

AD 2 AERODROMES**RJFT AD 2.1 AERODROME LOCATION INDICATOR AND NAME****RJFT - KUMAMOTO****RJFT AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA**

1	ARP coordinates and site at AD	325014N/1305119E 339° / 390m from TWR
2	Direction and distance from (city)	16 km (8.6nm) NE of Kumamoto railway station
3	Elevation/ Reference temperature	632ft / 33°C (2004-2008)
4	Geoid undulation at AD ELEV PSN	To be issued later
5	MAG VAR/ Annual change	7° W (2009) Annual change 2'W
6	AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses	Kyushu Kumamoto International Airport Co., Ltd. Kumamoto Airport, 1802-2 Oyatsu, Mashiki-machi, Kamimashiki-gun Kumamoto Pref. 861-2204 , Japan Tel:096(202)3363
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	Kumamoto Airport Office (Civil Aviation Bureau) Kumamoto Airport, Oyatsu, Mashiki-machi, Kamimashiki-gun Kumamoto Pref. Tel:096(232)2853

RJFT AD 2.3 OPERATIONAL HOURS

1	AD Administration	2230 - 1230
2	Customs and immigration	Customs: 2330-0815 Immigration: INTL SKED FLT hours only
3	Health and sanitation	Quarantine(human): (MON-WED,FRI,SAT)0000-0830 (THU,SUN)2315-0745 Quarantine(animal, plant): INTL SKED FLT hours only
4	AIS Briefing Office	Nil
5	ATS Reporting Office(ARO)	Nil
6	MET Briefing Office	H24 (FUKUOKA)
7	ATS	2230 - 1230
8	Fuelling	JET A-1: 2230 - 1200 AVGAS : On request 0000-0800 Tel: 096-232-3281
9	Handling	2230 - 1230
10	Security	2230 - 1230
11	De-icing	2230 - 1230
12	Remarks	Nil

RJFT AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	AVBL up to B777-200 aircraft
2	Fuel/ oil types	Fuel Grades : JET A-1, AVGAS 100
3	Fuelling facilities/ capacity	Fuel Truck Refueling
4	De-icing facilities	Nil
5	Hangar space for visiting aircraft	Nil
6	Repair facilities for visiting aircraft	Nil
7	Remarks	Nil

RJFT AD 2.5 PASSENGER FACILITIES

1	Hotels	Near the airport
2	Restaurants	At airport
3	Transportation	Buses and taxies
4	Medical facilities	First aid treatment at airport Hospitals near the airport
5	Bank and Post Office	At airport (ATM)
6	Tourist Office	Nil
7	Remarks	Nil

RJFT AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	CAT 9
2	Rescue equipment	Chemical fire fighting truck x 3, Water-supply truck, Rescue and lighting power supply truck, Emergency medical equipment conveyance truck
3	Capability for removal of disabled aircraft	Ask AD administration
4	Remarks	Nil

RJFT AD 2.7 SEASONAL AVAILABILITY-CLEARING

1	Types of clearing equipment	Snow removal equipment : Motor graders X 4, Tractor shovel x 2
2	Clearance priorities	Nil
3	Remarks	Seasonal availability : DEC 15 THRU MAR 16

RJFT AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	Apron surface and strength	Surface : Asphalt concrete and Concrete Strength: NR1-NR2 spot : PCN 48/F/D/X/T NR3-NR6 spot : PCN 58/R/B/X/T NR7-NR8 spot : PCN 62/R/B/X/T NR9-NR10 spot : PCN 74/R/B/X/T
2	Taxiway width, surface and strength	Width : P1 THRU P6 : 23m T1 and T7 : 28.5m T2,T3,T4,T5 and T6 : 34m Surface : Asphalt concrete Strength : T2, T3 and T5 : PCN 112/F/C/X/T Other TWY : PCN 99/F/D/X/T
3	ACL and elevation	Not available
4	VOR checkpoints	Not available
5	INS checkpoints	Spot NR 3 : 325004.51N/1305125.44E 4 : 325005.50N/1305127.86E 5 : 325006.46N/1305130.30E 6 : 325007.46N/1305132.72E 7 : 325008.28N/1305135.02E 8 : 325009.18N/1305137.28E 9 : 325010.21N/1305139.85E 10 : 325011.22N/1305142.42E
6	Remarks	Nil

RJFT 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	ACFT stand ID signs: NR3 THRU NR8 TWY guide lines: AVBL
2	RWY and TWY markings and LGT	<p>RWY : 07/25 (Marking) RWY designation, RWY CL, RWY THR, RWY middle point, Aiming point, TDZ, RWY side stripe (LGT) RCLL, REDL, RTHL, RENL, RTZL(RWY07), WBAR(RWY07)</p> <p>TWY : P1 - P6 (Marking) :TWY CL, TWY side stripe (LGT) :TWY edge LGT, TWY CL LGT</p> <p>TWY : T1 - T7 (Marking) : TWY CL, RWY HLDG PSN, TWY side stripe, Mandatory instruction marking (LGT) :TWY edge LGT, TWY CL LGT, Stop bar LGT, RWY guard LGT. Taxiing guidance signs as appropriate.</p>
3	Stop bars	<p>Stop bar Lights : T1 - T7 Stop bar LGT operations</p> <ol style="list-style-type: none"> 1) Stop bar LGT are installed at each RWY holding position associated with Runway 07/25. 2) Stop bar LGT will be operated when the visibility or the lowest RVR of the runway 07/25 is at or less than 600m. 3) Stop bar LGT on TWY T1, T7 are controlled individually by ATC. 4) Stop bar LGT on TWY T2 through T6 are not controlled individually by ATC. 5) During the period Stop bar LGT operated,TWY T2 through T6 are not available for departure aircraft.
4	Remarks	(Marking) : Overrun area (LGT) : Apron Flood LGT

RJFT AD 2.10 AERODROME OBSTACLES

In approach/TKOF area

RWY/Area affected	Obstacle type	Coordinates	Elevation	Markings/LGT	Remarks
See AD2.24 attached chart					

In circling area and AT AD

Obstacle type	Coordinates	Elevation	Markings/ LGT	Remarks
See AD2.24 attached chart				

RJFT AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	FUKUOKA
2	Hours of service MET Office outside hours	H24 (FUKUOKA)
3	Office responsible for TAF preparation Periods of validity	FUKUOKA 30 Hours
4	Trend forecast Interval of issuance	Nil
5	Briefing/ consultation provided	Briefing is available upon inquiry at FUKUOKA
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, APP, ATIS
10	Additional information(limitation of service, etc.)	Nil

RJFT 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
07	64.58°	3000 x 45	PCN 112/F/D/X/T Asphalt concrete	324953.45N 1305026.09E	THR ELEV : 601ft TDZ ELEV : 625ft
25	244.58°	3000 x 45	PCN 112/F/D/X/T Asphalt concrete	325035.24N 1305210.28E	THR ELEV : 642ft
Slope of RWY		Strip Dimensions(M)	RESA (Overrun) Dimensions (M)		Remarks
7	10	11			14
See below figure		3120 x 300	190 x (MNM:117 MAX:300)*		RWY grooving : 3000m x 30m
		3120 x 300	90 x (MNM:150 MAX:300)*		*For detail, ask airport administrator

RJFT AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Remarks
1	2	3	4	5	6
07	3000	3000	3000	3000	Nil
25	3000	3000	3000	3000	Nil

RJFT 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
07	PALS (CAT III) 900m LIH	Green Green	PAPI 3.0°/LEFT 349m 64ft	900m	3,000m 15m Coded color (White/Red) LIH	3,000m 60m Coded color (White/Yellow) LIH	Red	Nil (*2)
25	SALS (*1) 420m LIH	Green Nil	PAPI 3.0°/LEFT 464m 74ft	Nil	3,000m 15m Coded color (White/Red) LIH	3,000m 60m Coded color (White/Yellow) LIH	Red	Nil (*2)
Remarks								
10								
SALS with APCH LGT BCN(885m and 600m FM THR)(*1) Overrun area edge LGT(LEN:60m, Color:Red)(*2) CGL and RLLS for RWY25								

RJFT AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	ABN: 325004N/1305141E, White/Green EV4.3sec, HO
2	LDI location and LGT Anemometer location and LGT	LDI: Nil Anemometer: RWY07: 430m FM RWY07 THR, LGTD RWY25: 170m FM RWY25 THR, LGTD
3	TWY edge and centerline lighting	TWY edge and center line lights installed, see AD2.9
4	Secondary power supply/ switch-over time	Within 1 SEC: PALS, REDL, RENL, RTHL, WBAR, RCLL, RTZL, Overrun area edge LGT, Stop bar LGT Within 15 SEC: Other LGT
5	Remarks	WDI LGT

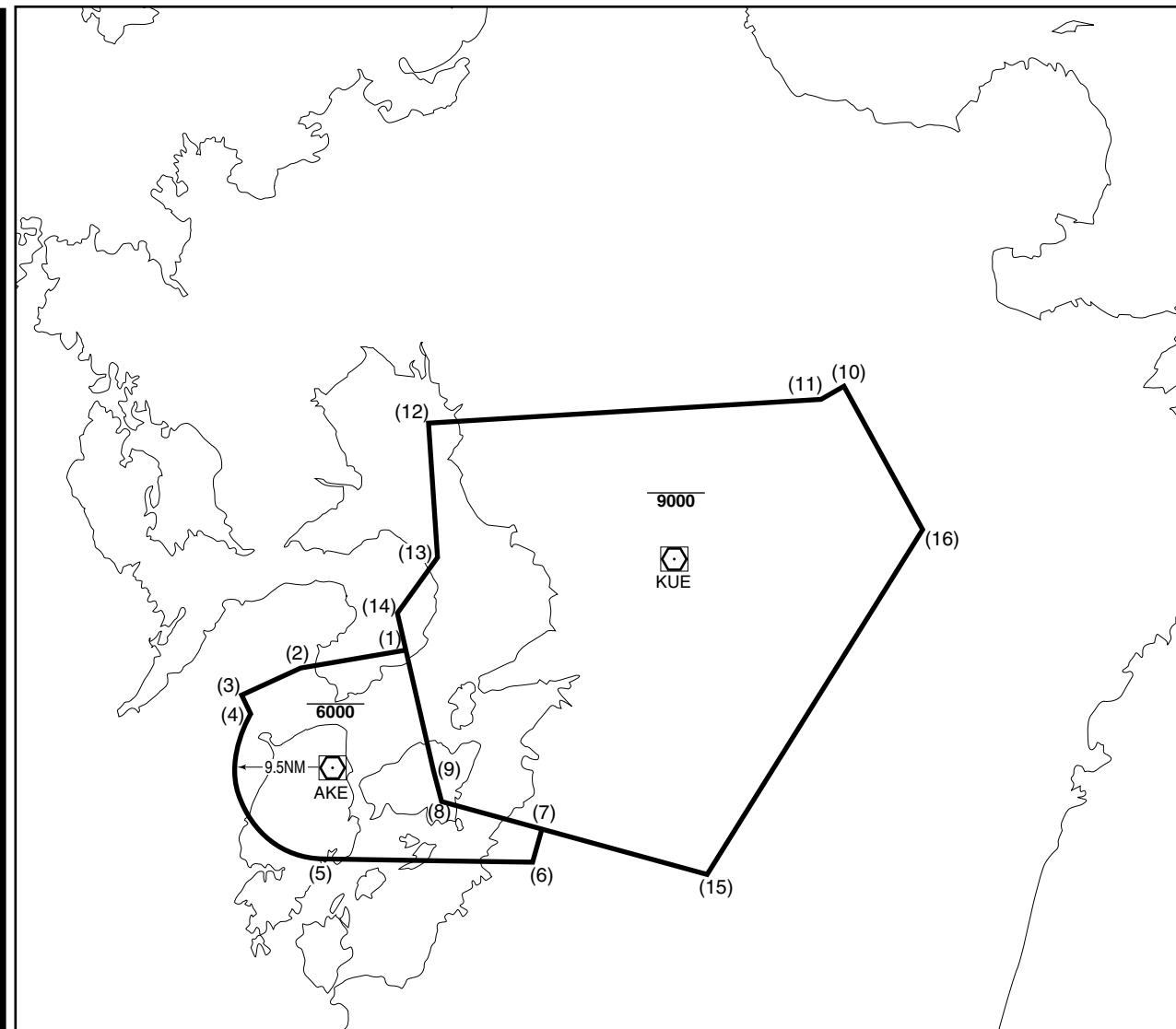
RJFT AD 2.16 HELICOPTER LANDING AREA

Nil

RJFT 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
KUMAMOTO CTR	Area within a radius of 5 nm of KUMAMOTO ARP(32°50'N130°51'E)	3,000 or below	D	KUMAMOTO TWR En	
KUMAMOTO ACA	See attached chart		E	KUMAMOTO APP KUMAMOTO RADAR KUMAMOTO DEP En	
KUMAMOTO TCA	See attached chart		E	KUMAMOTO TCA En	

