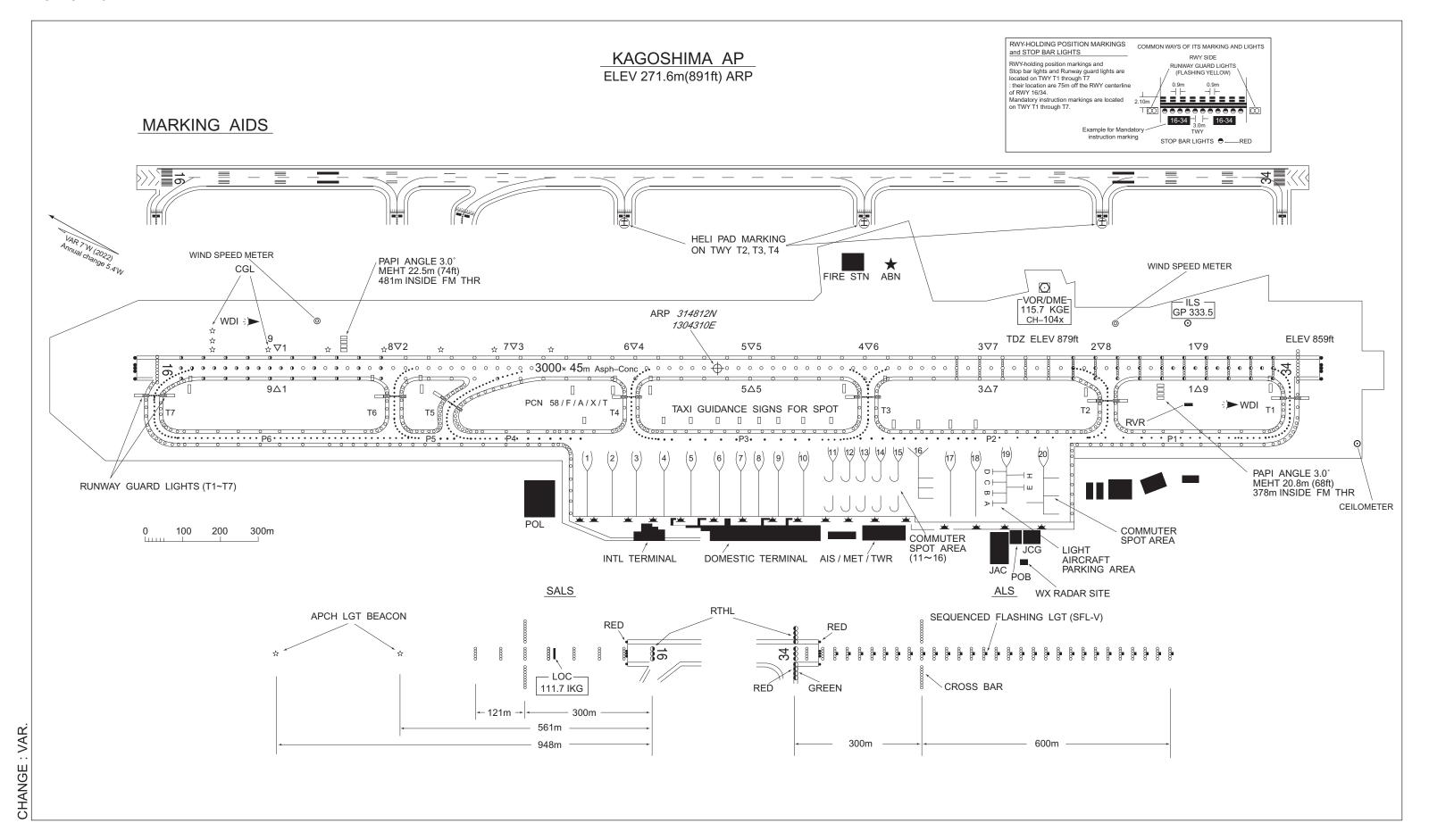
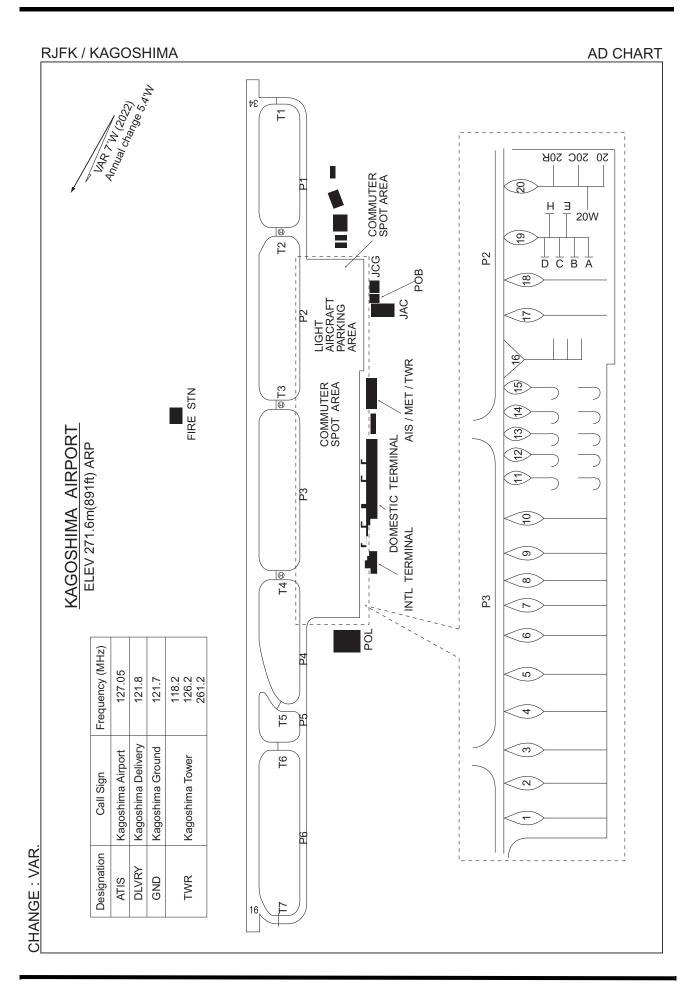
