

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 RJOYFYX |
| 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: 0570-064259 (210) |
| 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, AVGAS100LL Oil grades : All grades |
| 3 | Fuelling facilities/ capacity | Fuel truck refueling / Underground tank: JET A-1/100KL, AVGAS100LL/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 Restaurant 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:Asphalt-concrete, Strength: AUW5700kg/0.28MPa |
| 2 | Taxiway width, surface and strength | Width: 18m(EXC TWY G2), TWY G2 : 13.5m Surface: Asphalt-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 | <p>RWY 09/27: (Marking) RWY designation, RWY CL, RWY THR, RWY middle point, Aiming point, TDZ, RWY side stripe (LGT) REDL, RTHL, RENL</p> <p>RWY 13/31: (Marking) RWY designation, RWY CL, RWY THR, RWY middle point, Aiming point, RWY side stripe (LGT) : Nil</p> <p>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)</p> |
| 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(PCR) 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 | 1490x45 | PCR348/F/D/X/T Asphalt-Concrete | 343544.18N | THR ELEV : 36ft |
| 27 | | 1490x45 | | 1353521.75E 343547.00N 1353620.14E | THR ELEV : 38ft |
| 13 | to be issued later | 955x30 | AUW5700kg/0.28MPa Asphalt-Concrete | 343558.80N | THR ELEV : 34ft |
| 31 | | 955x30 | | 1353550.90E 343540.00N 1353620.70E | THR ELEV : 39ft |
| Slope of RWY | | Strip Dimensions(M) | RESA(Overrun) Dimensions(M) | | Remarks |
| 7 | | 10 | | 11 | 14 |
| See AD2.24 AD Chart | | 1610x125 | 5 x (MNM:107 MAX:125)* | | |
| | | 1610x125 | 29 x125 | | |
| | | | *For detail, ask airport administrator | | |
| | | 1075x125 | 146 x 125 | | |
| | | 1075x125 | 94 x 125 | | |
| 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 | 955 | 955 | 955 | 955 | Nil |
| 31 | 955 | 955 | 955 | 955 | Nil |

RJOY AD 2.14 APPROACH AND RUNWAY LIGHTING

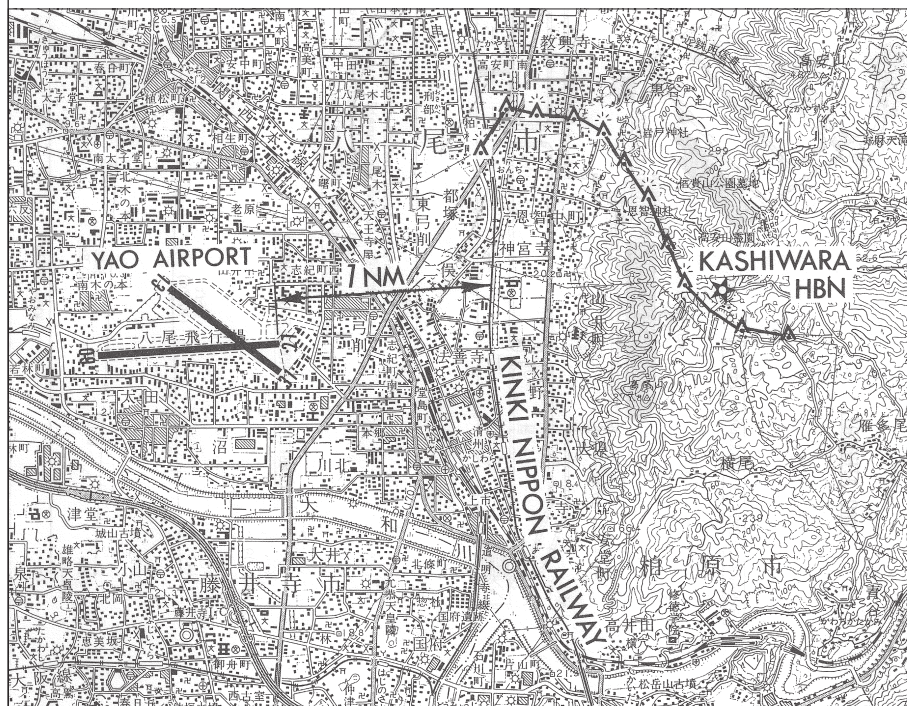
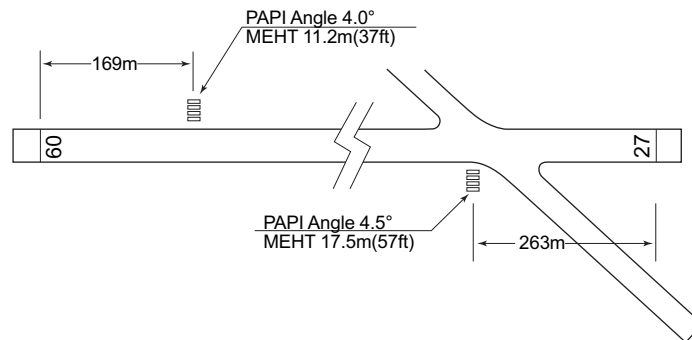
| RWY Designator | APCH LGT type LEN INTST | RTHL Color WBAR | PAPI (VASIS) Angle DIST FM THR MEHT | RTZL LEN | RCLL LEN Spacing Color INTST | REDL LEN Spacing Color INTST | RENL Color WBAR | STWL LEN Color |
|--|-------------------------------------|-----------------------|---|-------------|--|---|-----------------------|----------------------|
| 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) | | | | | | | | |