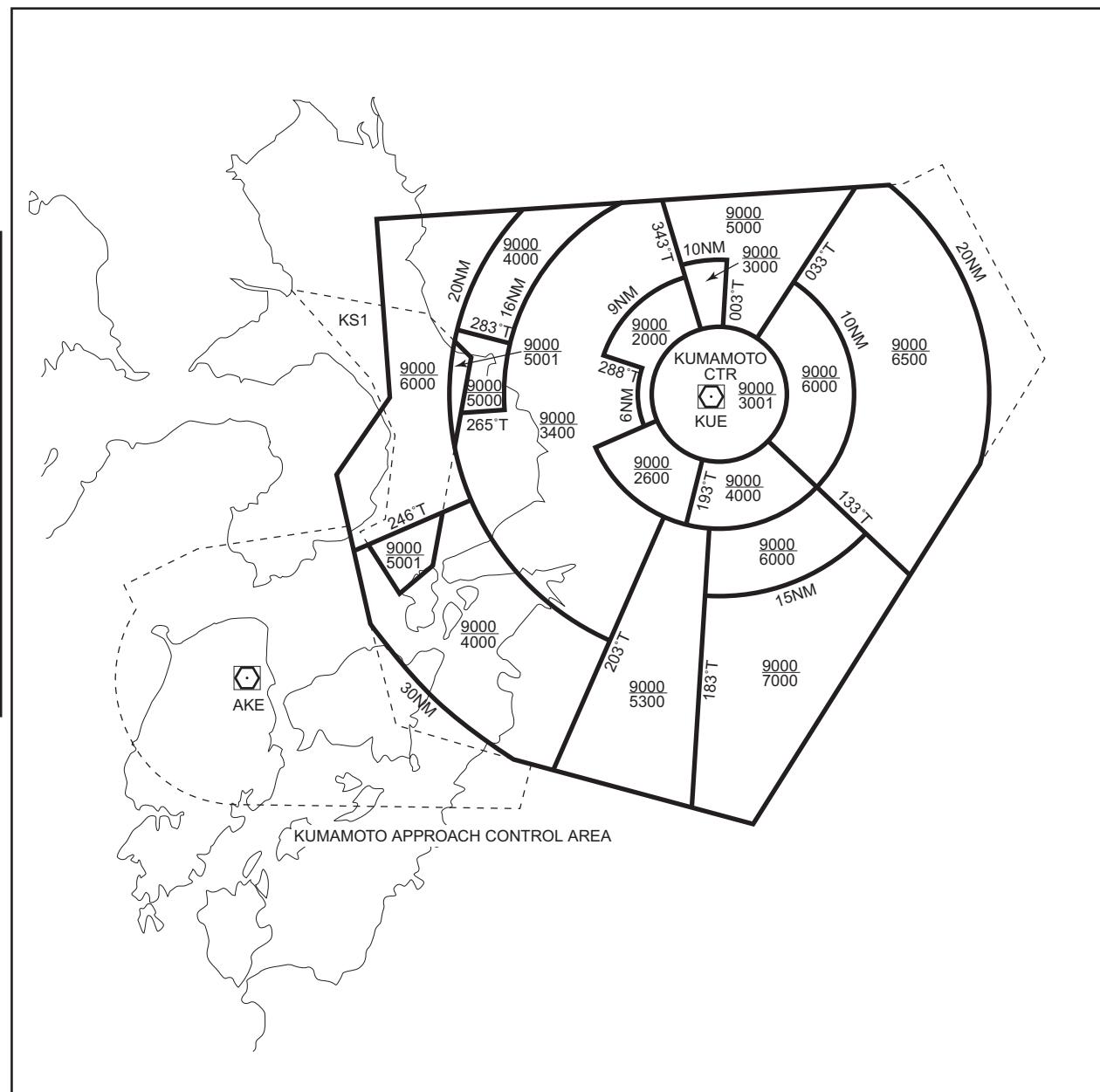
熊本進入管制区
Kumamoto Approach Control Area



Point list

- | | |
|----------------------|----------------------|
| (1) 324018N1301840E | (11) 330555N1310757E |
| (2) 323828N1300526E | (12) 330309N1302104E |
| (3) 323544N1295905E | (13) 324950N1302218E |
| (4) 323353N1300008E | (14) 324407N1301735E |
| (5) 321921N1300826E | (15) 321813N1305423E |
| (6) 321921N1303359E | (16) 325248N1312004E |
| (7) 322239N1303502E | |
| (8) 322522N1302306E | |
| (9) 322734N1302215E | |
| (10) 330712N1311052E | |

熊本ターミナルコントロールエリア
KUMAMOTO TERMINAL CONTROL AREA

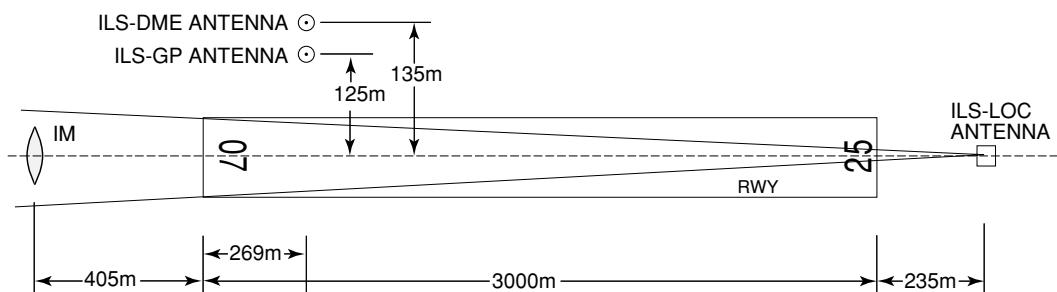


RJFT AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
APP	Kumamoto Approach	119.0MHz 126.5MHz	2230 - 1230	
ASR	Kumamoto Radar	122.9MHz 258.9MHz 121.5MHz(E) 243.0MHz(E)	2230 - 1230	
DEP	Kumamoto Departure	126.5 MHz 122.9MHz 258.9MHz 121.5MHz(E) 243.0MHz(E)	2230 - 1230	
TCA	Kumamoto TCA	123.85MHz	2300 - 1030	
TWR	Kumamoto Tower	118.7MHz (1) 126.2MHz 122.9MHz 258.9MHz 121.5MHz(E) 243.0MHz(E)	2230 - 1230	(1)Primary
GND	Kumamoto Ground	121.8MHz	2230 - 1230	
ATIS	Kumamoto Airport	128.8MHz	2230 - 1230	

RJFT 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 (7°W/2015)	KUE	112.8MHz	H24	325005.29N/ 1305029.45E		VOR Unusable: 030°-090° beyond 25nm BLW 8000ft. 090°-120° beyond 15nm BLW 8000ft. 120°-150° beyond 25nm BLW 8000ft. 150°-180° beyond 35nm BLW 8000ft.
DME	KUE	1162MHz (CH-75X)	H24	325005.29N/ 1305029.45E	651ft	DME Unusable: 050°-100° beyond 35nm BLW 8000ft. 100°-120° beyond 25nm BLW 8000ft. 120°-130° beyond 30nm BLW 8000ft. 130°-170° beyond 35nm BLW 8000ft.
ILS-LOC 07	IKU	109.3MHz	2230 - 1230	325038.52N/ 1305218.45E		LOC: 235m(771ft) away FM RWY 25 THR, BRG (MAG) 071°.
ILS-GP 07	-	332.0MHz	2230 - 1230	325000.87N/ 1305033.39E		GP: 269m(883ft) inside FM RWY 07 THR. 125m(410ft) N of RCL. HGT of ILS Reference Datum 16.4m(54ft). GP Angle 3.0°.
ILS-DME 07	IKU	991MHz (CH-30X)	2230 - 1230	325001.16N/ 1305033.23E	622ft	DME: 269m(883ft) inside FM RWY 07 THR. 135m(443ft) N of RCL.
IM 07	-	75MHz	2230 - 1230	324947.81N/ 1305012.03E		FM: 0.22NM FM RWY 07 THR.
MSAS		1575.42MHz	H24			Transmitting antennas are satellite based

ILSKUMAMOTO AP

REMARKS : 1. LOC beam BRG (MAG) 071°
 2. HGT of ILS REF datum 16.4m(54ft)
 3. GP Angle 3.0°
 4. ELEV of ILS-DME 189.7m(622ft)

RJFT AD 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

Use of the airport

- 1) On use of this airport by transient aircraft, the operator is required to obtain the prior permission of the airport administrator in order to adjust of parking area.

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

Wing tip clearance at the TWY intersection (REF. AD1.1.6.8)

Wing tip clearance at the TWY intersection between the acft holding at the stop marking on the TWY and the other acft taxiing behind it are as follows.

When B772 holding at the stop marking on TWY T2 or T6

Wing Span (WS) of aircraft taxiing on TWY P1-P2 or P5-P6	WS =<22.6m	WS >22.6m
Wing tip clearance	*A	*B

Legend:

*A : 6.5m =< wing tip clearance < 15m

*B : wing tip clearance < 6.5m

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

RJFT AD 2.21 NOISE ABATEMENT PROCEDURES

1. 騒音軽減運航方式 (SEE AD1 6.5)	1. Noise Abatement Operating Procedures (SEE AD1 6.5)
すべてのジェット機に対して、空港周辺における航空機騒音軽減のため、運航の安全に支障のない範囲で、以下の方針が適用される。ただし、これらの方針によることができない航空機は実効的にこれらと同等と認められる代替方針を実施するものとする。	For all jet aircraft, in order to reduce aircraft noise in the vicinity of airport, the following procedures shall be applied unless compliance of the procedures adversely affects the safety of aircraft operations. In case that the aircraft is unable to take these procedures, pilots should execute alternative procedures which are considered to be practically equivalent.
1) 離陸について (滑走路 07/25) 急上昇方式	1) For take-off from RWY07/25 Steepest Climb Procedure
2) 着陸について (滑走路 07/25) ディレイド・フラップ進入方式及び低フラップ角着陸方式	2) For landing to RWY07/25 Delayed Flap Approach Procedure and Reduced Flap Setting Procedure
3) リバース・スラストについて なし	3) Reverse Thrust Nil.
2. 優先滑走路方式 なし	2. Preferential Runways Procedures Nil
3. 優先飛行経路 なし	3. Noise Preferential Routes Nil

RJFT AD 2.22 FLIGHT PROCEDURES**1. TAKE OFF MINIMA**

	RWY	ACFT CAT	REDL & RCLL		REDL or RCLL or RCL marking		NIL (DAYTIME ONLY)	
			RVR	VIS	RVR	VIS	RVR	VIS
Multi-Engine ACFT with TKOF ALTN AP Filed	07/25	A,B,C	400m *200m **150m	400m *200m	400m *250m	400m *250m	-	500m
		D	400m *250m **200m	400m *250m	400m *300m	400m *300m	-	500m
Other	07/25	A,B,C,D	AVBL LDG MINIMA					

*APPLICABLE WHEN SSP IN FORCE.