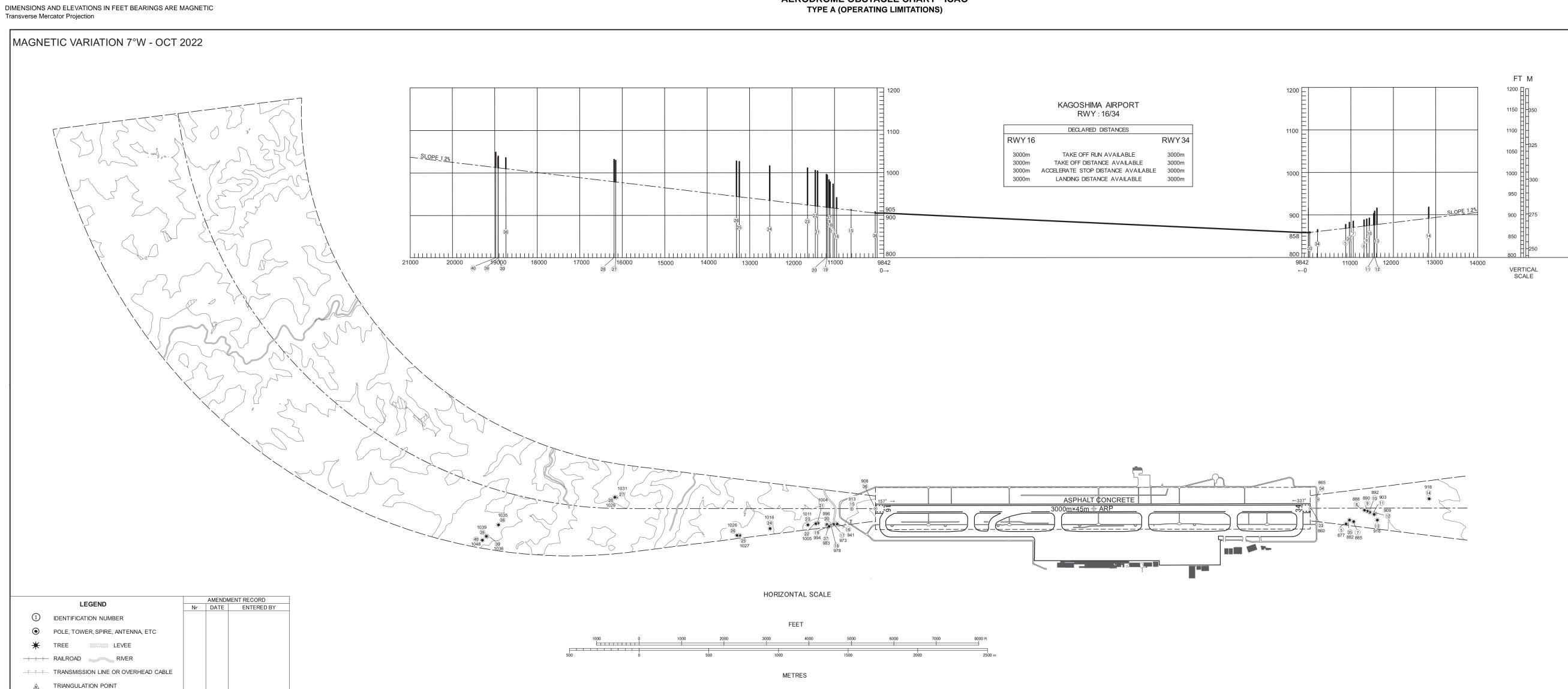
### **AERODROME CHART**



