AD 2 AERODROMES

RJOY AD 2.1 AERODROME LOCATION INDICATOR AND NAME

RJOY - YAO

RJOY AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	*343548N 1353602E* 122°/245m FM Control Tower
2	Direction and distance from (city)	8.1NM SE of Osaka station
3	Elevation/ Reference temperature	33ft / 33 °C(2002-2006)
4	Geoid undulation at AD ELEV PSN	Nil
5	MAG VAR/ Annual change	7°W(2009) / 1'W
6	AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses	Yao Airport Office (Civil Aviation Bureau) 2-12 Kuko Yao-shi Osaka 581-0043 Japan Tel 072-992-0031 , Fax 072-924-5741 AFS RJOYYFYX
7	Types of traffic permitted(IFR/ VFR)	IFR/VFR
8	Remarks	Nil

RJOY AD 2.3 OPERATIONAL HOURS

1	AD Administration	2300 - 1030
2	Customs and immigration	On request Customs: 06-6576-3104, 06-6576-3123 Immigration: 06-4703-2100
3	Health and sanitation	Quarantine(human): On request(06-6571-4312) Quarantine(animal, plant): Nil
4	AIS Briefing Office	2300 - 1030
5	ATS Reporting Office(ARO)	Nil
6	MET Briefing Office	H24 (KANSAI)
7	ATS	2300 - 1030
8	Fuelling	2300 - 0900
9	Handling	Nil
10	Security	Nil
11	De-icing	Nil
12	Remarks	Nil

RJOY AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	Nil
2	Fuel/ oil types	Fuel grades : JET A-1, 100 Oil grades : All grades
3	Fuelling facilities/ capacity	Fuel truck refueling / Underground tank: JET A-1/100KL,100/50KL
4	De-icing facilities	Nil
5	Hangar space for visiting aircraft	Ask AD Administration
6	Repair facilities for visiting aircraft	Nil
7	Remarks	Nil

RJOY AD 2.5 PASSENGER FACILITIES

1	Hotels	No Hotel around airport
2	Restaurants	No Restautant around airport
3	Transportation	Trains and Taxis
4	Medical facilities	No Hospital at airport
5	Bank and Post Office	Near airport
6	Tourist Office	Nil
7	Remarks	Nil

RJOY AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 4
2	Rescue equipment	Chemical fire fighting truck x 1 Emergency medical equipments
3	Capability for removal of disabled aircraft	Nil
4	Remarks	Nil

RJOY AD 2.7 SEASONAL AVAILABILITY-CLEARING

1	Types of clearing equipment	Ask AD Administration
2	Clearance priorities	1.RWY 09/27 , 13/31(a part) , TWY A4 , B1 , P1 2.TWY P2 , North Apron , South Apron
3	Remarks	Snow removal will be commenced, if the RWY and TWY are covered with a depth of 5cm snow or more.

RJOY AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	Apron surface and strength	Surface:Aspalt-concrete, Strength: AUW5700kg/0.28MPa
2	Taxiway width, surface and strength	Width: 18m(EXC TWY G2), TWY G2 : 13.5m Surface: Aspalt-concrete, Strength: AUW5700kg/0.28MPa
3	ACL and elevation	Not available
4	VOR checkpoints	Not available
5	INS checkpoints	Not available
6	Remarks	Nil

RJOY AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and Visual docking/ parking guidance system of aircraft stands	Nil
2	RWY and TWY markings and LGT	RWY 09/27: (Marking) RWY designation, RWY CL, RWY THR, RWY middle point, Aiming point, TDZ, RWY side stripe (LGT) REDL, RTHL, RENL RWY 13/31: (Marking) RWY designation, RWY CL, RWY THR, RWY middle point, Aiming point, TDZ, RWY side stripe (LGT) : Nil TWY: (Marking) TWY CL, RWY HLDG PSN, Mandatory instruction(EXC TWY G1), TWY side stripe (LGT) TWY edge LGT(A1, A2, A3, A4, P1, P2 and B1), Taxiing guidance sign(A1, A2, A3, A4 and B1)
3	Stop bars	Nil
4	Remarks	(Marking) Overrun area(RWY 09/27, RWY 13/31) (LGT) Apron flood LGT

RJOY AD 2.10 AERODROME OBSTACLES

In approach/TKOF areas

RWY/Area affected	Obstacle type	Coordinates	Elevation	Markings/LGT	Remarks
RWY09	Steel Tower	*343532N 1353359E*	238ft	- / LIL	
RWY09	Building	*343537N 1353504E*	148ft	- / LIL	
RWY09	Building	*343537N 1353710E*	132ftft	- / LIL	
RWY13	Steel Tower	*343630N 1353505E*	195ft	- / LIL	
RWY13	Steel Tower	*343645N 1353423E*	200ft	- / LIL	

In circling area and at AD

Obstacle type	Coordinates	Elevation	Markings/LGT	Remarks
Building	*343540N 1353547E*	89ft	- / LIL	
Building	*343543N 1353631E*	139ft	- / LIL	
Building	*343554N 1353544E*	72ft	- / LIL	
Building	*343531N 1353711E*	146ft	- / LIL	
Building	*343547N 1353611E*	111ft	- / LIL	
Steel Tower	*343506N 1353640E*	184ft	- / LIL	

RJOY AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	KANSAI
2	Hours of service MET Office outside hours	H24 (KANSAI)
3	Office responsible for TAF preparation Periods of validity	Nil
4	Trend forecast Interval of issuance	Nil
5	Briefing/ consultation provided	Briefing is available upon inquiry at KANSAI
6	Flight documentation Language(s) used	C En
7	Charts and other information available for briefing or consultation	S_6, U_{85}, U_7, U_5, U_3, U_{25}, U_2/T_r, P_S, P_5, P_3, P_{25}, P_{SWE}, P_{SWF}, P_{SWG}, P_{SWI}, P_{SWM}, P_{SW}(domestic), E, C, W_E, W_F, W_G, W_I, W, N
8	Supplementary equipment available for providing information	Nil
9	ATS units provided with information	TWR
10	Additional information (limitation of service, etc.)	Nil

RJOY AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY(M)	Strength(PCN) and surface of RWY	THR coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
09	to be issued later	1490×45	PCN12/F/C/Y/T Asphalt-Concrete	*343544.18N 1353521.75E*	THR ELEV : 36ft
27		1490×45		*343547.00N 1353620.14E*	THR ELEV : 38ft
13	to be issued later	1200×30	AUW5700kg/0.28MPa Asphalt-Concrete	*343602.40N 1353545.25E*	THR ELEV : 33ft
31		1200×30		*343538.78N 1353622.69E*	THR ELEV : 39ft

