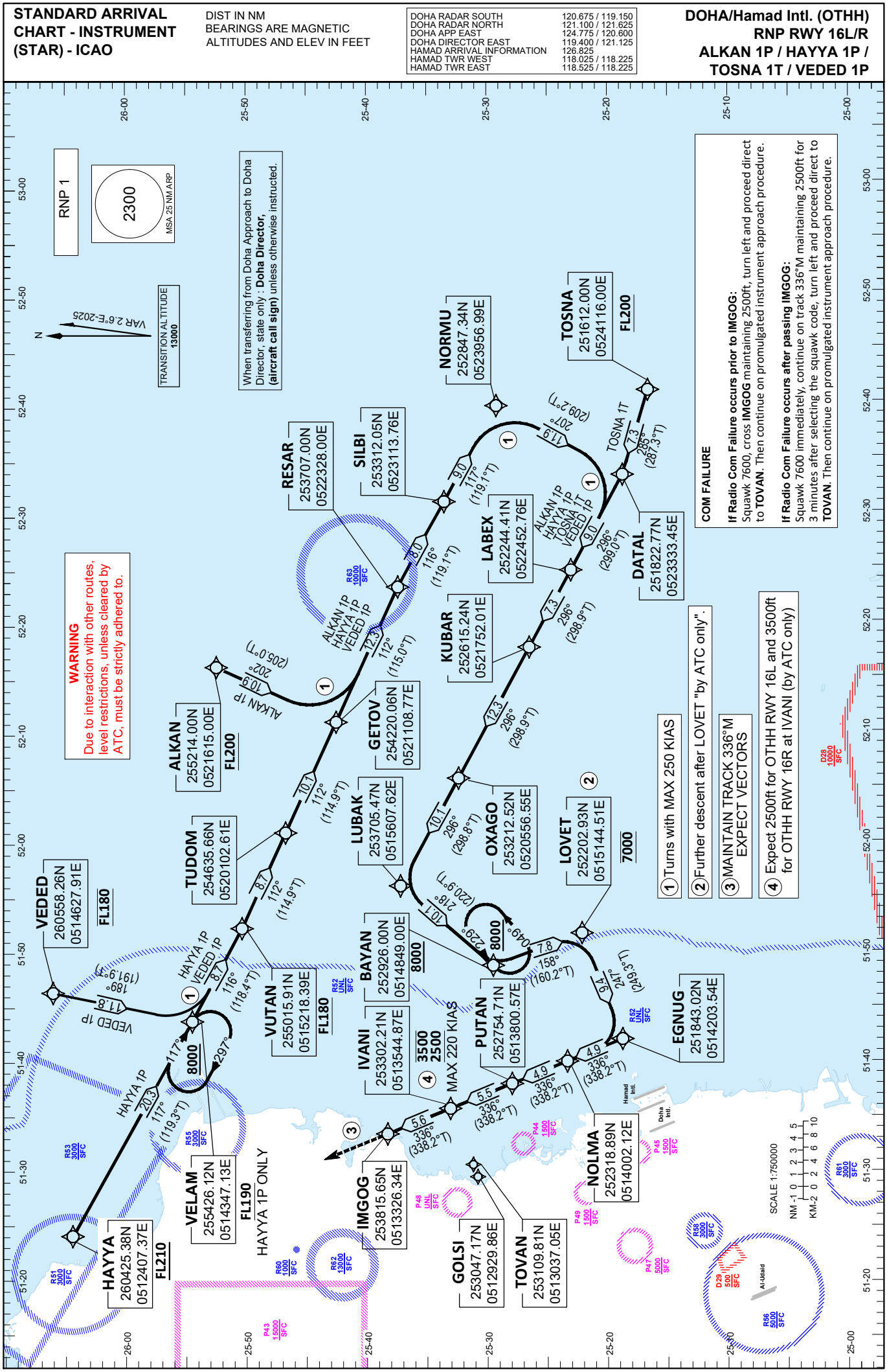
STANDARD ARRIVAL CHART - INSTRUMENT (STAR) - ICAO