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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 Anemometer: 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 | - | 900'-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.

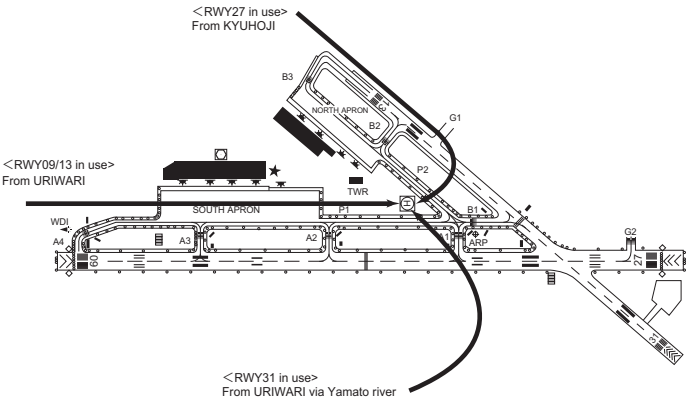
2. Principal RWY and Altitude at Traffic Pattern

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

3. Helicopter VFR Procedures for Arrival

| | |
|---|--|
| <p>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。</p> <p>< 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。</p> <p>< 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。</p> <p>< 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。</p> <p>※ 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）。</p> | <p>The landing routes to the Center helipad depends on the using runway.</p> <p><RWY27 in use> Fly north side of RWY13/31 from KYUHOJI then turn right between TWY B1 and TWY B2 to the Center Helipad.</p> <p><RWY09/RWY13 in use> Fly over SOUTH APRON from URIWARI to the Center Helipad.</p> <p><RWY31 in use> Fly southeast along the Yamato River from URIWARI, then turn left at the southwest of RWY31 toward the Center Helipad.</p> <p>* In addition, pilot may be instructed to land via traffic pattern (except RWY13 in use).</p> |
|---|--|