Civil Aviation Bureau, Japan (EFF:3 NOV 2022)

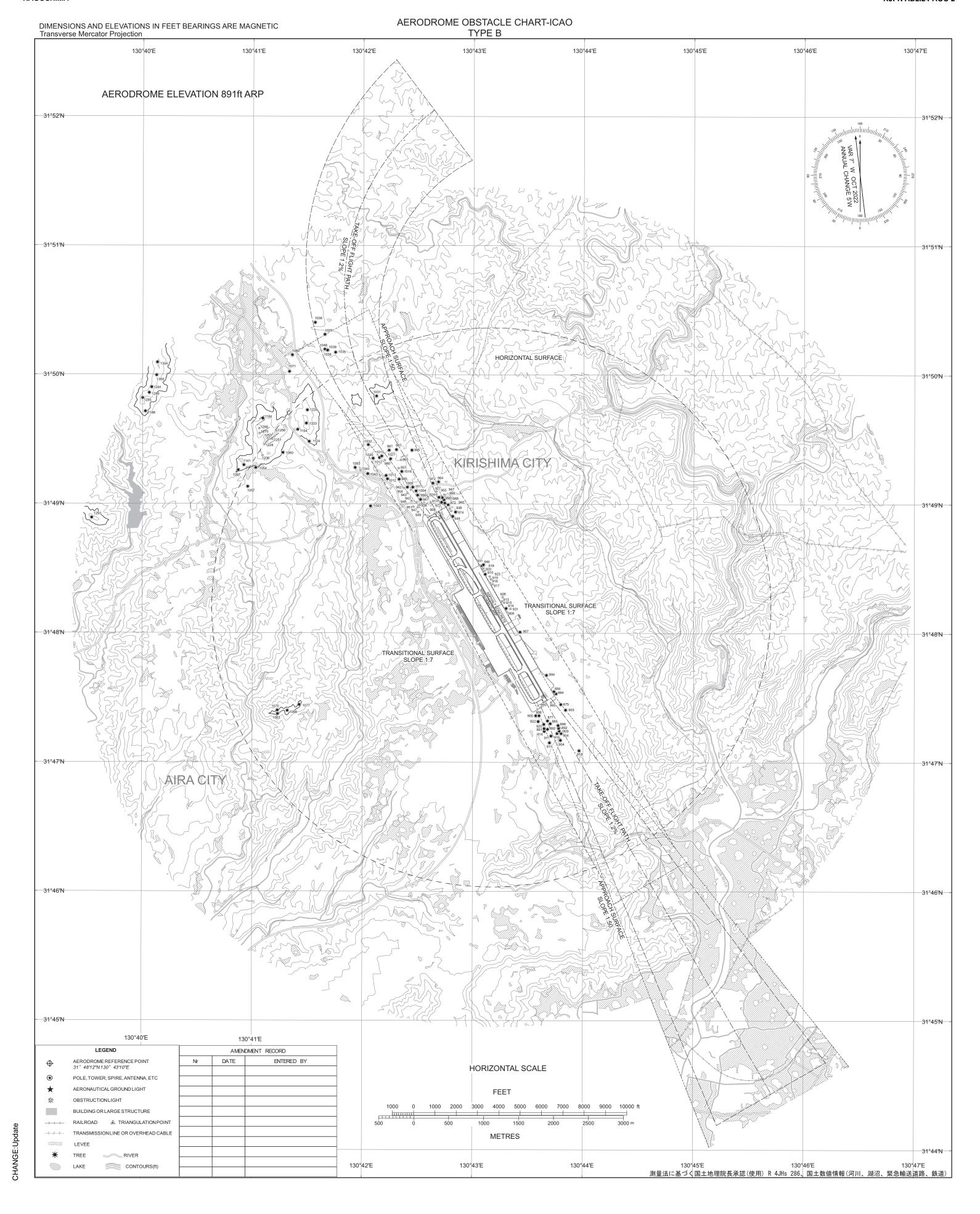




★ AERONAUTICAL GROUND LIGHT BUILDING OR LARGE STRUCTURE

CONTOURS(ft)

測量法に基づく国土地理院長承認(使用) R 4JHs 286、国土数値情報(河川、緊急輸送道路)



Civil Aviation Bureau, Japan (EFF:6 OCT 2022)

RJFK / KAGOSHIMA SID

# NANSHU TWO DEPARTURE

RWY 16: Climb via RWY HDG until 1NM from RWY end/KGE 1.3DME, turn left....