DIST IN NM
BEARINGS ARE MAGNETIC
ALTITUDES AND ELEV IN FEET

DOHA RADAR SOUTH	120.675 / 119.150
DOHA RADAR NORTH	121.100 / 121.625
DOHA APP EAST	124.775 / 120.600
DOHA DIRECTOR EAST	119.400 / 121.125
HAMAD ARRIVAL INFORMATION	126.825
HAMAD TWR WEST	118.025 / 118.225
HAMAD TWR EAST	118.525 / 118.225

DOHA/Hamad Intl. (OTHH)
RNP RWY 16L/R
ALKAN 1P / HAYYA 1P / TOSNA 1T / VEDED 1P



STANDARD ARRIVAL
CHART - INSTRUMENT
(STAR) - ICAO

DOHA/Hamad Intl.(OTHH)
RNP RWY 16L/R
ALKAN 1P / HAYYA 1P / TOSNA 1T / VEDED 1P

TABULAR DESCRIPTION

RNP STAR ALKAN 1P

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	IF	ALKAN	-	-	-2.6	-	-	+FL200	-	-	RNP 1
2	TF	GETOV	-	202 (205.0)	-2.6	10.9	-	-	-250	-	RNP 1
3	TF	RESAR	-	112 (115.0)	-2.6	12.3	-	-	-	-	RNP 1
4	TF	SILBI	-	116 (119.1)	-2.6	8.0	-	-	-	-	RNP 1
5	TF	NORMU	-	117 (119.1)	-2.6	9.0	-	-	-250	-	RNP 1
6	TF	DATAL	-	207 (209.2)	-2.6	11.9	-	-	-250	-	RNP 1
7	TF	LABEX	-	296 (299.0)	-2.6	9.0	-	-	-	-	RNP 1
8	TF	KUBAR	-	296 (298.9)	-2.6	7.3	-	-	-	-	RNP 1
9	TF	OXAGO	-	296 (298.9)	-2.6	12.3	-	-	-	-	RNP 1
10	TF	LUBAK	-	296 (298.8)	-2.6	10.1	-	-	-	-	RNP 1
11	TF	BAYAN	-	218 (220.9)	-2.6	10.1	-	+8000	-	-	RNP 1
12	TF	LOVET	-	158 (160.2)	-2.6	7.8	-	@7000	-	-	RNP 1
13	TF	EGNUG	-	247 (249.3)	-2.6	9.4	-	-	-	-	RNP 1
14	TF	NOLMA	-	336 (338.2)	-2.6	4.9	-	-	-	-	RNP 1
15	TF	PUTAN	-	336 (338.2)	-2.6	4.9	-	-	-	-	RNP 1
16	TF	IVANI	-	336 (338.2)	-2.6	5.5	-	+2500/-3500	-220	-	RNP 1
17	TF	IMGOG	-	336 (338.2)	-2.6	5.6	-	-	-	-	RNP 1
18	FM	IMGOG	-	336 (338.2)	-2.6	-	-	-	-	-	RNP 1
Remarks	Expect 2500ft for OTHH RWY 16L and 3500ft for OTHH RWY 16R at IVANI (by ATC only).										

