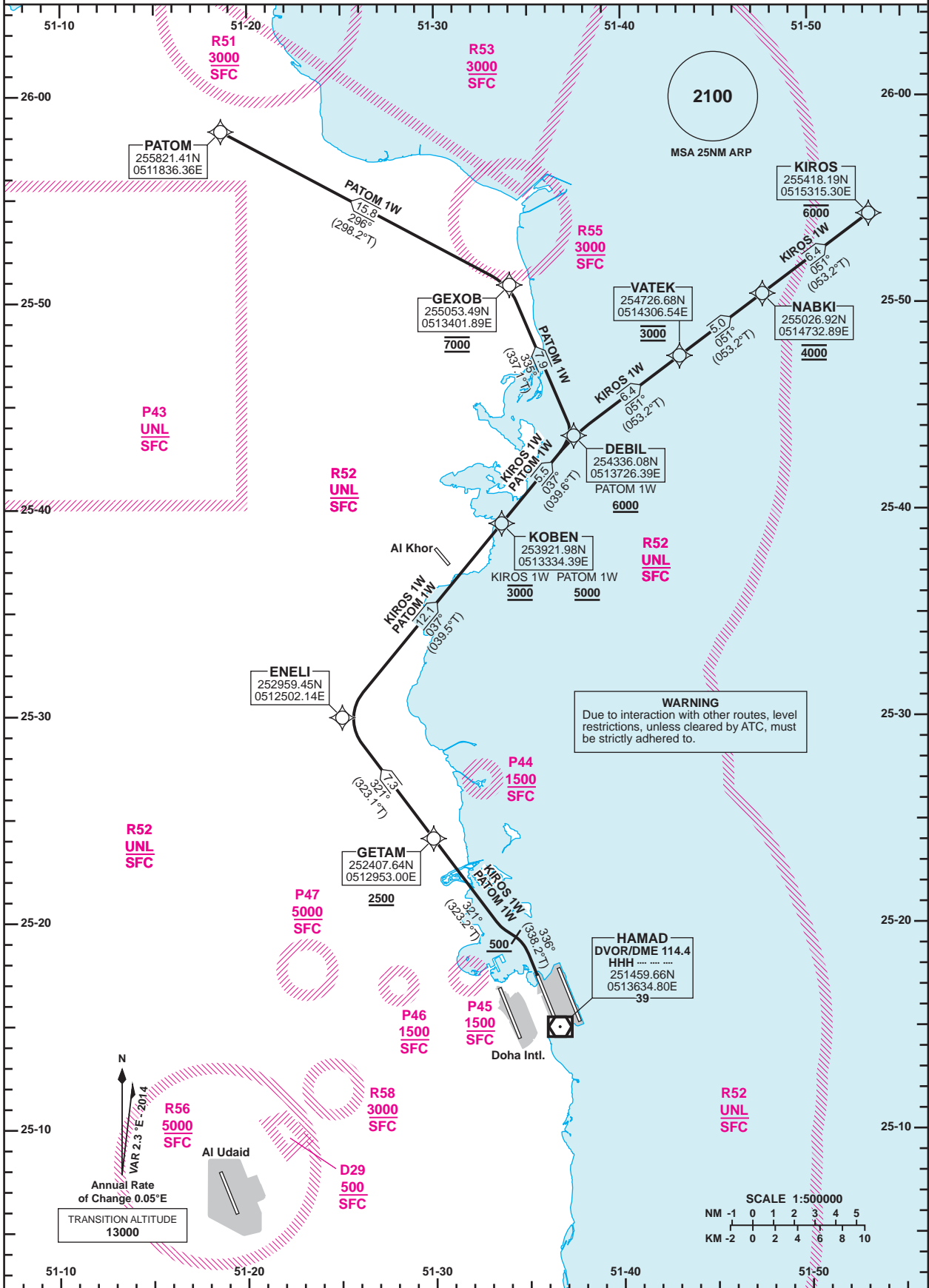
Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CA	-	-	336 (338.2)	2.3	-	-	+500					RNP1.0
2	CF	GETAM	-	321 (323.2)	2.3	-	-	+2500					RNP1.0
3	TF	ENELI	-	321 (323.1)	2.3	7.3	-	-					RNP1.0
4	TF	KOBEN	-	037 (039.5)	2.3	12.1	-	@3000					RNP1.0
5	TF	GIBIN	-	083 (085.6)	2.3	9.7	-	-					RNP1.0
6	TF	IVBO	-	118 (120.5)	2.3	6.3	-	@3000					RNP1.0
7	TF	LABOV	-	118 (120.5)	2.3	5.3	-	@4000					RNP1.0
8	TF	GOBLU	-	128 (130.1)	2.3	20.0	-	+5000					RNP1.0
9	TF	NAMLA	-	127 (129.3)	2.3	24.7	-	-6000					RNP1.0

**STANDARD DEPARTURE
CHART - INSTRUMENT
(SID) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 34L
KIROS 1W /PATOM 1W**



Route Designator	Routing
KIROS 1W	[T338.2; A500+] - GETAM[T323.2; A2500+] - ENELI - KOBEN[A3000] - DEBIL - VATEK[A3000] - NABKI[A4000] - KIROS[A6000]
PATOM 1W	[T338.2; A500+] - GETAM[T323.2; A2500+] - ENELI - KOBEN[A5000+] - DEBIL[A6000+] - GEXOB[A7000] - PATOM

GENERAL INFORMATION
 1. Close-in obstacles exist for Rwy 34L departures.
 2. 4.8% CG required to 1200.

Amendment: New Chart

Standard Instrument Departure Coding Table

HAMAD INTERNATIONAL RNAV Standard Instrument Departure KIROS 1W, PATOM 1W

OTHH RNAV SID KIROS 1W

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CA	-	-	336 (338.2)	2.3	-	-	+500					RNP1.0
2	CF	GETAM	-	321 (323.2)	2.3	-	-	+2500					RNP1.0
3	TF	ENELI	-	321 (323.1)	2.3	7.3	-						RNP1.0
4	TF	KOBEN	-	037 (039.5)	2.3	12.1	-	@3000					RNP1.0
5	TF	DEBIL	-	037 (039.6)	2.3	5.5	-						RNP1.0
6	TF	VATEK	-	051 (053.2)	2.3	6.4	-	@3000					RNP1.0
7	TF	NABKI	-	051 (053.2)	2.3	5.0	-	@4000					RNP1.0
8	TF	KIROS	-	051 (053.2)	2.3	6.4	-	-6000					RNP1.0