Slope of RWY	Strip Dimensions(M)	RESA(Overrun) Dimensions(M)	Remarks
7	10	11	14
See AD2.24 AD Chart	1610x125 1610x125 1320x125 1320x125	5 × (MNM:107 MAX:125)* 29 x125 29 × (MNM:123 MAX:125)* 30 × (MNM:120 MAX:125)* *For detail, ask airport administrator	Nil

RJOY AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Remarks
1	2	3	4	5	6
09	1490	1490	1490	1490	Nil
27	1490	1490	1490	1490	Nil
13	1200	1200	1200	1200	Nil
31	1200	1200	1200	1200	Nil

RJOY AD 2.14 APPROACH AND RUNWAY LIGHTING

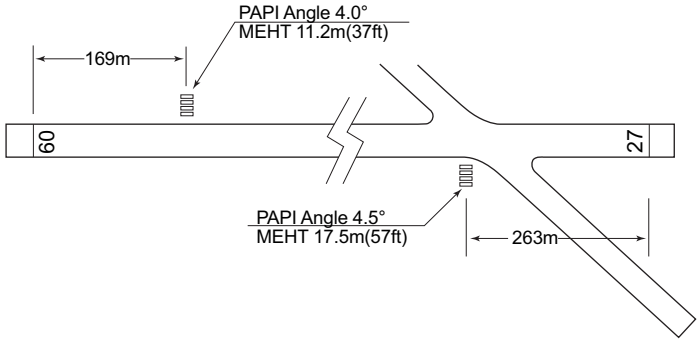
RWY Designator	APCH LGT type LEN INTST	RTHL Color WBAR	PAPI (VASIS) Angle DIST FM THR MEHT	RTZL LEN	RCLL LEN Spacing Color INTST	REDL LEN Spacing Color INTST	RENL Color WBAR	STWL LEN Color
1	2	3	4	5	6	7	8	9
09	Nil	Green -	PAPI 4.0° /Left 169m 37ft	Nil	Nil	1490m 60m Coded color (White/Yellow) HI	Red	Nil (*1)
27	Nil	Green -	PAPI 4.5° /Left 263m 57ft	Nil	Nil	1490m 60m Coded color (White/Yellow) HI	Red	Nil (*1)
13	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
31	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Remarks								
10								
Overrun area edge LGT(LEN60m color:Red) (*1) PAPI Usable area: within 1NM fm RWY27 THR(see attached chart) RWY THR ID LGT for RWY 09/27 THR(Color/White)								

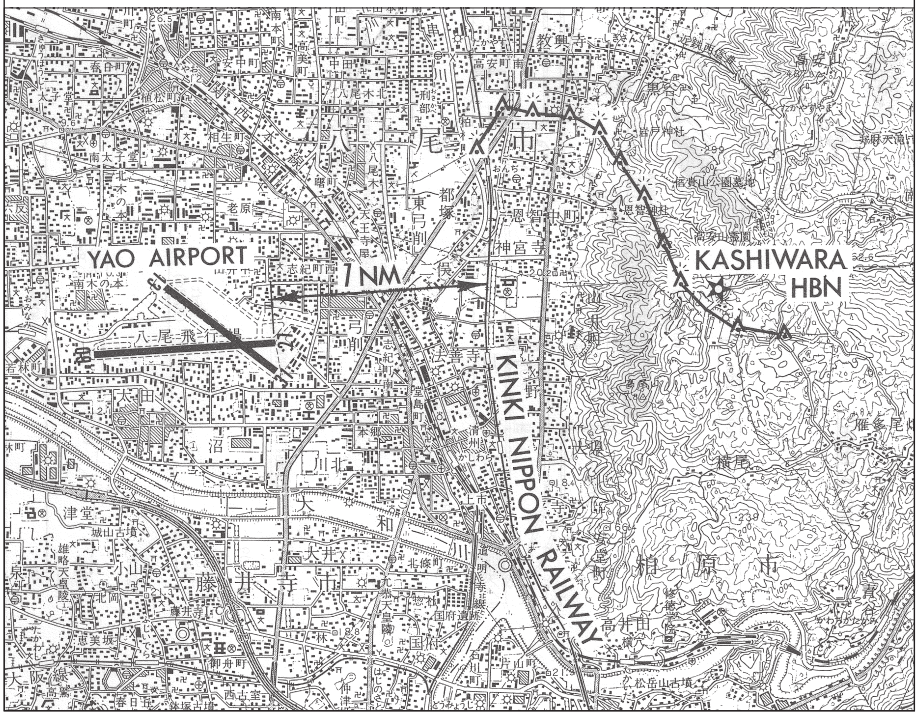
RJOY / YAO

PAPI and HBN

滑走路27側進入角指示灯の使用範囲は、障害物（山及び送電線）のため滑走路27側末端から1NM（近畿日本鉄道大阪線）以内とする。

Usable area of PAPI for runway 27 is within 1NM (Kinki Nippon Railway, Osaka Line) from runway 27 threshold due to obstruction (mountain and power line).





RJOY AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	ABN: *343555N/1353545E*, White/Green EV4.3sec, HO
2	LDI location and LGT Anemometer location and LGT	LDI:Nil Anemometor: RWY09 : 250m FM RWY 09 THR, LGTD RWY27 : 400m FM RWY 27 THR, LGTD
3	TWY edge and centerline lighting	TWY edge LGT:Blue TWY CL line LGT:Nil
4	Secondary power supply/ switch-over time	Within 10sec : ALL LGT
5	Remarks	WDI LGT

RJOY AD 2.16 HELICOPTER LANDING AREA

Nil

RJOY AD 2.17 ATS AIRSPACE

Designation and lateral limits		Vertical limits (ft)	Airspace classification	ATS unit call sign Language	Remarks
1		2	3	4	6
YAO CTR	(1)Area within a radius of 5nm of YAO ARP (*34°36'N/135°36'E*) (2)Area within a radius of 5nm of YAO ARP excluding area within a radius of 4.5nm of *344112N1353304E*. (exclude area(1))	(1)1300 or below (2)2000 or below	D	YAO Tower En	

RJOY AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
TWR	Yao Tower	124.35MHz(1) 126.2MHz 121.5MHz(E)	2300 - 1030	(1)Primary
GND	Yao Ground	121.8MHz	2300 - 1030	

RJOY AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid (VOR declination)	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
VOR (8°W/2016)	YOE	114.6MHz	H24	*343554.45N 1353537.34E*		VOR Unusable: 040°-080° beyond 30nm BLW 7000ft. 090°-100° beyond 20nm BLW 7000ft. 160°-170° beyond 30nm BLW 9000ft. 220°-230° beyond 30nm BLW 3000ft. 340°-360° beyond 25nm BLW 5000ft.
DME	YOE	1180MHz (CH-93X)	H24	*343554.45N 1353537.34E*	101ft	DME Unusable: 030°-040° beyond 30nm BLW 6000ft. 040°-060° beyond 25nm BLW 7000ft. 060°-110° beyond 15nm BLW 7000ft. 110°-130° beyond 30nm BLW 7000ft. 130°-180° beyond 30nm BLW 9000ft. 180°-200° beyond 30nm BLW 7000ft. 220°-270° beyond 30nm BLW 3000ft. 320°-360° beyond 25nm BLW 5000ft.