**APPLICABLE WHEN SSP IN FORCE AND MULTIPLE RVRs AVAILABLE.

2. Lost communication procedure for arrival aircraft under radar navigational guidance

If radio communications with Kumamoto Approach/Radar are lost for 30 seconds, squawk mode A/3 code 7600 and;

- I 1. Attempt to contact Kumamoto Tower.
- 2. If unable, proceed in accordance with visual flight rules.
- 3. If unable, maintain last assigned altitude or 5,500ft whichever is higher, proceed to KUE VOR, and execute approach.
- II Procedure other than above will be issued when situation requires.

3. Trajectory-based Airport Traffic Data Processing System(TAPS)

Aircraft flying under control of Kumamoto approach control in the approach control area will be instructed to reply with discrete code on Mode A/3 and Mode C.

If an aircraft with non-discrete code capability be instructed to reply with the discrete code, it shall report a controller accordingly.

熊本アプローチの指示のもとに、当該進入管制区を飛行する航空機は、モード A/3 の二次レーダー個別コードおよびモード C による応答を指示される。

二次レーダー個別コードを搭載していない航空機が当該コードによる応答を指示された場合は、管制官に対しその旨通報すること。

4.Category II / III A / III B operations at Kumamoto airport**熊本空港におけるカテゴリー II / III A / III B 航行****4.1 Facilities**

The following categories are available: 2230 - 1230UTC (daily)

RWY07
(1) ILS RWY 07 - CAT III
(2) Lighting system RWY 07 - CAT III
(3) RVR by forward-scatter meters(the touchdown zone, the mid-point and stop-end of the runway)

4.2 Conditions

A.The following systems must be operative:

For ILS or LOC RWY07 approach(CAT II)	For ILS or LOC RWY07 approach(CAT III A / III B)
(1) ILS comprising; <ul style="list-style-type: none"> • ILS-LOC 07 with standby transmitter • ILS-GP 07 with standby transmitter (When any standby transmitters unserviceable, downgrade ILS-CAT I.) • IM07 (When IM unserviceable, RA could be used as an alternate method) 	(1) ILS comprising; <ul style="list-style-type: none"> • ILS-LOC 07 with standby transmitter (including far field monitor) • ILS-GP 07 with standby transmitter (When any standby transmitters or far field monitor unserviceable, downgrade ILS-CAT I.)
(2) Lighting systems comprising; <ul style="list-style-type: none"> • PALS 07(including side row barrettes) • High INTST REDL • High INTST RTHL • RCLL and RTZL 	(2) Lighting systems comprising; <ul style="list-style-type: none"> • PALS 07(including side row barrettes) • High INTST REDL • High INTST RTHL • RCLL and RTZL
(3) Secondary power supply	(3) Secondary power supply
(4) RVR by forward-scatter meters at the touchdown zone and either (the mid-point or stop-end of the runway).	(4) RVR by forward-scatter meters at the touchdown zone, mid-point and stop-end of the runway.

B. The following information must be currently available:

- 1) Surface wind speed and direction
- 2) RVR

C. ITEM A and/or B are not met,the relevant information will be notified to the pilots as soon as practicable.

4.3 Precision Approach Terrain Chart

See RJFT AD2.24.

4.4 Operating Minimum

Approach minima stated in RJFT AD2.24(Instrument Approach chart) are observed.

4.5 Special Safeguards and Procedures(SSP)

CAT II / III A / III B operations are available when SSP are applied.SSP will be applied when the following conditions are met:

- 1) Ceiling is at or less than 600ft and/or RVR is at or less than 1,600m.
- 2) Facilities listed 1.above are operational.
- 3) ILS Critical Area is protected.

In order to protect ILS Critical Area for the succeeding arrival aircraft, an arrival aircraft may be given the following instruction by ATC:

"REPORT OUT OF ILS CRITICAL AREA"

The exit taxiway centerline lights are fixed alternate green and yellow inside the ILS Critical Area.

If an aircraft is given the above instruction, she is expected to advise the ATC when the taxiway centerline lights change from alternate green and yellow to steady green.

4.6 Approval for CAT II / III A / III B Operations

Operators must obtain operational approval from the State of Registry or the State of Operator, as appropriate, to conduct CAT II / III A / III B Operations.(See GEN1.5)

4.7 Taxiway available for CAT II / III A / III B Operations

Taxiway available for CAT II / III A / III B Operations are T1, T5, T6, T7 and the parallel taxiway.

5. Local flying restrictions & remarks:

- 1.VFR aircraft intending to land on Kumamoto AP or to cross control zone should call Kumamoto TWR at least 10nm from the AP.
- 2.Altitude traffic pattern
 - (1) FIXED ACFT
 - A.JET.....2,400ft
 - B.PROPELLER
 - Single engine.....1,400ft
 - Multi engine.....1,700ft
 - (2) ROTOR CRAFT.....1,100ft

RJFT AD 2.23 ADDITIONAL INFORMATION

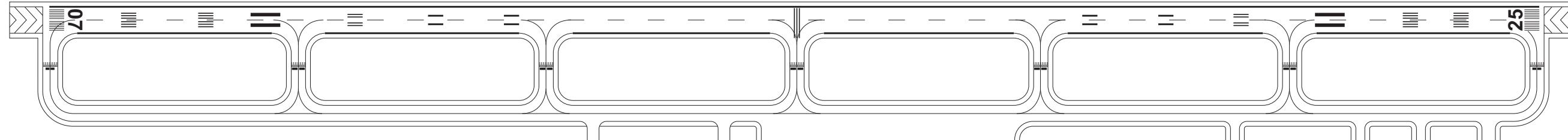
Nil

RJFT AD 2.24 CHARTS RELATED TO AN AERODROME

- Aerodrome/Heliport Chart-1
- Aerodrome/Heliport Chart-2
- Aerodrome Obstacle Chart - type A (RWY07/25)
- Aerodrome Obstacle Chart - type B
- Precision Approach Terrain Chart (precision approach Cat II and III runways)
- Standard Departure Chart - Instrument (KUMAMOTO, RINDO, HINAG)
- Standard Departure Chart - Instrument (IRUKA)
- Standard Departure Chart - Instrument (MIFNE-RNAV)
- Standard Departure Chart - Instrument
- Standard Arrival Chart - Instrument (MISMI SOUTH, TAKAS SOUTH)
- Standard Arrival Chart - Instrument (MISMI EAST, TAKAS EAST)
- Standard Arrival Chart - Instrument (KAZMA-RNAV)
- Instrument Approach Chart (ILS or LOC RWY07 CAT II & III)
- Instrument Approach Chart (VOR RWY07)
- Instrument Approach Chart (VOR A)
- Instrument Approach Chart (RNAV(RNP) Z RWY25)
- Instrument Approach Chart (RNAV(RNP) Y RWY25)
- Other Chart (Profile of values of Radio Altimeter)
- Other Chart (Visual REP)
- Other Chart (LDG CHART)
- Other Chart (MVA CHART)

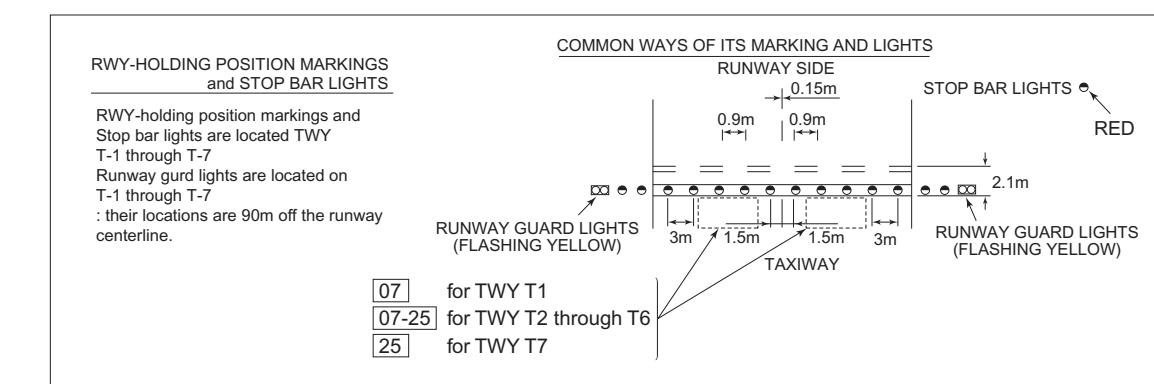
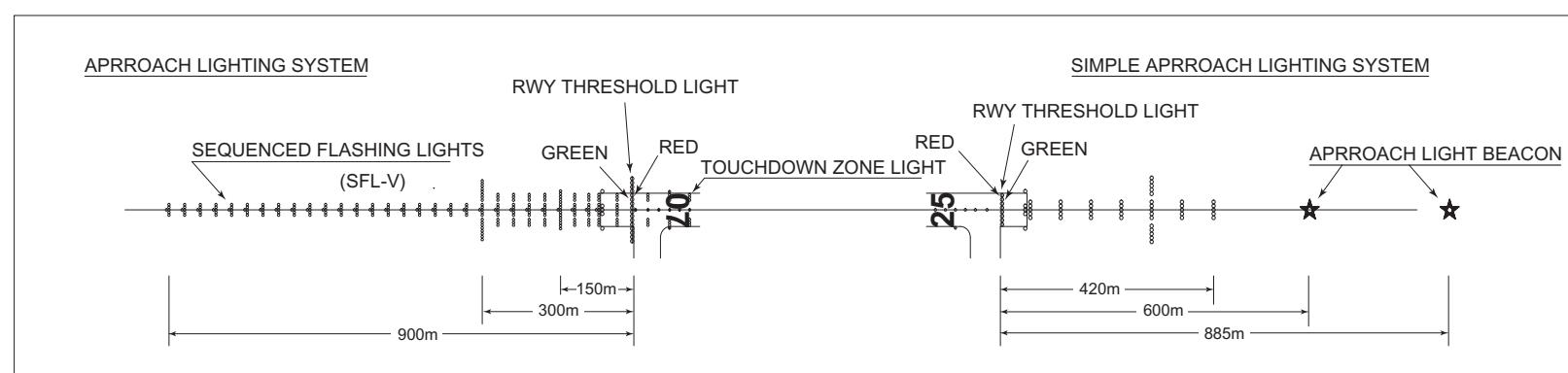
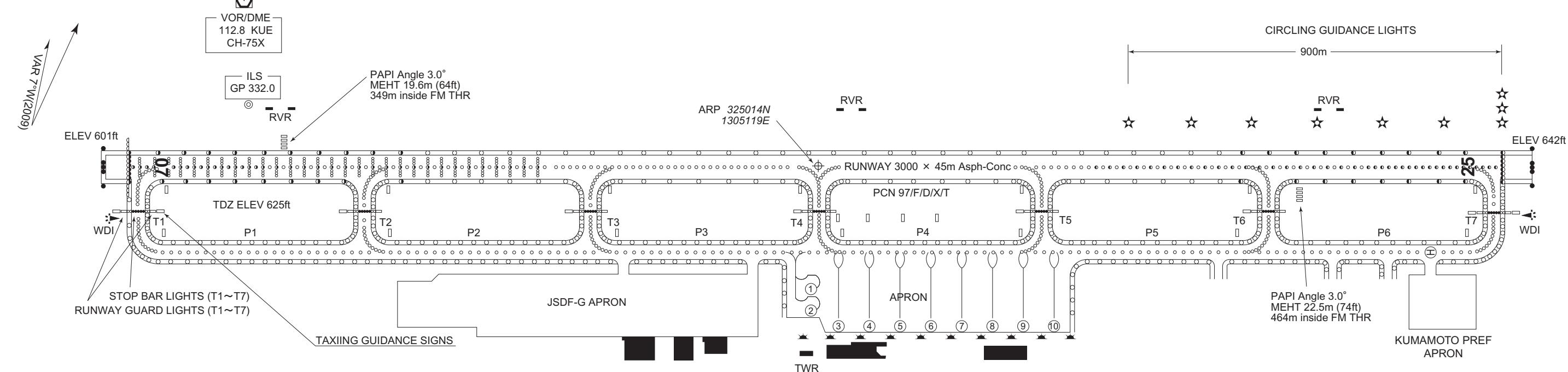
AERODROME CHART