Route of Landing for Center Helipad



RJOY AD 2.23 ADDITIONAL INFORMATION

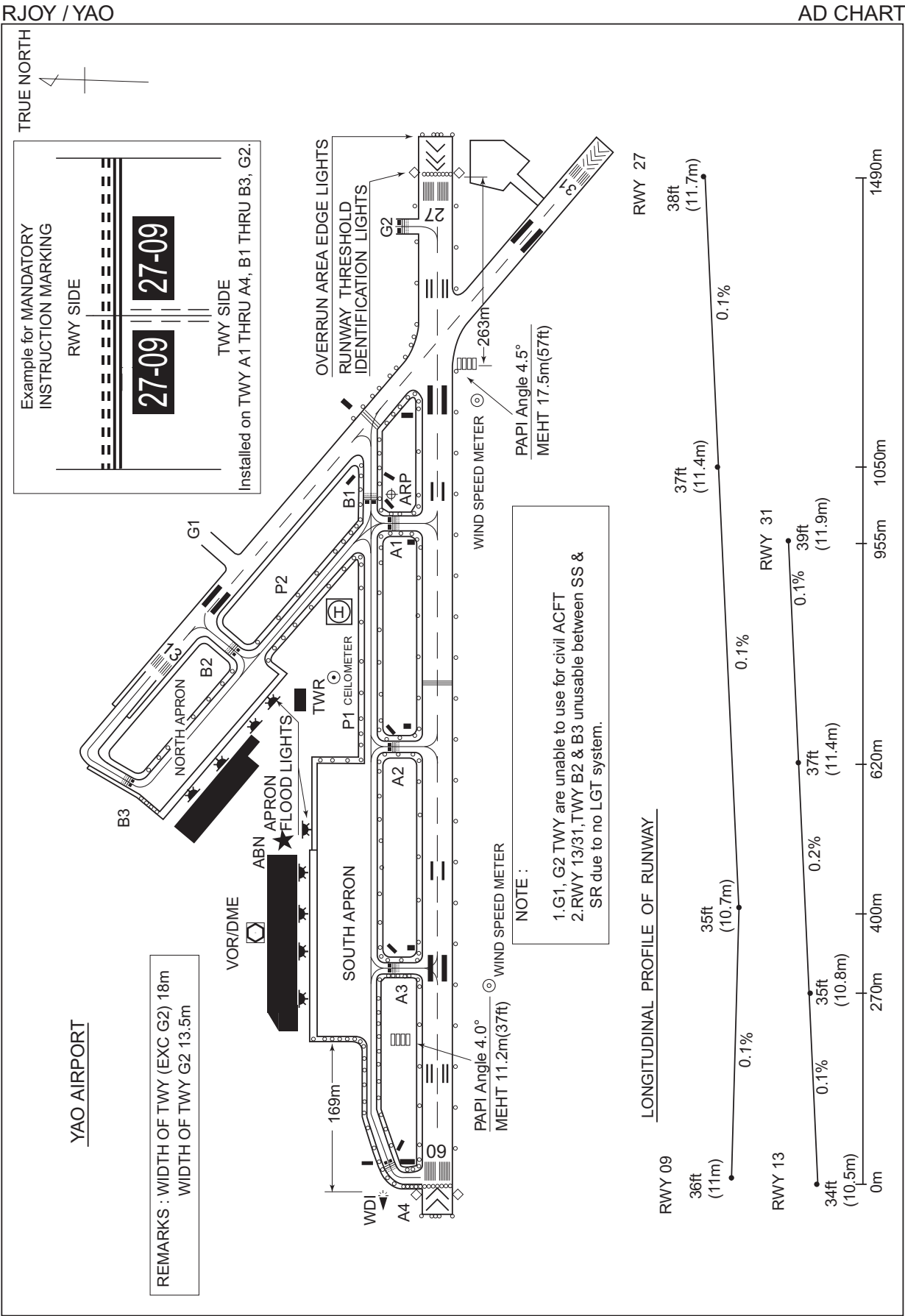
| | |
|---|--|
| <p>八尾管制圏に近接するIFR飛行経路に関する留意事項について</p> <p>航空交通の安全を図るため、八尾空港を離陸し 2,500 フィート以上で飛行する VFR 機は、大阪国際空港への IFR 到着機が 3,500 フィート以上で飛行することを踏まえ、2,500 フィート以上に上昇する前に積極的に関西 TCA を呼び込むこと。</p> | <p>Local flying restrictions:</p> <p>Due to IFR flight arriving at Osaka INTL Airport flying over around YAO Control Zone at or above 3500FT, all VFR departure aircraft from YAO Airport planning to climb to above 2500FT should contact Kansai TCA positively before reaching 2500FT.</p> |
|---|--|

RJOY AD 2.24 CHARTS RELATED TO AN AERODROME

| |
|---|
| <p>Aerodrome/Heliport Chart Standard Departure Chart-Instrument (IZUMI) Standard Departure Chart-Instrument (ASUKA) Instrument Approach Chart (VOR B)</p> <p>Other Chart (Visual REP) Other Chart (LDG CHART) Other Chart (MVA CHART)</p> |
|---|

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

CHANGE : RWY13/31 shortened. SOUTH APRON expanded. LONGITUDINAL PROFILE OF RWY13/31.