RJOY AD 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

1. Aircraft operations except in an emergency
On use this airport, aircraft operator is required to notify the airport authority and also obtain the prior permission due to congestion of apron.(Tel : 072-922-9021)

2. In principle,the use of this airport by the ACFT having a maximum take-off weight of 5700kg or more shall not be permitted.

2. Taxiing to and from stands

Nil

3. Parking area for small aircraft(General aviation)

Nil

4. Parking area for helicopters

Nil

5. Apron - taxiing during winter conditions

Nil

6. Taxiing - limitations

Nil

7. School and training flights - technical test flights - use of runways

Nil

8. Helicopter traffic - limitation

Nil

9. Removal of disabled aircraft from runways

Nil

RJOY AD 2.21 NOISE ABATEMENT PROCEDURES

Nil

RJOY AD 2.22 FLIGHT PROCEDURES

1. TAKE OFF MINIMA

	RWY	REDL AVBL	REDL OUT
		CEIL-VIS	CEIL-VIS
TKOF ALTN AP FILED	09	1400′-1600m	1400′-1600m
	13	-	500′-2400m
	27	1100′-2400m	1100′-2400m
	31	-	800′-1600m
OTHER	09	AVBL LDG MINIMA*	
	13		
	27		
	31		

NOTE: SIDs are designed in accordance with provisional standards for FLIGHT PROCEDURE DESIGN.
* Not below MINIMA of TKOF ALTN AP FILED

2. Principal RWY and Altitude at Traffic Pattern

Principal RWY
Usually RWY 27 will be assigned when wind velocity less than 5 knots

3. Helicopter VFR Procedures for Arrival

センターヘリパッドへの着陸経路は使用滑走路により異なり、以下のとおりである。

＜ RWY27 使用時＞
久宝寺（KYUHOJI）経由で RWY13/31 北側から誘導路 B1-B2 間を右旋回して着陸すること。
＜ RWY09 又は RWY13 使用時＞
瓜破（URIWARI）経由で SOUTH APRON 上を飛行し着陸すること。
＜ RWY31 使用時＞
瓜破（URIWARI）経由で大和川に沿って南東方向へ飛行し、RWY31 の南西でセンターヘリパッドに向けて左旋回して着陸すること。

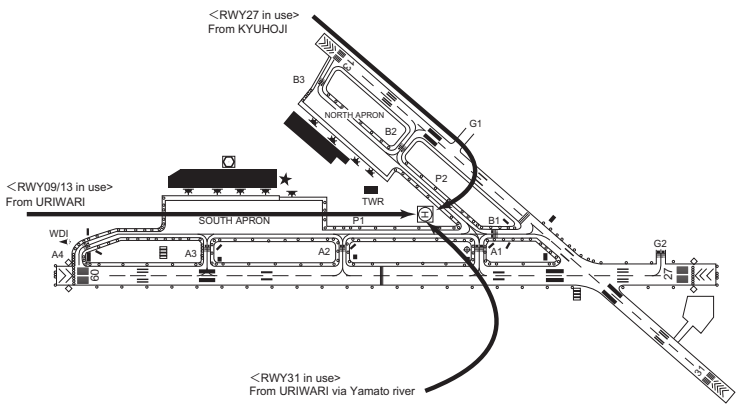
※ 上記以外にもトラフィックパターン経由での着陸を指示されることがある（RWY13 使用時を除く）。

The landing routes to the Center helipad depends on the using runway.

<RWY27 in use>
Fly north side of RWY13/31 from KYUHOJI then turn right between TWY B1 and TWY B2 to the Center Helipad.
<RWY09/RWY13 in use>
Fly over SOUTH APRON from URIWARI to the Center Helipad.
<RWY31 in use>
Fly southeast along the Yamato River from URIWARI, then turn left at the southwest of RWY31 toward the Center Helipad.

* In addition, pilot may be instructed to land via traffic pattern (except RWY13 in use).

