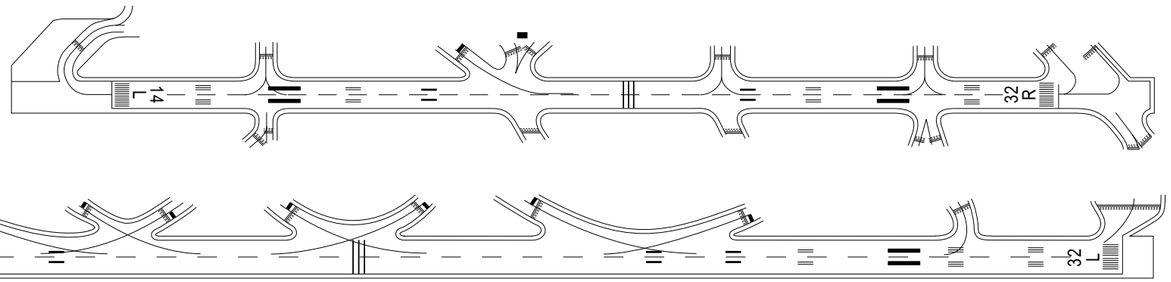
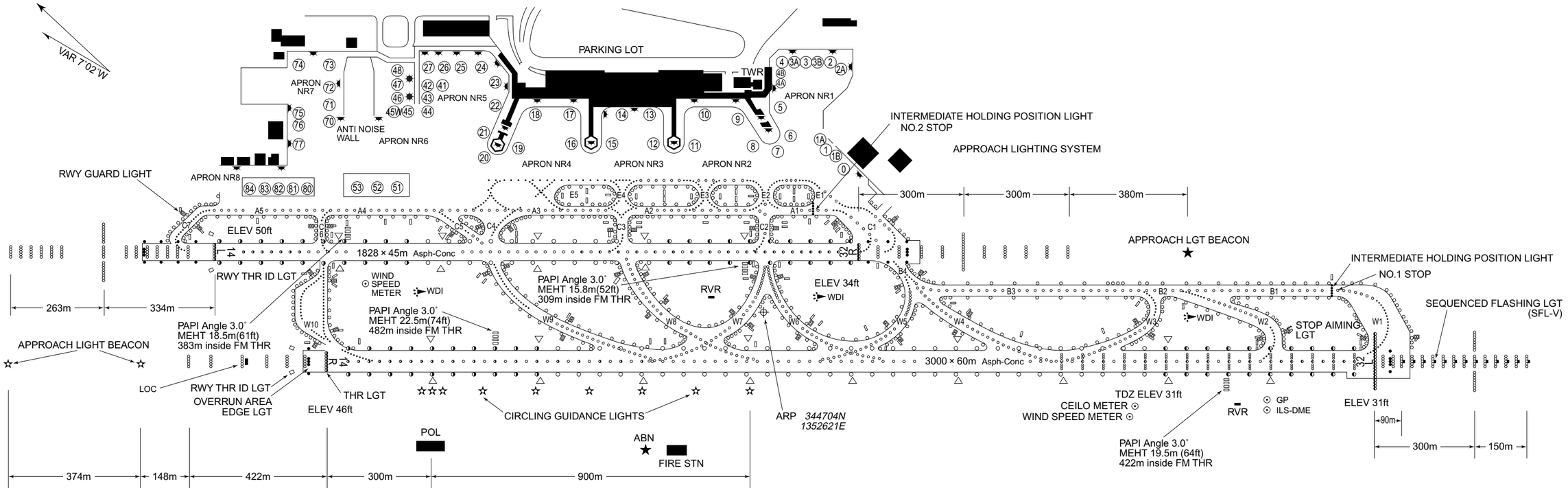
AERODROME CHART

OSAKA INTERNATIONAL AIRPORT

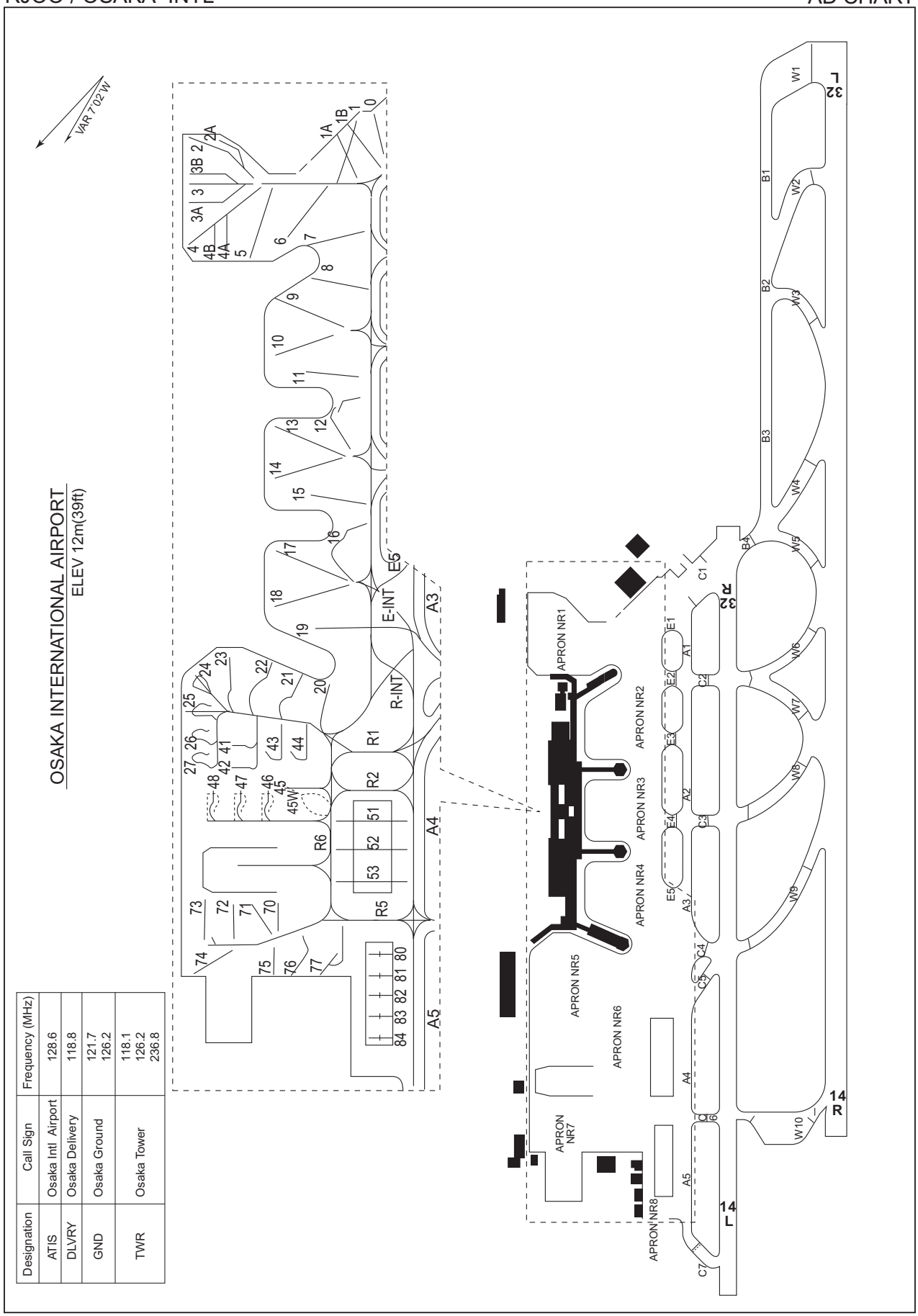
ELEV 12m(39ft)

MARKING AIDS





RJOO / OSAKA INTL AD CHART



Designation	Call Sign	Frequency (MHz)
ATIS	Osaka Intl Airport	128.6
DLVRY	Osaka Delivery	118.8
GND	Osaka Ground	121.7 126.2
TWR	Osaka Tower	118.1 126.2 236.8

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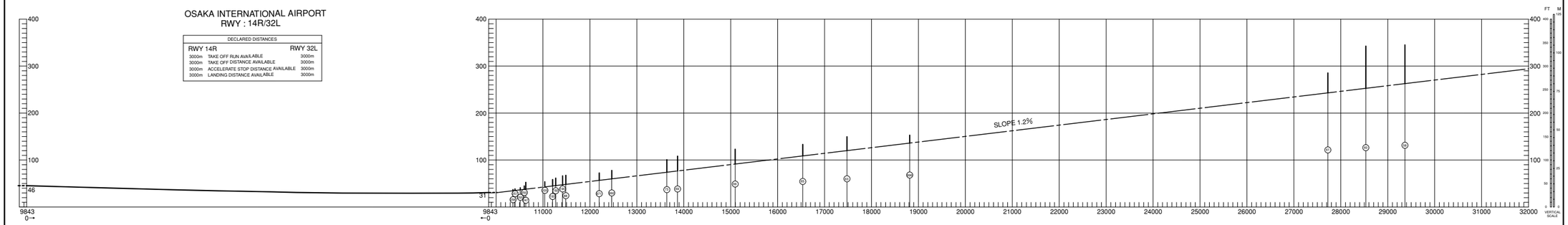
AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)

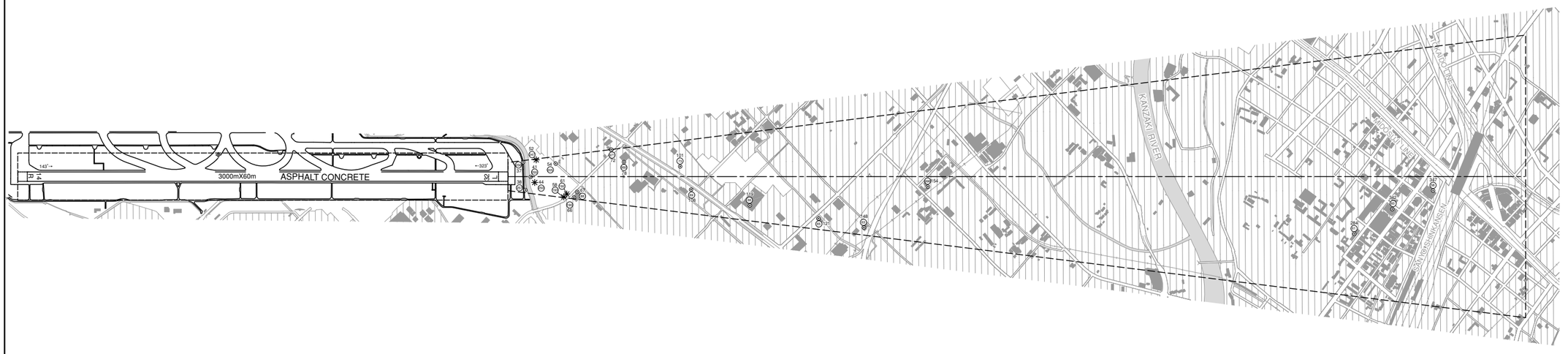
DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC

MAGNETIC VARIATION 8° W-FEB 2017

OSAKA INTERNATIONAL AIRPORT
RWY : 14R/32L

DECLARED DISTANCES		
RWY 14R		RWY 32L
3000m	TAKE OFF RUN AVAILABLE	3000m
3000m	TAKE OFF DISTANCE AVAILABLE	3000m
3000m	ACCELERATE STOP DISTANCE AVAILABLE	3000m
3000m	LANDING DISTANCE AVAILABLE	3000m





HORIZONTAL SCALE

FEET
1000 500 0 1000 2000 3000 4000 5000 6000 7000 8000ft

METRES
300 0 500 1000 1500 2000 2500m

LEGEND

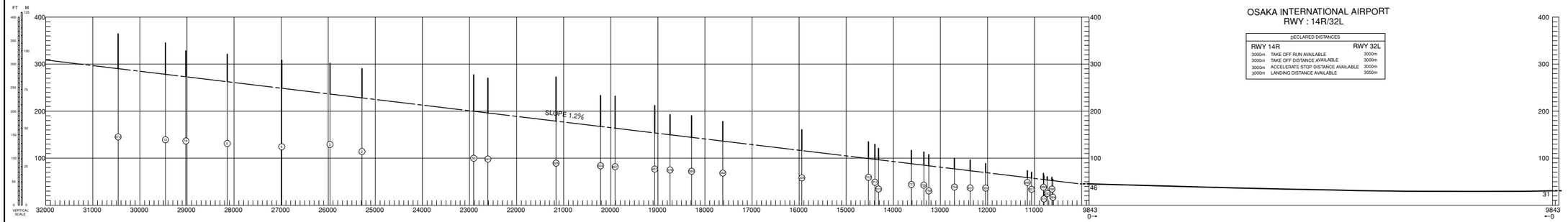
- IDENTIFICATION NUMBER
- POLE, TOWER, SPIRE, ANTENNA, ETC
- TREE
- LEVEE
- RAILROAD
- RIVER
- TRANSMISSION LINE OR OVERHEAD CABLE
- TRIANGULATION POINT
- AERONAUTICAL GROUND LIGHT

AMENDMENT RECORD		
Nr	DATE	ENTERED BY

DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC

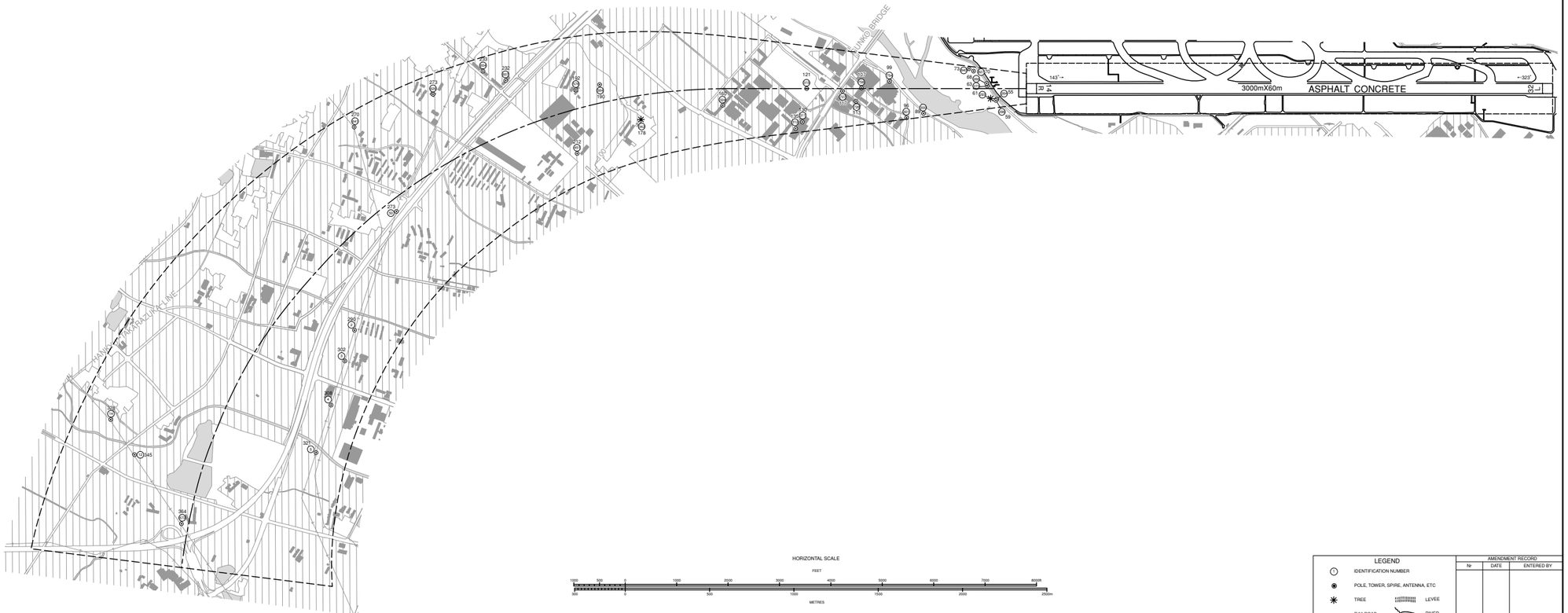
AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)