KUMAMOTO AIRPORT
ELEV 192.7m(632ft)



MARKING AIDS

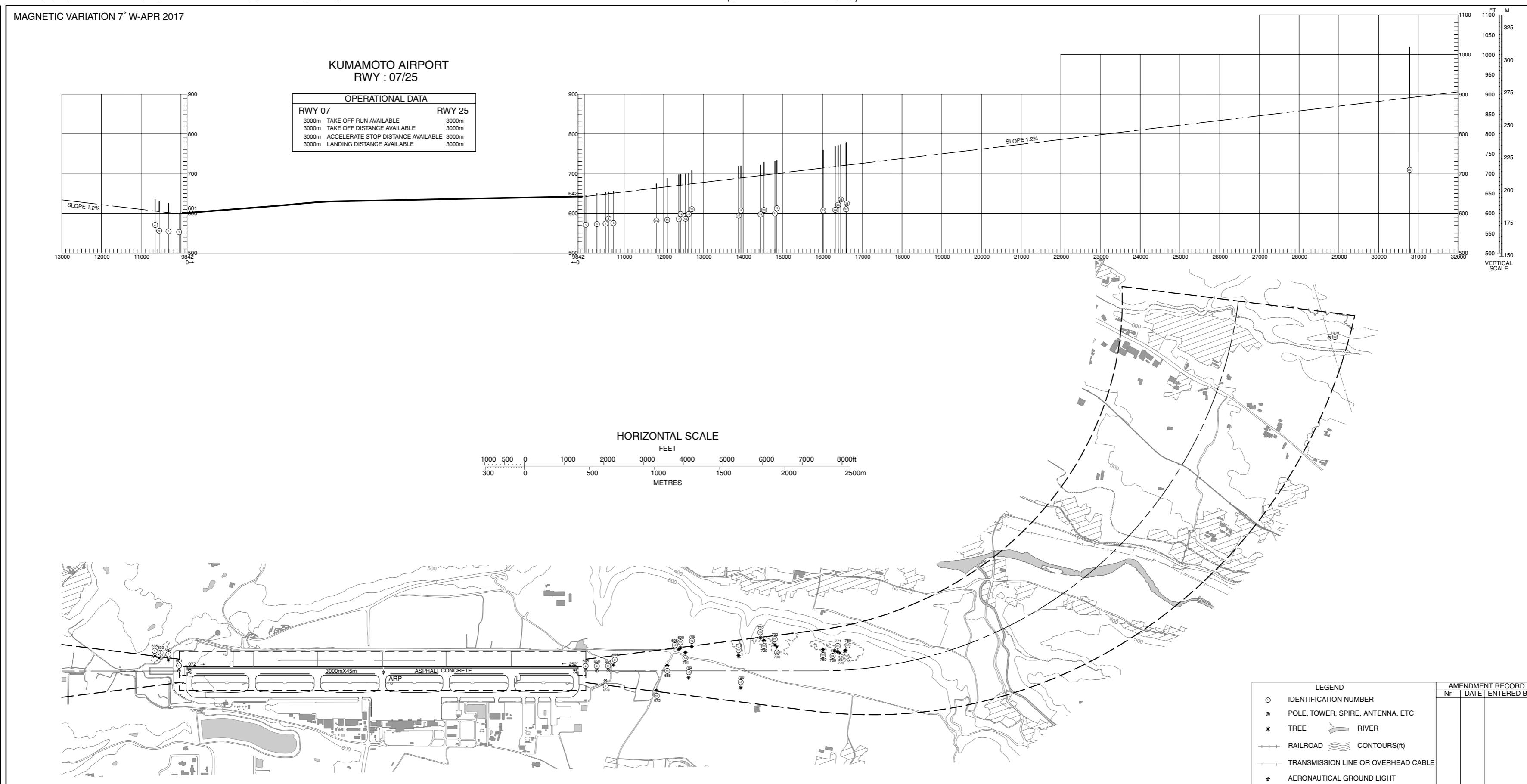
CHANGE : RWY middle point installed. RWY DIST marker LGT abolished.





DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC

AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)



AERODROME OBSTACLE CHART-ICAO TYPE B

DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC

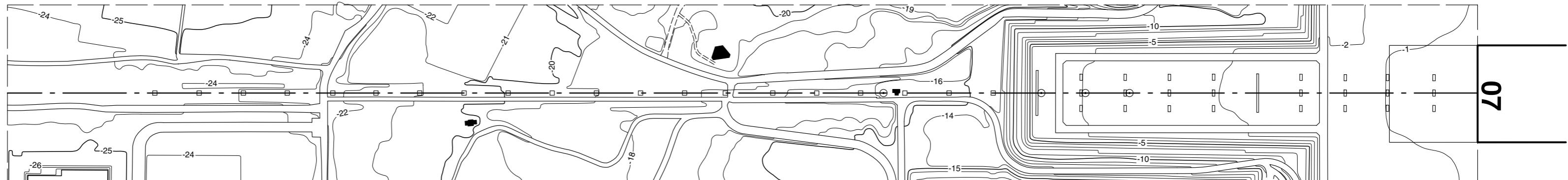
AERODROME ELEVATION 632ft ARF



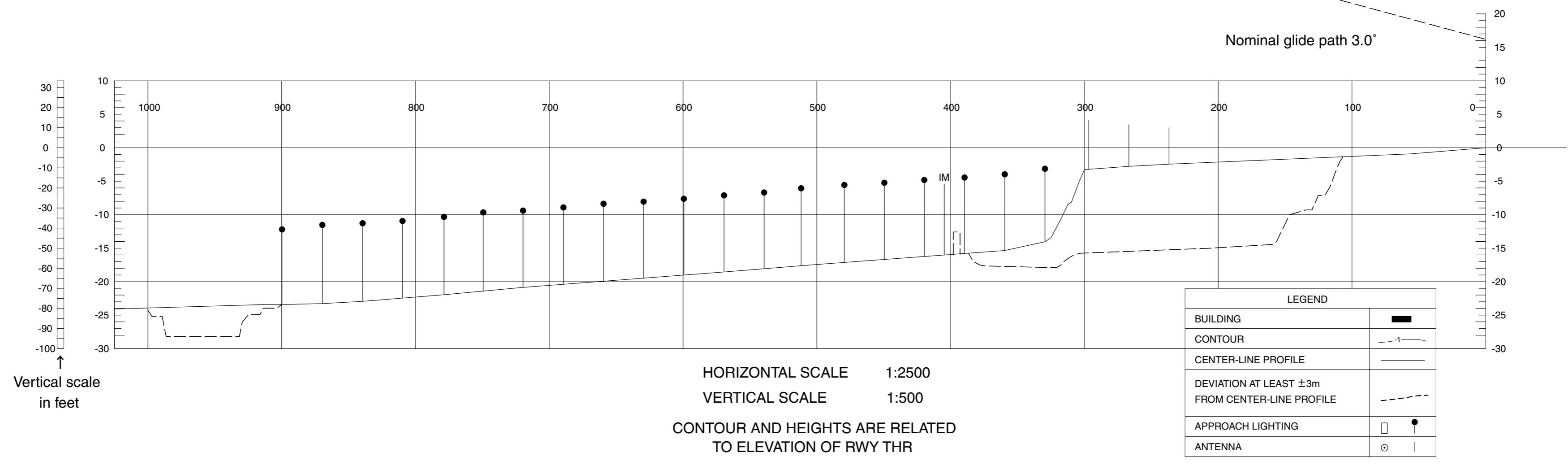
PRECISION APPROACH TERRAIN CHART-ICAO

DISTANCES AND HEIGHTS IN METERS

RWY 07



Nominal glide path 3.0°



STANDARD DEPARTURE CHART-INSTRUMENT

RJFT / KUMAMOTO

SID and TRANSITION

KUMAMOTO REVERSAL SEVEN DEPARTURE

- RWY25 : Climb via KUE R251 to 3.0DME, turn left,...
RWY07 : Turn left, proceed direct to KUE VOR/DME,...
...climb via KUE R206 to RINDO, turn left to intercept and proceed via KUE R186 to KUE VOR/DME.
Cross RINDO at or above 7000FT, cross KUE R186/8.0DME at or above FL140.

Note RWY07 : 5.7% climb gradient required up to 2700FT.
OBST ALT 2362FT located at 6.0NM 034° FM end of RWY07.

RINDO FIVE DEPARTURE

- RWY25 : Climb via KUE R251 to 3.0DME, turn left,...
RWY07 : Turn left, proceed direct to KUE VOR/DME,...
...climb via KUE R206 to RINDO.
Cross RINDO at or above 7000FT.

Note RWY07 : 5.7% climb gradient required up to 2700FT.
OBST ALT 2362FT located at 6.0NM 034° FM end of RWY07.

MIYAZAKI TRANSITION

From over RINDO, turn left, proceed via KUE 25.0DME counterclockwise ARC to intercept and proceed via KUE R159/MZE R339 (MRA 8000FT) to MZE VOR/DME.

KAGOSHIMA TRANSITION

From over RINDO, turn left, proceed via HKC 45.0DME clockwise ARC to intercept and proceed via HKC R038 (MRA 8000FT) to HKC VORTAC.

MUSASHI TRANSITION

From over RINDO, turn left, proceed via KUE 25.0DME counterclockwise ARC to intercept and proceed via TFE R211 (MRA FL150) to TFE VOR/DME.