RNP STAR HAYYA 1P

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	IF	HAYYA	-	-	-2.6	-	-	+FL210	-	-	RNP 1
2	TF	VELAM	-	117 (119.3)	-2.6	20.3	-	+FL190	-	-	RNP 1
3	TF	VUTAN	-	116 (118.4)	-2.6	8.7	-	+FL180	-	-	RNP 1
4	TF	TUDOM	-	112 (114.9)	-2.6	8.7	-	-	-	-	RNP 1
5	TF	GETOV	-	112 (114.9)	-2.6	10.1	-	-	-	-	RNP 1
6	TF	RESAR	-	112 (115.0)	-2.6	12.3	-	-	-	-	RNP 1
7	TF	SILBI	-	116 (119.1)	-2.6	8.0	-	-	-	-	RNP 1
8	TF	NORMU	-	117 (119.1)	-2.6	9.0	-	-	-250	-	RNP 1
9	TF	DATAL	-	207 (209.2)	-2.6	11.9	-	-	-250	-	RNP 1
10	TF	LABEX	-	296 (299.0)	-2.6	9.0	-	-	-	-	RNP 1
11	TF	KUBAR	-	296 (298.9)	-2.6	7.3	-	-	-	-	RNP 1
12	TF	OXAGO	-	296 (298.9)	-2.6	12.3	-	-	-	-	RNP 1
13	TF	LUBAK	-	296 (298.8)	-2.6	10.1	-	-	-	-	RNP 1
14	TF	BAYAN	-	218 (220.9)	-2.6	10.1	-	+8000	-	-	RNP 1
15	TF	LOVET	-	158 (160.2)	-2.6	7.8	-	@7000	-	-	RNP 1
16	TF	EGNUG	-	247 (249.3)	-2.6	9.4	-	-	-	-	RNP 1
17	TF	NOLMA	-	336 (338.2)	-2.6	4.9	-	-	-	-	RNP 1
18	TF	PUTAN	-	336 (338.2)	-2.6	4.9	-	-	-	-	RNP 1
19	TF	IVANI	-	336 (338.2)	-2.6	5.5	-	+2500/-3500	-220	-	RNP 1
20	TF	IMGOG	-	336 (338.2)	-2.6	5.6	-	-	-	-	RNP 1
21	FM	IMGOG	-	336 (338.2)	-2.6	-	-	-	-	-	RNP 1
Remarks	Expect 2500ft for OTHH RWY 16L and 3500ft for OTHH RWY 16R at IVANI (by ATC only).										

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RNP STAR TOSNA 1T

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	IF	TOSNA	-	-	-2.6	-	-	+FL200	-	-	RNP 1
2	TF	DATAL	-	285 (287.3)	-2.6	7.3	-	-	-	-	RNP 1
3	TF	LABEX	-	296 (299.0)	-2.6	9.0	-	-	-	-	RNP 1
4	TF	KUBAR	-	296 (298.9)	-2.6	7.3	-	-	-	-	RNP 1
5	TF	OXAGO	-	296 (298.9)	-2.6	12.3	-	-	-	-	RNP 1
6	TF	LUBAK	-	296 (298.8)	-2.6	10.1	-	-	-	-	RNP 1
7	TF	BAYAN	-	218 (220.9)	-2.6	10.1	-	+8000	-	-	RNP 1
8	TF	LOVET	-	158 (160.2)	-2.6	7.8	-	@7000	-	-	RNP 1
9	TF	EGNUG	-	247 (249.3)	-2.6	9.4	-	-	-	-	RNP 1
10	TF	NOLMA	-	336 (338.2)	-2.6	4.9	-	-	-	-	RNP 1
11	TF	PUTAN	-	336 (338.2)	-2.6	4.9	-	-	-	-	RNP 1
12	TF	IVANI	-	336 (338.2)	-2.6	5.5	-	+2500/-3500	-220	-	RNP 1
13	TF	IMGOG	-	336 (338.2)	-2.6	5.6	-	-	-	-	RNP 1
14	FM	IMGOG	-	336 (338.2)	-2.6	-	-	-	-	-	RNP 1
Remarks	Expect 2500ft for OTHH RWY 16L and 3500ft for OTHH RWY 16R at IVANI (by ATC only).										