Route of Landing for Center Helipad



RJOY AD 2.23 ADDITIONAL INFORMATION

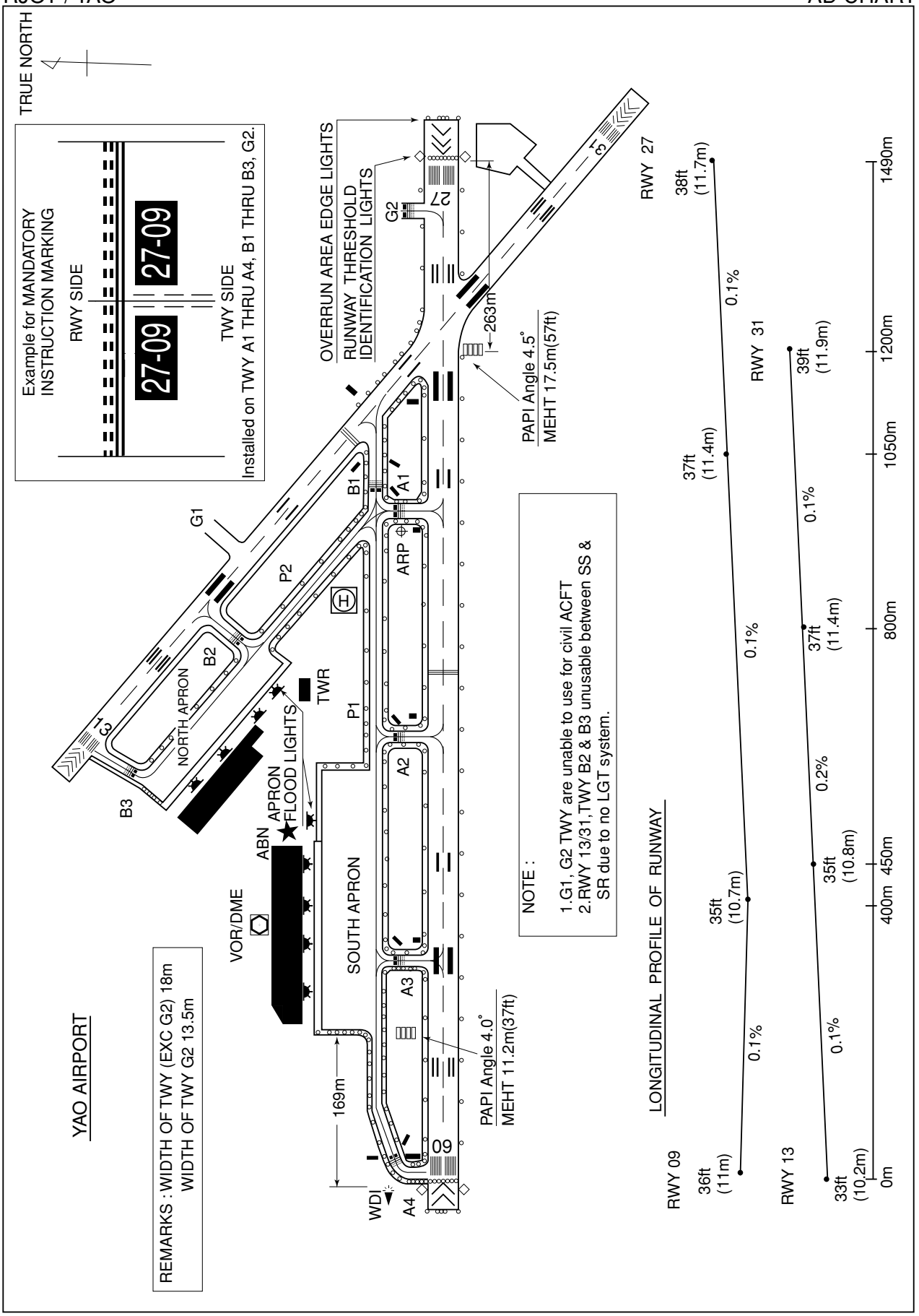
Nil

RJOY AD 2.24 CHARTS RELATED TO AN AERODROME

Aerodrome/Heliport Chart
Standard Departure Chart-Instrument (IZUMI)
Standard Departure Chart-Instrument (ASUKA)
Instrument Approach Chart (VOR/DME C)
Instrument Approach Chart (VOR E)
Other Chart (Visual REP)
Other Chart (LDG CHART)
Other Chart (MVA CHART)

NOTE: SIDs and IAPs are designed in accordance with provisional standards for FLIGHT PROCEDURE DESIGN.

RJOY / YAO AD CHART



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STANDARD DEPARTURE CHART - INSTRUMENT

RJOY / YAO SID

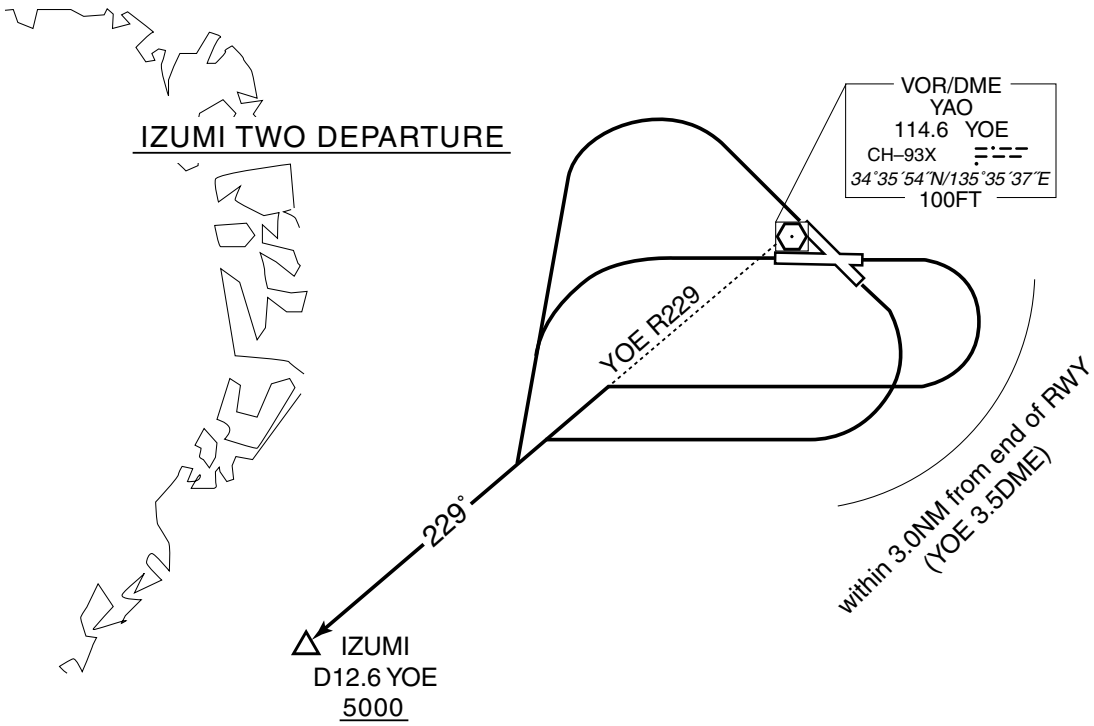
IZUMI TWO DEPARTURE

RWY 27/31 : Turn left,...
RWY 09/13 : Complete right turn within 3.0NM (YOE 3.5DME)...

...climb via YOE R229 to IZUMI.
Cross IZUMI at or above 5000FT.

Note : When take off RWY27/31/13(09), following climb gradient should be maintained until 800FT(1400FT).

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



STANDARD DEPARTURE CHART- INSTRUMENT

RJOY / YAO SID and TRANSITION

CHANGE : PROC renamed. Radial FM KCE.

ASUKA SEVEN DEPARTURE

RWY 27 : Turn right,...
RWY 09/13 : Complete right turn within 3.0NM (YOE 3.5DME)...
RWY 31 : Turn left,...
... climb via YOE R281 to YOE 7.1DME (ITE R176), turn right to intercept and proceed via KCE R086 to ASUKA.