MAGNETIC VARIATION 8° W-FEB 2017



OSAKA INTERNATIONAL AIRPORT
RWY : 14R/32L

DECLARED DISTANCES		
RWY 14R		RWY 32L
3000m	TAKE OFF RUN AVAILABLE	3000m
3000m	TAKE OFF DISTANCE AVAILABLE	3000m
3000m	ACCELERATE STOP DISTANCE AVAILABLE	3000m
3000m	LANDING DISTANCE AVAILABLE	3000m



HORIZONTAL SCALE
FEET
1000 500 0 1000 2000 3000 4000 5000 6000 7000 8000ft
300 0 500 1000 1500 2000 2500m
METRES

LEGEND

- IDENTIFICATION NUMBER
- POLE, TOWER, SPIRE, ANTENNA, ETC
- TREE
- LEVEE
- RAILROAD
- RIVER
- TRANSMISSION LINE OR OVERHEAD CABLE
- TRIANGULATION POINT
- AERONAUTICAL GROUND LIGHT

AMENDMENT RECORD		
Nr	DATE	ENTERED BY

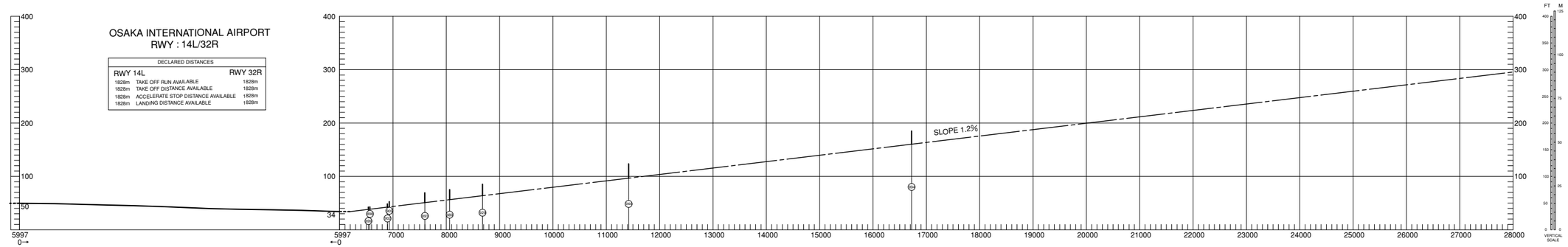
AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)

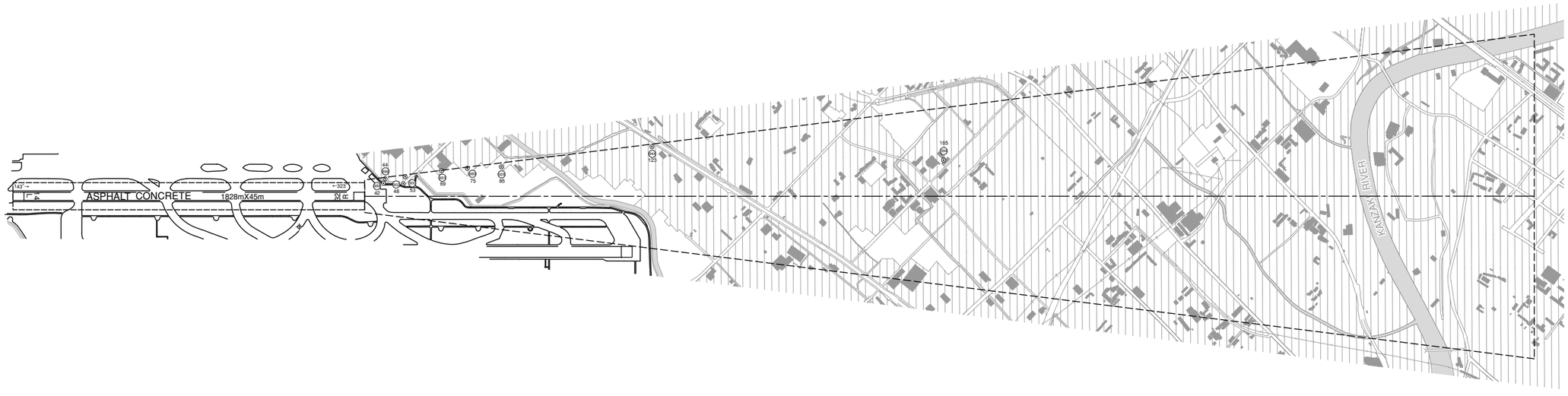
DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC

MAGNETIC VARIATION 8° W-FEB 2017

OSAKA INTERNATIONAL AIRPORT
RWY : 14L/32R

DECLARED DISTANCES		
	RWY 14L	RWY 32R
1828m	TAKE OFF RUN AVAILABLE	1828m
1828m	TAKE OFF DISTANCE AVAILABLE	1828m
1828m	ACCELERATE STOP DISTANCE AVAILABLE	1828m
1828m	LANDING DISTANCE AVAILABLE	1828m





HORIZONTAL SCALE

FEET
1000 500 0 1000 2000 3000 4000 5000 6000 7000 8000ft

METRES
300 0 500 1000 1500 2000 2500m

LEGEND

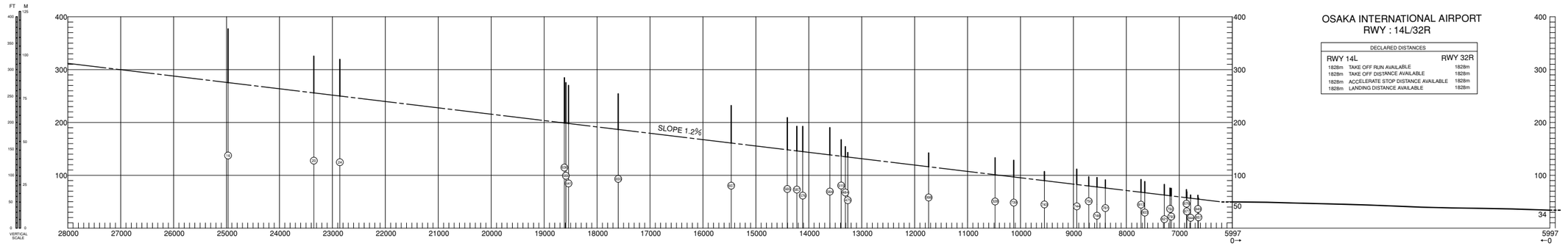
- IDENTIFICATION NUMBER
- POLE, TOWER, SPIRE, ANTENNA, ETC
- TREE
- LEVEE
- RAILROAD
- RIVER
- TRANSMISSION LINE OR OVERHEAD CABLE
- TRIANGULATION POINT
- AERONAUTICAL GROUND LIGHT

AMENDMENT RECORD		
Nr	DATE	ENTERED BY

AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)

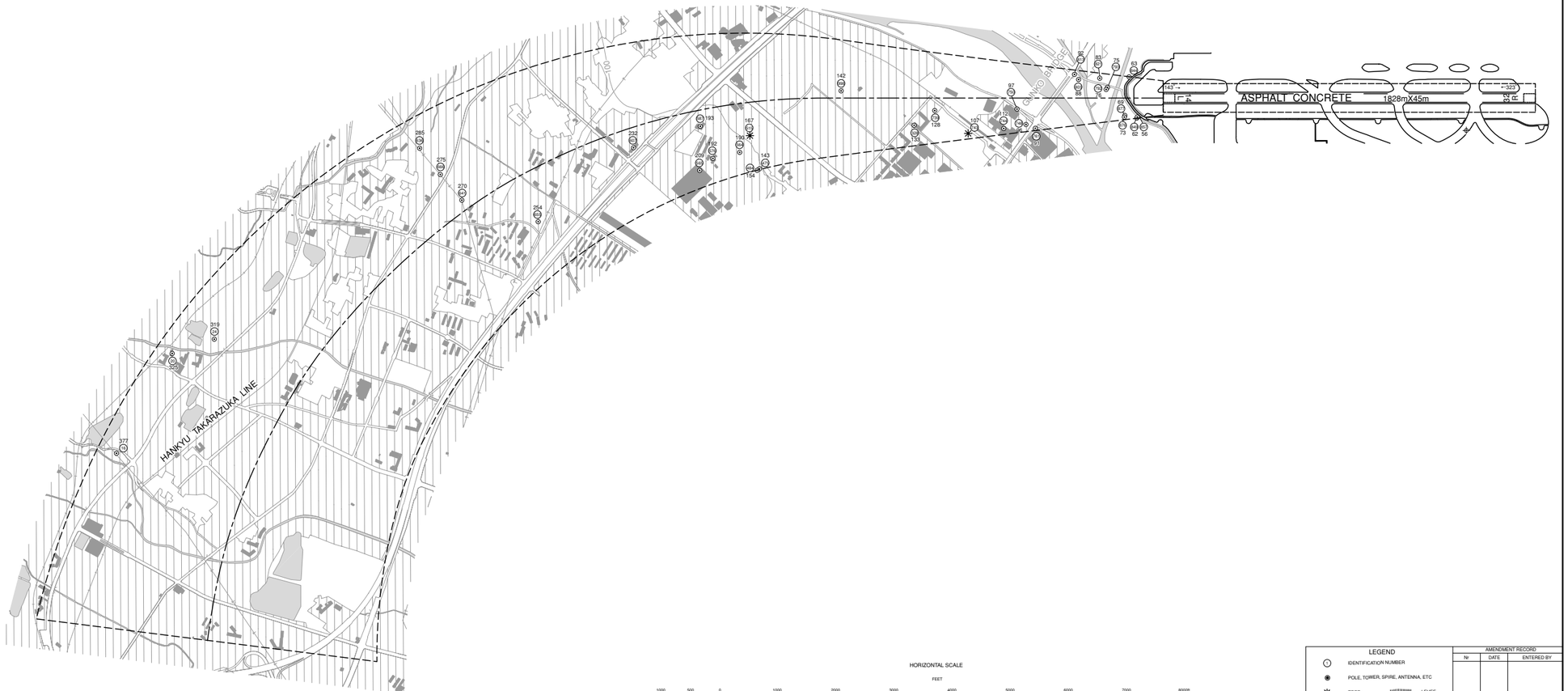
DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC

MAGNETIC VARIATION 8° W-FEB 2017



OSAKA INTERNATIONAL AIRPORT
RWY : 14L/32R

DECLARED DISTANCES		
RWY 14L		RWY 32R
1828m	TAKE OFF RUN AVAILABLE	1828m
1828m	TAKE OFF DISTANCE AVAILABLE	1828m
1828m	ACCELERATE STOP DISTANCE AVAILABLE	1828m
1828m	LANDING DISTANCE AVAILABLE	1828m



LEGEND	AMENDMENT RECORD		
IDENTIFICATION NUMBER	Nr	DATE	ENTERED BY
POLE, TOWER, SPIRE, ANTENNA, ETC			
TREE / LEVEE			
RAILROAD / RIVER			
TRANSMISSION LINE OR OVERHEAD CABLE			
TRIANGULATION POINT			
AERONAUTICAL GROUND LIGHT			

AERODROME OBSTACLE CHART-ICAO
TYPE B

DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC

AERODROME ELEVATION 39ft ARP

MAGNETIC VARIATION FEB 2017
ANNUAL CHANGE 4'03"W

135°21'E 135°22'E 135°23'E 135°24'E 135°25'E 135°26'E 135°27'E 135°28'E 135°29'E 135°30'E 135°31'E 135°32'E

34°51'N 34°50'N 34°49'N 34°48'N 34°47'N 34°46'N 34°45'N 34°44'N 34°43'N

TAKE-OFF FLIGHT PATH SLOPE 1.2%

TAKE-OFF FLIGHT PATH SLOPE 1.2%

APPROACH SURFACE SLOPE 1:50

APPROACH SURFACE SLOPE 1:50

TRANSITIONAL SURFACE SLOPE 1:7

HORIZONTAL SURFACE

TRANSITIONAL SURFACE SLOPE 1:7

APPROACH SURFACE SLOPE 1:50

APPROACH SURFACE SLOPE 1:50

TAKE-OFF FLIGHT PATH SLOPE 1.2%

TAKE-OFF FLIGHT PATH SLOPE 1.2%

CONICAL SURFACE SLOPE 1:50

TAKARAZUKA CITY
KAWANISHI CITY
MINOH CITY
IKEDA CITY
ITAMI CITY
TOYONAKA CITY
SUITA CITY
AMAGASAKI CITY
OSAKA CITY

LEGEND

- AERODROME REFERENCE POINT 34°47'47"N 135°26'21"E
- POLE, TOWER, SPIRE, ANTENNA, ETC
- AERONAUTICAL GROUND LIGHT
- OBSTACLE LIGHT
- BUILDING OR LARGE STRUCTURE
- RAILROAD ▲ TRIANGULATION POINT
- TRANSMISSION LINE OR OVERHEAD CABLE
- LEVEE
- TREE
- RIVER
- LAKE
- CONTOURS(ft)

AMENDMENT RECORD

№	DATE	ENTERED BY

HORIZONTAL SCALE
FEET
1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000ft
300 0 500 1000 1500 2000 2500 3000m
METRES

STANDARD DEPARTURE CHART -INSTRUMENT

RJOO / OSAKA INTL SID

ASUKA FOUR DEPARTURE

RWY 32R/32L : Climb RWY HDG to 500FT or above, turn left within 4NM from RWY end/ITE 2.1DME,...

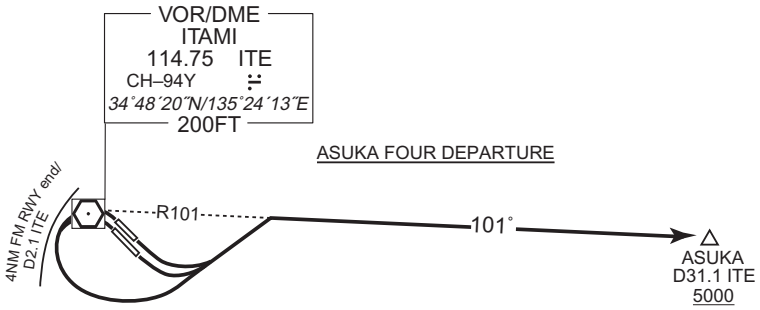
RWY 14R/14L : Climb RWY HDG to 500FT or above, turn left,...

...via ITE R101 to ASUKA.

Cross ASUKA at or above 5000FT.

Note : When take off RWY 14R/14L, following climb gradient should be maintained until 500FT.

Speed (Knots)	60	90	120	150	180	210
Rate (Feet/Min)	300	450	600	750	900	1050



CHANGE : DME FM ITE added (ASUKA).

STANDARD DEPARTURE CHART -INSTRUMENT

RJOO / OSAKA INTL SID and TRANSITION

OTSU FIVE DEPARTURE

RWY 32R/32L : Climb RWY HDG to 500FT or above, turn left within 4NM from RWY end/ITE 2.1DME,...

RWY 14R/14L : Climb RWY HDG to 500FT or above, turn left,...

...via ITE R101 to intercept and proceed via CUE R206 to CUE VOR/DME.

Cross CUE VOR/DME at or above 7000FT.