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STANDARD DEPARTURE CHART - INSTRUMENT

RJOY / YAO

SID

IZUMI THREE DEPARTURE

RWY 27/31 : Turn left,...

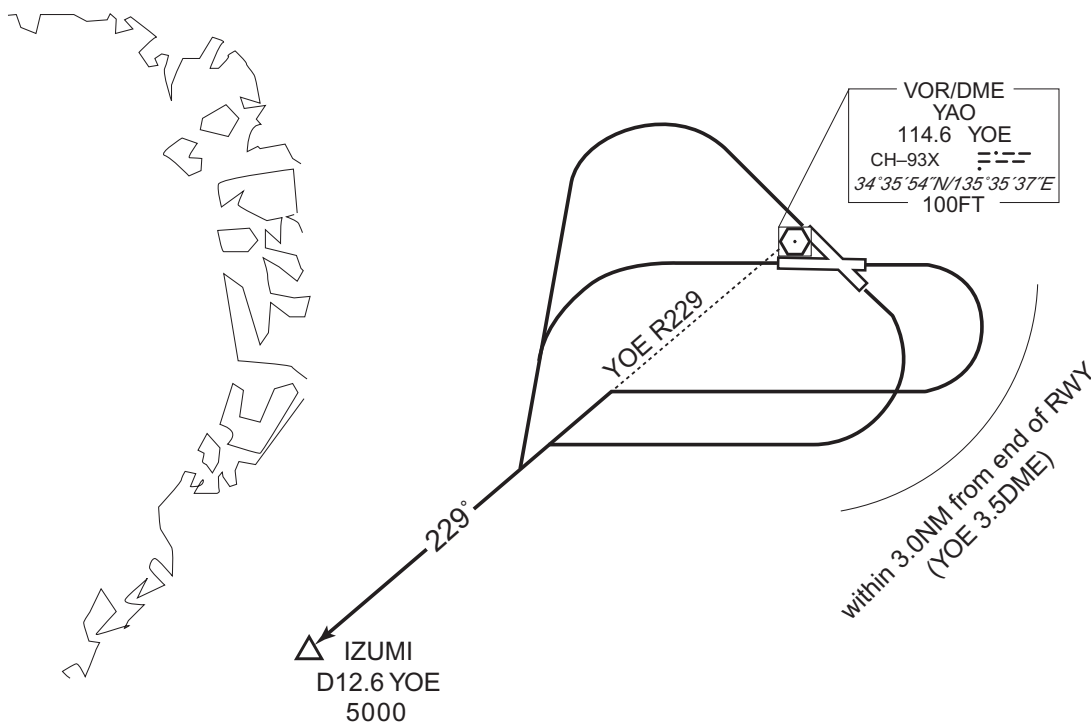
RWY 09/13 : Complete right turn within 3.0NM (YOE 3.5DME)...

...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(1000FT)[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

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.

CHANGE : PROC renamed. Radial FM KCE.