HINAG FOUR DEPARTURE

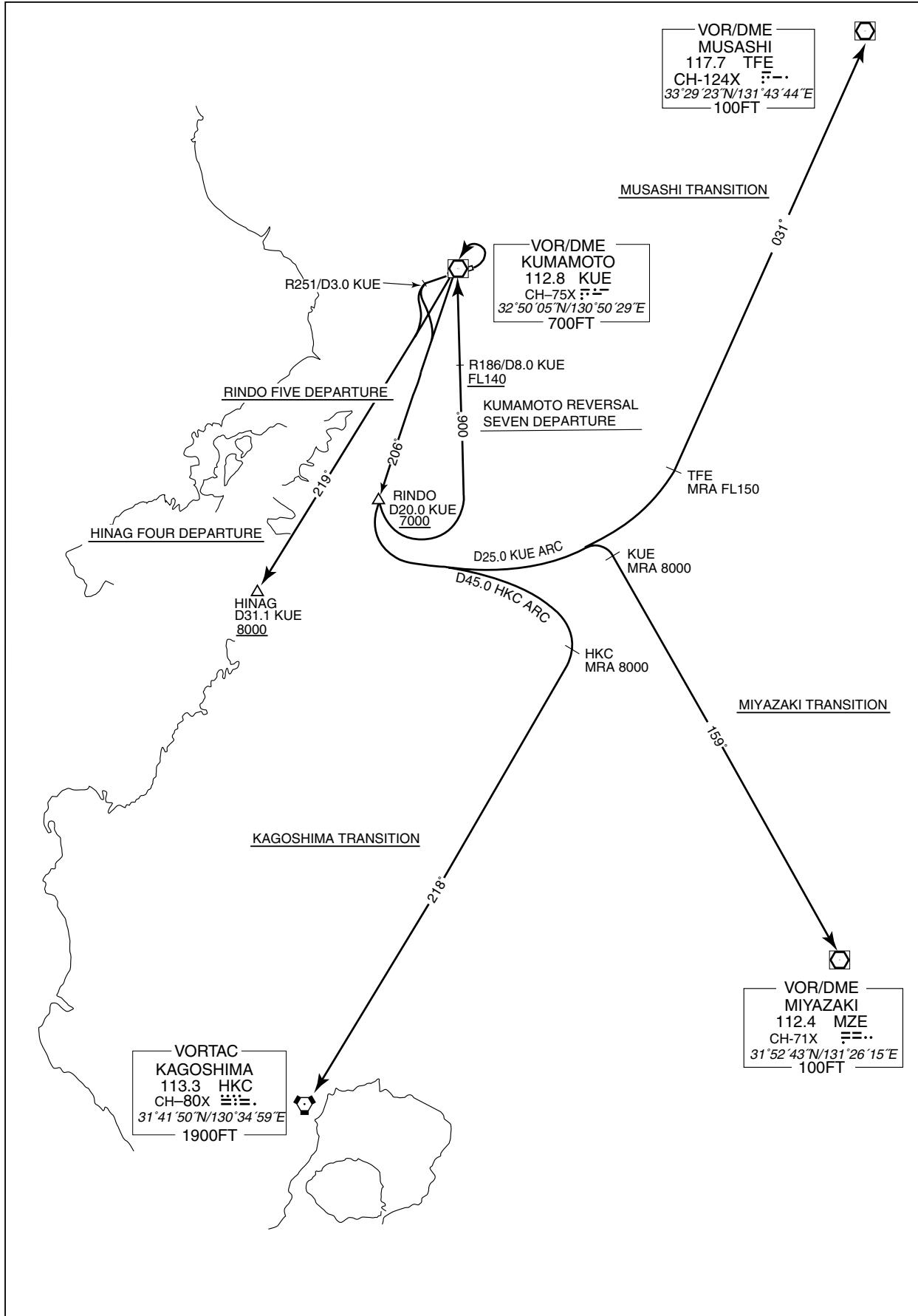
- RWY25 : Climb via KUE R251 to 3.0DME, turn left,...
RWY07 : Turn left, proceed direct to KUE VOR/DME,...
...climb via KUE R219 to HINAG.
Cross HINAG at or above 8000FT.

Note RWY07 : 5.7% climb gradient required up to 2700FT.
OBST ALT 2362FT located at 6.0NM 034° FM end of RWY07.

STANDARD DEPARTURE CHART-INSTRUMENT

RJFT / KUMAMOTO

SID and TRANSITION



STANDARD DEPARTURE CHART-INSTRUMENT

RJFT / KUMAMOTO

SID

IRUKA TWO DEPARTURE

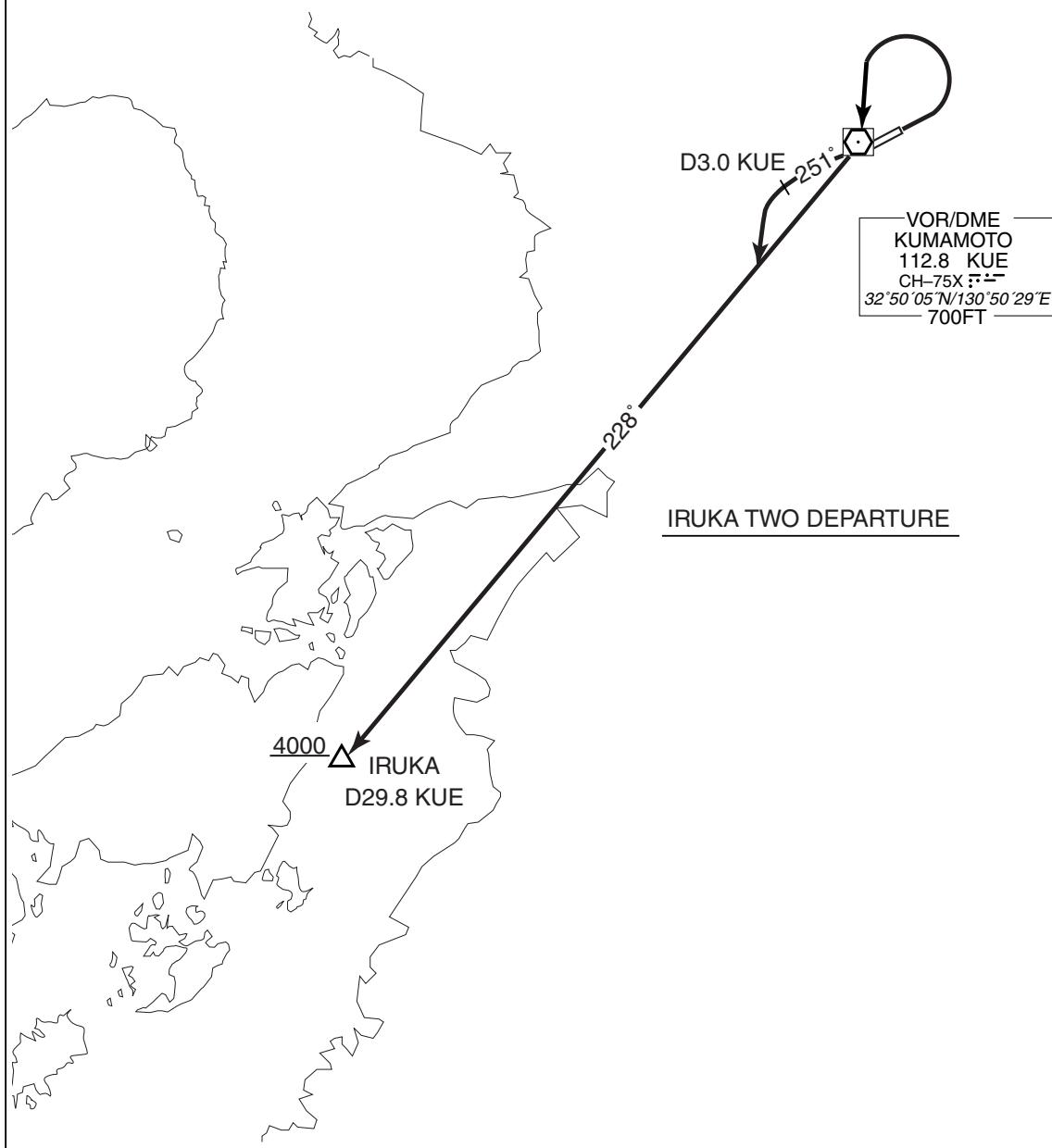
RWY07 : Turn left, direct to KUE VOR/DME,...

RWY25 : Climb via KUE R251 to 3.0DME, turn left,...
...climb via KUE R228 to IRUKA.

Cross IRUKA at or above 4000FT.

Note RWY07 : 5.7% climb gradient required up to 2700FT.

OBST ALT 2362FT located at 6.0NM 034° FM end of RWY07.

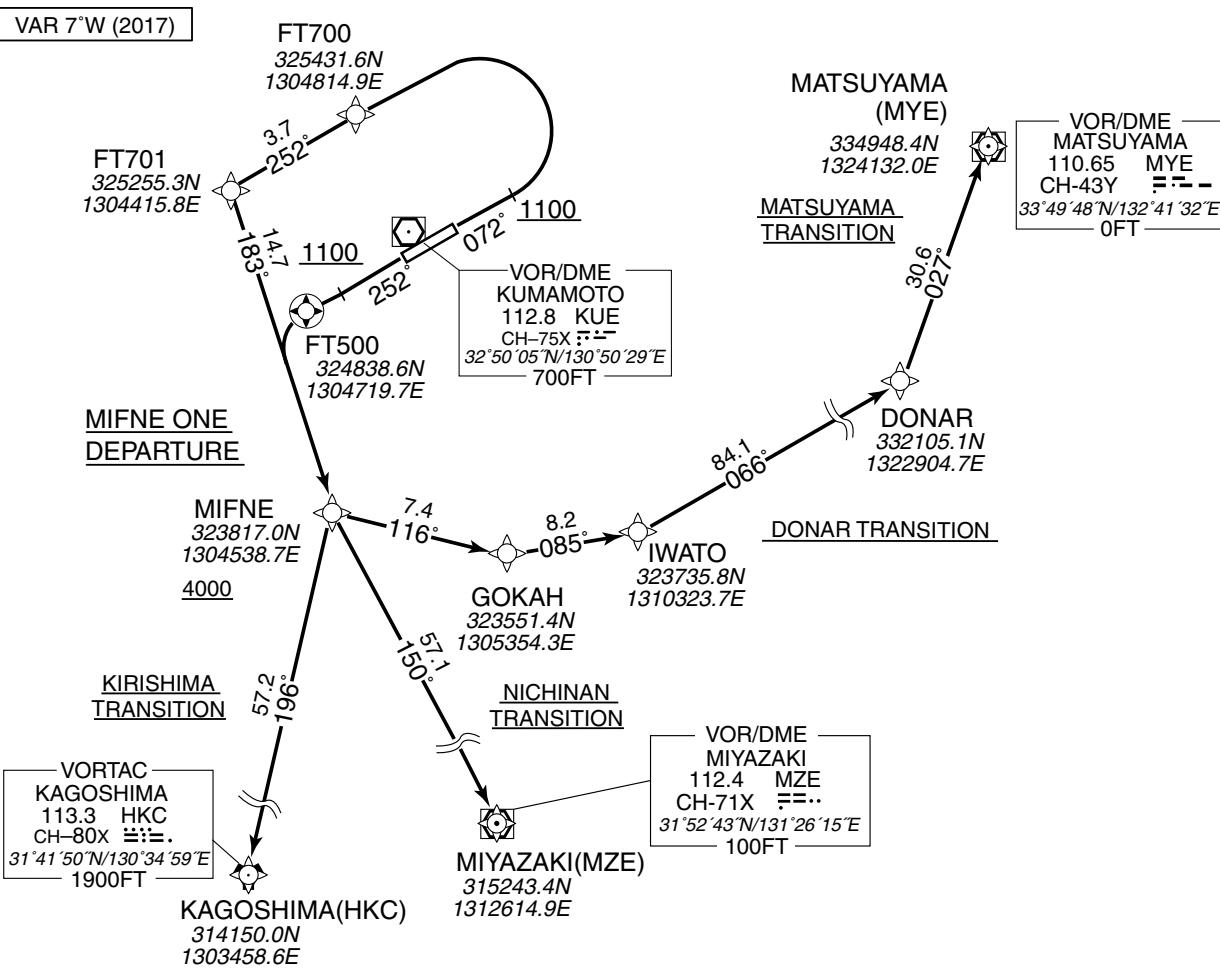


STANDARD DEPARTURE CHART-INSTRUMENT

RJFT / KUMAMOTO

RNAV SID and TRANSITION

MIFNE ONE DEPARTURE DONAR TRANSITION / MATSUYAMA TRANSITION KIRISHIMA TRANSITION / NICHINAN TRANSITION		RNAV 1
Note 1) DME/DME/IRU or GNSS required ※The aircraft equipped with only DME/DME/IRU must be able to update its position without delay at the starting point of take-off roll. 2) RADAR service required	Critical DME	KIRISHIMA TRANSITION MZE : 14.0NM to HKC - HKC
	DME GAP	RWY07 : DER - FT701 RWY25 : DER - FT500
	Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

MIFNE ONE DEPARTURE

RWY07 : Climb on HDG072° at or above 1100FT, turn left direct to FT700, to FT701, to MIFNE at or above 4000FT.