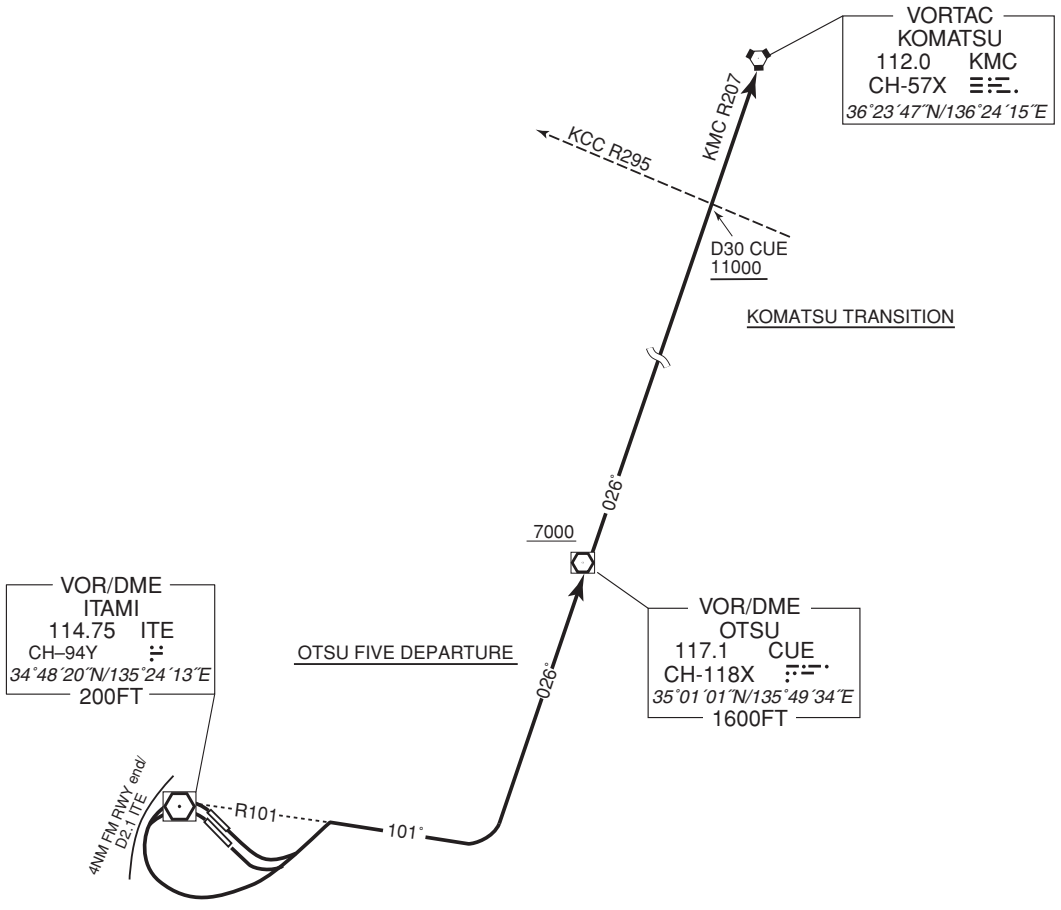
Note : When take off RWY 14R/14L, following climb gradient should be maintained until 500FT.

Speed (Knots)	60	90	120	150	180	210
Rate (Feet/Min)	300	450	600	750	900	1050

KOMATSU TRANSITION

From over CUE VOR/DME, via CUE R026/KMC R207 to KMC VORTAC.

Cross CUE R026/30DME (KCC R295) at or above 11000FT.



STANDARD DEPARTURE CHART -INSTRUMENT

RJOO / OSAKA INTL SID

IZUMI ONE DEPARTURE

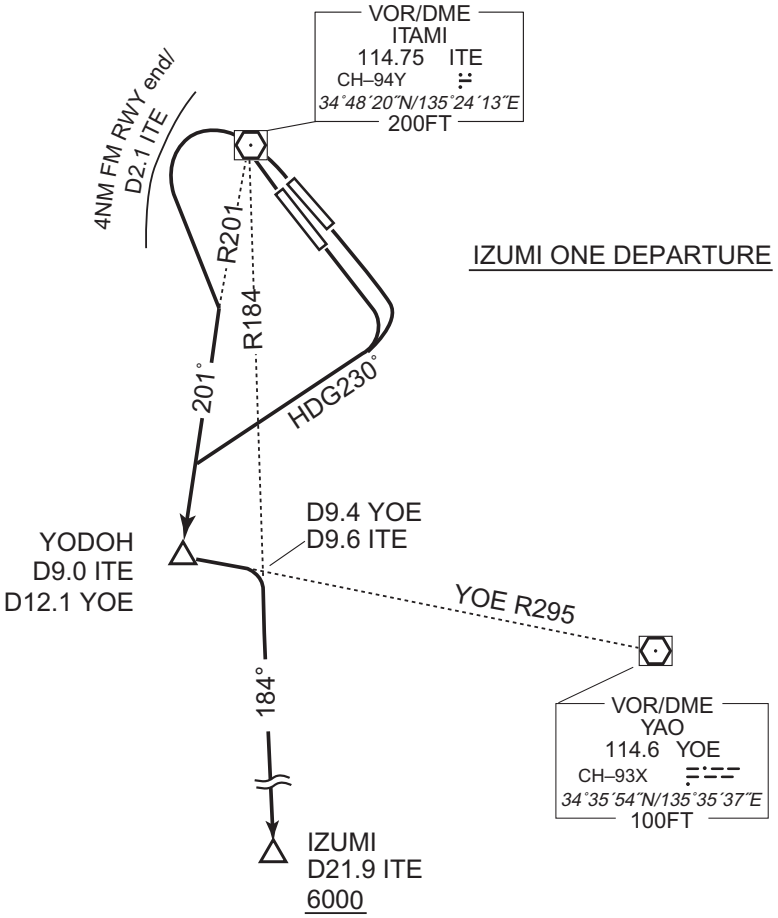
RWY 32R/32L : Climb RWY HDG to 500FT or above, turn left within 4NM from RWY end/ITE 2.1DME, via ITE R201 to YODOH,...

RWY 14R/14L : Climb RWY HDG to 500FT or above, turn right HDG230˚ to intercept and proceed via ITE R201 to YODOH,...

...turn left, via YOE R295 to intercept and proceed via ITE R184 to IZUMI. Cross IZUMI at or above 6000FT.

Note : When take off RWY 14R/14L, following climb gradient should be maintained until 500FT.

Speed (Knots)	60	90	120	150	180	210
Rate (Feet/Min)	300	450	600	750	900	1050



RJOO / OSAKA INTL SID

EAST REVERSAL FOUR DEPARTURE

RWY 32R/32L : Climb RWY HDG to 500FT or above, turn left within 4NM from RWY end/ITE 2.1DME,...

RWY 14R/14L : Climb RWY HDG to 500FT or above, turn left,...

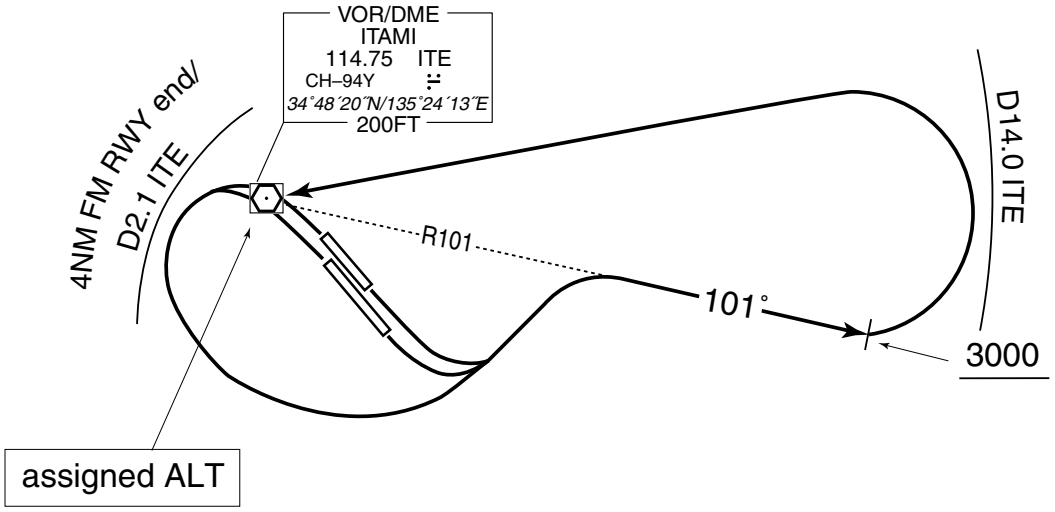
...via ITE R101 to 3000FT or above, turn left direct to ITE VOR/DME within ITE 14.0DME.

Cross ITE VOR/DME at assigned altitude.

Note : When take off RWY 14R/14L, following climb gradient should be maintained until 500FT.

Speed (Knots)	60	90	120	150	180	210
Rate (Feet/Min)	300	450	600	750	900	1050

EAST REVERSAL FOUR DEPARTURE



STANDARD DEPARTURE CHART -INSTRUMENT

RJOO / OSAKA INTL SID

TIGER TWO DEPARTURE

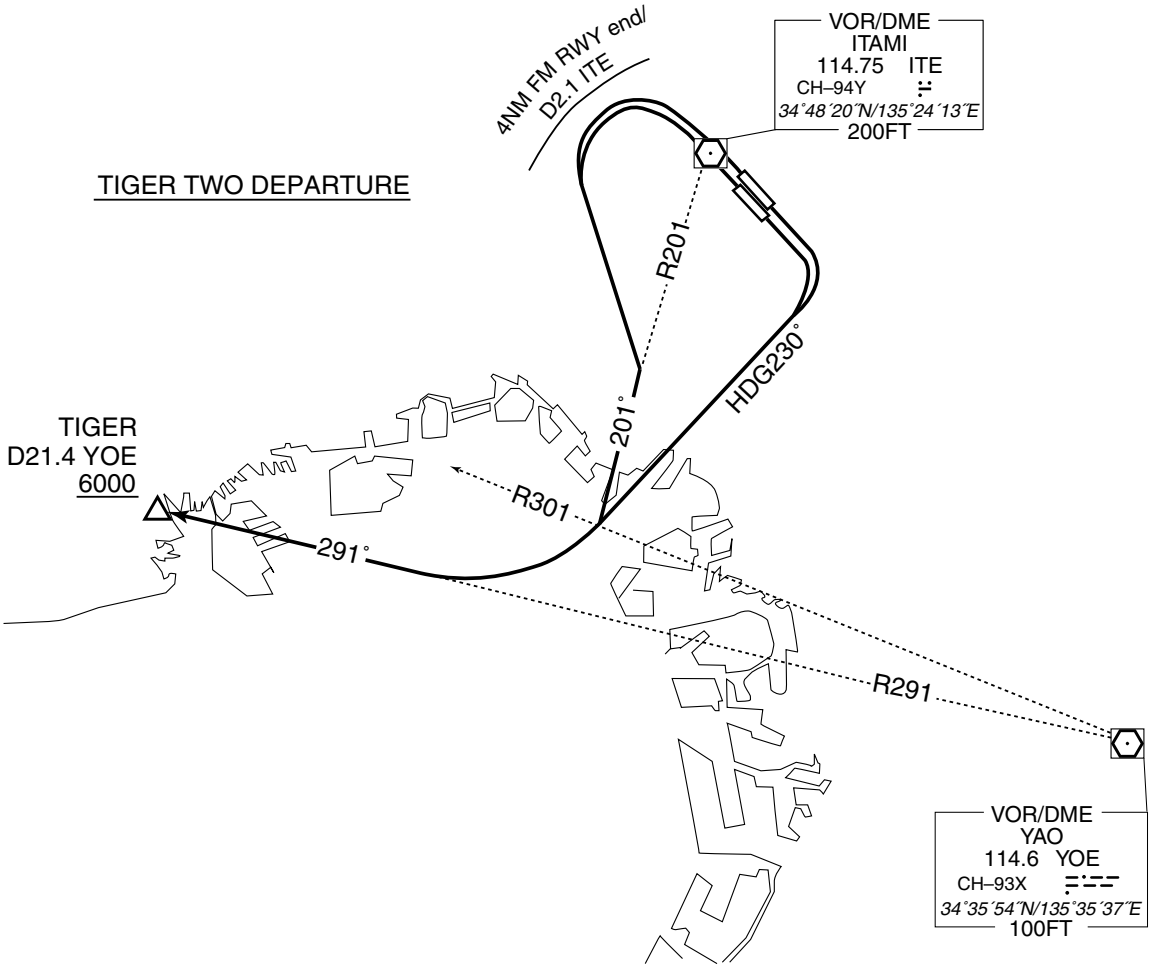
RWY 32R/32L : Climb RWY HDG to 500FT or above, turn left within 4NM from RWY end/ITE 2.1DME, via ITE R201 until crossing YOE R301...

RWY 14R/14L : Climb RWY HDG to 500FT or above, turn right HDG230˚ until crossing YOE R301...

...turn right to intercept and proceed via YOE R291 to TIGER.
Cross TIGER at or above 6000FT.

Note : Following climb gradient should be maintained until 2500FT.

Speed (Knots)	60	90	120	150	180	210
Rate (Feet/Min)	300	450	600	750	900	1050



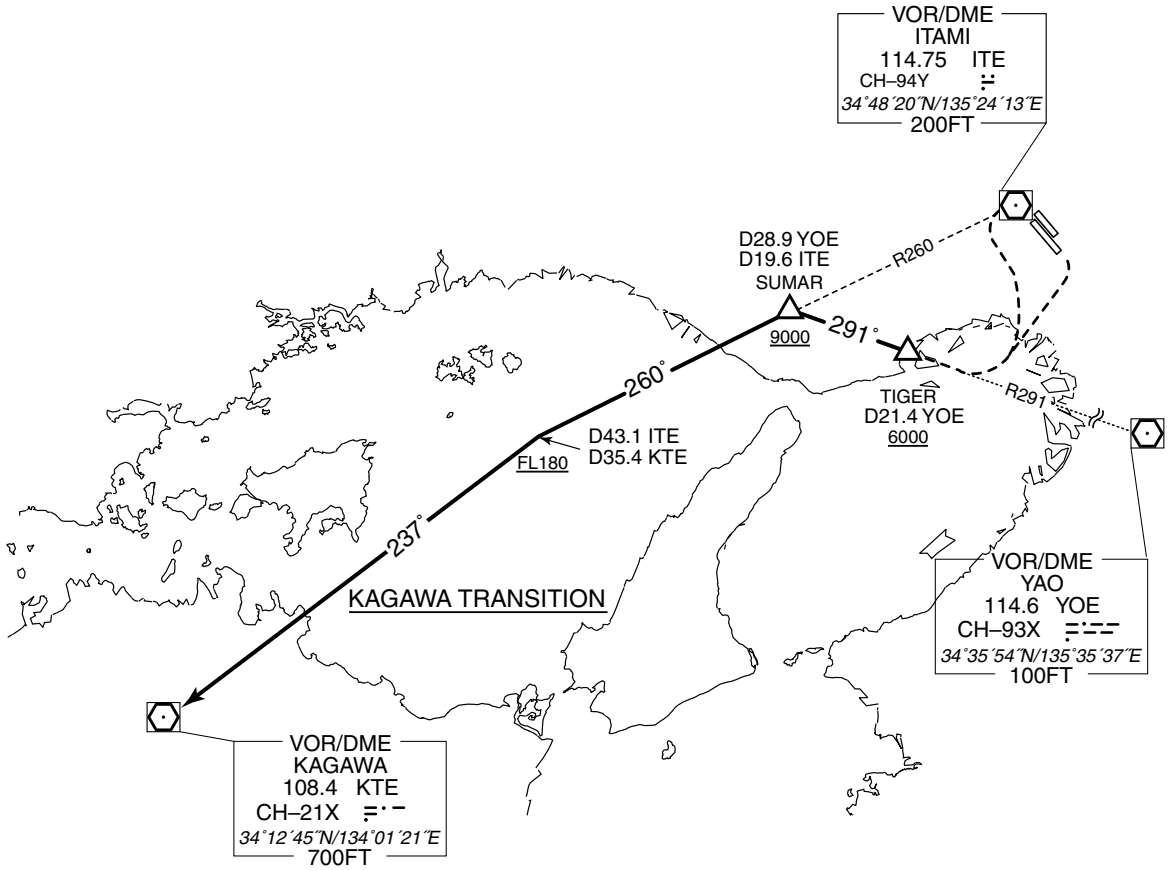
STANDARD DEPARTURE CHART -INSTRUMENT

RJOO / OSAKA INTL

TRANSITION

KAGAWA TRANSITION

From over TIGER, via YOE R291 to SUMAR, via ITE R260 to intercept and proceed via KTE R057 to KTE VOR/DME.
Cross SUMAR at or above 9000FT, cross ITE R260/43.1DME at or above FL180.