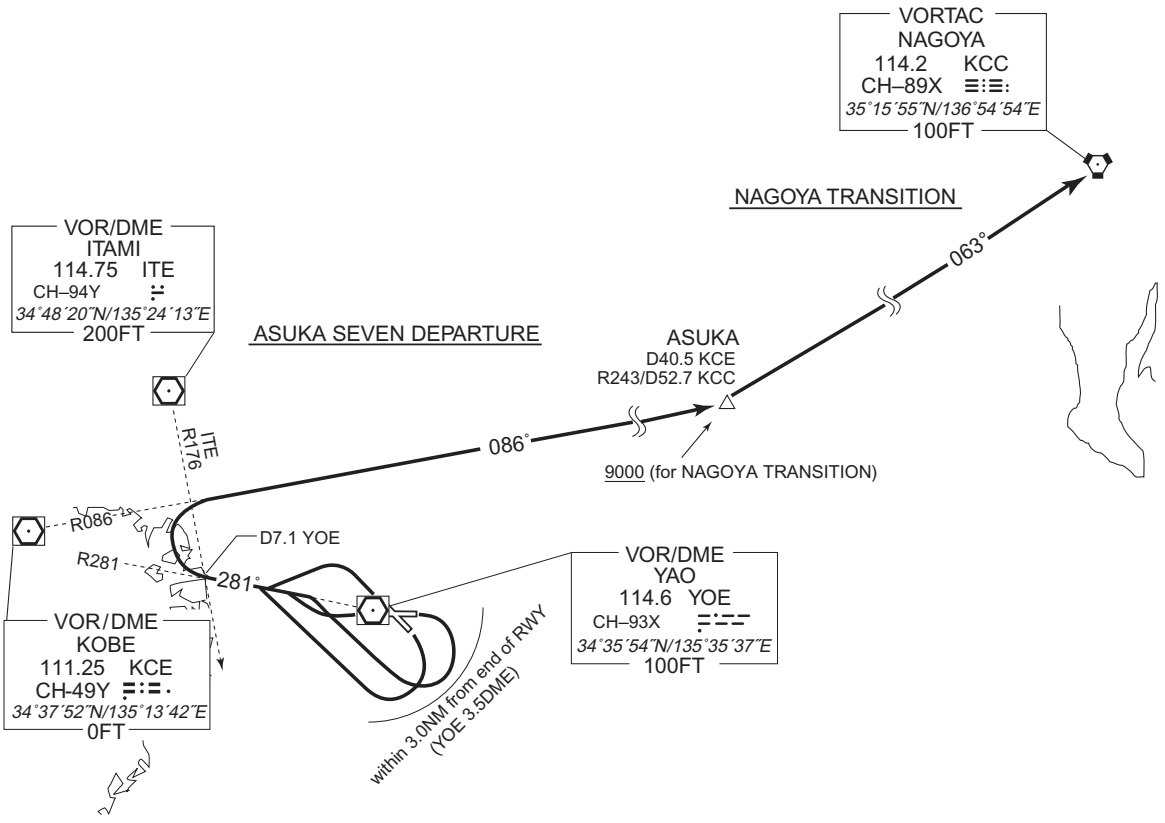
Cross ASUKA at or above 9000FT. (for NAGOYA TRANSITION)

Note : When take off RWY 31(13/27) [09], following climb gradient should be maintained until 500FT (1100FT) [1400FT].

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

NAGOYA TRANSITION

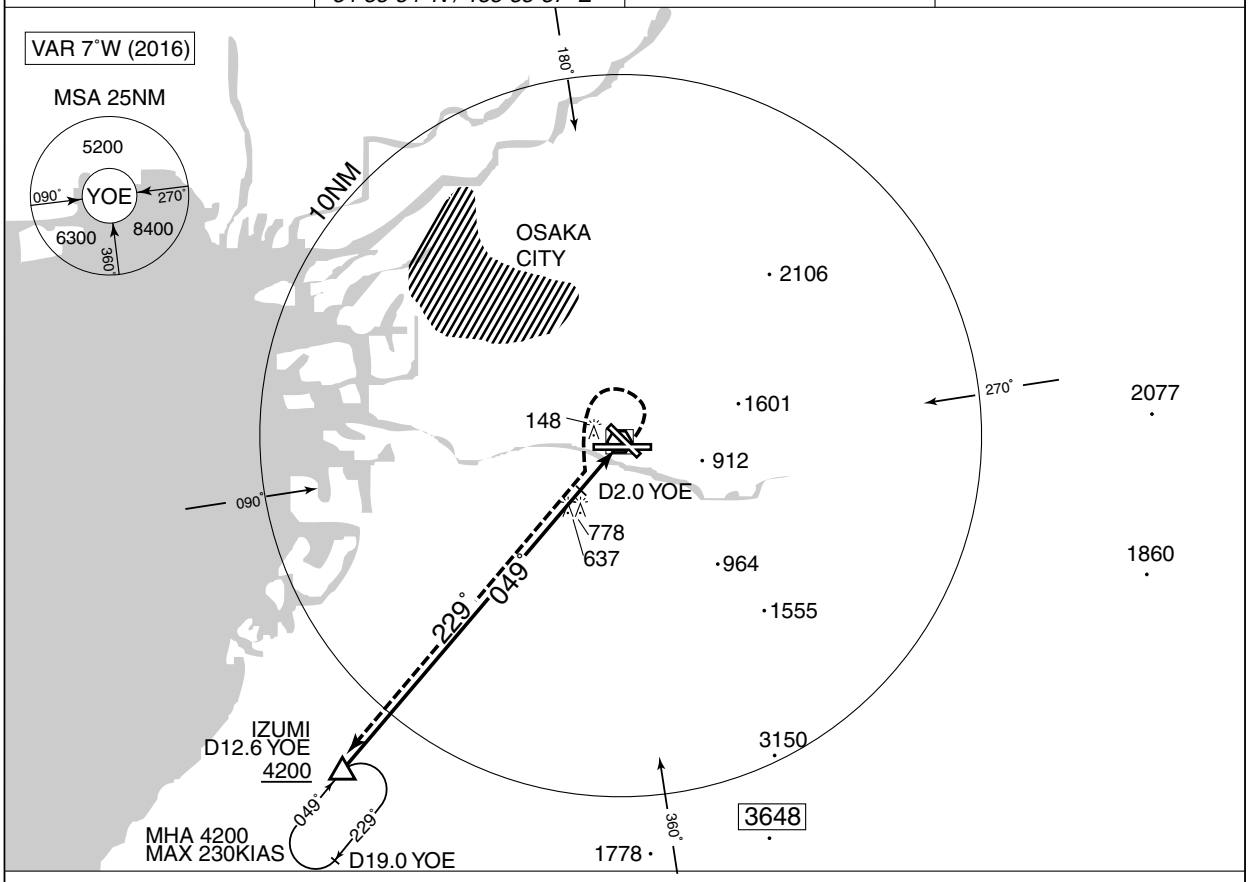
From over ASUKA, proceed via KCC R243 to KCC VORTAC.