RWY 34: Climb via RWY HDG until 1NM from RWY end/KGE 2.3DME, turn right,...

...direct to KGE VOR/DME, via KGE R238 to HKC VORTAC. Cross KGE VOR/DME at or above 2500FT, cross HKC VORTAC at or above 5000FT.

NOTE: When take off RWY34, following climb gradient should be maintained until 2100FT.

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



Civil Aviation Bureau, Japan (EFF:31 JAN 2019)

# RJFK / KAGOSHIMA

SID and TRANSITION

# OSUMI FIVE DEPARTURE

RWY 16: Climb ...

RWY 34: Climb via RWY HDG until 1NM from RWY end/KGE 2.3DME, turn

right,...

... via KGE R170 to OSUMI.

Note: Following climb gradient should be maintained until 4200FT.

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

# JOKER TRANSITION

From over OSUMI, via HKC R134 to JOKER.

# SAZMA TRANSITION

From over OSUMI, via KGE R170 to KGE 24DME(HKC R146/22DME), turn right, via HKC 25DME clockwise ARC to intercept and proceed via HKC R207 to SAZMA.

Cross KGE R170/24DME(HKC R146/22DME) at or above 8000FT.



#### RJFK / KAGOSHIMA

SID and TRANSITION

# SOGIE THREE DEPARTURE

RWY 16: Climb via RWY HDG until 1NM from RWY end/KGE 1.3DME, turn left, direct to KGE VOR/DME to cross at or above 2500FT,...

RWY 34: Climb via RWY HDG until 1NM from RWY end/KGE 2.3DME, turn right....

... via KGE R348 to SOGIE.

NOTE: When take off RWY34, following climb gradient should be maintained until 2300FT.

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

# **SAKURAJIMA TRANSITION**

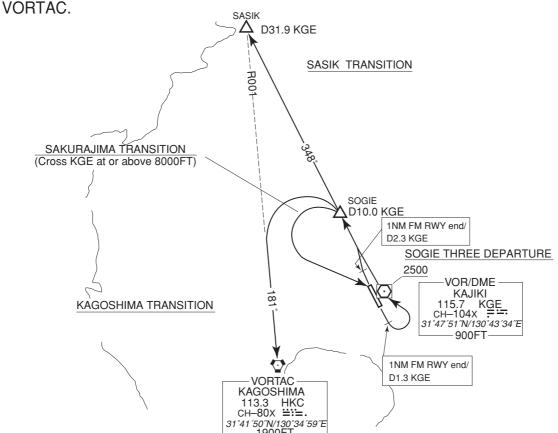
From over SOGIE, turn left, direct to KGE VOR/DME. Cross KGE VOR/DME at or above 8000FT.

# SASIK TRANSITION

From over SOGIE, via KGE R348 to SASIK.

# KAGOSHIMA TRANSITION

From over SOGIE, turn left to intercept and proceed via HKC R001 to HKC



# **RJFK / KAGOSHIMA**

→ SID

# AIRA ONE DEPARTURE

RWY16: Climb via RWY HDG until 1NM from RWY end/KGE 1.3DME, turn right, proceed

to HKC VORTAC. RWY34: (Not established)

Cross HKC VORTAC at or above 5000FT.



RJFK / KAGOSHIMA **RNAV SID** MIDAI THREE DEPARTURE RNAV 1 Note 1) DME/DME/IRU or GNSS required. RWY16: HKC:7NM to OICHI — 2NM to OICHI KGE:7NM to OICHI — 2NM to OICHI Critical DME %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. RWY16: DER - 7NM to OICHI 2) RADAR service required. DME GAP RWY34: DER - 12NM to SMIKO Inappropriate Navaids | See AD 1.1.6.10.3. Inappropriate NAVAIDs for RNAV1 VAR 7°W VOR/DME MIYAZAKI 112.4 MZE CH-71X ==... VOR/DME KAJIKI 115.7 KGE CH-104X :---31°47′51″N/130°43′34″E 31°52′43″N/131°26′15″E 100FT -900FT MIYAZAKIAP 337 2000 FK400 315023.2N 1304844.2E 157 <u>ځ.</u> 1300 4 OICHI 9.4 313712.8N 20.3 099 1304725.8E 099 FL160 **SMIKO** MIDAI 313657.5N 313621.1N 1305824.7E 1312212.7E 7000 0

RWY16: Climb on HDG 157° at or above 1300FT, turn right direct to OICHI, to SMIKO at or above 7000FT, to MIDAI at or above FL160.