STANDARD DEPARTURE CHART -INSTRUMENT

RJOO / OSAKA INTL TRANSITION

CHANGE : TOZAN TRANSITION. Radial FM KCE.

ASAGI TRANSITION

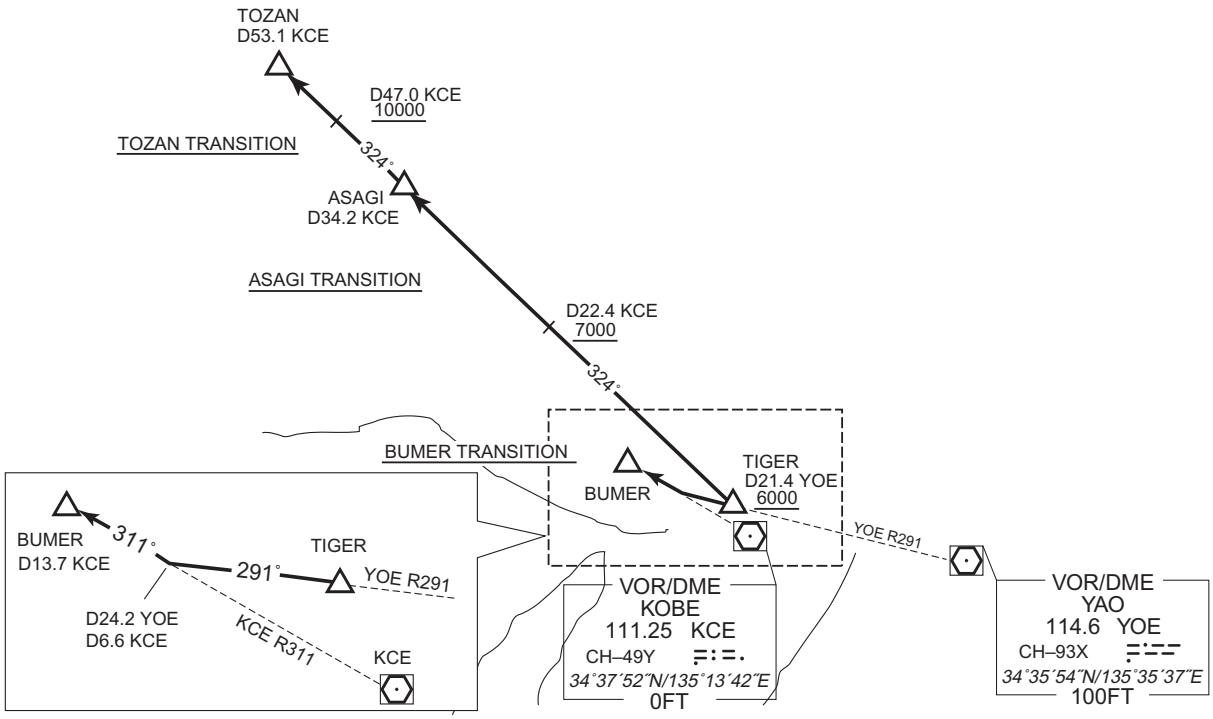
From over TIGER, via KCE R324 to ASAGI.
Cross KCE R324/22.4DME at or above 7000FT.

TOZAN TRANSITION

From over TIGER, via KCE R324 to TOZAN, via ASAGI.
Cross KCE R324/22.4DME at or above 7000FT, cross KCE R324/47.0DME at or above 10000FT.

BUMER TRANSITION

From over TIGER, via YOE R291 to intercept and proceed via KCE R311 to BUMER.



STANDARD DEPARTURE CHART-INSTRUMENT

RJOO / OSAKA INTL SID and TRANSITION

MINAC FOUR DEPARTURE

RWY 32R/32L : Climb RWY HDG to 500FT or above, turn left within 4NM from RWY end/ITE 2.1DME,...

RWY 14R/14L : Climb RWY HDG to 500FT or above, turn left,...

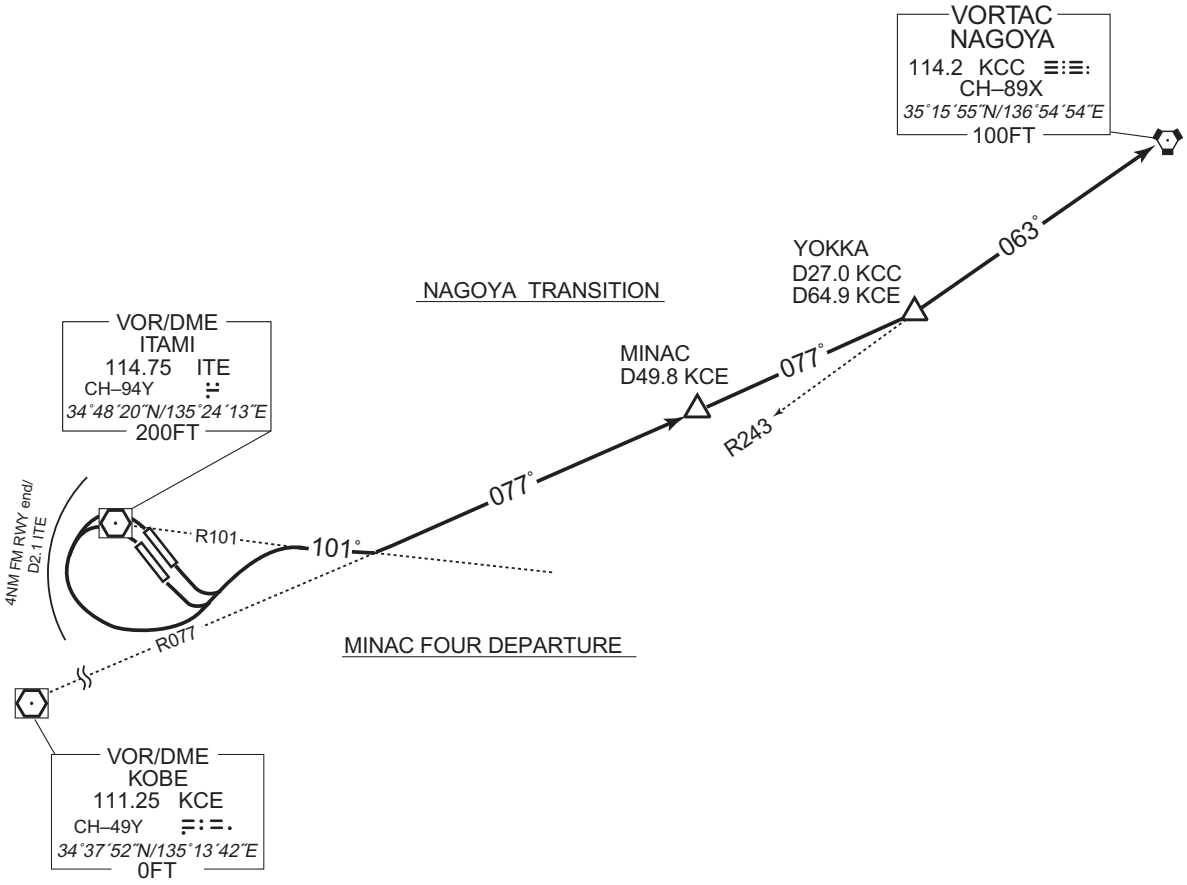
...via ITE R101 to intercept and proceed via KCE R077 to MINAC.

Note: When take off RWY14R/14L, following climb gradient should be maintained until 500FT.

Speed (Knots)	60	90	120	150	180	210
Rate (Feet/Min)	300	450	600	750	900	1050

NAGOYA TRANSITION

From over MINAC, via KCE R077 to YOKKA, via KCC R243 to KCC VORTAC.



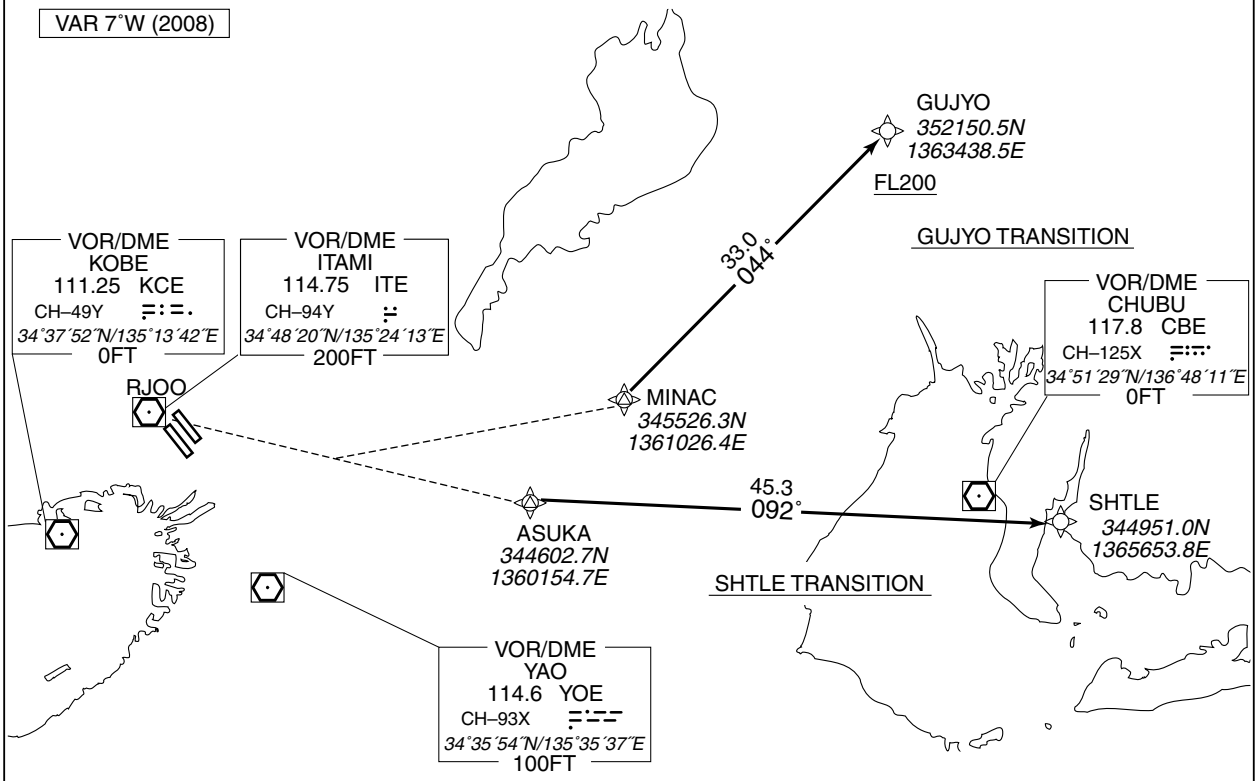
CHANGE : PROC renamed. Radial FM KCE.

STANDARD DEPARTURE CHART-INSTRUMENT

RJOO / OSAKA INTL

RNAV TRANSITION

GUJYO TRANSITION / SHTLE TRANSITION		RNAV1
NOTE 1) DME/DME/IRU or GNSS required. 2) RADAR service required.	Critical DME	–
	DME GAP	–
	Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1



GUJYO TRANSITION

From MINAC, to GUJYO at or above FL200.

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	MINAC	—	—	-7.1	—	—	—	—	—	RNAV1
002	TF	GUJYO	—	044 (036.7)	-7.1	33.0	—	+FL200	—	—	RNAV1

SHTLE TRANSITION

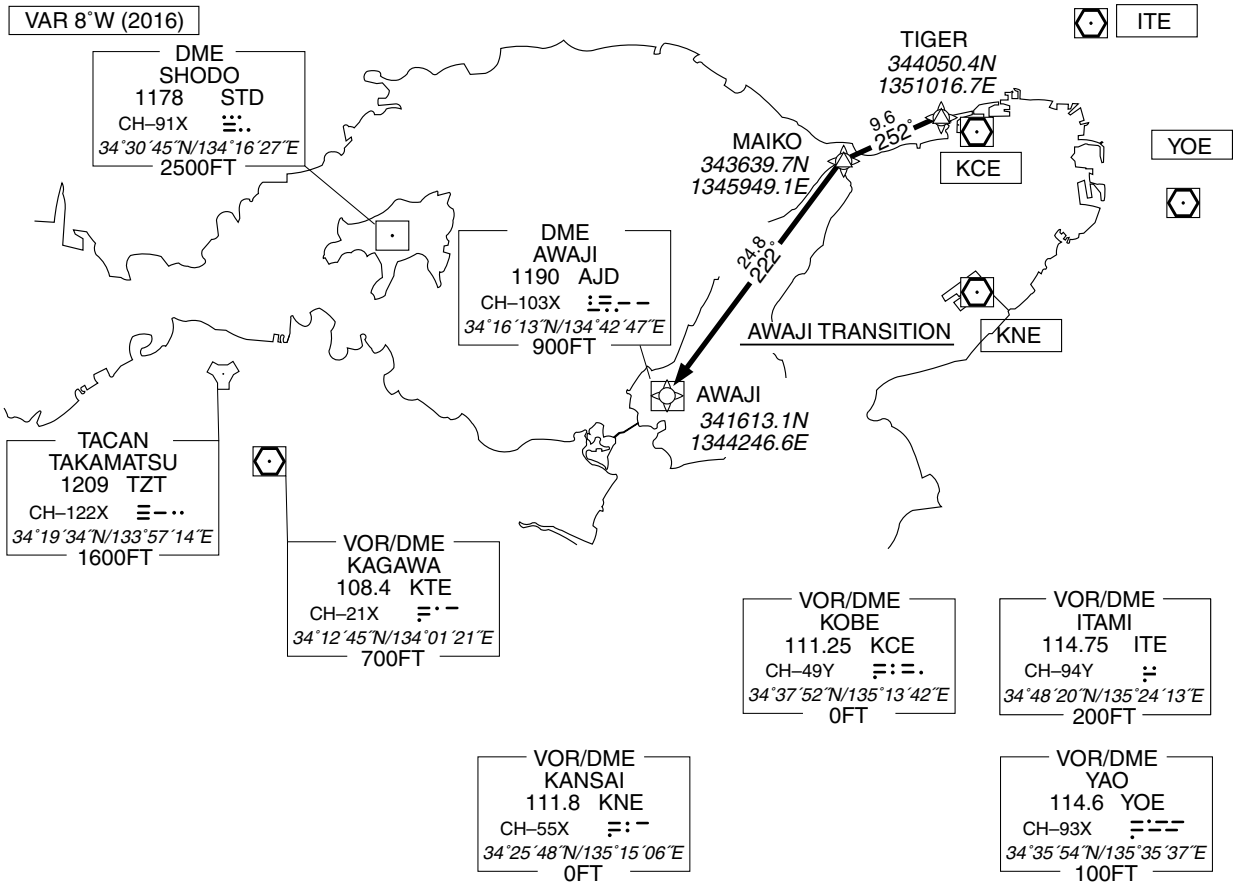
From ASUKA, to SHTLE.