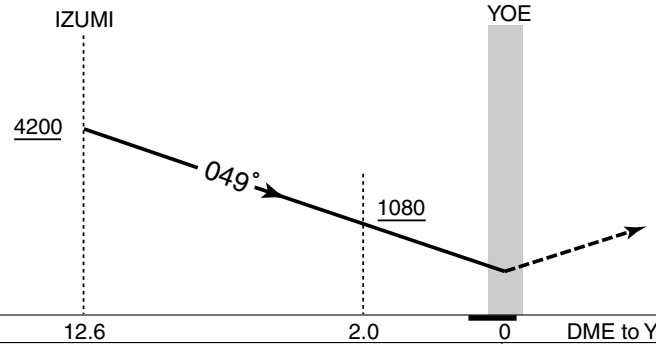


INSTRUMENT APPROACH CHART

RJOY / YAO VOR/DME C

KANSAI APP	YAO VOR/DME	YAO TOWER	RADAR AVBL
120.45 - 124.7 261.2	114.6 YOE CH-93X *34°35′54″N / 135°35′37″E*	124.35 - 126.2	





MISSED APPROACH
At YOE VOR/DME, turn left, climb via YOE R229 to IZUMI and hold at 4200FT.
Contact KANSAI APP.

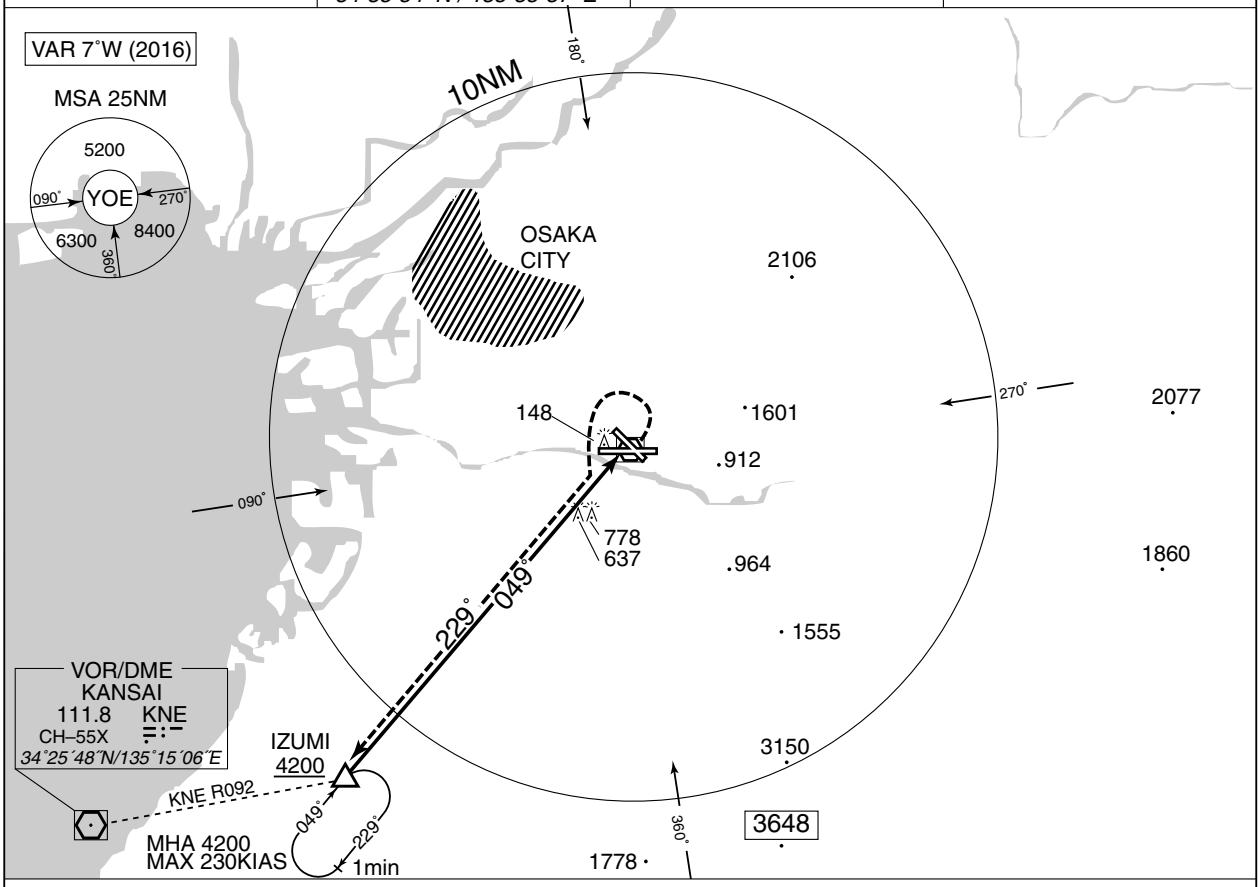
MINIMA AD elev. 33

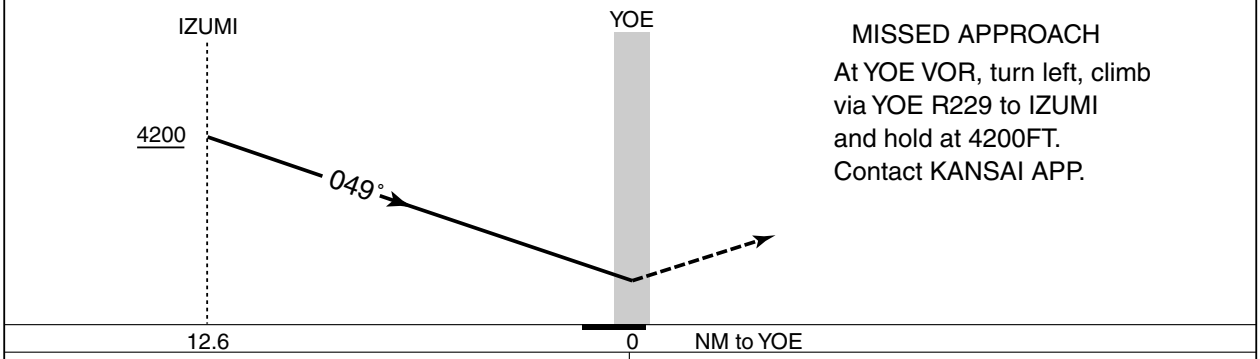
CAT	CIRCLING	
	MDA(H)	VIS
A B	840 (807)	1600
C D	–	–