RWY34 : Climb on HDG 337° at or above 2000FT, turn right direct to FK400, to SMIKO at or above 7000FT, to MIDAI at or above FL160.

Note RWY34: 5.0% climb gradient required up to 3100FT.

OBST ALT 3117FT located at 7.7NM 046° FM end of RWY34.

# RJFK / KAGOSHIMA

**RNAV SID** 

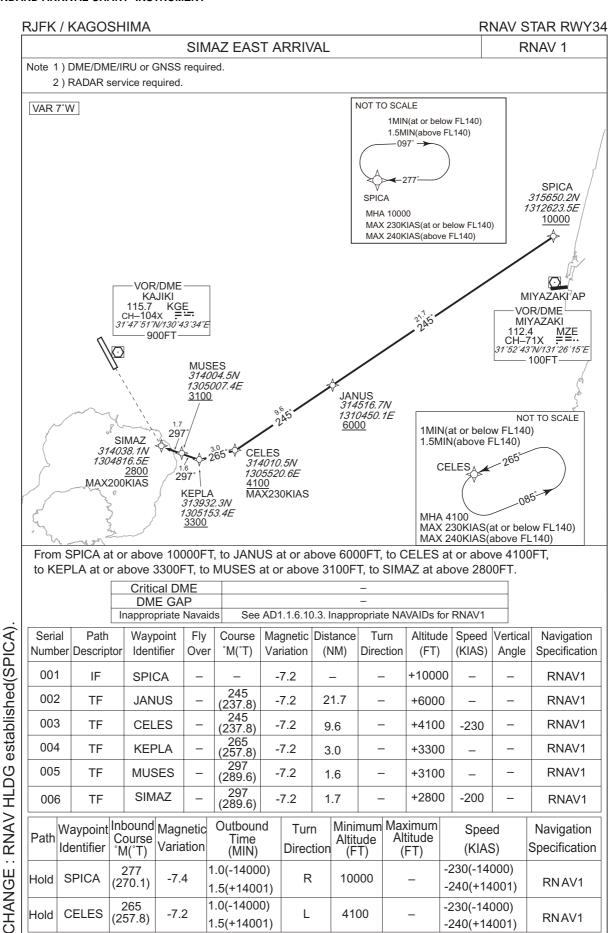
# MIDAI THREE DEPARTURE

# RWY16

Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	VA	_	_	157 (150.1)	-7.2	_	_	+1300	_	_	RNAV1
002	DF	OICHI	_	_	-7.2	_	R	_	-	_	RNAV1
003	TF	SMIKO	_	099 (091.5)	-7.2	9.4	_	+7000	_	_	RNAV1
004	TF	MIDAI	_	099 (091.6)	-7.2	20.3	_	+FL160	_	_	RNAV1

# RWY34

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	_	_	337 (330.1)	-7.2	_	_	+2000	_	_	RNAV1
002	DF	FK400	_	_	-7.2	_	R	_	_	_	RNAV1
003	TF	SMIKO	_	156 (148.5)	-7.2	15.8	_	+7000	_	_	RNAV1
004	TF	MIDAI	_	099 (091.6)	-7.2	20.3	_	+FL160	_	_	RNAV1



# CHANGE : RNAV HLDG established. HLDG for using NAVAID abolished(HKC)

1MIN(at or below FL140) 1.5MIN(above FL140)

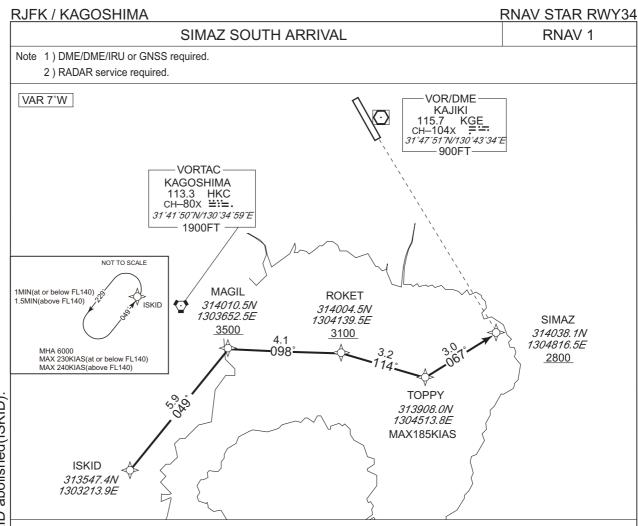
#### RJFK / KAGOSHIMA **RNAV STAR RWY34** SIMAZ NORTH ARRIVAL RNAV 1 Note 1) DME/DME/IRU or GNSS required. 2) RADAR service required. VAR 7°W VOR/DME KAJIKI 115.7 KGE CH-104X F:-31°47′51″N/130°43′34″E 900FT VORTAC-KAGOSHIMA 113.3 HKC CH–80x ≌:≡ 31°41′50″N/130°34′59″E 1900FT KAGOSHIMA(HKC) 314150.0N 1303458.6E 6.0 SIMAZ 3500 314038.1N 1304816.5E 3.2 2800 ROKET NOT TO SCALE MHA 5000 MAX 230KIAS(at or below FL140) 314004.5N 1304139.5E TOPPY MAX 240KIAS (above FL140) 3100 313908.0N KAGOSHIMA 1304513.8E (HKC) MAX185KIAS