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	ASUKA	—	—	-7.1	—	—	—	—	—	RNAV1
002	TF	SHTLE	—	092 (084.9)	-7.1	45.3	—	—	—	—	RNAV1

STANDARD DEPARTURE CHART-INSTRUMENT

RJOO / OSAKA INTL — RNAV TRANSITION

AWAJI TRANSITION		RNAV1
NOTE 1) DME/DME/IRU or GNSS required. 2) RADAR service required.	Critical DME	KNE : TIGER – MAIKO
	DME GAP	–
	Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1



AWAJI TRANSITION

From TIGER, to MAIKO, to AWAJI.

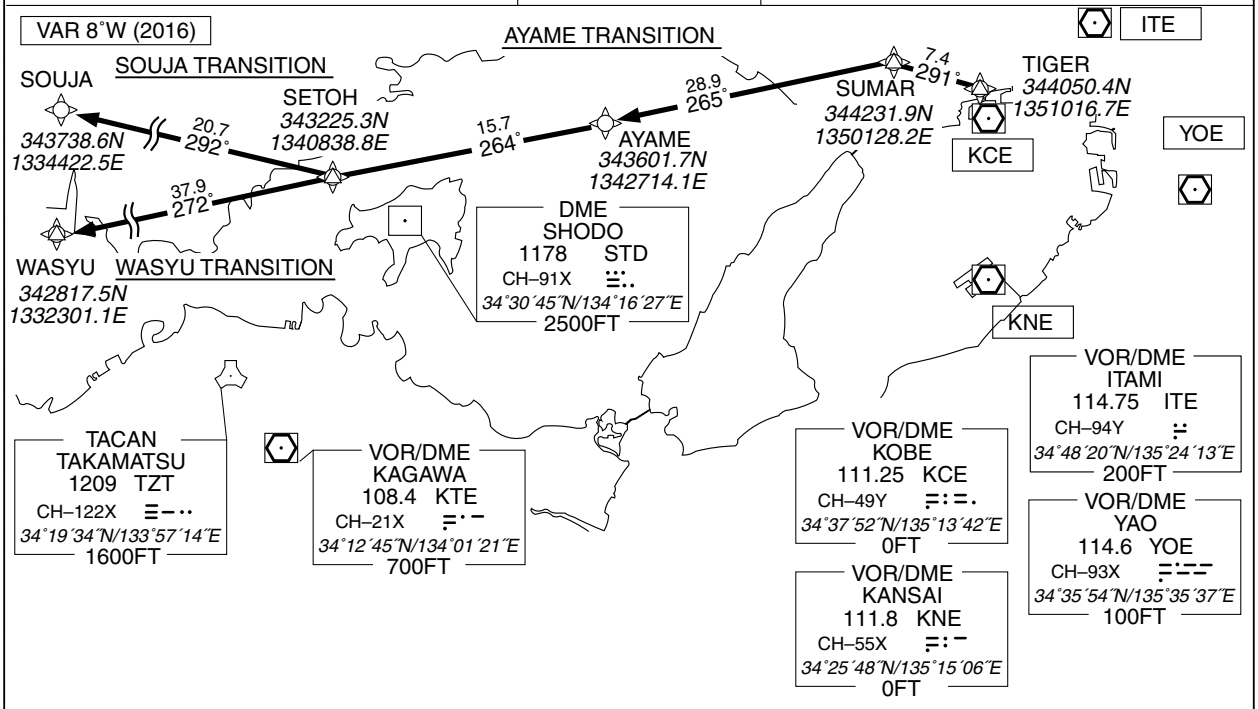
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	TIGER	–	–	-7.6	–	–	–	–	–	RNAV1
002	TF	MAIKO	–	252 (244.2)	-7.6	9.6	–	–	–	–	RNAV1
003	TF	AWAJI	–	222 (213.6)	-7.6	24.8	–	–	–	–	RNAV1

STANDARD DEPARTURE CHART-INSTRUMENT

RJOO / OSAKA INTL — RNAV TRANSITION

AYAME TRANSITION / SOUJA TRANSITION / WASYU TRANSITION	RNAV1

NOTE 1) DME/DME/IRU or GNSS required. 2) RADAR service required.	Critical DME	–
	DME GAP	–
	Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1



AYAME TRANSITION

From TIGER, to SUMAR, to AYAME.

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	TIGER	–	–	-7.6	–	–	–	–	–	RNAV1
002	TF	SUMAR	–	291 (283.2)	-7.6	7.4	–	–	–	–	RNAV1
003	TF	AYAME	–	265 (257.2)	-7.6	28.9	–	–	–	–	RNAV1

SOUJA TRANSITION

From TIGER, to SUMAR, to AYAME, to SETOH, to SOUJA.

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	TIGER	–	–	-7.6	–	–	–	–	–	RNAV1
002	TF	SUMAR	–	291 (283.2)	-7.6	7.4	–	–	–	–	RNAV1
003	TF	AYAME	–	265 (257.2)	-7.6	28.9	–	–	–	–	RNAV1
004	TF	SETOH	–	264 (256.8)	-7.6	15.7	–	–	–	–	RNAV1
005	TF	SOUJA	–	292 (284.8)	-7.6	20.7	–	–	–	–	RNAV1

STANDARD DEPARTURE CHART-INSTRUMENT

RJOO / OSAKA INTL RNAV TRANSITION

WASYU TRANSITION

From TIGER, to SUMAR, to AYAME, to SETOH, to WASYU.

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course ˚M(˚T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	TIGER	–	–	-7.6	–	–	–	–	–	RNAV1
002	TF	SUMAR	–	291 (283.2)	-7.6	7.4	–	–	–	–	RNAV1
003	TF	AYAME	–	265 (257.2)	-7.6	28.9	–	–	–	–	RNAV1
004	TF	SETOH	–	264 (256.8)	-7.6	15.7	–	–	–	–	RNAV1
005	TF	WASYU	–	272 (263.9)	-7.6	37.9	–	–	–	–	RNAV1

STANDARD ARRIVAL CHART-INSTRUMENT

RJOO / OSAKA INTL STAR

IZUMI ARRIVAL

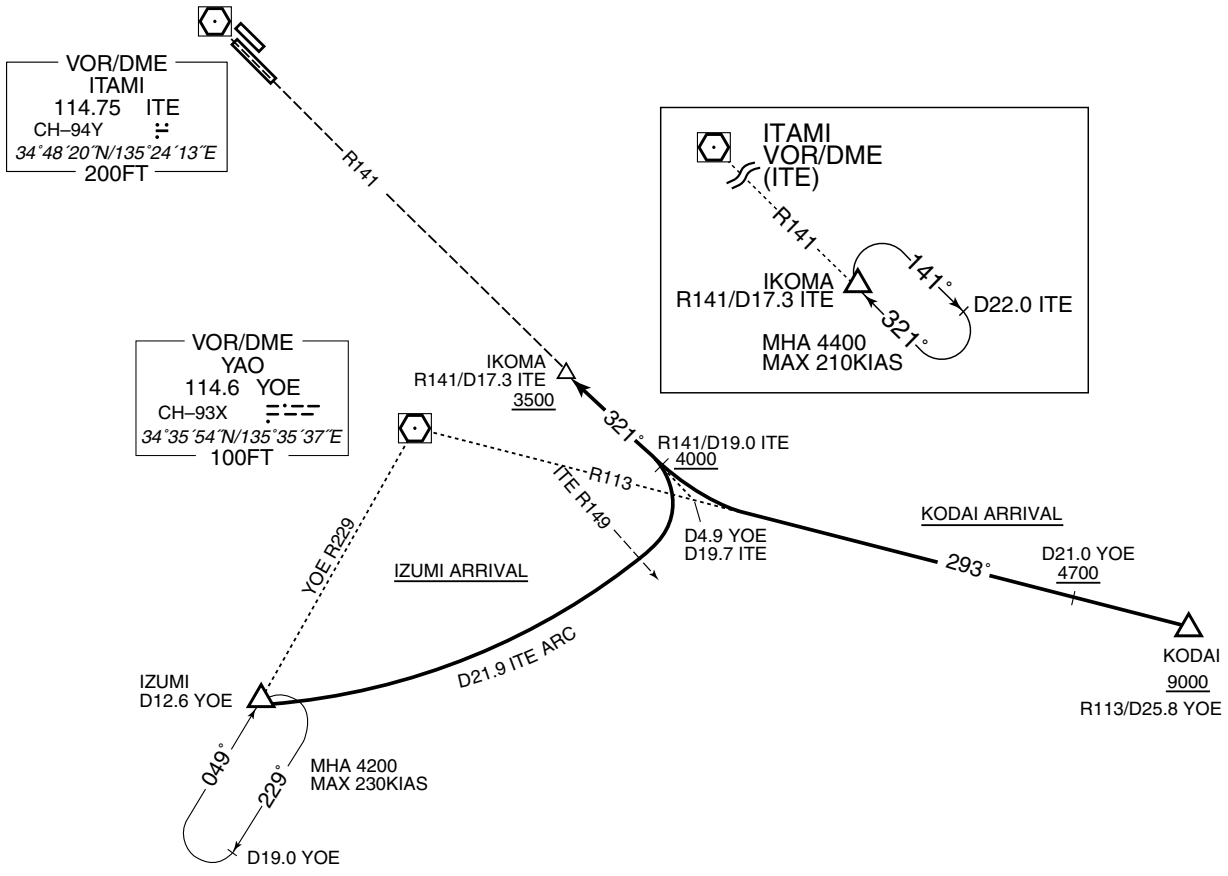
From over IZUMI, via ITE 21.9DME counterclockwise ARC to intercept and proceed via ITE R141 to IKOMA.

Cross ITE R141/19.0DME at or above 4000FT, cross IKOMA at or above 3500FT.

KODAI ARRIVAL

From over KODAI, via YOE R113 to intercept and proceed via ITE R141 to IKOMA.

Cross KODAI at or above 9000FT, cross YOE R113/21.0DME at or above 4700FT, cross ITE R141/19.0DME at or above 4000FT, cross IKOMA at or above 3500FT.

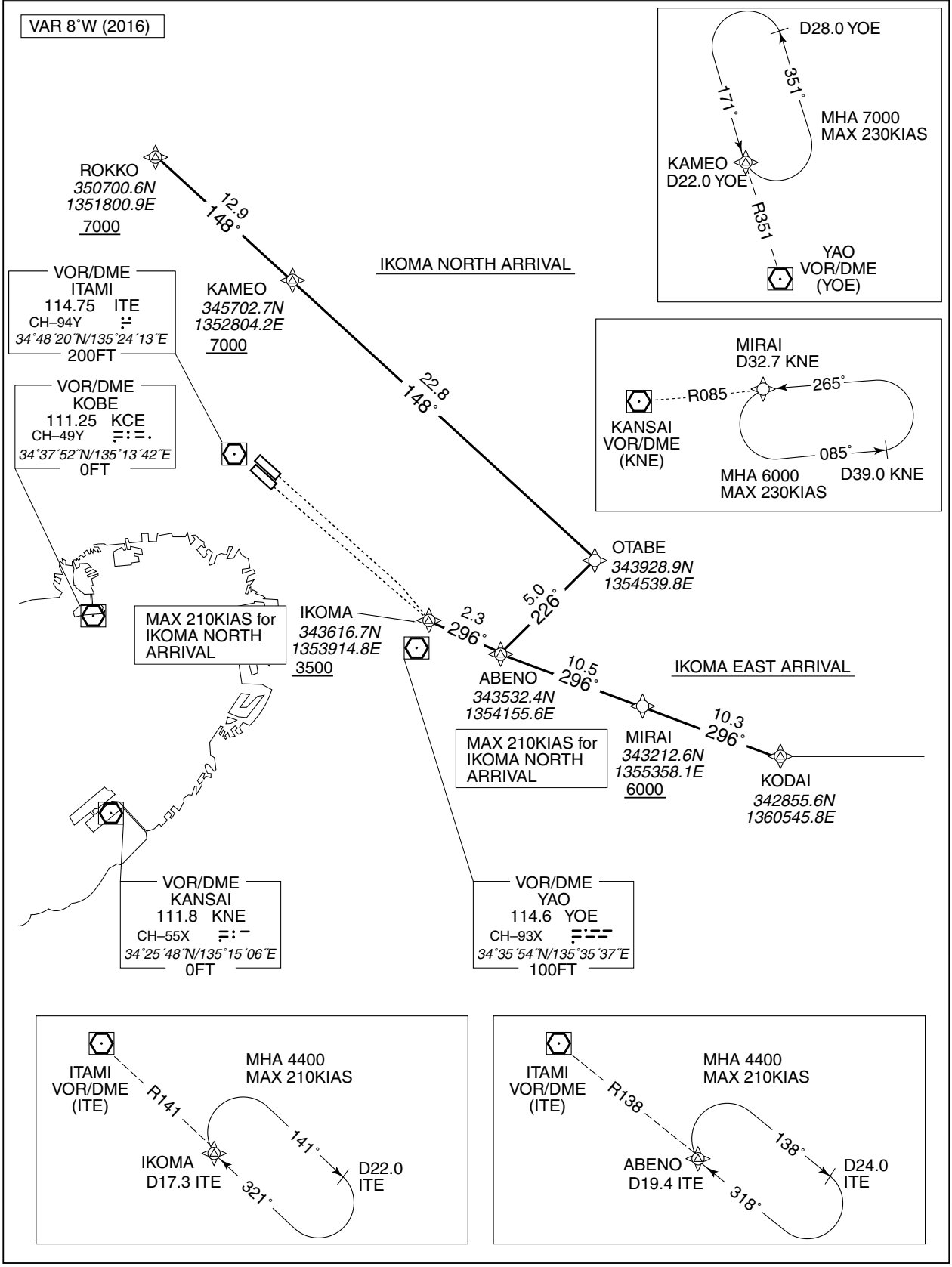


STANDARD ARRIVAL CHART-INSTRUMENT

RJOO / OSAKA INTL — RNAV STAR RWY32L/32R

IKOMA EAST ARRIVAL / IKOMA NORTH ARRIVAL — RNAV1

Note 1) DME/DME/IRU or GNSS required
2) RADAR service required



STANDARD ARRIVAL CHART-INSTRUMENT

RJOO / OSAKA INTL RNAV STAR RWY32L/32R

IKOMA EAST ARRIVAL

From KODAI, to MIRAI at or above 6000FT, to ABENO, to IKOMA at or above 3500FT.

Critical DME	KCC : KODAI – MIRAI
DME GAP	–
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course ˚M(˚T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	KODAI	–	–	-7.6	–	–	–	–	–	RNAV1
002	TF	MIRAI	–	296 (288.7)	-7.6	10.3	–	+6000	–	–	RNAV1
003	TF	ABENO	–	296 (288.6)	-7.6	10.5	–	–	–	–	RNAV1
004	TF	IKOMA	–	296 (288.5)	-7.6	2.3	–	+3500	–	–	RNAV1

IKOMA NORTH ARRIVAL

From ROKKO at or above 7000FT, to KAMEO at or above 7000FT, to OTABE, to ABENO, to IKOMA at or above 3500FT.