OTHH RNAV SID PATOM 1W

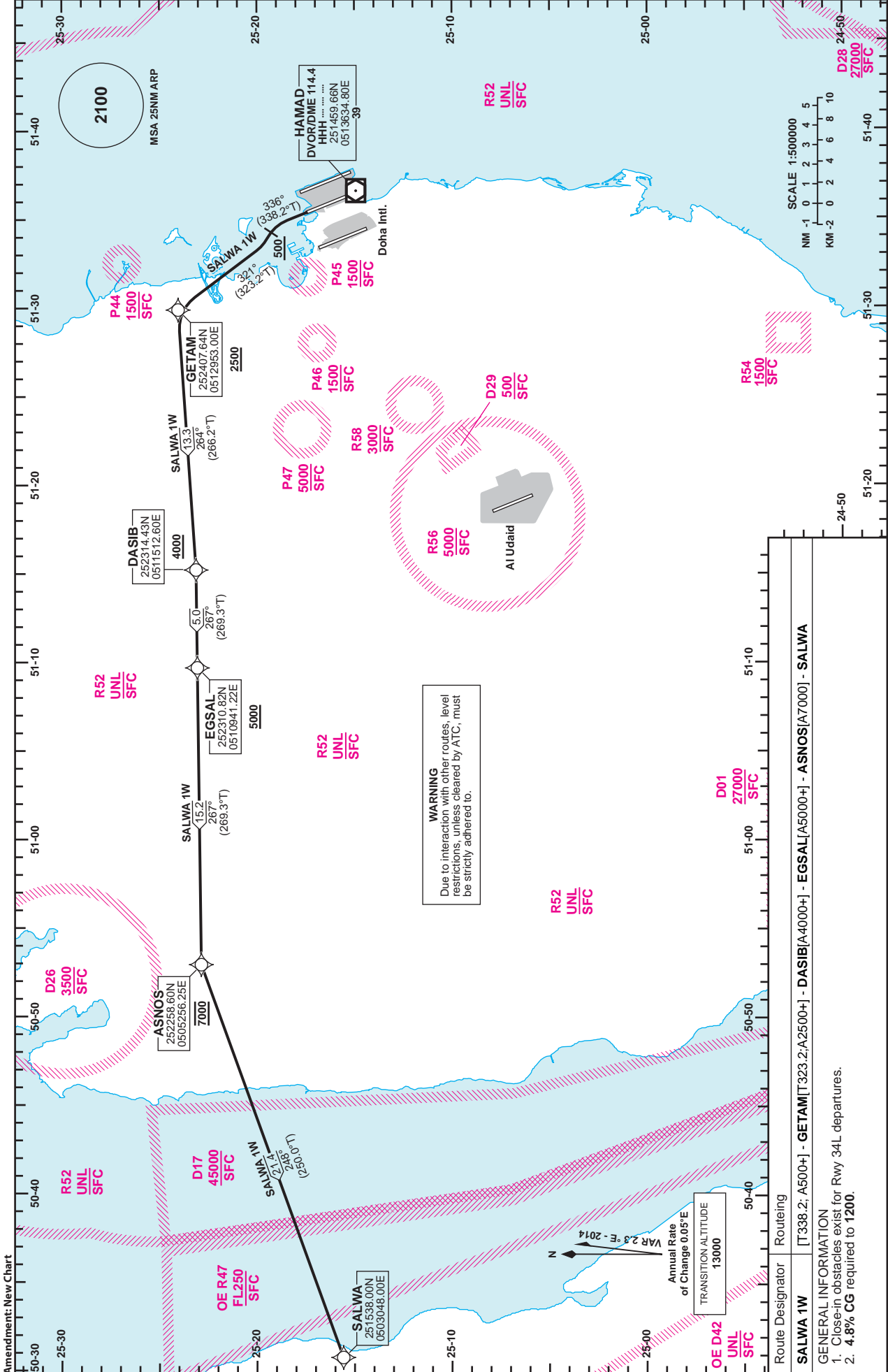
Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CA	-	-	336 (338.2)	2.3	-	-	+500					RNP1.0
2	CF	GETAM	-	321 (323.2)	2.3	-	-	+2500					RNP1.0
3	TF	ENELI	-	321 (323.1)	2.3	7.3	-	-					RNP1.0
4	TF	KOBEN	-	037 (039.5)	2.3	12.1	-	+5000					RNP1.0
5	TF	DEBIL	-	037 (039.6)	2.3	5.5	-	+6000					RNP1.0
6	TF	GEXOB	-	335 (337.1)	2.3	7.9	-	@7000					RNP1.0
7	TF	PATOM	-	296 (298.2)	2.3	15.8	-	-					RNP1.0

**STANDARD DEPARTURE
CHART - INSTRUMENT
(SID) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 34L
SALWA 1W**



Amendment: New Chart

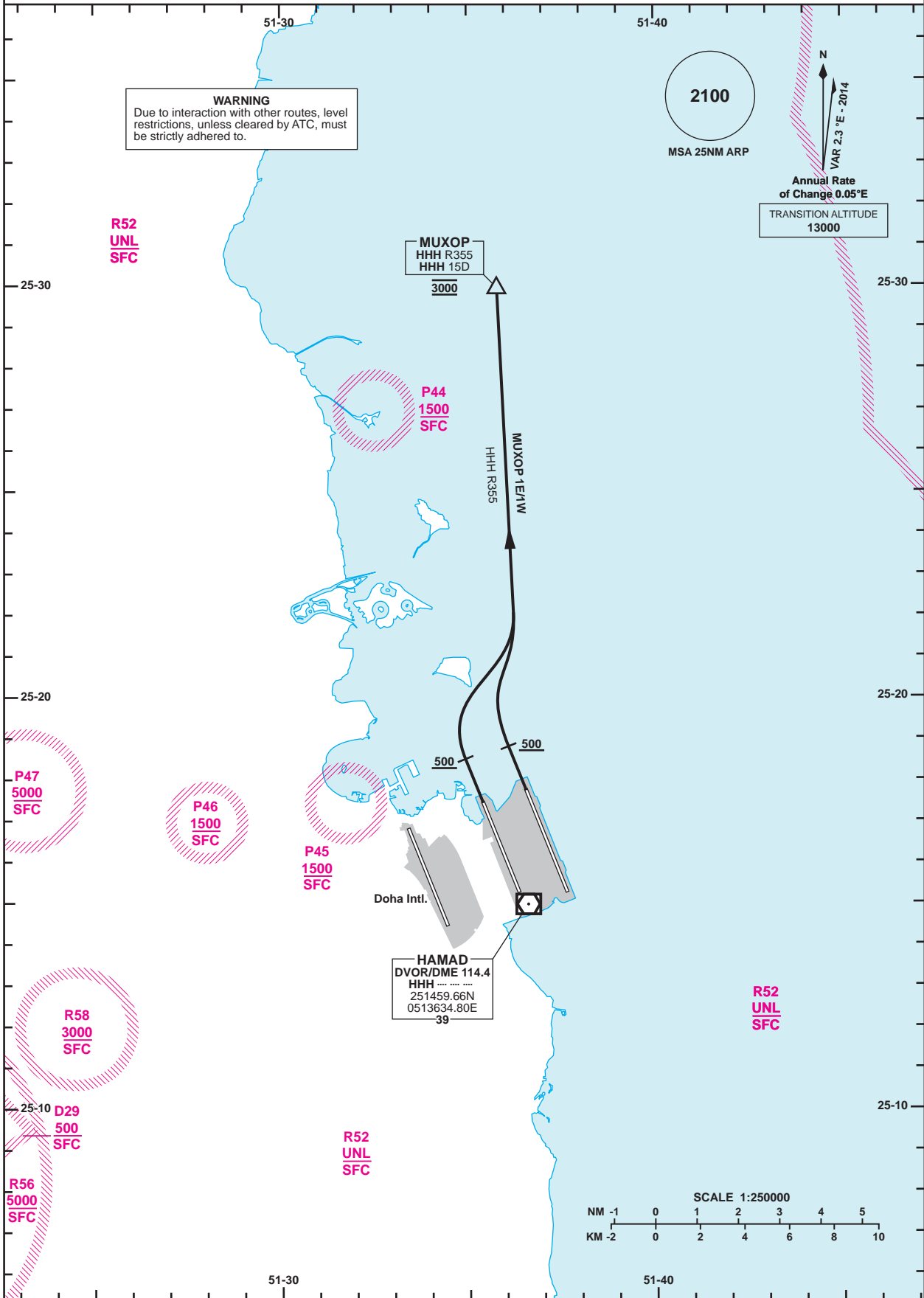
Route Designer	Routing
SALWA 1W	[T338.2; A500+] - GETAM [T323.2; A2500+] - DASIB [A4000+] - EGSAL [A5000+] - ASNOS [A7000] - SALWA
GENERAL INFORMATION	
1. Close-in obstacles exist for Rwy 34L departures.	
2. 4.8% CG required to 1200.	

**STANDARD DEPARTURE
CHART - INSTRUMENT
(SID) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RWY 34L/R
MUXOP 1E/1W**



WARNING
Due to interaction with other routes, level restrictions, unless cleared by ATC, must be strictly adhered to.