From HKC at or above 3500FT, to ROKET at or above 3100FT, to TOPPY, to SIMAZ at or above 2800FT.

Critical DME	KGE: 3NM to ROKET - SIMAZ
DME GAP	HKC - 3NM to ROKET
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	IF	HKC	_	_	-6.9	_	ı	+3500	ı	_	RNAV1
002	TF	ROKET	_	114 (107.2)	-6.9	6.0	ı	+3100	ı	_	RNAV1
003	TF	TOPPY	_	114 (107.2)	-6.9	3.2	1	_	-185	_	RNAV1
004	TF	SIMAZ	_	067 (059.9)	-6.9	3.0	_	+2800	_	_	RNAV1

Path	Waypoint Identifier	(:Alireal	Magnetic Variation	Lime	Turn Direction	Altitude	Maximum Altitude (FT)	Оросса	Navigation Specification
Hold	HKC	115 (107.1)	-7.4	1.0(-14000) 1.5(+14001)	R	5000	_	-230(-14000) -240(+14001)	RNAV1



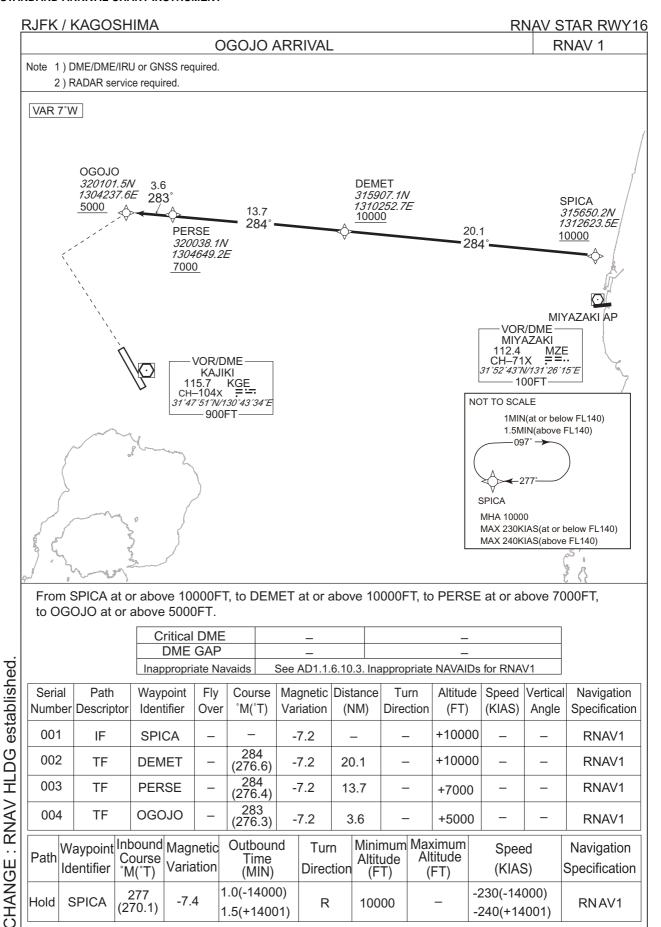
From ISKID, to MAGIL at or above 3500FT, to ROKET at or above 3100FT, to TOPPY, to SIMAZ at or above 2800FT.