Critical DME	ITE : 9.9NM to KAMEO – KAMEO YME : 19.7NM to OTABE – 13.7NM to OTABE
DME GAP	–
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

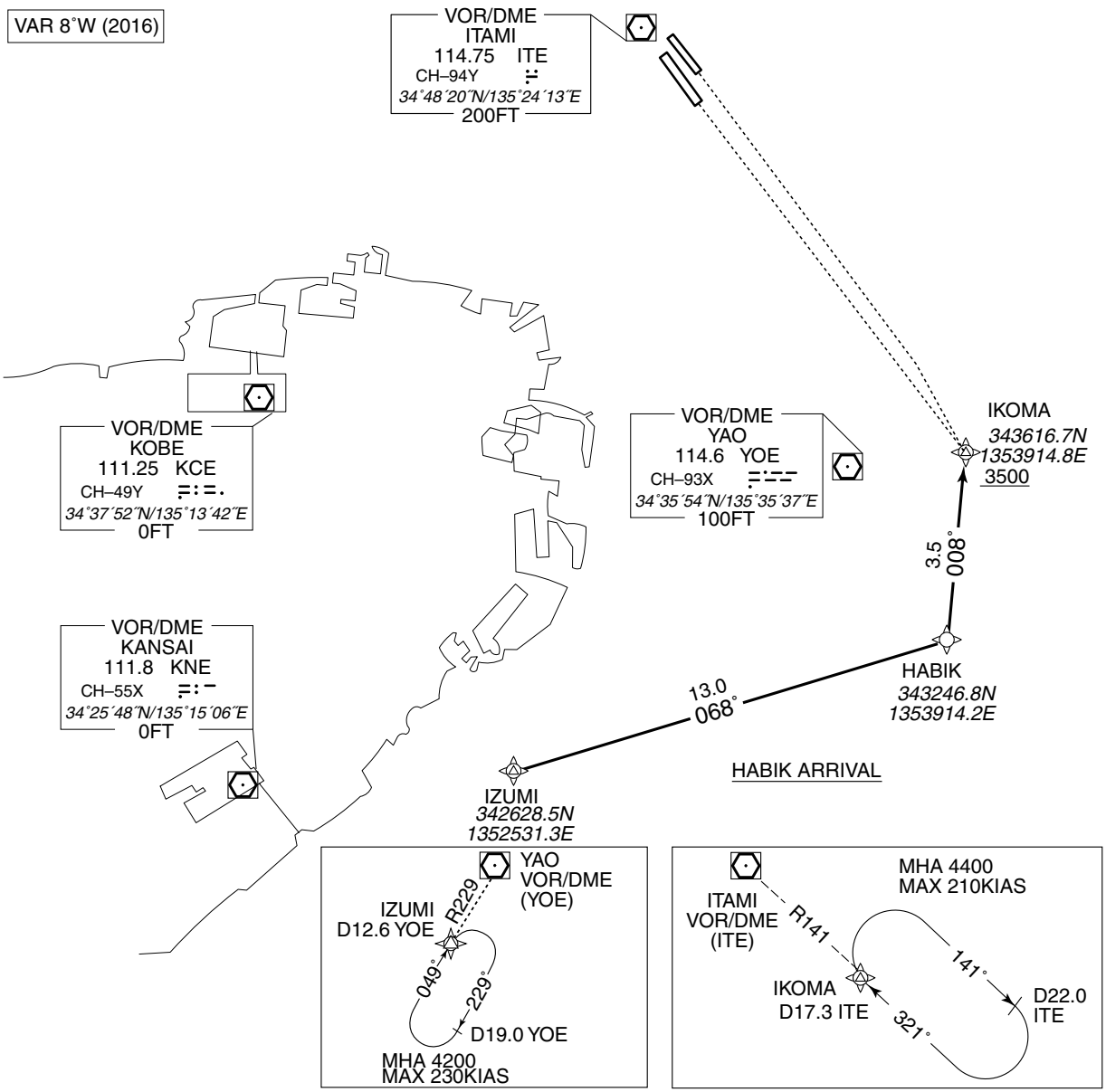
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course ˚M(˚T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	ROKKO	–	–	-7.6	–	–	+7000	–	–	RNAV1
002	TF	KAMEO	–	148 (140.4)	-7.6	12.9	–	+7000	–	–	RNAV1
003	TF	OTABE	–	148 (140.5)	-7.6	22.8	–	–	–	–	RNAV1
004	TF	ABENO	–	226 (218.0)	-7.6	5.0	–	–	-210	–	RNAV1
005	TF	IKOMA	–	296 (288.5)	-7.6	2.3	–	+3500	-210	–	RNAV1

STANDARD ARRIVAL CHART-INSTRUMENT

RJOO / OSAKA INTL — RNAV STAR RWY32L/32R

HABIK ARRIVAL	RNAV1

Note 1) DME/DME/IRU or GNSS required
2) RADAR service required



HABIK ARRIVAL

From IZUMI, to HABIK, to IKOMA at or above 3500FT.

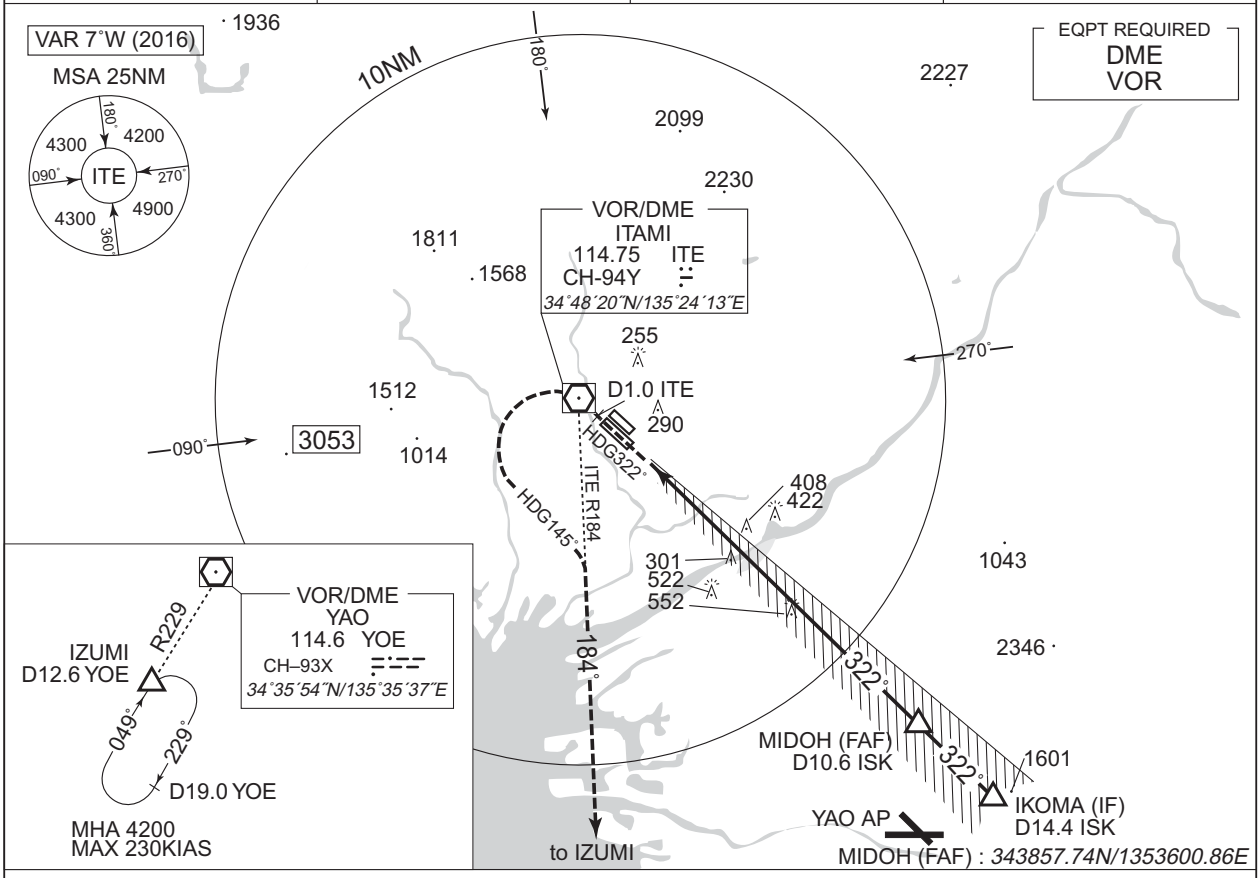
Critical DME	–
DME GAP	–
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	IZUMI	—	—	-7.6	—	—	—	—	—	RNAV1
002	TF	HABIK	—	068 (060.8)	-7.6	13.0	—	—	—	—	RNAV1
003	TF	IKOMA	—	008 (000.1)	-7.6	3.5	—	+3500	—	—	RNAV1

INSTRUMENT APPROACH CHART

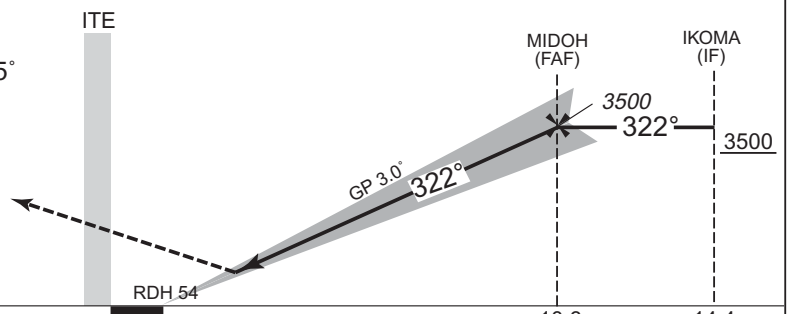
RJOO / OSAKA INTL ILS RWY32L

KANSAI APP	ILS-LOC	OSAKA TOWER	RADAR AVBL
120.45 - 124.7 261.2	110.1 ISK ILS-GP 334.4 ILS-DME CH-38X	118.1 - 236.8 126.2 - 121.7G	ATIS 128.6



MISSED APPROACH

Climb to 5000FT on HDG322°, 1.0DME prior to ITE VOR/DME, turn left HDG145° to intercept and proceed via ITE R184 to IZUMI and hold.
Contact KANSAI APP.



DME to ISK	0.2	10.6	14.4
NM to THR	0	10.4	14.2

Missed APCH climb gradient MNM 4.0%

MINIMA THR elev. 31 AD elev. 39

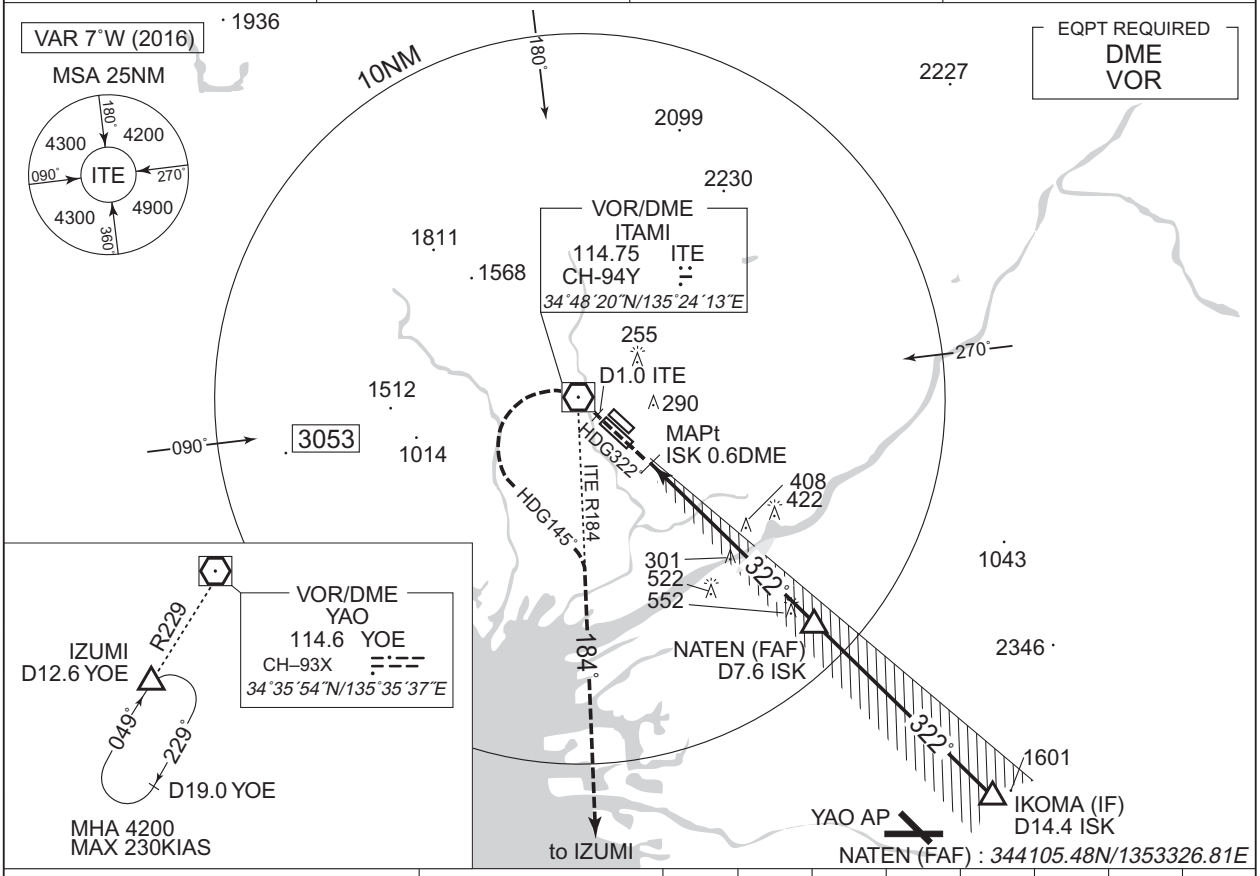
CAT	CAT I		CIRCLING		
	DA(H)	RVR/ CMV	MDA(H) TOTAL AREA	MDA(H) WEST of RWY	VIS
A	281 (250)	700	590 (551)	590 (551)	1600
B					
C			660 (621)	610 (571)	2400
D			760 (721)	760 (721)	3200

MINIMA with Missed APCH climb gradient of 2.5% are not established.
JET circling to WEST side of RWY only.

INSTRUMENT APPROACH CHART

RJOO / OSAKA INTL LOC RWY32L

KANSAI APP	ILS - LOC	OSAKA TOWER	RADAR AVBL
120.45 - 124.7 261.2	110.1 ISK ILS-DME CH-38X	118.1 - 236.8 126.2 - 121.7G	ATIS 128.6

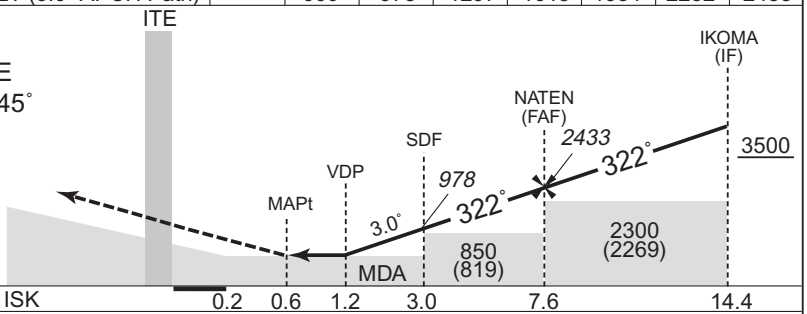


NM to ISK	MAPt	2	3	4	5	6	7	FAF
ALT (3.0˚ APCH Path)	–	660	978	1297	1615	1934	2252	2433

MISSED APPROACH

Climb to 5000FT on HDG322˚, 1.0DME prior to ITE VOR/DME, turn left HDG145˚ to intercept and proceed via ITE R184 to IZUMI and hold.
Contact KANSAI APP.