INSTRUMENT APPROACH CHART

RJOY / YAO VOR E

KANSAI APP	YAO VOR/DME	YAO TOWER	RADAR AVBL
120.45 - 124.7 261.2	114.6 YOE CH-93X *34°35′54″N / 135°35′37″E*	124.35 - 126.2	





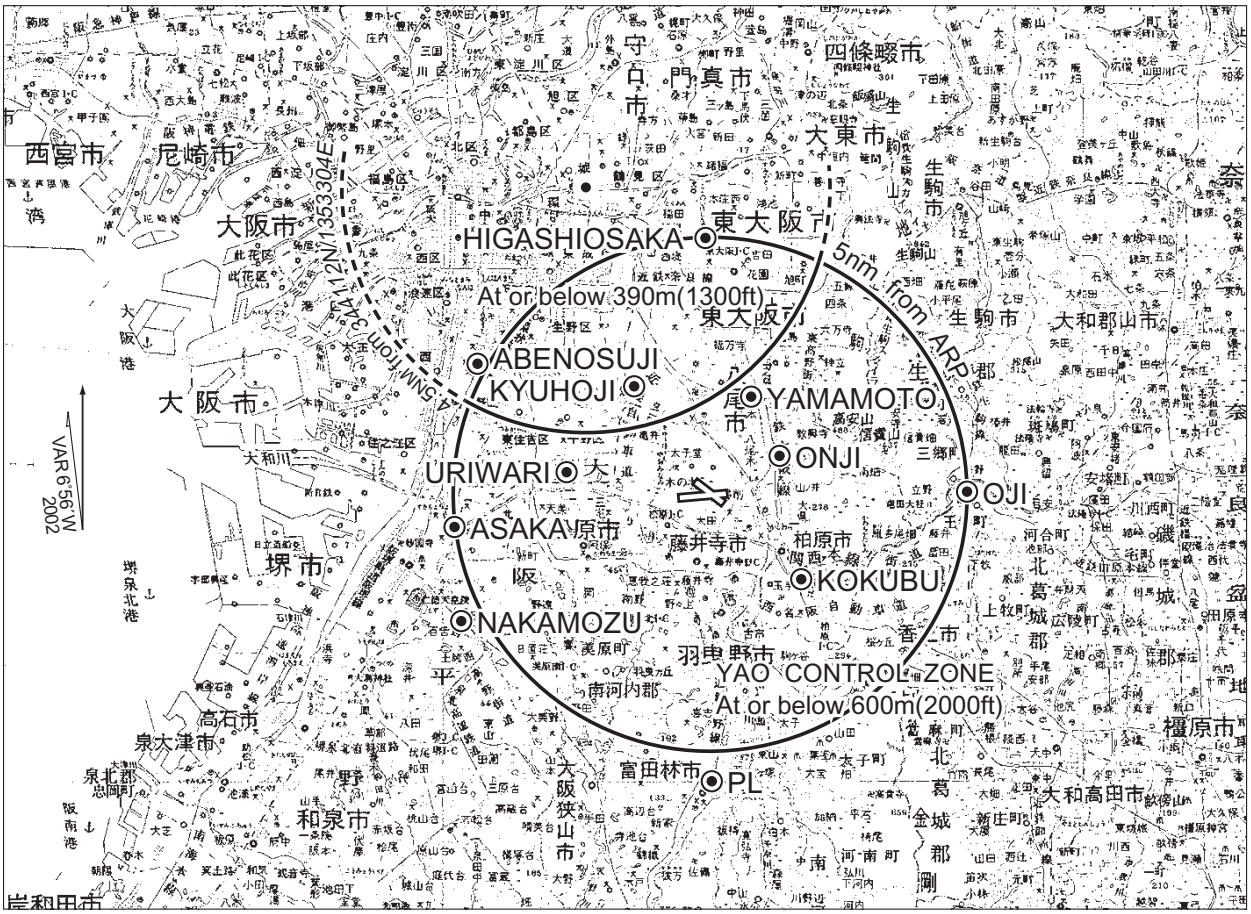
MISSED APPROACH
At YOE VOR, turn left, climb via YOE R229 to IZUMI and hold at 4200FT.
Contact KANSAI APP.