Critical DME	-
DME GAP	ISKID - 3NM to MAGIL 1NM to MAGIL - SIMAZ
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	IF	ISKID	_	_	-6.9	_	-	_	_	_	RNAV1
002	TF	MAGIL	_	049 (042.0)	-6.9	5.9	_	+3500	_	_	RNAV1
003	TF	ROKET	_	098 (091.4)	-6.9	4.1	-	+3100	-	_	RNAV1
004	TF	TOPPY	_	114 (107.2)	-6.9	3.2	_	_	-185	_	RNAV1
005	TF	SIMAZ	_	067 (059.9)	-6.9	3.0	_	+2800	_	_	RNAV1

Pat	Waypoint Identifier	( 'Alirea	Magnetic Variation	lıma	Turn Direction	Altitude	Maximum Altitude (FT)	Орсса	Navigation Specification
Hold	ISKID	049 (042.0)	-7.4	1.0(-14000) 1.5(+14001)	L	6000	_	-230(-14000) -240(+14001)	RN AV1

#### RNAV STAR RWY34 RJFK / KAGOSHIMA KINKOH ARRIVAL RNAV 1 Note 1) DME/DME/IRU or GNSS required. 2) RADAR service required. VOR/DME VAR 7°W KAJIKI 115.7 KGE CH–104X **Ξ ≔** 31°47′51″W130°43′34″E -900FT $\bigcirc$ ZAIHO **VORTAC KAGOSHIMA** 313801.8N 113.3 HKC CH-80x **∷**:= 1305001.9E 3300 31°41′50″N/130°34′59″E 1900FT YOGAN 313146.3N 1305414.5E 6000 CHANGE: RNAV HLDG established. HLDG for using NAVAID abolished(YOGAN) **IROHA** NOT TO SCALE 312837.6N 1305117.6E 7000 YOGAN 1MIN(at or below FL140) .5MIN(above FL140) KINKO MHA 6000 311958.2N MAX 230KIAS(at or below FL140) 1304312.0E MAX 240KIAS (above FL140) From KINKO, to IROHA at or above 7000FT, to YOGAN at or above 6000FT, to ZAIHO at or above 3300FT. 10.2NM to IROHA - 5.7NM to IROHA 5.6NM to IROHA - 2.4NM to IROHA Critical DME 2.4NM to ZAIHO - 1.2NM to ZAIHO HKC: 4.4NM to ZAIHO - 1.3NM to ZAIHO DME GAP See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1 Inappropriate Navaids Path Serial Waypoint Fly Course Magnetic Distance Turn Altitude Speed Vertical Navigation Number Descriptor Identifier Over °M(°T) Variation (NM) Direction (FT) (KIAS) Angle Specification 001 **KINKO** RNAV1 IF -6.9 045 002 +7000 TF **IROHA** -6.9 11.1 RNAV1 (038.6)046 003 +6000 RNAV1 TF YOGAN -6.9 4.0 (038.6)337 004 +3300 TF ZAIHO -6.9 7.2 RNAV1 (330.2)Waypoint Inbound Magnetic Minimum Maximum Outbound Turn Navigation Speed Path Altitude Course Time Altitude Variation Identifier Specification Direction (KIAS) (MIN) °M(°T) (FT) (FT) 1.0(-14000) -230(-14000) 338 -7.4 R 6000 Hold YOGAN RNAV1 (330.2)1.5(+14001) -240(+14001)



# **RNAV STAR RWY16** RJFK / KAGOSHIMA YUKSA ARRIVAL RNAV 1 Note 1) DME/DME/IRU or GNSS required. 2) RADAR service required. VAR 7°W JADDO SEPPE 320827.6N 320755.5N 1304908.6E 1303856.6E 8.7 10000 280° MOCOS > 320740.4N 1305350.6E 281° 10000 YUKSA 320313.3N ∜ 1303258.9E 5000 VOR/DME KAJIKI 115.7 KGE CH-104X 31°47′51″N/130°43′34″E -900FT

From MOCOS at or above 10000FT, to SEPPE at or above 10000FT, to JADDO, to YUKSA at or above 5000FT.

Critical DME	MZE	2NM to JADDO - JADDO				
	KUE	1NM to YUKSA - YUKSA				
	MZE	1NM to YUKSA - YUKSA				
DME GAP	_	_				
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1					

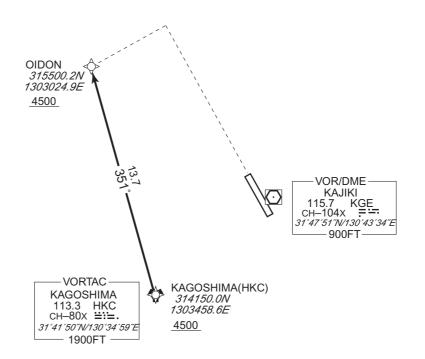
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	MOCOS	_	_	-6.9	_	_	+10000	_	_	RNAV1
002	TF	SEPPE	-	281 (273.6)	-6.9	4.0	_	+10000	_	-	RNAV1
003	TF	JADDO	_	280 (273.6)	-6.9	8.7	_	_	_	_	RNAV1
004	TF	YUKSA	_	231 (224.0)	-6.9	7.3	_	+5000	_	_	RNAV1

# RJFK / KAGOSHIMA RNAV STAR RWY16 OIDON ARRIVAL RNAV 1

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

2) RADAR service required.