2100
MSA 25NM ARP

N
VAR 2.3° E - 2014
Annual Rate of Change 0.05° E
TRANSITION ALTITUDE 13000

MUXOP
HHH R355
HHH 15D
3000

HAMAD
DVOR/DME 114.4
HHH
251459.66N
0513634.80E
39

SCALE 1:250000
NM -1 0 1 2 3 4 5
KM -2 0 2 4 6 8 10

Amendment: New Chart

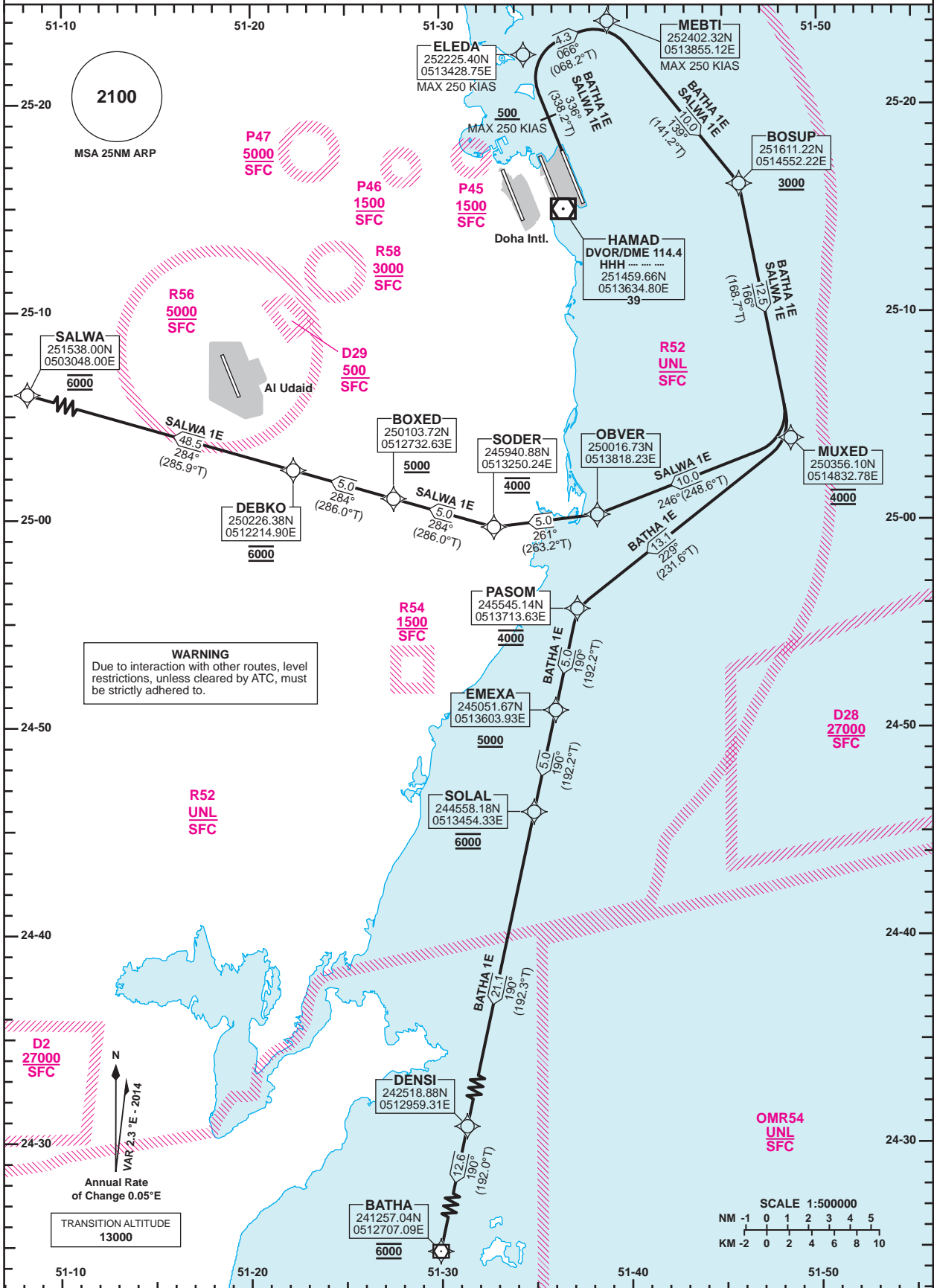
Rwy	Route Designator	Routeing		
34L	MUXOP 1W	Climb straight ahead to 500. Turn right to intercept HHH R355 to MUXOP (HHH 15D) at 3000. Continue as directed.		
34R	MUXOP 1E	Climb straight ahead to 500. Turn right to intercept HHH R355 to MUXOP (HHH 15D) at 3000. Continue as directed.		
Rwy	Primary SIDs	Initial Contact	Initial Altitude	Radio Fail Procedures
34L	MUXOP 1W	DEPs	3000	Execute three right-hand orbits at MUXOP at 3000. Continue right-hand orbit climbing to 5000. Proceed direct to first enroute waypoint then continue as flight planned or proceed direct to HHH VOR and follow the ILS 34L approach procedure to land at OTHH.
34R	MUXOP 1E	DEPs	3000	

**STANDARD DEPARTURE
CHART - INSTRUMENT
(SID) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 34R
BATHA 1E /SALWA 1E**



Route Designator	Routing
BATHA 1E	[T338.2; A500+; K250-] - ELEDA[R; T338.2; K250-] - MEBTI[K250-] - BOSUP[A3000+] - MUXED[A4000] - PASOM[A4000] - EMEXA[A5000+] - SOLAL[A6000] - DENSI - BATHA[A6000]
SALWA 1E	[T338.2; A500+; K250-] - ELEDA[R; T338.2; K250-] - MEBTI[K250-] - BOSUP[A3000+] - MUXED[A4000] - OBVER - SODER[A4000] - BOXED[A5000+] - DEBKO[A6000] - SALWA[A6000]

GENERAL INFORMATION
1. Close-in obstacles exist for Rwy 34R departures.

Amendment: New Chart

Standard Instrument Departure Coding Table

HAMAD INTERNATIONAL RNAV Standard Instrument Departure ALSEM 1E, BATHA 1E

OTHH RNAV SID ALSEM 1E

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CF	SOKEN	-	336 (338.2)	2.3	-		+2500					RNP 1.0
2	TF	DEMBO	-	037 (039.6)	2.3	10.1		@4000					RNP 1.0
3	TF	UKILA	-	090 (092.7)	2.3	9.3		+6000					RNP 1.0
4	TF	LABOV	-	090 (092.8)	2.3	5.0		@7000					RNP 1.0
5	TF	ALSEM	-	097 (099.1)	2.3	44.0		-					RNP 1.0

OTHH RNAV SID BATHA 1E

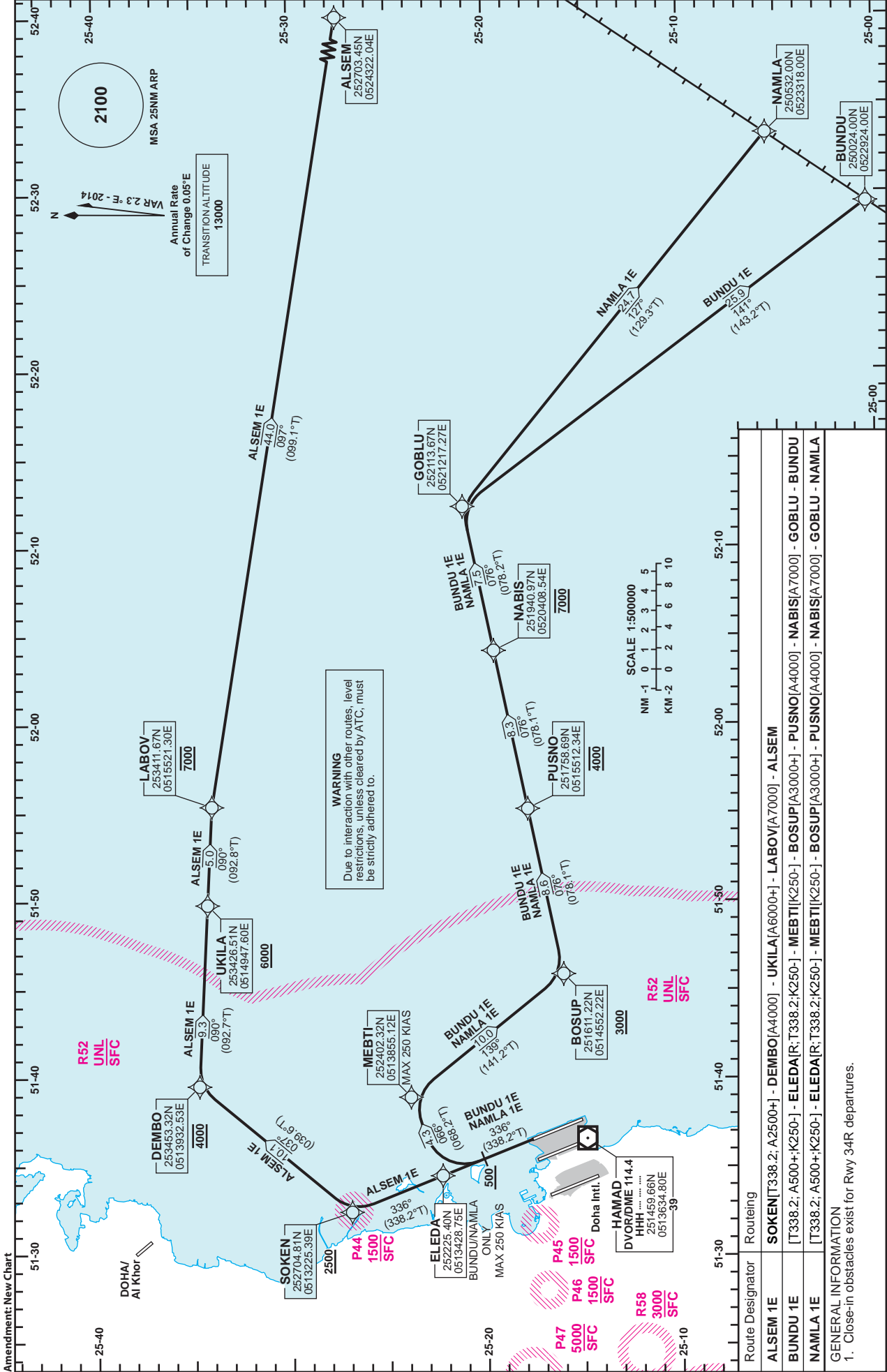
Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH_(ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CA	-	-	336 (338.2)	2.3	-		+500	-250				RNP 1.0
2	CF	ELEDA	-	336 (338.2)	2.3	-	R	-	-250				RNP 1.0
3	TF	MEBTI	-	066 (068.2)	2.3	4.3		-	-250				RNP 1.0
4	TF	BOSUP	-	139 (141.2)	2.3	10.0		+3000	-				RNP 1.0
5	TF	MUXED	-	166 (168.7)	2.3	12.5		@4000	-				RNP 1.0
6	TF	PASOM	-	229 (231.6)	2.3	13.1		@4000	-				RNP 1.0
7	TF	EMEXA	-	190 (192.2)	2.3	5.0		+5000	-				RNP 1.0
8	TF	SOLAL	-	190 (192.2)	2.3	5.0		@6000	-				RNP 1.0
9	TF	DENSI	-	190 (192.3)	2.3	21.1		-	-				RNP 1.0
10	TF	BATHA	-	190 (192.0)	2.3	12.6		@6000	-				RNP 1.0