MINIMA AD elev. 33

CAT	CIRCLING	
	MDA(H)	VIS
A B	1080 (1047)	1600
C D	–	–

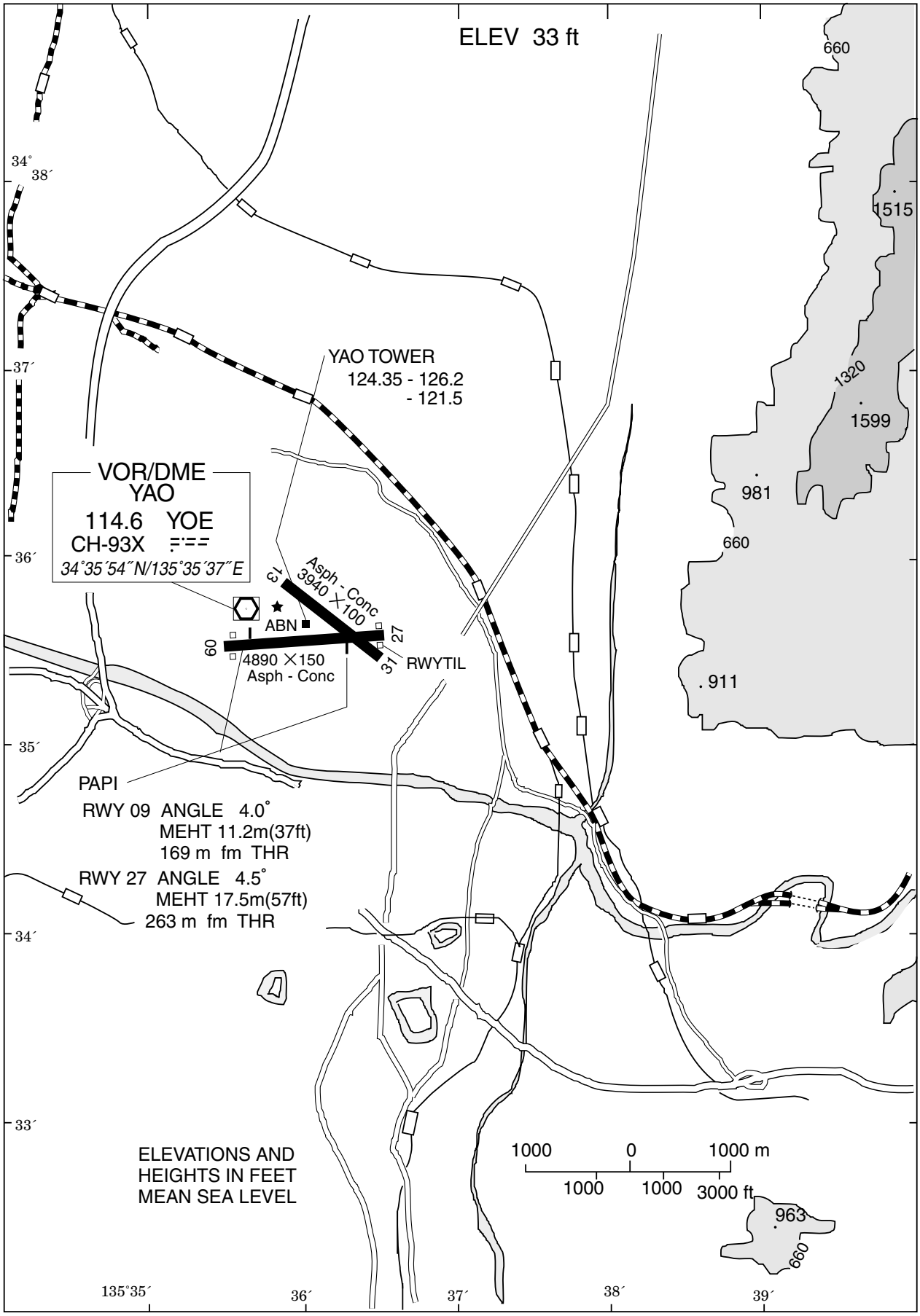
RJOY / YAO

Visual REP

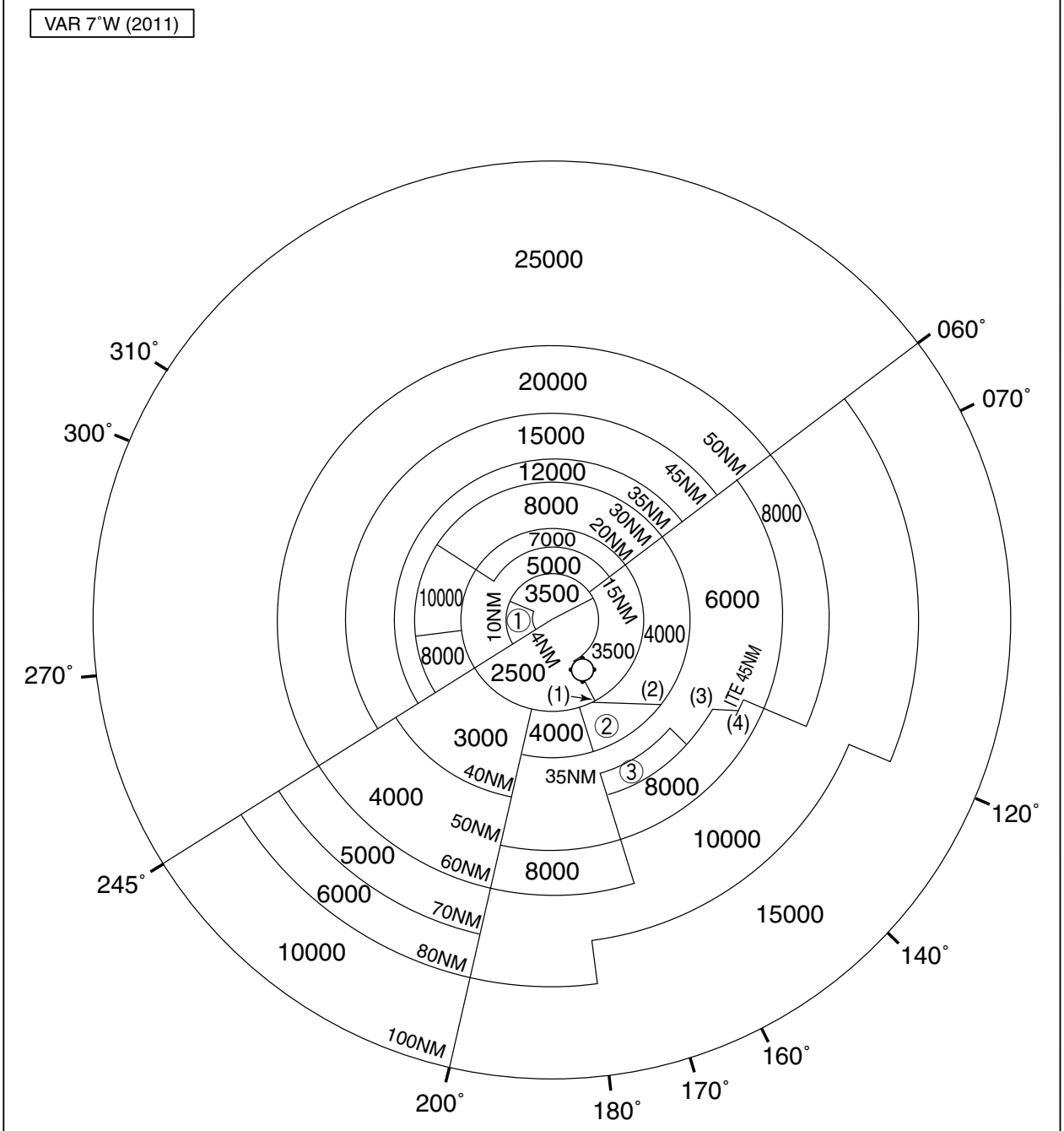


Call sign	BRG / DIST from ARP	Remarks
東 大 阪 Higashiosaka	005˚/4.9NM	東大阪ジャンクション Junction
阿 倍 野 筋 Abenosuji	307˚/5.2NM	阿倍野霊園 Cemetary park
浅　　香 Asaka	270˚/5.0NM	大和川曲り角 Curve of the Yamato river
中 百 舌 鳥 Nakamozu	250˚/5.3NM	南海中百舌鳥駅 Station
ピ ー エ ル PL	194˚/5.7NM	PL教団の塔 Monument
王　　寺 Oji	096˚/5.1NM	JR王寺駅 Station
国　　分 Kokubu	142˚/2.5NM	近鉄国分駅 Station
瓜　　破 Uriwari	288˚/2.0NM	瓜破霊園 Cemetary park
久 宝 寺 Kyuhoji	341˚/2.2NM	久宝寺緑地 Wooded area
山　　本 Yamamoto	033˚/2.1NM	近鉄山本駅 Station
恩　　智 Onji	065˚/1.5NM	近鉄恩智駅 Station

RJOY / YAO LDG CHART



RJOY / YAO Minimum Vectoring Altitude CHART



① 4500
② 5000
③ 7000

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

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