RWY25 : Climb on HDG252° at or above 1100FT, direct to FT500, turn left direct to MIFNE at or above 4000FT.

Note : RWY07 : 5.7% climb gradient required up to 2700FT.

OBST ALT 2362FT located at 6.0NM 034° FM end of RWY07.

DONAR TRANSITION

From MIFNE at or above 4000FT, to GOKAH, to IWATO, to DONAR.

MATSUYAMA TRANSITION

From MIFNE at or above 4000FT, to GOKAH, to IWATO, to DONAR, to MYE.

KIRISHIMA TRANSITION

From MIFNE at or above 4000FT, to HKC.

NICHINAN TRANSITION

From MIFNE at or above 4000FT, to MZE.

STANDARD DEPARTURE CHART-INSTRUMENT

RJFT / KUMAMOTO

RNAV SID and TRANSITION

MIFNE ONE DEPARTURE

RWY07

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	VA	—	—	072 (064.5)	-7.2	—	—	+1100	—	—	RNAV1
002	DF	FT700	—	—	-7.2	—	L	—	—	—	RNAV1
003	TF	FT701	—	252 (244.4)	-7.2	3.7	—	—	—	—	RNAV1
004	TF	MIFNE	—	183 (175.5)	-7.2	14.7	—	+4000	—	—	RNAV1

RWY25

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	VA	—	—	252 (244.5)	-7.2	—	—	+1100	—	—	RNAV1
002	DF	FT500	Y	—	-7.2	—	—	—	—	—	RNAV1
003	DF	MIFNE	—	—	-7.2	—	L	+4000	—	—	RNAV1

DONAR TRANSITION

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	MIFNE	—	—	-7.2	—	—	+4000	—	—	RNAV1
002	TF	GOKAH	—	116 (109.2)	-7.2	7.4	—	—	—	—	RNAV1
003	TF	IWATO	—	085 (077.7)	-7.2	8.2	—	—	—	—	RNAV1
004	TF	DONAR	—	066 (058.4)	-7.2	84.1	—	—	—	—	RNAV1

MATSUYAMA TRANSITION

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	MIFNE	—	—	-7.2	—	—	+4000	—	—	RNAV1
002	TF	GOKAH	—	116 (109.2)	-7.2	7.4	—	—	—	—	RNAV1
003	TF	IWATO	—	085 (077.7)	-7.2	8.2	—	—	—	—	RNAV1
004	TF	DONAR	—	066 (058.4)	-7.2	84.1	—	—	—	—	RNAV1
005	TF	MYE	—	027 (019.8)	-7.2	30.6	—	—	—	—	RNAV1

KIRISHIMA TRANSITION

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	MIFNE	—	—	-7.2	—	—	+4000	—	—	RNAV1
002	TF	HKC	—	196 (189.1)	-7.2	57.2	—	—	—	—	RNAV1

NICHINAN TRANSITION

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	MIFNE	—	—	-7.2	—	—	+4000	—	—	RNAV1
002	TF	MZE	—	150 (142.8)	-7.2	57.1	—	—	—	—	RNAV1

STANDARD DEPARTURE CHART-INSTRUMENT

RJFT / KUMAMOTO

RNAV TRANSITION

SPIDE TRANSITION / SALTY TRANSITION		RNAV 1
Note 1) DME/DME/IRU or GNSS required 2) RADAR service required	Critical DME	SALTY TRANSITION SUC : 8.3NM to SALTY - 4.3NM to SALTY
	DME GAP	-
	Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

VAR 7° W(2017)

SPIDE TRANSITION

From MIFNE at or above 4000FT, to GOKAH, to IWATO, to DONAR, to SPIDE.

SALTY TRANSITION

From MIFNE at or above 4000FT, to GOKAH, to IWATO, to DONAR, to SALTY.

STANDARD DEPARTURE CHART-INSTRUMENT

RJFT / KUMAMOTO

RNAV TRANSITION

SPIDE TRANSITION

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	MIFNE	—	—	-7.2	—	—	+4000	—	—	RNAV1
002	TF	GOKAH	—	116 (109.2)	-7.2	7.4	—	—	—	—	RNAV1
003	TF	IWATO	—	085 (077.7)	-7.2	8.2	—	—	—	—	RNAV1
004	TF	DONAR	—	066 (058.4)	-7.2	84.1	—	—	—	—	RNAV1
005	TF	SPIDE	—	061 (054.1)	-7.2	30.1	—	—	—	—	RNAV1

SALTY TRANSITION

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	MIFNE	—	—	-7.2	—	—	+4000	—	—	RNAV1
002	TF	GOKAH	—	116 (109.2)	-7.2	7.4	—	—	—	—	RNAV1
003	TF	IWATO	—	085 (077.7)	-7.2	8.2	—	—	—	—	RNAV1
004	TF	DONAR	—	066 (058.4)	-7.2	84.1	—	—	—	—	RNAV1
005	TF	SALTY	—	043 (036.1)	-7.2	37.3	—	—	—	—	RNAV1

STANDARD ARRIVAL CHART-INSTRUMENT

RJFT / KUMAMOTO

STAR

MISMI SOUTH ARRIVAL

From over HINAG, proceed via HKC R001 to intercept and proceed via KUE R251 to MISMI. Maintain 6000FT or above until intercepting KUE R251, cross MISMI at or above 3400FT.

TAKAS SOUTH ARRIVAL

From over HINAG, proceed via HKC R001 until HKC 71.0DME (KUE R285), turn right to intercept and proceed via KUE R297 to TAKAS.

Cross HKC R001/71.0DME(KUE R285) at or above 7000FT, cross TAKAS at or above 3400FT.



STANDARD ARRIVAL CHART-INSTRUMENT

RJFT / KUMAMOTO

STAR

MISMI EAST ARRIVAL

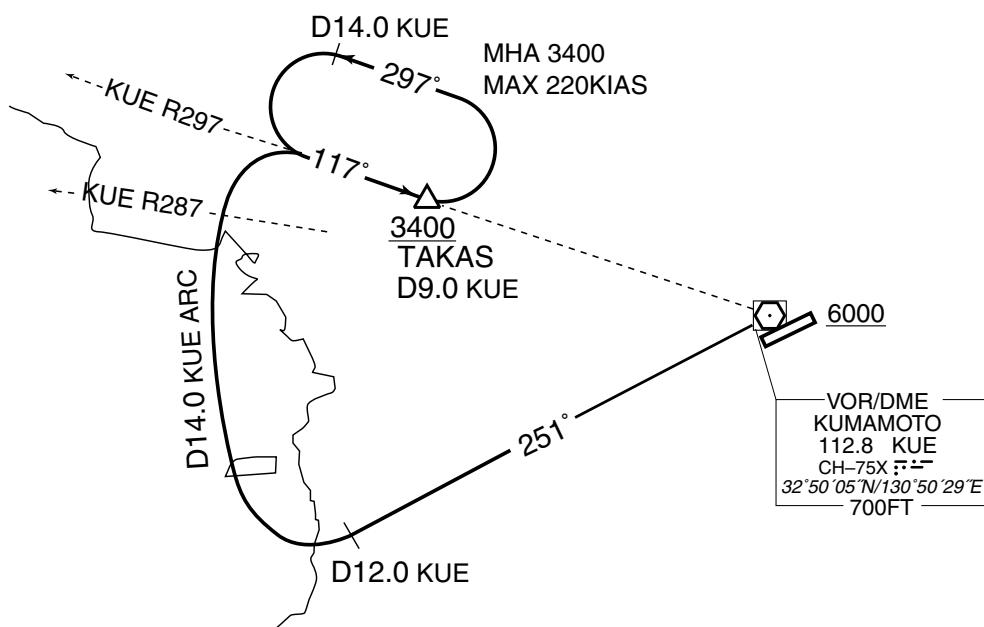
From over KUE VOR/DME, proceed via KUE R297 to KUE 12.0DME, turn left, proceed via KUE 14.0DME counterclockwise ARC to intercept and proceed via KUE R251 to MISMI.

Cross KUE VOR/DME at or above 6000FT, cross MISMI at or above 3400FT.

TAKAS EAST ARRIVAL

From over KUE VOR/DME, proceed via KUE R251 to KUE 12.0DME, turn right, proceed via KUE 14.0DME clockwise ARC to intercept and proceed via KUE R297 to TAKAS.

Cross KUE VOR/DME at or above 6000FT, cross TAKAS at or above 3400FT.



STANDARD ARRIVAL CHART-INSTRUMENT

RJFT / KUMAMOTO

RNAV STAR RWY07

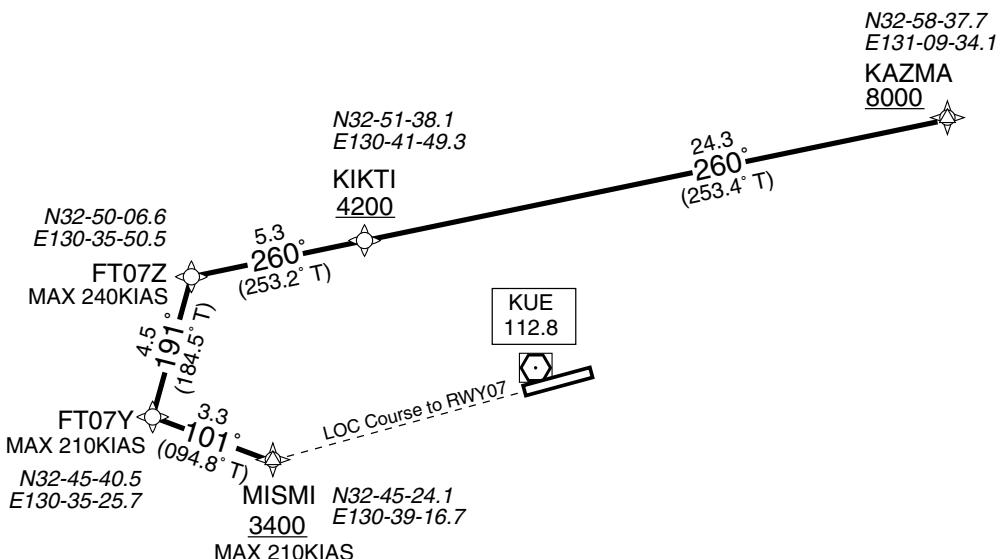
KAZMA RNAV ARRIVAL

RNAV1

Note 1) DME/DME/IRU or GNSS required.