**STANDARD DEPARTURE
CHART - INSTRUMENT
(SID) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 34R
ALSEM 1E/BUNDU 1E/NAMLA 1E**



WARNING
Due to interaction with other routes, level restrictions, unless cleared by ATC, must be strictly adhered to.



Route Designator	Routing
ALSEM 1E	SOKEN[T338.2; A2500+] - UKILA[A6000+] - LABOV[A7000] - ALSEM
BUNDU 1E	[T338.2; A500+; K250-] - ELEDA[R; T338.2; K250-] - MEBTI[K250-] - BOSUP[A3000+] - PUSNO[A4000] - NABIS[A7000] - GOBLU - BUNDU
NAMLA 1E	[T338.2; A500+; K250-] - ELEDA[R; T338.2; K250-] - MEBTI[K250-] - BOSUP[A3000+] - PUSNO[A4000] - NABIS[A7000] - GOBLU - NAMLA

GENERAL INFORMATION

1. Close-in obstacles exist for Rwy 34R departures.

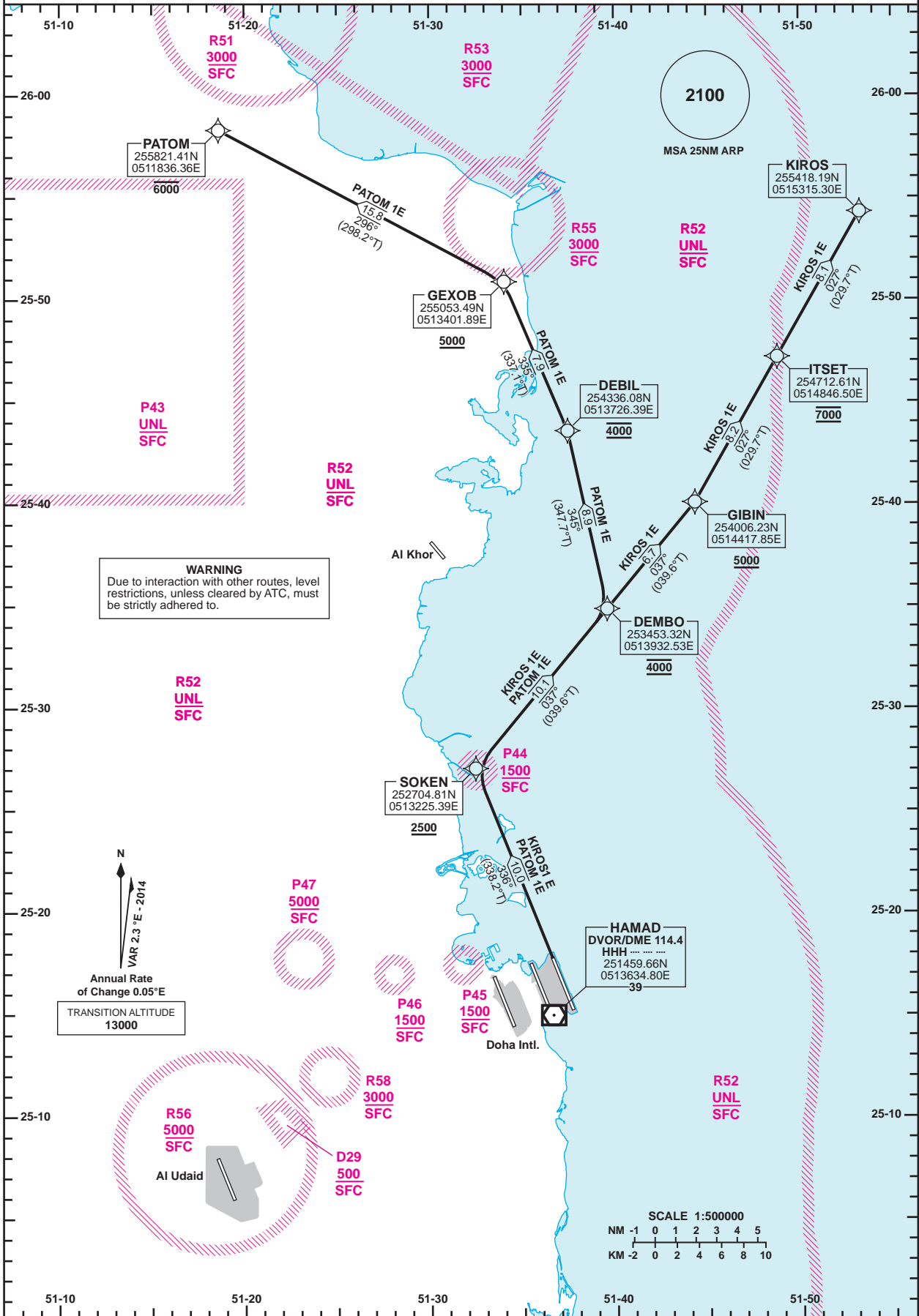
Amendment: New Chart

**STANDARD DEPARTURE
CHART - INSTRUMENT
(SID) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA DEP 119.125
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 34R
KIROS 1E /PATOM 1E**



Route Designator	Routing
KIROS 1E	SOKEN [T338.2; A2500+] - DEMBO [A4000] - GIBIN [A5000+] - ITSET [A7000] - KIROS
PATOM 1E	SOKEN [T338.2; A2500+] - DEMBO [A4000] - DEBIL [A4000] - GEXOB [A5000+] - PATOM [A6000-]
GENERAL INFORMATION	
1. Close-in obstacles exist for Rwy 34R departures.	

Amendment: New Chart

Standard Instrument Departure Coding Table

HAMAD INTERNATIONAL RNAV Standard Instrument Departure KIRO5 1E, PATOM 1E

OTHH RNAV SID KIRO5 1E

Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH (ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CF	SOKEN	-	336 (338.2)	2.3	-		+2500					RNP1.0
2	TF	DEMBO	-	037 (039.6)	2.3	10.1		@4000					RNP1.0
3	TF	GIBIN	-	037 (039.6)	2.3	6.7		+5000					RNP1.0
4	TF	ITSET	-	027 (029.7)	2.3	8.2		@7000					RNP1.0
5	TF	KIRO5	-	027 (029.7)	2.3	8.1		-					RNP1.0