RNP STAR VEDED 1P

Serial Num	Path Descriptor	Waypoint Identifier	Fly-over	Course °M(°T)	Magnetic Variation(°)	Distance (NM)	Turn Direction	Altitude (ft)	Speed (kt)	VPA(°)/ TCH(ft)	Navigation Specification
1	IF	VEDED	-	-	-2.6	-	-	@FL180	-	-	RNP 1
2	TF	VELAM	-	189 (191.9)	-2.6	11.8	-	-	-250	-	RNP 1
3	TF	VUTAN	-	116 (118.4)	-2.6	8.7	-	+FL180	-	-	RNP 1
4	TF	TUDOM	-	112 (114.9)	-2.6	8.7	-	-	-	-	RNP 1
5	TF	GETOV	-	112 (114.9)	-2.6	10.1	-	-	-	-	RNP 1
6	TF	RESAR	-	112 (115.0)	-2.6	12.3	-	-	-	-	RNP 1
7	TF	SILBI	-	116 (119.1)	-2.6	8.0	-	-	-	-	RNP 1
8	TF	NORMU	-	117 (119.1)	-2.6	9.0	-	-	-250	-	RNP 1
9	TF	DATAL	-	207 (209.2)	-2.6	11.9	-	-	-250	-	RNP 1
10	TF	LABEX	-	296 (299.0)	-2.6	9.0	-	-	-	-	RNP 1
11	TF	KUBAR	-	296 (298.9)	-2.6	7.3	-	-	-	-	RNP 1
12	TF	OXAGO	-	296 (298.9)	-2.6	12.3	-	-	-	-	RNP 1
13	TF	LUBAK	-	296 (298.8)	-2.6	10.1	-	-	-	-	RNP 1
14	TF	BAYAN	-	218 (220.9)	-2.6	10.1	-	+8000	-	-	RNP 1
15	TF	LOVET	-	158 (160.2)	-2.6	7.8	-	@7000	-	-	RNP 1
16	TF	EGNUG	-	247 (249.3)	-2.6	9.4	-	-	-	-	RNP 1
17	TF	NOLMA	-	336 (338.2)	-2.6	4.9	-	-	-	-	RNP 1
18	TF	PUTAN	-	336 (338.2)	-2.6	4.9	-	-	-	-	RNP 1
19	TF	IVANI	-	336 (338.2)	-2.6	5.5	-	+2500/-3500	-220	-	RNP 1
20	TF	IMGOG	-	336 (338.2)	-2.6	5.6	-	-	-	-	RNP 1
21	FM	IMGOG	-	336 (338.2)	-2.6	-	-	-	-	-	RNP 1
Remarks	Expect 2500ft for OTHH RWY 16L and 3500ft for OTHH RWY 16R at IVANI (by ATC only).										

WAYPOINT LIST

RNP STAR ALKAN 1P / HAYYA 1P / TOSNA 1T / VEDED 1P

Waypoint Identifier	Coordinates
ALKAN	255214.00N 0521615.00E
GETOV	254220.06N 0521108.77E
RESAR	253707.00N 0522328.00E
SILBI	253312.05N 0523113.76E
NORMU	252847.34N 0523956.99E
DATAL	251822.77N 0523333.45E
LABEX	252244.41N 0522452.76E
KUBAR	252615.24N 0521752.01E
OXAGO	253212.52N 0520556.55E
LUBAK	253705.47N 0515607.62E
BAYAN	252926.00N 0514849.00E
LOVET	252202.93N 0515144.51E

RNP STAR ALKAN 1P / HAYYA 1P / TOSNA 1T / VEDED 1P

Waypoint Identifier	Coordinates
EGNUG	251843.02N 0514203.54E
NOLMA	252318.89N 0514002.12E
PUTAN	252754.71N 0513800.57E
IVANI	253302.21N 0513544.87E
IMGOG	253815.65N 0513326.34E
HAYYA	260425.38N 0512407.37E
VELAM	255426.12N 0514347.13E
VUTAN	255015.91N 0515218.39E
TUDOM	254635.66N 0520102.61E
TOSNA	251612.00N 0524116.00E
VEDED	260558.26N 0514627.91E

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