Timing not authorized for defining the MAPt.



DME to ISK	0.2	0.6	1.2	3.0	7.6	14.4
NM to THR	0	0.5	1.0	2.8	7.4	14.2

Missed APCH climb gradient MNM 3.2%

MINIMA THR elev. 31 AD elev. 39

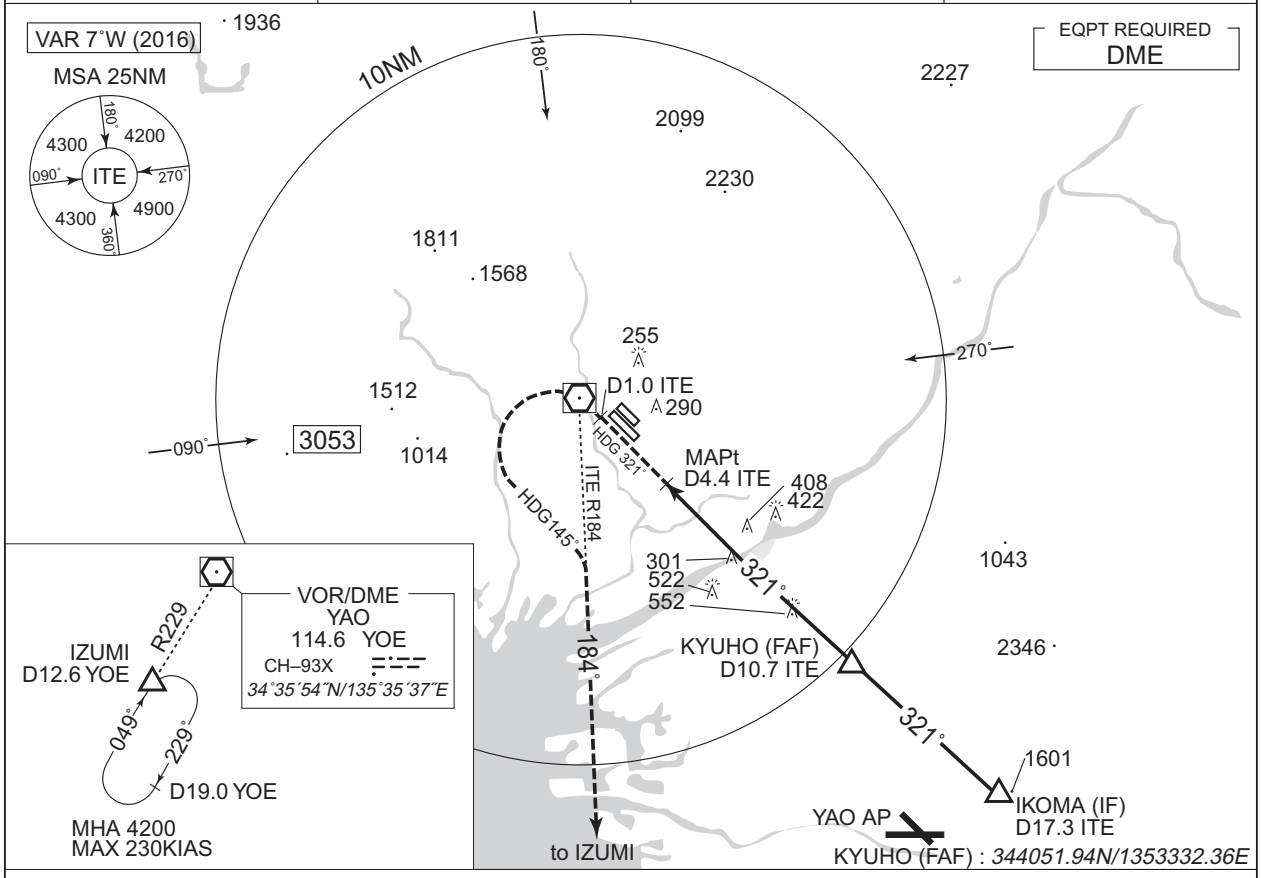
CAT	MDA(H)	RVR/ CMV	CIRCLING MDA(H) TOTAL AREA	CIRCLING MDA(H) WEST of RWY	CIRCLING VIS
A	390 (359)	1200	590 (551)	590 (551)	1600
B		1300			
C		1400	660 (621)	610 (571)	2400
D		1600	760 (721)	760 (721)	3200

MINIMA with Missed APCH climb gradient of 2.5% are not established.
JET circling to WEST side of RWY only.

INSTRUMENT APPROACH CHART

RJOO / OSAKA INTL VOR A

KANSAI APP	ITAMI VOR/DME	OSAKA TOWER	RADAR AVBL
120.45 - 124.7 261.2	114.75 ITE CH-94Y *34˚48´20˝N/135˚24´13˝E*	118.1 - 236.8 126.2 - 121.7G	ATIS 128.6

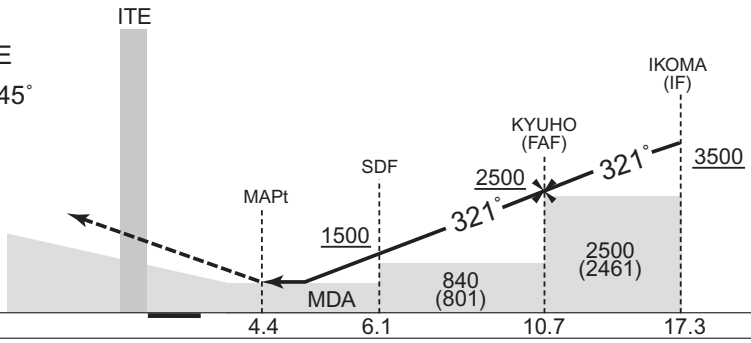


MISSED APPROACH

Climb to 5000FT on HDG321˚, 1.0DME prior to ITE VOR/DME, turn left HDG145˚ to intercept and proceed via ITE R184 to IZUMI and hold.

Contact KANSAI APP.

Timing not authorized for defining the MAPt.



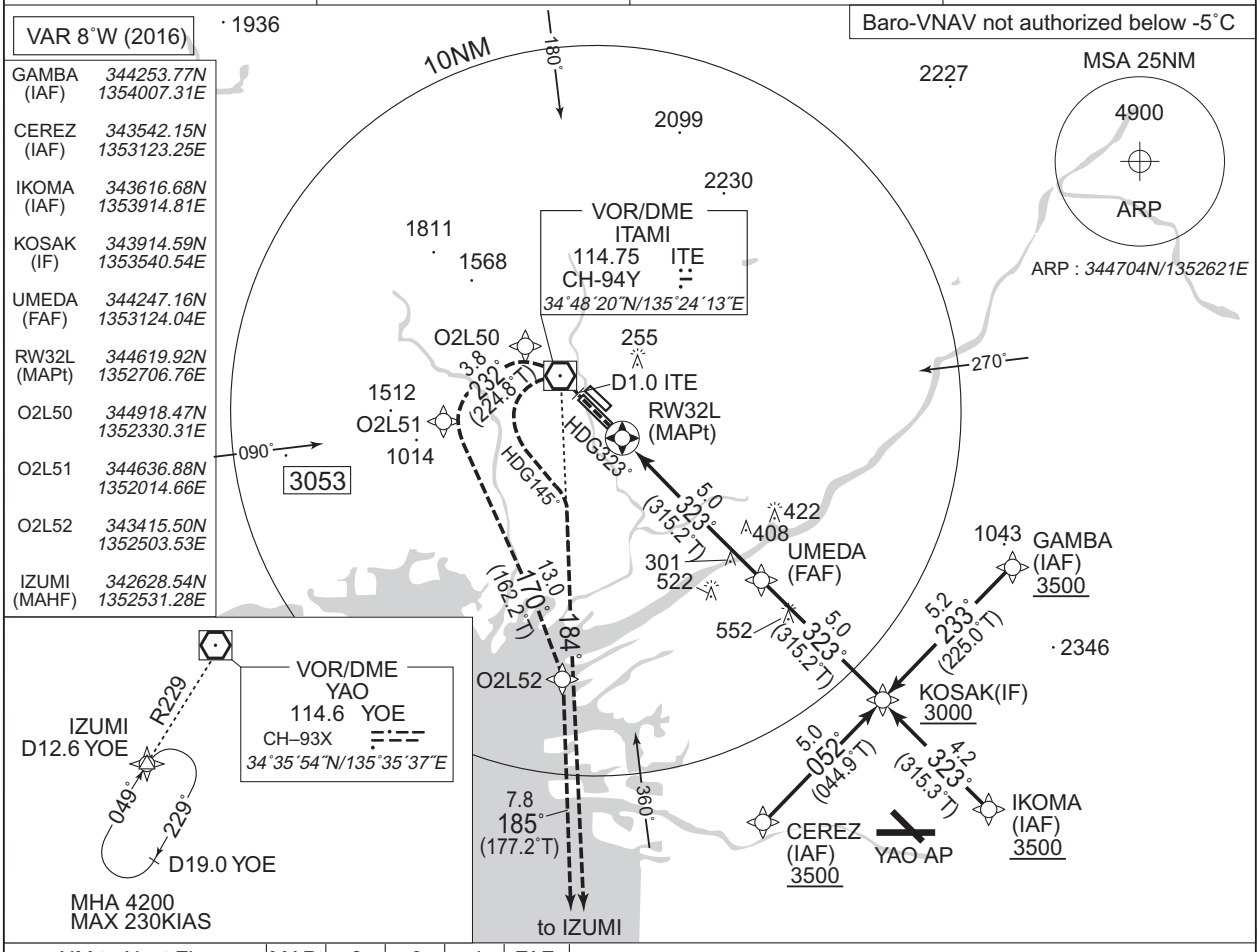
MINIMA	AD elev. 39		
CAT	CIRCLING		
	MDA(H)		VIS
	TOTAL AREA	WEST of RWY	
A B	590 (551)	590 (551)	1600
C	660 (621)	610 (571)	2400
D	760 (721)	760 (721)	3200

JET circling to WEST side of RWY only.

INSTRUMENT APPROACH CHART

RJOO / OSAKA INTL — RNAV(GNSS) RWY32L

KANSAI APP 120.45 - 124.7 261.2	1. DME/DME not authorized. 2. RADAR service required. 3. GNSS required.	OSAKA TOWER 118.1 - 236.8 126.2 - 121.7G	RADAR AVBL ATIS 128.6

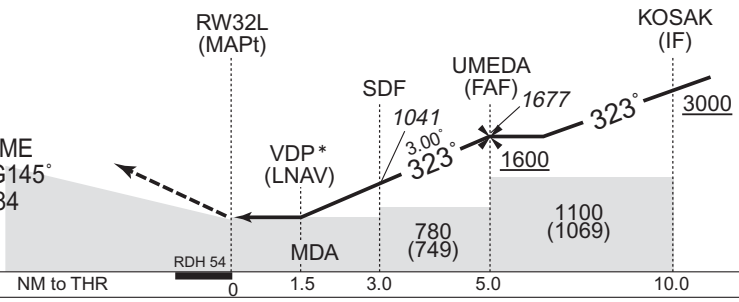


NM to Next Fix	MAPt	2	3	4	FAF
ALT(3.0° APCH Path)	–	722	1041	1359	1677

MISSED APPROACH
Climb to 5000FT, to O2L50,
to O2L51, to O2L52,
to IZUMI and hold.
Contact KANSAI APP.

(For using VOR/DME)
Climb to 5000FT on HDG323°, 1.0DME
prior to ITE VOR/DME, turn left HDG145°
to intercept and proceed via ITE R184
to IZUMI and hold.
Contact KANSAI APP.

*VDP not applicable when Missed APCH climb gradient is 5.0%.



Missed APCH climb gradient MNM 6.0%

MINIMA — THR elev. 31 — AD elev. 39

CAT	LNAV/VNAV DA(H)	LNAV/VNAV RVR/CMV	LNAV MDA(H)	LNAV RVR/CMV	CIRCLING MDA(H) TOTAL AREA	CIRCLING MDA(H) WEST of RWY	CIRCLING VIS
A	530 (499)	1400	530 (499)	1400	590 (551)	590 (551)	1600
B		1500		1500			
C		1600		1600	660 (621)	610 (571)	2400
D		1800		1800	760 (721)	760 (721)	3200

JET circling to WEST side of RWY only.
Missed APCH climb gradient of 6.0% up to 1900FT.

Missed APCH climb gradient MNM 5.0%

MINIMA — THR elev. 31 — AD elev. 39

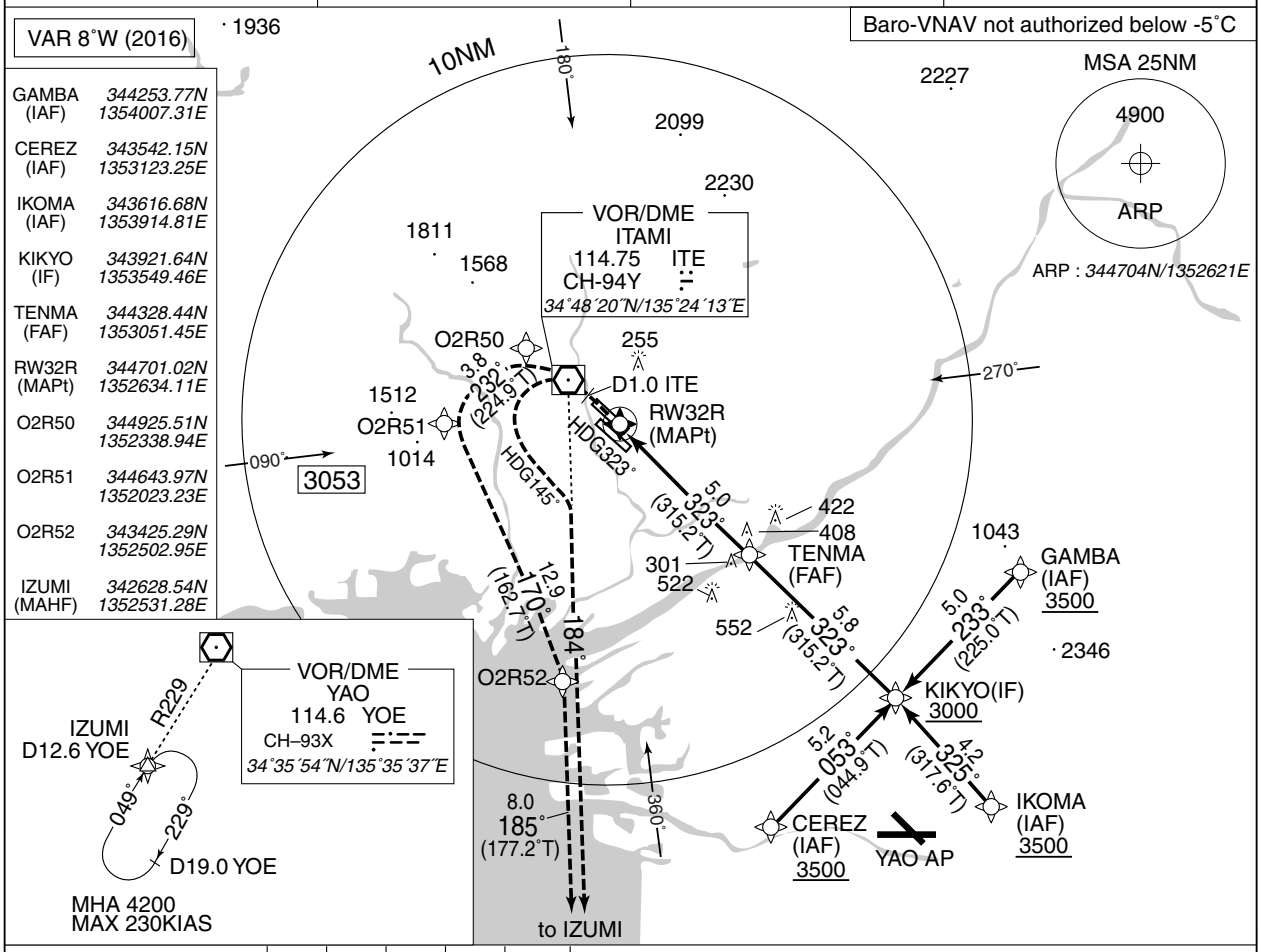
CAT	LNAV/VNAV DA(H)	LNAV/VNAV RVR/CMV	LNAV MDA(H)	LNAV RVR/CMV	CIRCLING MDA(H)	CIRCLING VIS
A	650 (619)	1400	650 (619)	1400	660 (621)	1600
B		1500		1500		
C		1600		1600		2400
D		1800		1800	760 (721)	3200

JET circling to WEST side of RWY only.