OTHH RNAV SID PATOM 1E

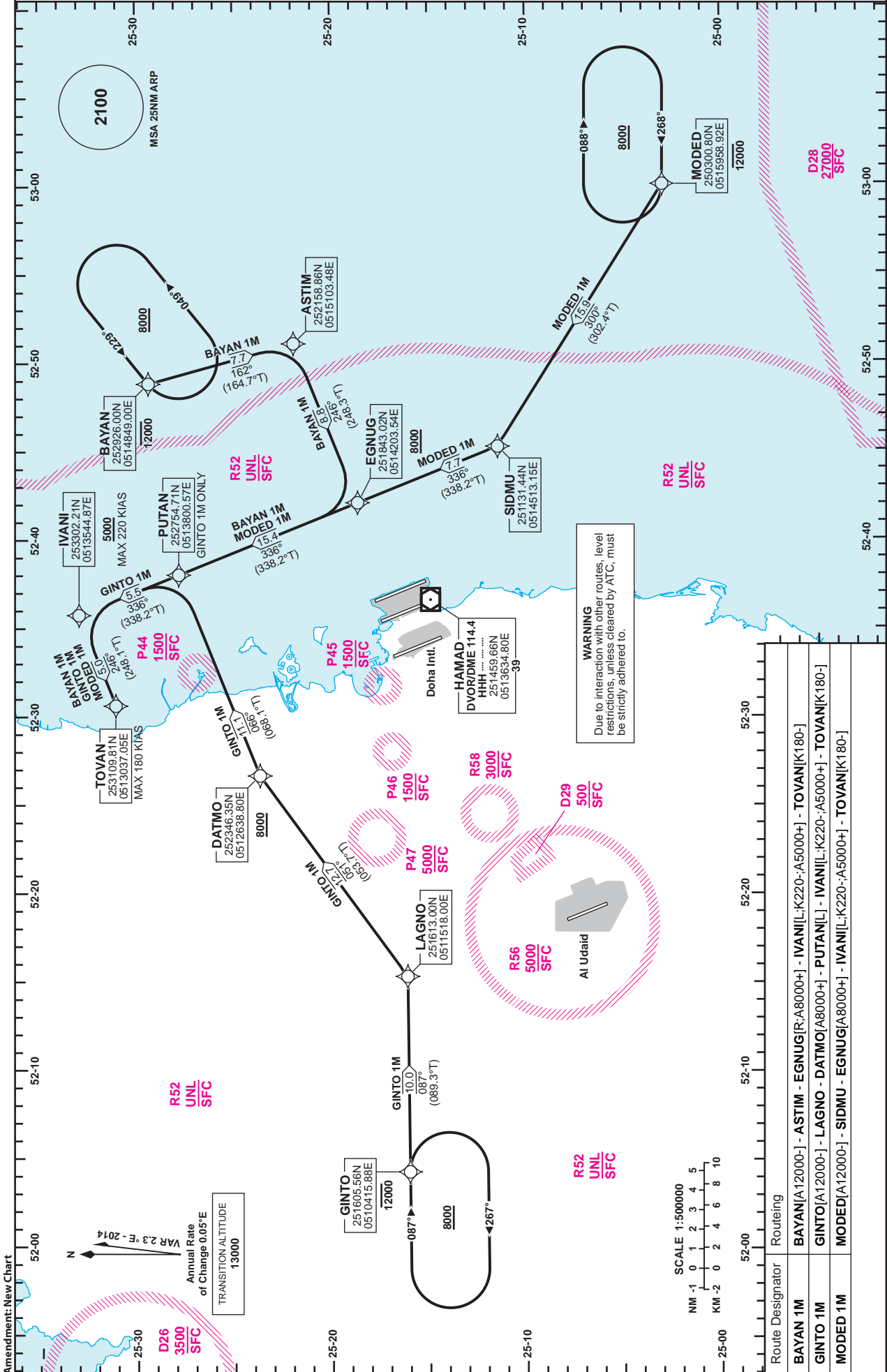
Serial Num	PT	WP	Flyover	Course(T)	Magnetic Variation	Dist(NM)	Turn_Direction	Altitude_Description	Speed_Limit	THR Elev_TCH (ft)	VPA (°)	Arc Center Wpt Ident/radius (NM)	Navigational_Performance
1	CF	SOKEN	-	336 (338.2)	2.3	-		+2500					RNP1.0
2	TF	DEMBO	-	037 (039.6)	2.3	10.1		@4000					RNP1.0
3	TF	DEBIL	-	345 (347.7)	2.3	8.9		@4000					RNP1.0
4	TF	GEXOB	-	335 (337.1)	2.3	7.9		+5000					RNP1.0
5	TF	PATOM	-	296 (298.2)	2.3	15.8		-6000					RNP1.0

**STANDARD ARRIVAL
CHART - INSTRUMENT
(STAR) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA APP 119.40
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 16L
BAYAN 1M /GINTO 1M /MODED 1M**



OTHH - STAR - BAYAN 1M

Serial Num	PT	Waypoint	FO	Course(T)	MagVar	Dist(NM)	Turn	Altitude	Speed	THR / TCH	VPA	Arc C. WP / Radius (NM)	RNP Value
1	IF	BAYAN	-		2.3			-12000					RNP1.0
2	TF	ASTIM	-	162 (164.7)	2.3	7.7							RNP1.0
3	TF	EGNUG	-	246 (248.3)	2.3	8.8	R	+8000					RNP1.0
4	TF	IVANI	-	336 (338.2)	2.3	15.4	L	+5000	-220				RNP1.0
5	TF	TOVAN	-	246 (248.1)	2.3	5.0			-180				RNP1.0

OTHH - STAR - GINTO 1M

Serial Num	PT	Waypoint	FO	Course(T)	MagVar	Dist(NM)	Turn	Altitude	Speed	THR / TCH	VPA	Arc C. WP / Radius (NM)	RNP Value
1	IF	GINTO	-		2.3			-12000					RNP1.0
2	TF	LAGNO	-	087 (089.3)	2.3	10.0							RNP1.0
3	TF	DATMO	-	051 (053.7)	2.3	12.7		+8000					RNP1.0
4	TF	PUTAN	-	066 (068.1)	2.3	11.1	L						RNP1.0
5	TF	IVANI	-	336 (338.2)	2.3	5.5	L	+5000	-220				RNP1.0
6	TF	TOVAN	-	246 (248.1)	2.3	5.0			-180				RNP1.0

OTHH - STAR - MODED 1M

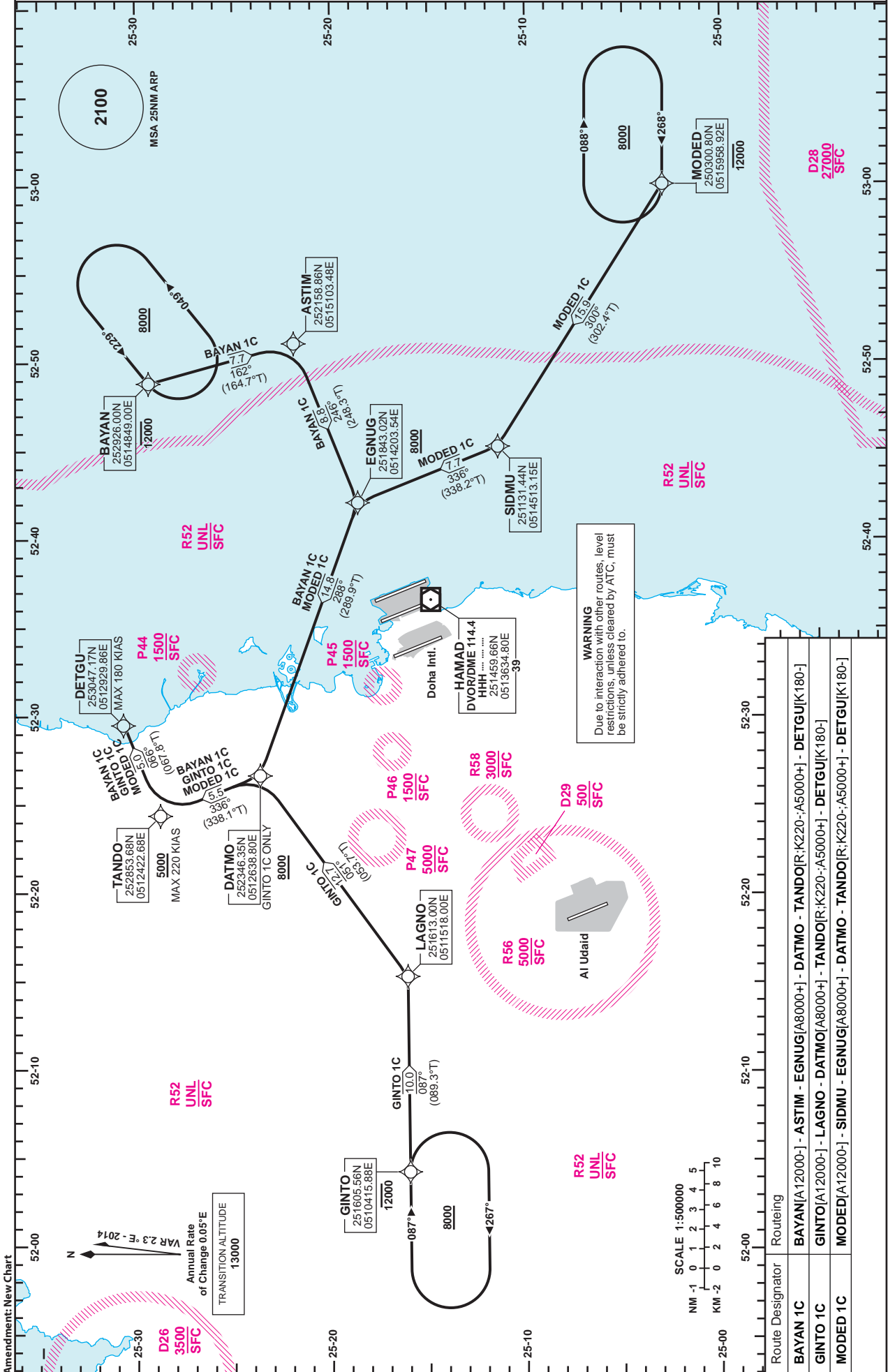
Serial Num	PT	Waypoint	FO	Course(T)	MagVar	Dist(NM)	Turn	Altitude	Speed	THR / TCH	VPA	Arc C. WP / Radius (NM)	RNP Value
1	IF	MODED	-		2.3			-12000					RNP1.0
2	TF	SIDMU	-	300 (302.4)	2.3	15.9							RNP1.0
3	TF	EGNUG	-	336 (338.2)	2.3	7.7		+8000					RNP1.0
4	TF	IVANI	-	336 (338.2)	2.3	15.4	L	+5000	-220				RNP1.0
5	TF	TOVAN	-	246 (248.1)	2.3	5.0			-180				RNP1.0

**STANDARD ARRIVAL
CHART - INSTRUMENT
(STAR) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA APP 119.40
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 16R
BAYAN 1C /GINTO 1C /MODED 1C**



WARNING
Due to interaction with other routes, level restrictions, unless cleared by ATC, must be strictly adhered to.