2) RADAR service required.

VAR 7°W (2009)

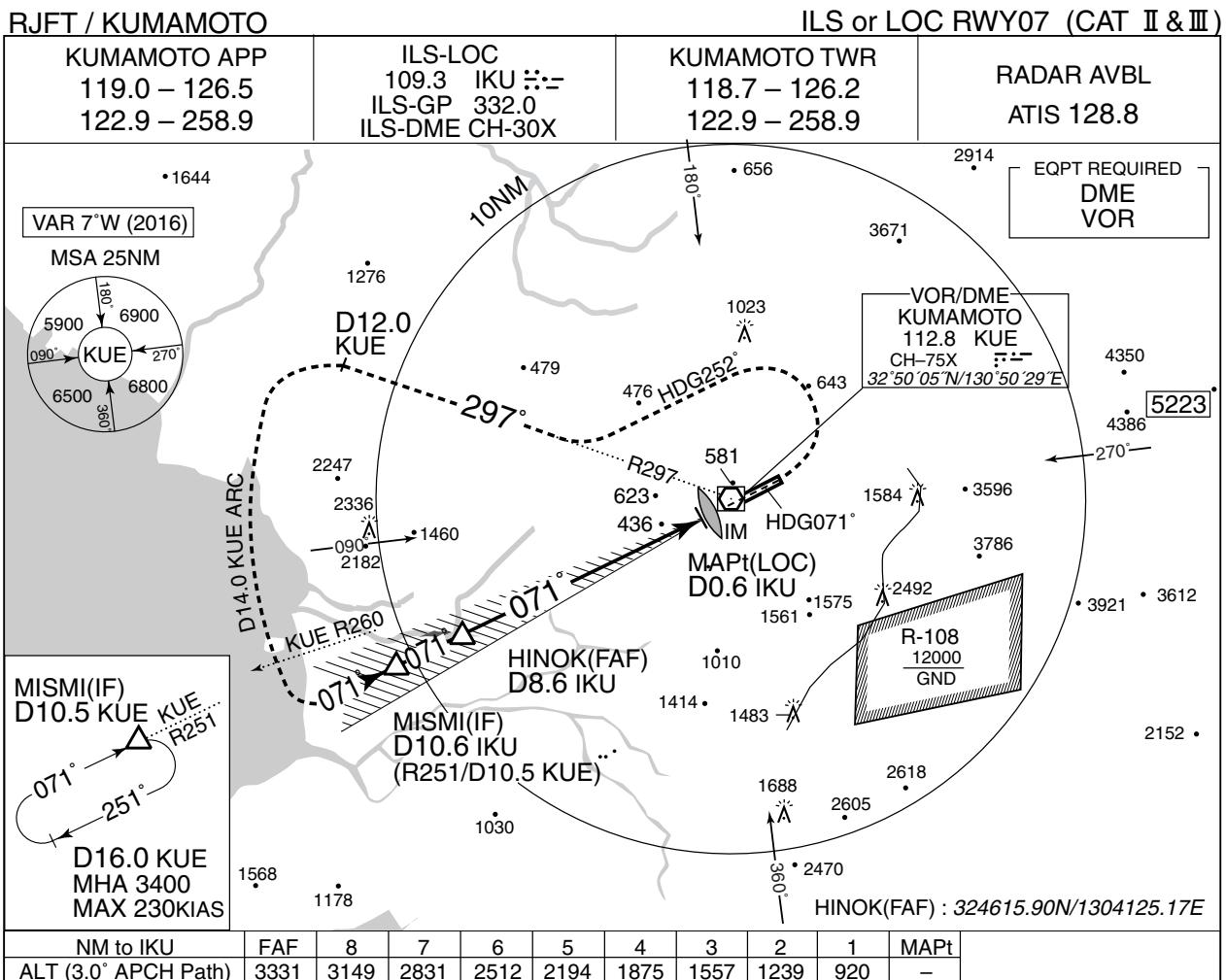


From KAZMA at or above 8000FT, to KIKTI at or above 4200FT, to FT07Z, to FT07Y, to MISMI at or above 3400FT.

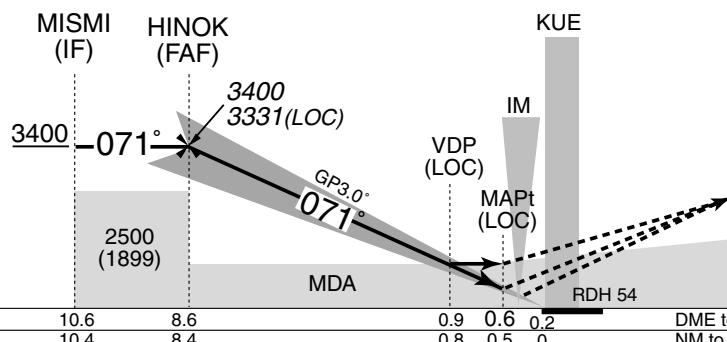
	DESIGNATION	COORDINATES
KAZMA	32 58 37.7N 131 09 34.1E	
KIKTI	32 51 38.1N 130 41 49.3E	
FT07Z	32 50 06.6N 130 35 50.5E	
FT07Y	32 45 40.5N 130 35 25.7E	
MISMI	32 45 24.1N 130 39 16.7E	
Critical DME	SGE : 20NM to KIKTI – 8NM to KIKTI 5NM to FT07Z – FT07Y KUE : 12NM to KIKTI – 8NM to KIKTI 5NM to FT07Z – 2NM to FT07Z	
DME GAP	8NM to KIKTI – 5NM to FT07Z	
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1.	

Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (TRUE Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
IF	KAZMA	—	—	—	—	+8000	—	—	RNAV1
TF	KIKTI	—	24.3	260° (253.4°)	—	+4200	—	—	RNAV1
TF	FT07Z	—	5.3	260° (253.2°)	—	—	240	—	RNAV1
TF	FT07Y	—	4.5	191° (184.5°)	—	—	210	—	RNAV1
TF	MISMI	—	3.3	101° (094.8°)	—	+3400	210	—	RNAV1

INSTRUMENT APPROACH CHART



MISSSED APPROACH



Climb on HDG071° to 1000FT, turn left, climb to 3400FT on HDG252° to intercept and proceed via KUE R297 to KUE 12.0DME, turn left, proceed via KUE 14.0DME counterclockwise ARC to intercept and proceed via KUE R251 to MISMI and hold. Contact KUMAMOTO APP.

Timing not authorized for defining the MAPt.

CAT	MINIMA		THR elev. 601		AD elev. 632		LOC		CIRCLING		
	CAT III B	CAT III A	DA(H)	RA	RVR	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A								900			
B	100	200	775 (174)	242	450	801 (200)	550	910 (309)	1090 (458)	1600	
C									1100 (468)	2400	
D									1400	1190 (558)	3200

MINIMA with Missed APCH climb gradient of 2.5% are not established.
Circling to NORTH side of RWY only.

INSTRUMENT APPROACH CHART

RJFT / KUMAMOTO

VOR RWY07

KUMAMOTO APP
119.0 - 126.5
122.9 - 258.9

KUMAMOTO VOR/DME
112.8 KUE
CH-75X
 $32^{\circ}50'05''N/130^{\circ}50'29''E$

KUMAMOTO TWR
118.7 - 126.2
122.9 - 258.9

RADAR AVBL
ATIS 128.8

VAR 7W (2016)

EQPT REQUIRED DME

MSA 25NM

MHA 5500 MAX 220KIAS

D14.0 KUE ARC

D16.0 KUE MHA 3400 MAX 230KIAS

KENGU(FAF) : $324711.79N/1304439.49E$

Turn initiation within D11.0 KUE MAX Turning speed 200KIAS

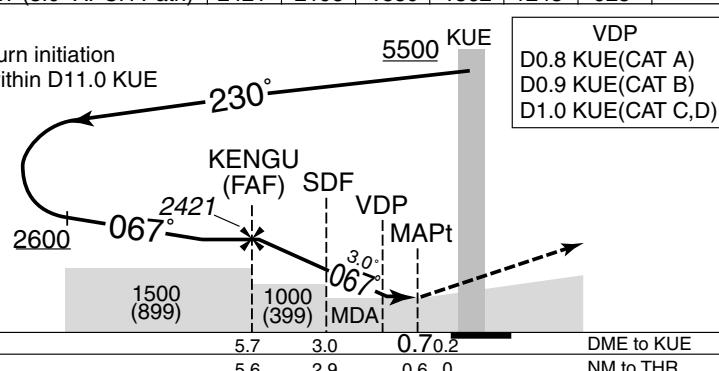
NM to KUE	FAF	5	4	3	2	1	MAPt
ALT (3.0° APCH Path)	2421	2198	1880	1562	1243	925	-

MISSED APPROACH

Climb to 1000FT via KUE R067, turn left, climb to 3400FT on HDG252° to intercept and proceed via KUE R297 to KUE 12.0DME, turn left, proceed via KUE 14.0DME counterclockwise ARC to intercept and proceed via KUE R251 to MISMI and hold. Contact KUMAMOTO APP.

No turn before MAPt

Timing not authorized for defining the MAPt.



MINIMA		THR elev. 601	AD elev. 632	
CAT			CIRCLING	
	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	870 (269)	800	1090 (458)	1600
B	890 (289)			
C	910 (309)	1000	1100 (468)	2400
D		1400	1190 (558)	3200

Circling to NORTH side of RWY only.

INSTRUMENT APPROACH CHART



MISSSED APPROACH

Turn right, climb to 3400FT on HDG296° to intercept and proceed via KUE R251 to MISMI and hold.

Contact KUMAMOTO APP.



Missed APCH climb gradient MNM 4.6%

MINIMA		AD elev. 632
CAT	CIRCLING	
	MDA(H)	VIS
A	1090 (458)	1600
B		
C	1100 (468)	2400
D	1190 (558)	3200

MINIMA with Missed APCH climb gradient of 2.5% are not established.
Circling to NORTH side of RWY only.

INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJFT / KUMAMOTO

RNAV(RNP) Z RWY25

RNAV(RNP) Z RWY25

Coding Table

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/RDH (°/FT)	RNP Value
001	IF	ASONO	—	—	-6.8	—	—	+8000	—	—	—
002	TF	DIKAN	—	279 (272.0)	-6.8	8.6	—	—	—	—	1.0
003	TF	BOCHU	—	206 (199.6)	-6.8	5.6	—	4300	-185	—	1.0
004	TF	FT550	—	206 (199.6)	-6.8	1.7	—	3730	-165	-3.10	0.3
005	RF Center: FTRF1 r=2.77NM	FT551	—	—	-6.8	3.1	R	2711	—	-3.10	0.3
006	TF	FT552	—	270 (263.6)	-6.8	1.7	—	2159	—	-3.10	0.3
007	RF Center: FTRF2 r=2.77NM	FT553	—	—	-6.8	0.9	L	1858	—	-3.10	0.3
008	TF	RW25	Y	251 (244.5)	-6.8	3.5	—	692	—	-3.10/50	0.3
009	TF	MISMI	—	251 (244.5)	-6.8	12.0	—	3400	—	—	1.0

Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
ASONO	330058.11N/1311449.42E	FTRF1	325518.34N/1305837.73E
DIKAN	330115.22N/1310438.68E	FTRF2	324936.20N/1305722.87E
BOCHU	325600.39N/1310225.19E		
FT550	325422.38N/1310143.69E		
FT551	325232.83N/1305859.64E		
FT552	325221.62N/1305700.92E		
FT553	325206.61N/1305558.39E		
RW25	325035.24N/1305210.28E		
MISMI	324524.10N/1303916.73E		

INSTRUMENT APPROACH CHART

RJFT / KUMAMOTO

RNAV(RNP) Y RWY25

KUMAMOTO APP 119.0 - 126.5 122.9 - 258.9	GNSS and RF required.	KUMAMOTO TWR 118.7 - 126.2 122.9 - 258.9	RADAR AVBL ATIS 128.8
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For uncompensated Baro-VNAV systems, procedure not authorized below -4°C / above 45°C



MINIMA	THR elev.642	AD elev.632
RNP 0.30		
CAT	DA(H)	RVR/CMV
A	-	-
B	-	-
C	942 (300)	1400
D	-	1600

RNP AR

Special Authorization Required

INSTRUMENT APPROACH CHART

RJFT / KUMAMOTO

RNAV(RNP) Y RWY25

RNAV(RNP) Y RWY25Coding Table

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/RDH ('/FT)	RNP Value
001	IF	ASONO	—	—	-6.8	—	—	+8000	—	—	—
002	TF	DOUJI	—	285 (278.4)	-6.8	12.1	—	+6500	—	—	1.0
003	TF	FT560	—	285 (278.3)	-6.8	2.2	—	+4500	-210	—	1.0
004	RF Center: FTRF3 r=4.04NM	FT561	—	—	-6.8	3.5	L	+4100	—	—	1.0
005	RF Center: FTRF3 r=4.04NM	FUMOT	—	—	-6.8	6.2	L	3200	—	—	0.7
006	TF	FT562	—	147 (140.4)	-6.8	1.7	—	2650	—	-3.00	0.3
007	RF Center: FTRF4 r=2.47NM	FT563	—	—	-6.8	4.5	R	1216	—	-3.00	0.3
008	TF	RW25	Y	251 (244.5)	-6.8	1.7	—	692	—	-3.00/50	0.3
009	TF	MISMI	—	251 (244.5)	-6.8	12.0	—	3400	—	—	1.0

Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
ASONO	330058.11N/1311449.42E	FTRF3	325902.05N/1305719.25E
DOUJI	330243.56N/1310035.13E	FTRF4	325331.98N/1305240.81E
FT560	330302.45N/1305800.60E		
FT561	330204.49N/1305408.90E		
FUMOT	325626.84N/1305337.58E		
FT562	325506.96N/1305456.29E		
FT563	325117.72N/1305356.28E		
RW25	325035.24N/1305210.28E		
MISMI	324524.10N/1303916.73E		

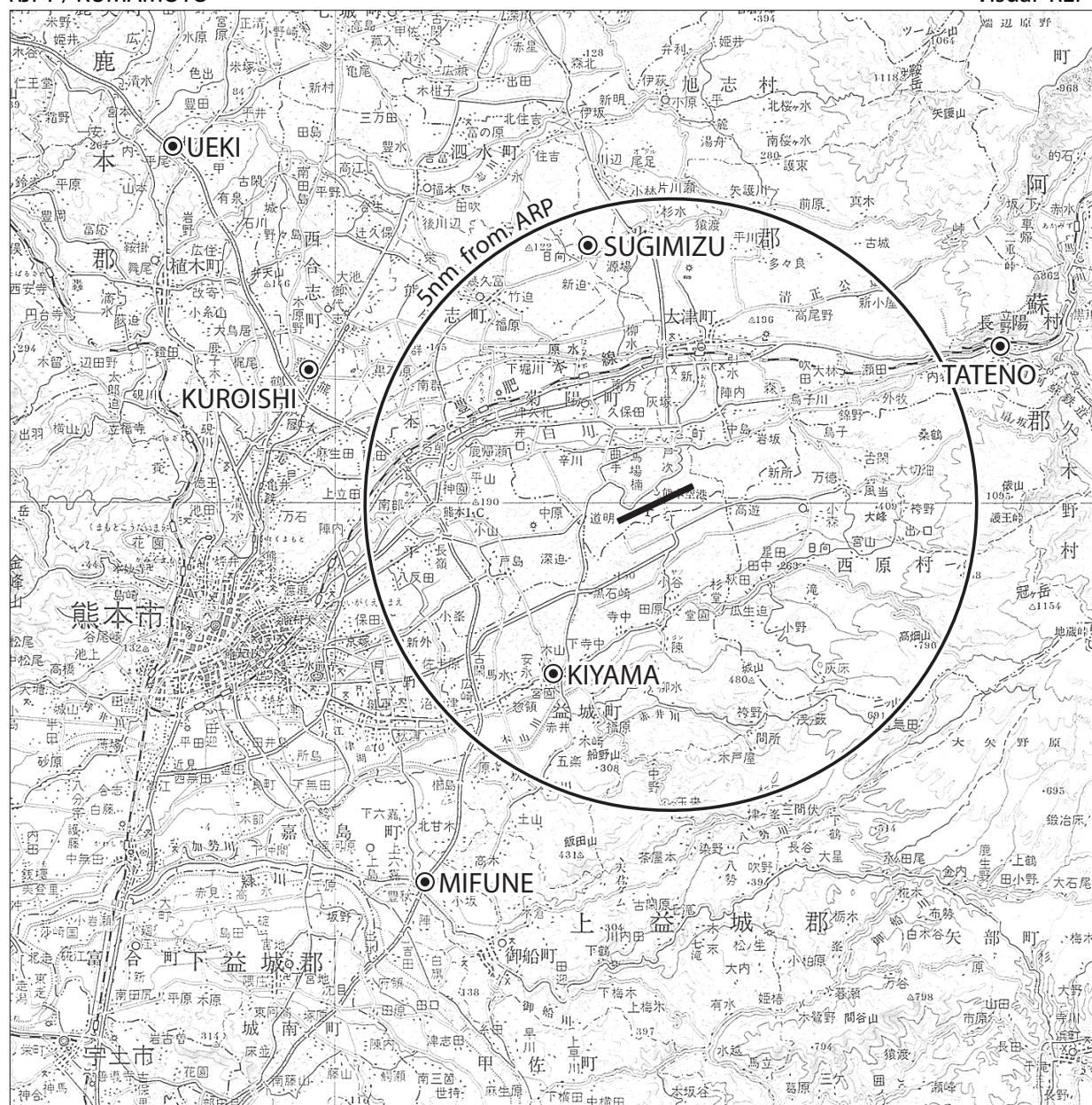
RJFT/KUMAMOTO

PROFILE OF VALUES OF RADIO ALTIMETER



RJFT / KUMAMOTO

Visual REP



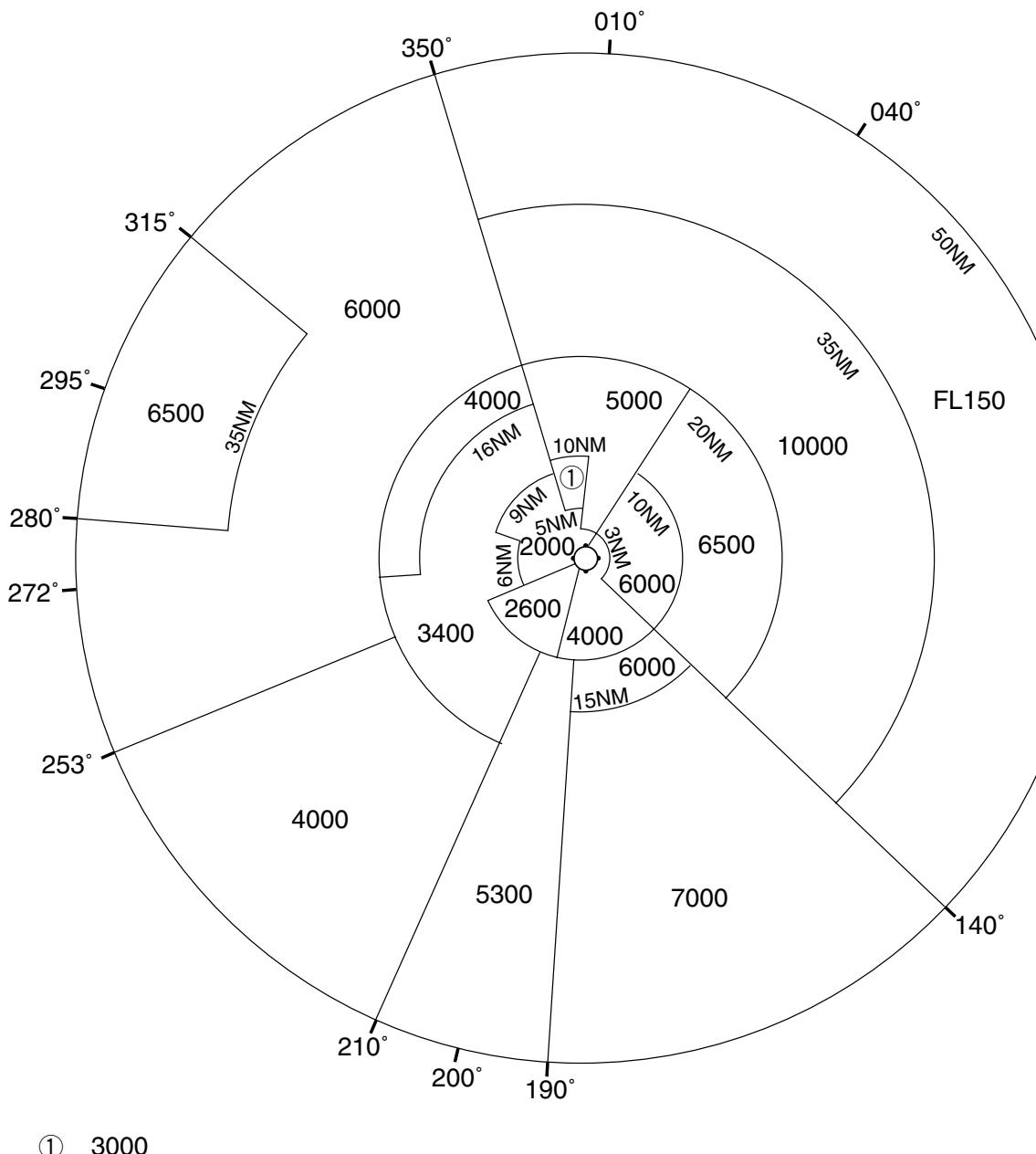
Call sign	BRG / DIST from ARP	Remarks
植木 Ueki	312°/9.9NM	九州自動車道植木インターインジ Kyushu expressway Ueki interchange
黒石 Kuroishi	292°/6.2NM	九州自動車道と国道387号との交点 Intersection of Kyushu expressway and national route 387
杉水 Sugimizu	349°/4.5NM	ゴルフ場（くまもと中央CC） Golf course (Kumamoto Chuo CC)
立野 Tateno	073°/6.0NM	JR立野駅 JR Tateno station
木山 Kiyama	214°/3.6NM	木山川と国道443号との交点 Intersection of Kiyama river and national route 443
御船 Mifune	219°/7.4NM	九州自動車道御船インターインジ Kyushu expressway Mifune interchange



RJFT / KUMAMOTO

Minimum Vectoring Altitude CHART

VAR 7°W (2013)



CENTER : 324949N/1305041E (RADAR SITE)