INSTRUMENT APPROACH CHART

RJOO / OSAKA INTL — RNAV(GNSS) RWY32R

KANSAI APP	1. DME/DME not authorized.	OSAKA TOWER	RADAR AVBL
120.45 - 124.7	2. RADAR service required.	118.1 - 236.8	ATIS 128.6
261.2	3. GNSS required.	126.2 - 121.7G	



NM to Next Fix	MAPt	2	3	4	FAF
ALT(3.0° APCH Path)	–	722	1040	1359	1677

MISSED APPROACH
Climb to 5000FT, to O2R50,
to O2R51, to O2R52,
to IZUMI and hold.
Contact KANSAI APP.

(For using VOR/DME)
Climb to 5000FT on HDG323°, 1.0DME
prior to ITE VOR/DME, turn left HDG145°
to intercept and proceed via ITE
R184 to IZUMI and hold.
Contact KANSAI APP.

*VDP not applicable when Missed APCH climb gradient is 5.0%.

Missed APCH climb gradient MNM 6.0%

MINIMA			THR elev. 35			AD elev. 39
CAT	LNAV/VNAV		LNAV		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	530 (495)	1400	530 (491)	1400	570 (531)	1600
B		1500		1500		
C		1600		1600		2400
D		1800		1800	760 (721)	3200

Missed APCH climb gradient MNM 5.0%

MINIMA			THR elev. 35			AD elev. 39
CAT	LNAV/VNAV		LNAV		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	820 (785)	1500	820 (781)	1500	820 (781)	1600
B						
C		1800		1800		2400
D		2000		2000		3200

Circling to WEST side of RWY only.
Missed APCH climb gradient of 6.0% up to 1900FT.

Circling to WEST side of RWY only.

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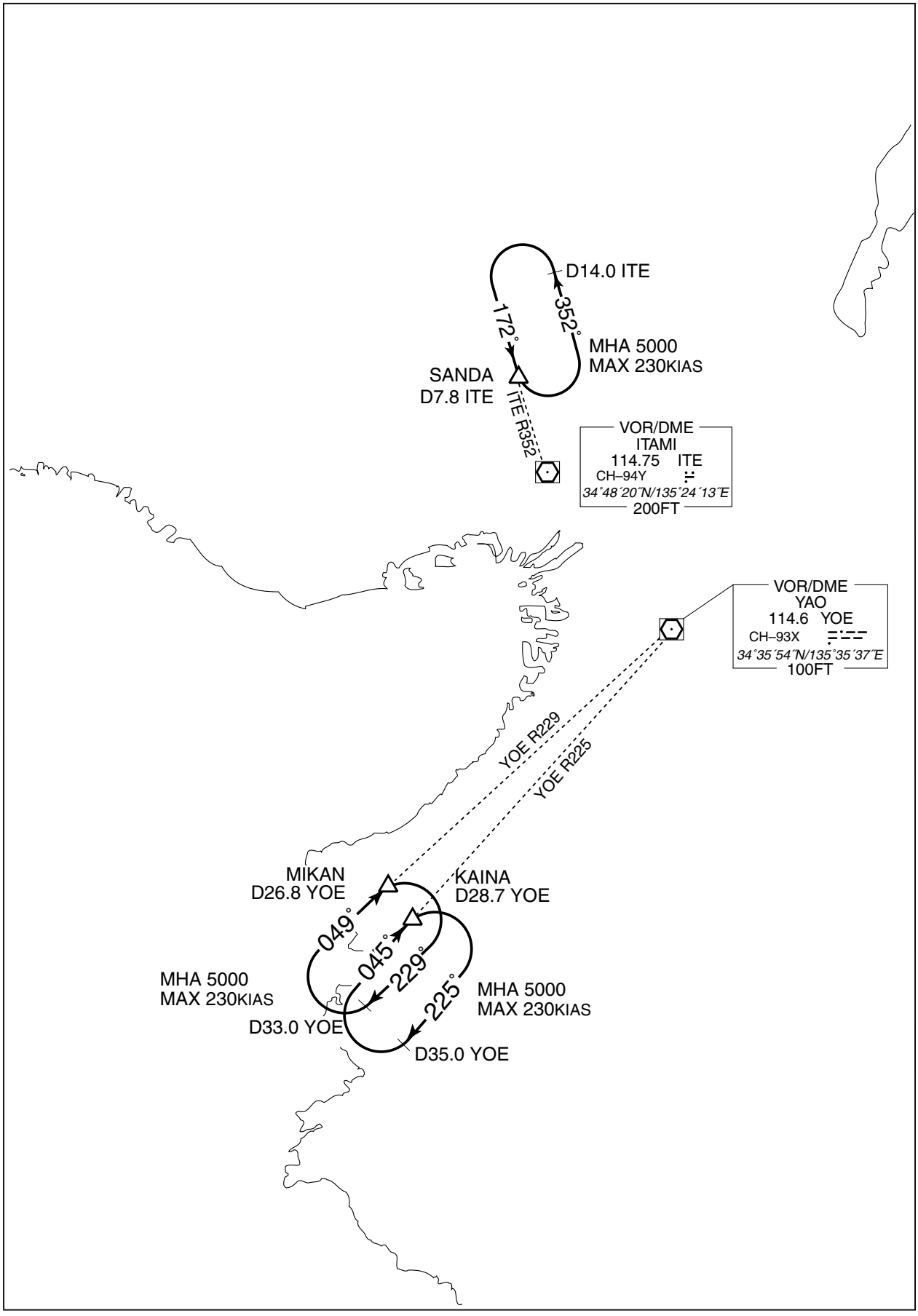
RJOO / OSAKA INTL HLDG PATTERN

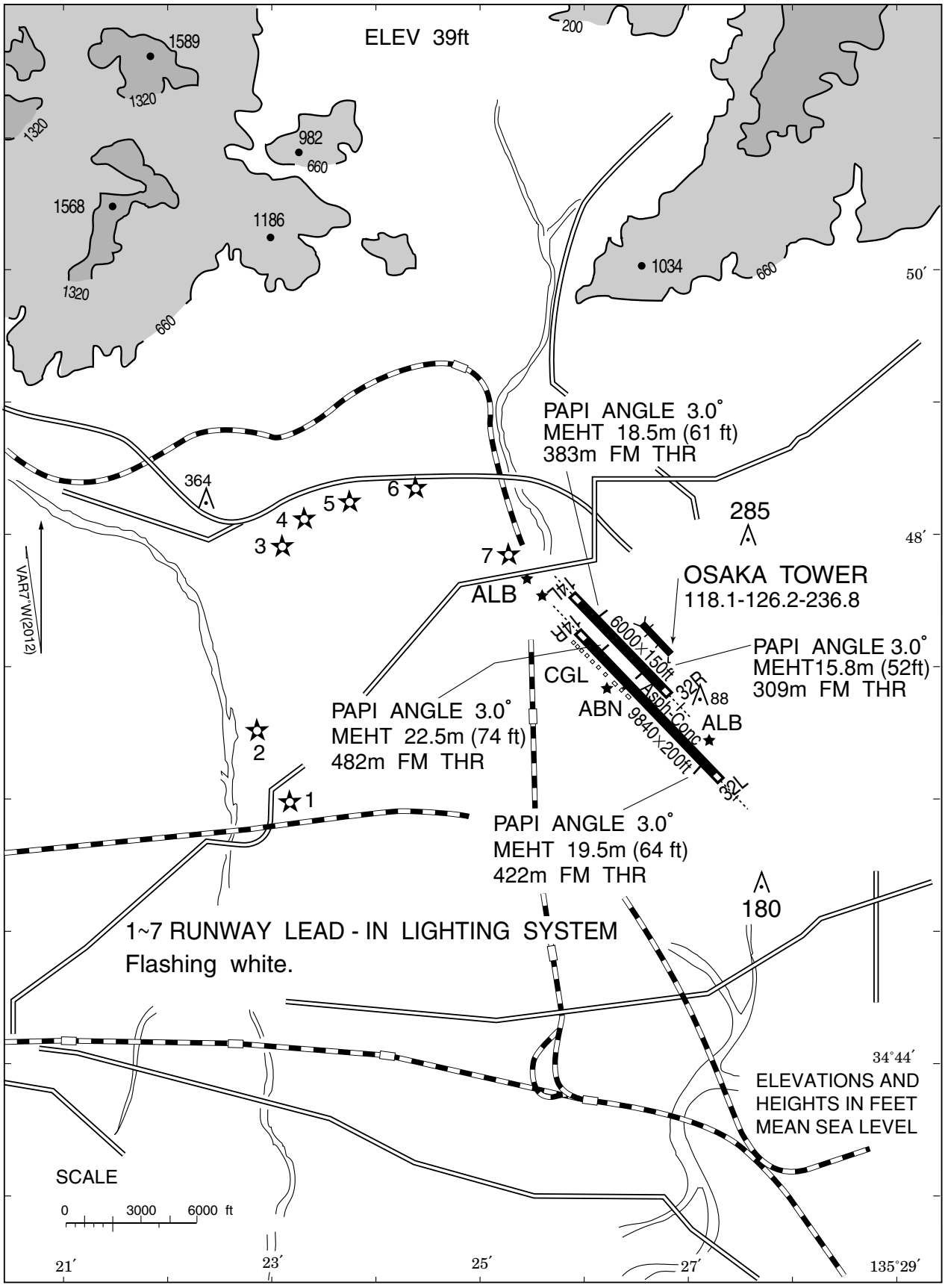


RJOO / OSAKA INTL

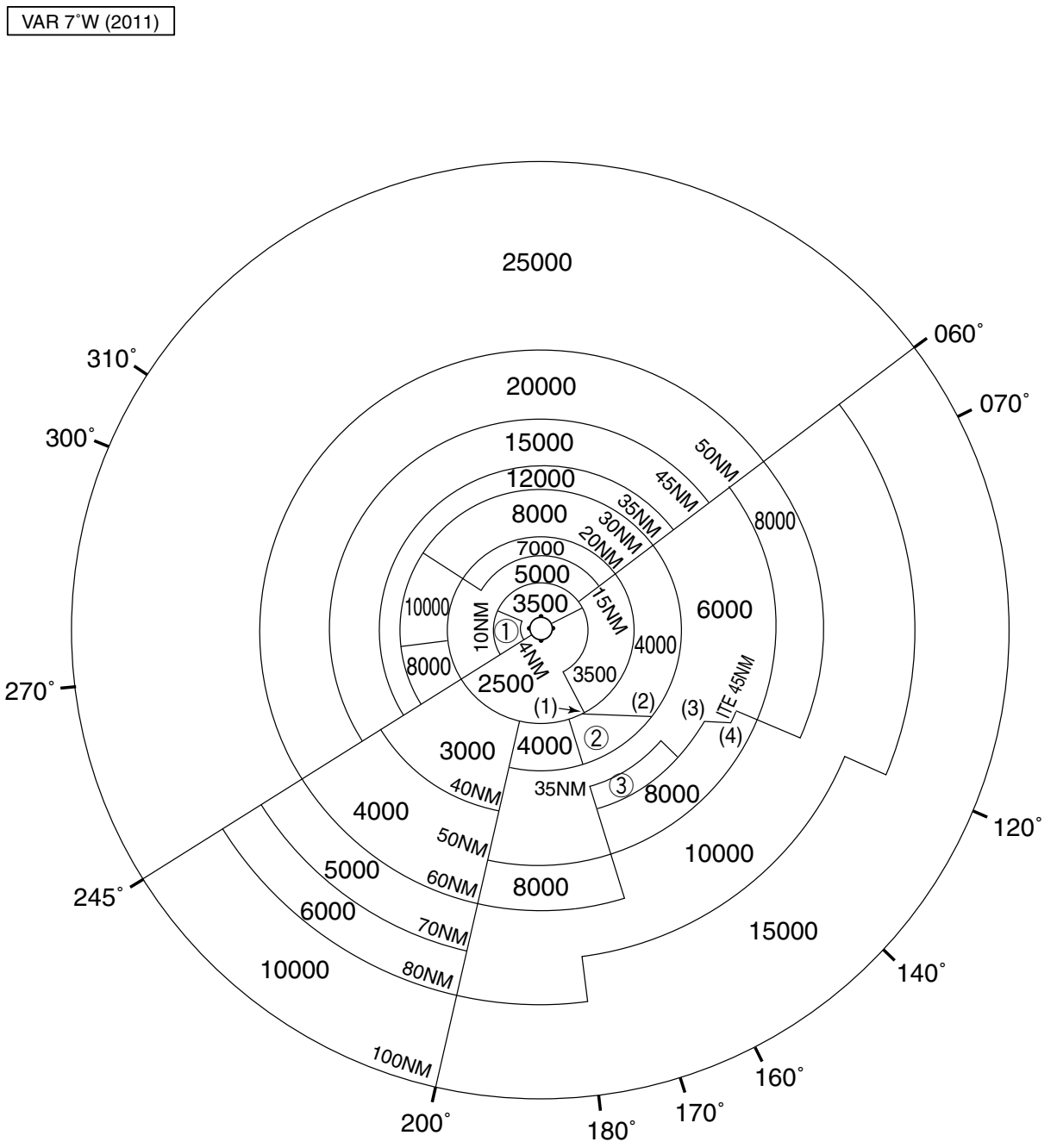
OSAKA Visual REP

Call sign	BRG / DIST from ARP	Remarks
刀根山 Toneyama	044°/1.3NM	中国豊中インターチェンジ interchange
千里 Senri	070°/3.0NM	千里ジャンクション Junction
吹田 Suita	082°/5.4NM	吹田インターチェンジ interchange
鳥飼 Torikai	110°/6.8NM	鳥飼大橋 Bridge
鳴尾 Naruo	232°/5.4NM	甲子園球場 Baseball ground
伊丹 Itami	263°/0.9NM	JR伊丹駅 Station
川西 Kawanishi	345°/5.0NM	多田神社 Shrine
石橋 Ishibashi	020°/1.5NM	阪急石橋阪大前駅 Station

RJOO / OSAKA INTL LDG CHART



RJOO / OSAKA INTL Minimum Vectoring Altitude CHART



①	4500	(1) *342930N/1353527E*
②	5000	(2) *342925N/1355432E*
③	7000	(3) *342918N/1360849E*
		(4) *342924N/1361335E*

CENTER : *344752N/1352550E* (No.1 RADAR SITE)
CENTER : *344659N/1352600E* (No.2 RADAR SITE)