Route Designator	Routing
BAYAN 1C	BAYAN[A12000-] - ASTIM - EGNUG[A8000+] - DATMO - TANDO[R;K220-;A5000+] - DETGU[K180-]
GINTO 1C	GINTO[A12000-] - LAGNO - DATMO[A8000+] - TANDO[R;K220-;A5000+] - DETGU[K180-]
MODED 1C	MODED[A12000-] - SIDMU - EGNUG[A8000+] - DATMO - TANDO[R;K220-;A5000+] - DETGU[K180-]

Amendment: New Chart

VAR 2.3° E - 2014
Annual Rate of Change 0.05° E
TRANSITION ALTITUDE 13000

OTHH - STAR - BAYAN 1C

Serial Num	PT	Waypoint	FO	Course(T)	MagVar	Dist(NM)	Turn	Altitude	Speed	THR / TCH	VPA	Arc C. WP / Radius (NM)	RNP Value
1	IF	BAYAN	-		2.3			-12000					RNP1.0
2	TF	ASTIM	-	162 (164.7)	2.3	7.7							RNP1.0
3	TF	EGNUG	-	246 (248.3)	2.3	8.8		+8000					RNP1.0
4	TF	DATMO	-	288 (289.9)	2.3	14.8							RNP1.0
5	TF	TANDO	-	336 (338.1)	2.3	5.5	R	+5000	-220				RNP1.0
6	TF	DETCU	-	066 (067.8)	2.3	5.0			-180				RNP1.0

OTHH - STAR - GINTO 1C

Serial Num	PT	Waypoint	FO	Course(T)	MagVar	Dist(NM)	Turn	Altitude	Speed	THR / TCH	VPA	Arc C. WP / Radius (NM)	RNP Value
1	IF	GINTO	-		2.3			-12000					RNP1.0
2	TF	LAGNO	-	087 (089.3)	2.3	10.0							RNP1.0
3	TF	DATMO	-	051 (053.7)	2.3	12.7		+8000					RNP1.0
4	TF	TANDO	-	336 (338.1)	2.3	5.5	R	+5000	-220				RNP1.0
5	TF	DETCU	-	066 (067.8)	2.3	5.0			-180				RNP1.0

OTHH - STAR - MODED 1C

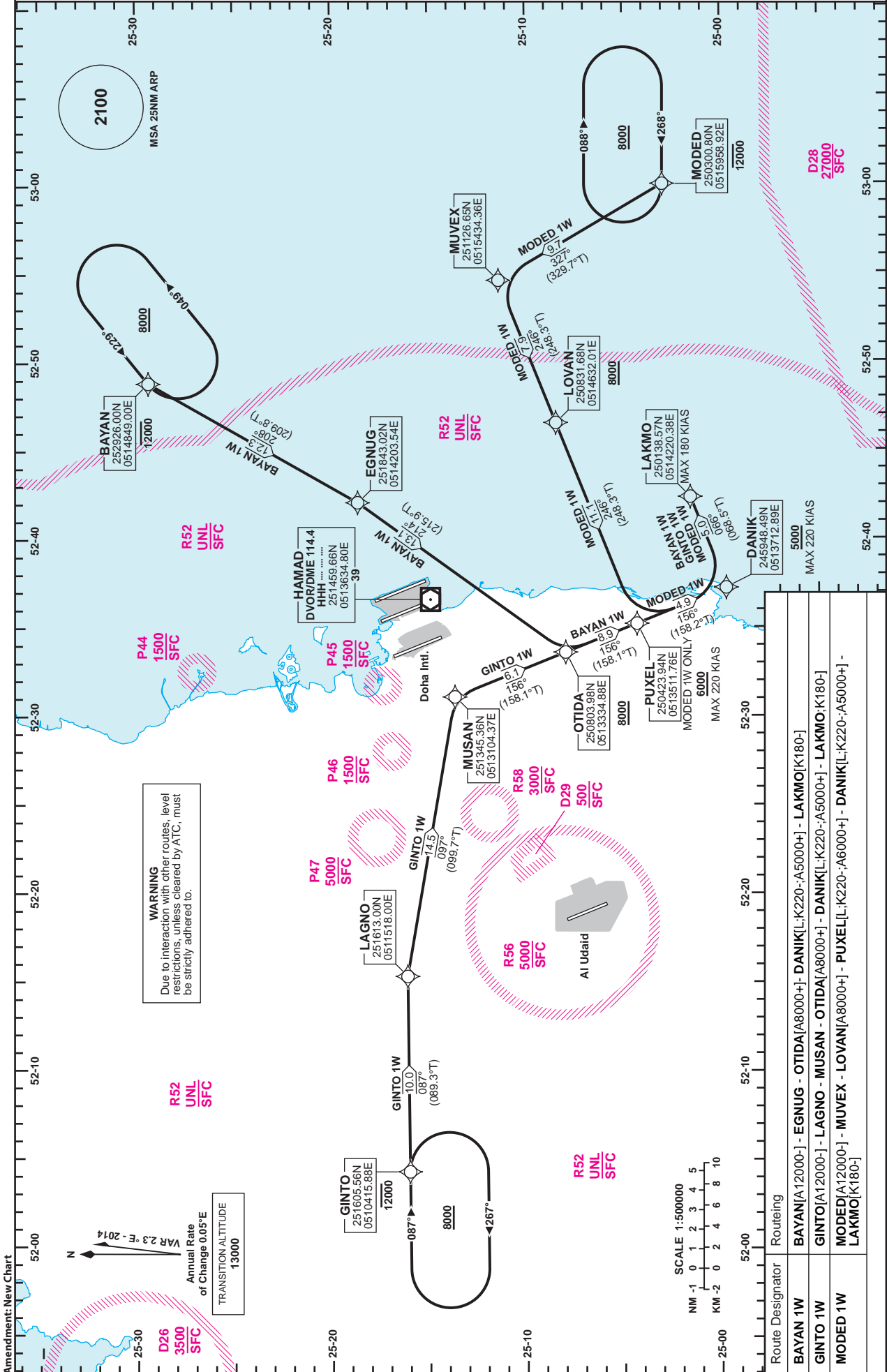
Serial Num	PT	Waypoint	FO	Course(T)	MagVar	Dist(NM)	Turn	Altitude	Speed	THR / TCH	VPA	Arc C. WP / Radius (NM)	RNP Value
1	IF	MODED	-		2.3			-12000					RNP1.0
2	TF	SIDMU	-	300 (302.4)	2.3	15.9							RNP1.0
3	TF	EGNUG	-	336 (338.2)	2.3	7.7		+8000					RNP1.0
4	TF	DATMO	-	288 (289.9)	2.3	14.8							RNP1.0
5	TF	TANDO	-	336 (338.1)	2.3	5.5	R	+5000	-220				RNP1.0
6	TF	DETCU	-	066 (067.8)	2.3	5.0			-180				RNP1.0

**STANDARD ARRIVAL
CHART - INSTRUMENT
(STAR) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA APP 119.40
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 34L
BAYAN 1W /GINTO 1W /MODED 1W**



OTHH - STAR - BAYAN 1W

Serial Num	PT	Waypoint	FO	Course(T)	MagVar	Dist(NM)	Turn	Altitude	Speed	THR / TCH	VPA	Arc C. WP / Radius (NM)	RNP Value
1	IF	BAYAN	-		2.3			-12000					RNP1.0
2	TF	EGNUG	-	208 (209.8)	2.3	12.3							RNP1.0
3	TF	OTIDA	-	214 (215.9)	2.3	13.1		+8000					RNP1.0
4	TF	DANIK	-	156 (158.1)	2.3	8.9	L	+5000	-220				RNP1.0
5	TF	LAKMO	-	066 (068.5)	2.3	5.0			-180				RNP1.0