RJOY / YAO

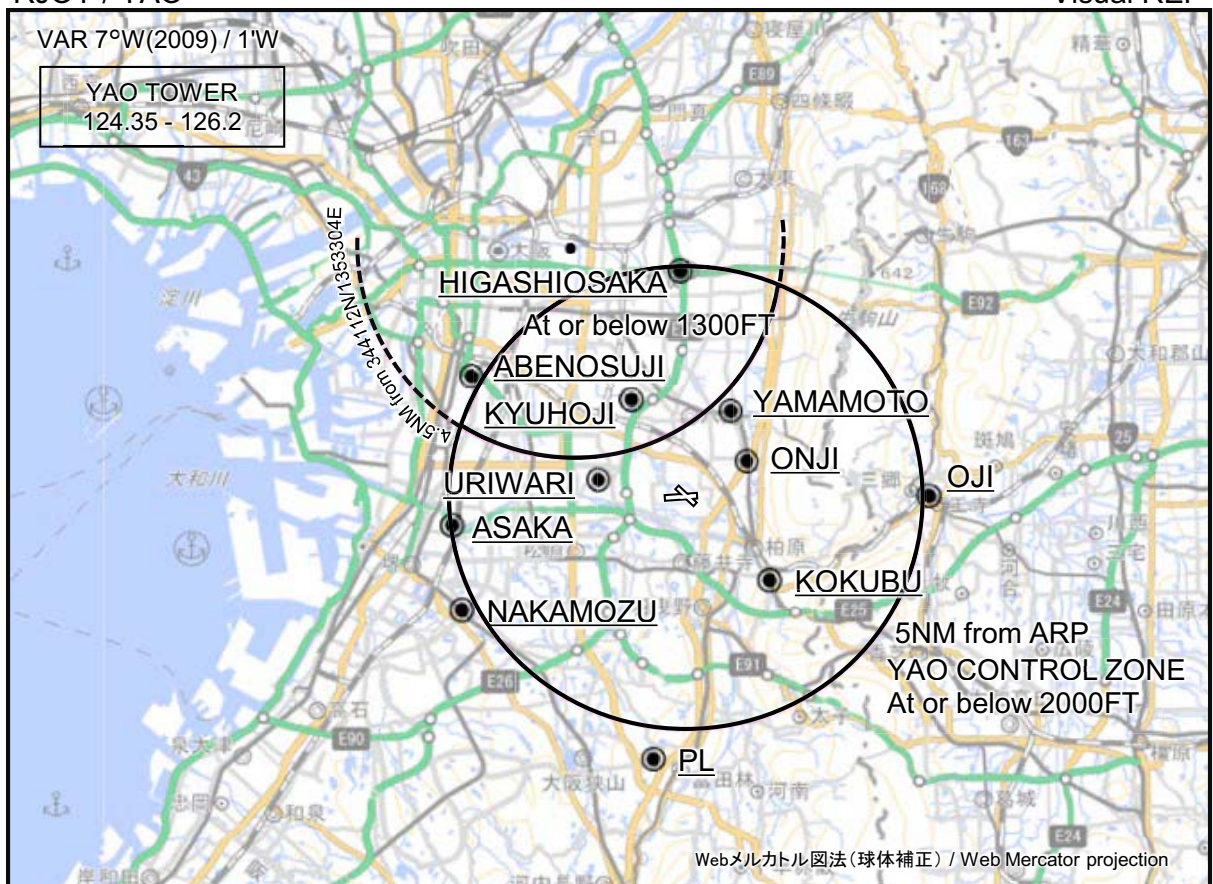
VOR B



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RJOY / YAO

Visual REP



※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

CHANGE : Map updated. BRG/DIST from ARP.

| Call sign | BRG / DIST from ARP | Remarks |
|---------------------|---------------------|-------------------------------------|
| 東大阪 Higashiosaka | 358°T / 4.9NM | 東大阪ジャンクション Junction |
| 阿倍野筋 Abenosuji | 300°T / 5.3NM | 阿倍野霊園 Cemetery Park |
| 浅香 Asaka | 263°T / 5.0NM | 大和川曲り角 Curve of the Yamato River |
| 中百舌鳥 Nakamozu | 243°T / 5.3NM | 南海中百舌鳥駅 Station |
| ピーエル PL | 187°T / 5.7NM | PL教団の塔 Monument |
| 王寺 Oji | 089°T / 5.1NM | JR王寺駅 Station |
| 国分 Kokubu | 136°T / 2.5NM | 近鉄国分駅 Station |
| 瓜破 Uriwari | 281°T / 2.0NM | 瓜破霊園 Cemetery Park |
| 久宝寺 Kyuhoji | 331°T / 2.4NM | 久宝寺緑地 Wooded Area |
| 山本 Yamamoto | 026°T / 2.1NM | 近鉄山本駅 Station |
| 恩智 Onji | 058°T / 1.5NM | 近鉄恩智駅 Station |

RJOY / YAO

LDG CHART



RJOY / YAO

Minimum Vectoring Altitude CHART

VAR 7°W (2011)



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

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