OTHH - STAR - GINTO 1W

Serial Num	PT	Waypoint	FO	Course(T)	MagVar	Dist(NM)	Turn	Altitude	Speed	THR / TCH	VPA	Arc C. WP / Radius (NM)	RNP Value
1	IF	GINTO	-		2.3			-12000					RNP1.0
2	TF	LAGNO	-	087 (089.3)	2.3	10.0							RNP1.0
3	TF	MUSAN	-	097 (099.7)	2.3	14.5							RNP1.0
4	TF	OTIDA	-	156 (158.1)	2.3	6.1		+8000					RNP1.0
5	TF	DANIK	-	156 (158.1)	2.3	8.9	L	+5000	-220				RNP1.0
6	TF	LAKMO	-	066 (068.5)	2.3	5.0			-180				RNP1.0

OTHH - STAR - MODED 1W

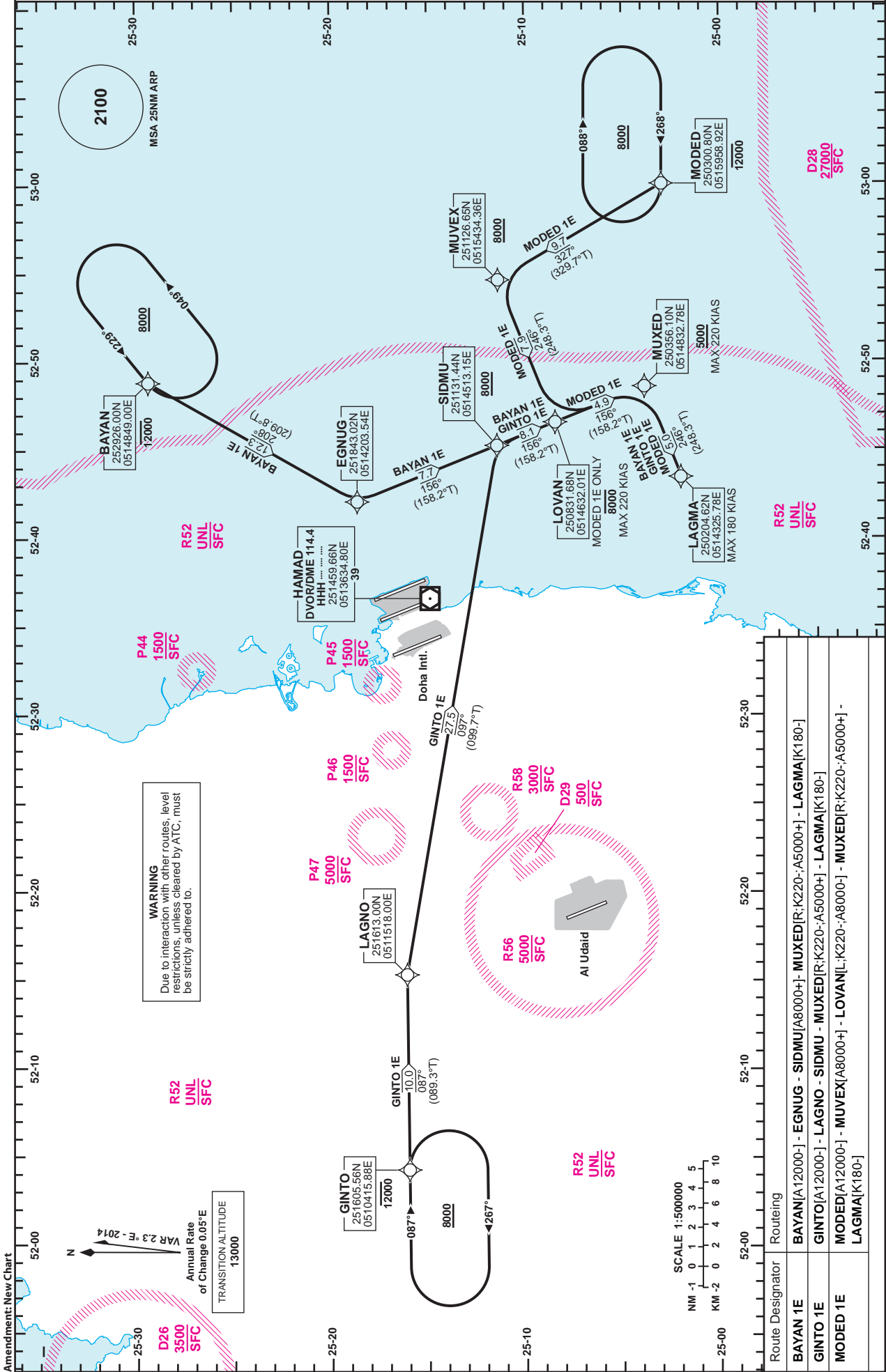
Serial Num	PT	Waypoint	FO	Course(T)	MagVar	Dist(NM)	Turn	Altitude	Speed	THR / TCH	VPA	Arc C. WP / Radius (NM)	RNP Value
1	IF	MODED	-		2.3			-12000					RNP1.0
2	TF	MUVEX	-	327 (329.7)	2.3	9.7							RNP1.0
3	TF	LOVAN	-	246 (248.3)	2.3	7.9		+8000					RNP1.0
4	TF	PUXEL	-	246 (248.2)	2.3	11.1	L	+6000	-220				RNP1.0
5	TF	DANIK	-	156 (158.2)	2.3	4.9	L	+5000	-220				RNP1.0
6	TF	LAKMO	-	066 (068.5)	2.3	5.0			-180				RNP1.0

**STANDARD ARRIVAL
CHART - INSTRUMENT
(STAR) - ICAO**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA APP 119.40
DIRECTOR 120.60
TWR 118.525
GMC 121.875

**DOHA/Hamad Intl. (OTHH)
RNAV RWY 34R
BAYAN 1E /GINTO 1E /MODED 1E**



Route Designator	Routing
BAYAN 1E	BAYAN[A12000-] - EGNUG - SIDMU[A8000+] - MUXED[R;K220-A5000+] - LAGMA[K180-]
GINTO 1E	GINTO[A12000-] - LAGNO - SIDMU - MUXED[R;K220-A5000+] - LAGMA[K180-]
MODED 1E	MODED[A12000-] - MUXED[A8000+] - LOVAN[L;K220-A8000-] - MUXED[R;K220-A5000+] - LAGMA[K180-]

OTHH - STAR - BAYAN 1E

Serial Num	PT	Waypoint	FO	Course(T)	MagVar	Dist(NM)	Turn	Altitude	Speed	THR / TCH	VPA	Arc C. WP / Radius (NM)	RNP Value
1	IF	BAYAN	-		2.3			-12000					RNP1.0
2	TF	EGNUG	-	208 (209.8)	2.3	12.3							RNP1.0
3	TF	SIDMU	-	156 (158.2)	2.3	7.7		+8000					RNP1.0
4	TF	MUXED	-	156 (158.2)	2.3	8.1	R	+5000	-220				RNP1.0
5	TF	LAGMA	-	246 (248.3)	2.3	5.0			-180				RNP1.0

OTHH - STAR - GINTO 1E

Serial Num	PT	Waypoint	FO	Course(T)	MagVar	Dist(NM)	Turn	Altitude	Speed	THR / TCH	VPA	Arc C. WP / Radius (NM)	RNP Value
1	IF	GINTO	-		2.3			-12000					RNP1.0
2	TF	LAGNO	-	087 (089.3)	2.3	10.0							RNP1.0
3	TF	SIDMU	-	097 (099.7)	2.3	27.5		+8000					RNP1.0
4	TF	MUXED	-	156 (158.2)	2.3	8.1	R	+5000	-220				RNP1.0
5	TF	LAGMA	-	246 (248.3)	2.3	5.0			-180				RNP1.0

OTHH - STAR - MODED 1E

Serial Num	PT	Waypoint	FO	Course(T)	MagVar	Dist(NM)	Turn	Altitude	Speed	THR / TCH	VPA	Arc C. WP / Radius (NM)	RNP Value
1	IF	MODED	-		2.3			-12000					RNP1.0
2	TF	MUVEX	-	327 (329.7)	2.3	9.7		+8000					RNP1.0
3	TF	LOVAN	-	246 (248.3)	2.3	7.9	L	-8000	-220				RNP1.0
4	TF	MUXED	-	156 (158.2)	2.3	4.9	R	+5000	-220				RNP1.0
5	TF	LAGMA	-	246 (248.3)	2.3	5.0			-180				RNP1.0

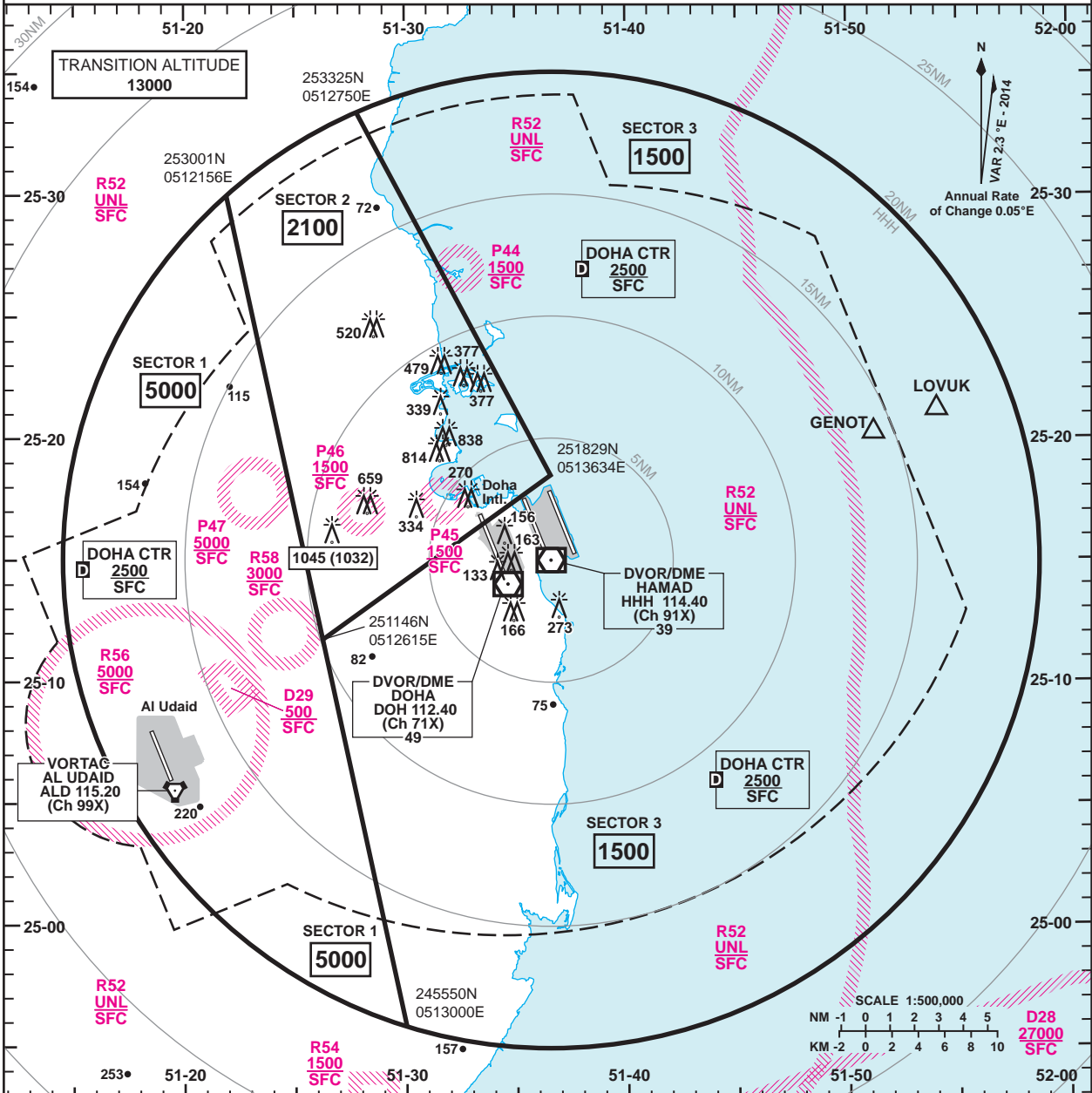
**ATC SURVEILLANCE
MINIMUM ALTITUDE
CHART - ICAO**

**AD ELEV 13FT
HEIGHTS RELATED
TO THR RWY 16**

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET
HEIGHTS IN FEET

DOHA APP	119.40
DIRECTOR	120.60
TWR	118.525
GMC	121.875

**DOHA/
Hamad Intl.
(OTHH)**



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

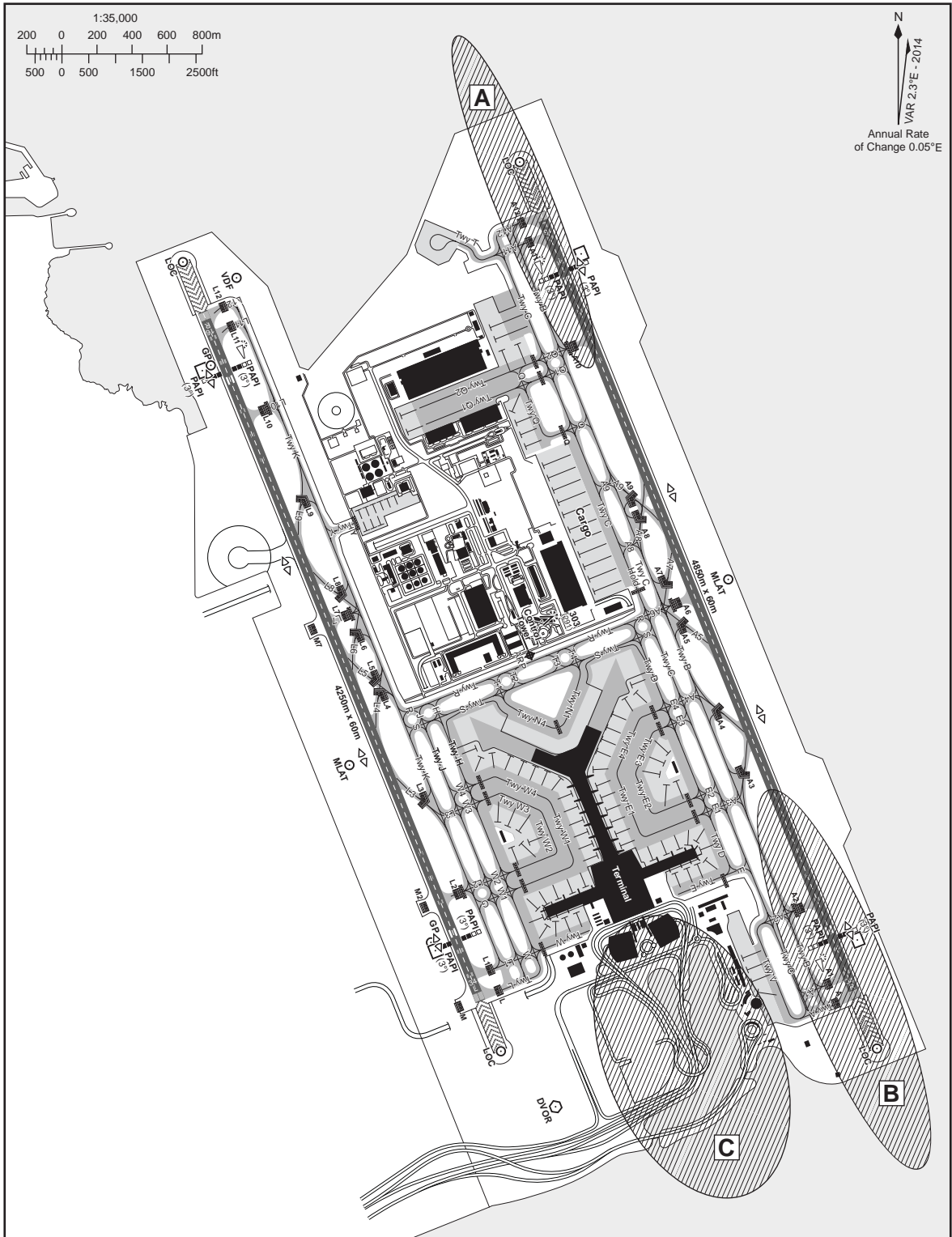
Continue visually or by means of an appropriate final approach aid. If not possible follow the Missed Approach Procedure to **GENOT** if runway 34R is in use or **LOVUK** if runway 16L is in use.

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.
- 3 - The minimum levels shown within the ATC Surveillance Minimum Altitude Area (SMAA) provide separation from all Danger, Prohibited and Restricted areas within the SMAA.
- 4 - SMAA do not constitute controlled airspace.
- 5 - **This chart may only be used for cross-checking of altitudes assigned when in receipt of an ATC Surveillance service.**

BIRD CONCENTRATIONS

**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