VAR 7°W

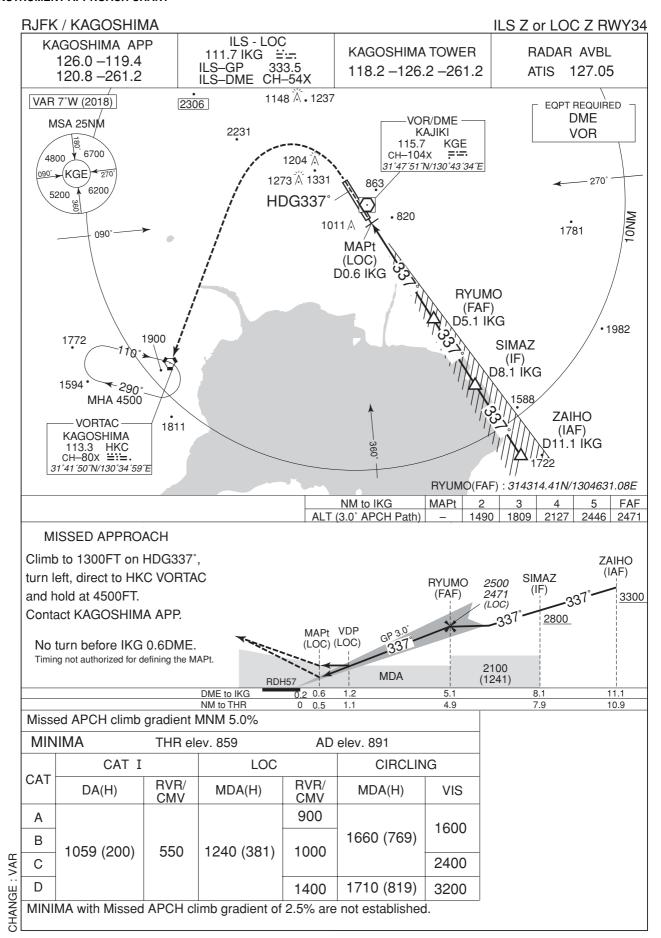


From HKC at or above 4500FT, to OIDON at or above 4500FT.

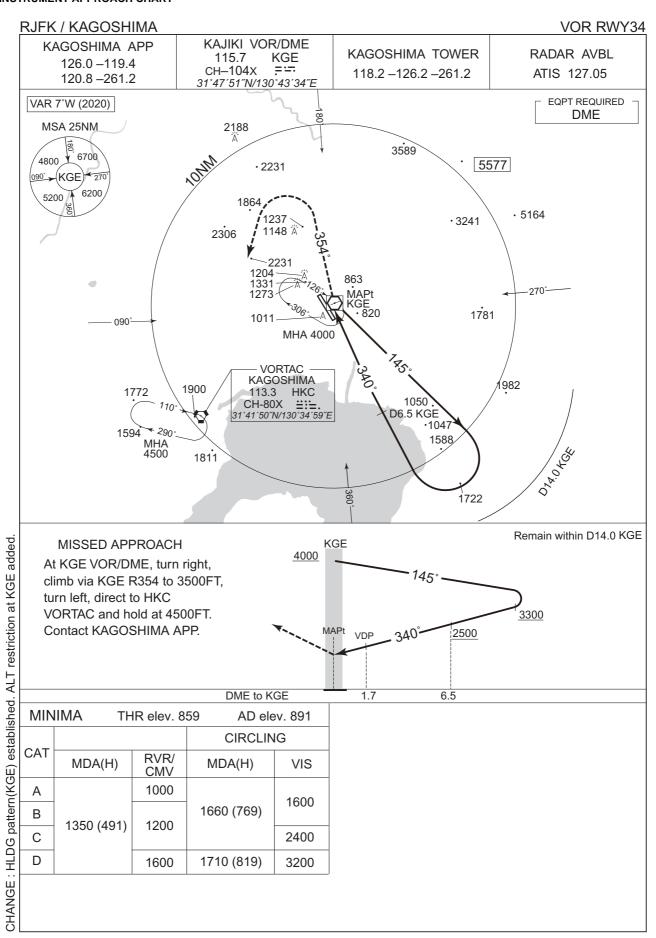
Critical DME	HKC	7NM to OIDON - OIDON				
DME GAP	HKC - 10NM to OIDC	N				
Inappropriate Navaids	See AD1.1.6.10.3	. Inappropriate NAVAIDs for RNAV1				

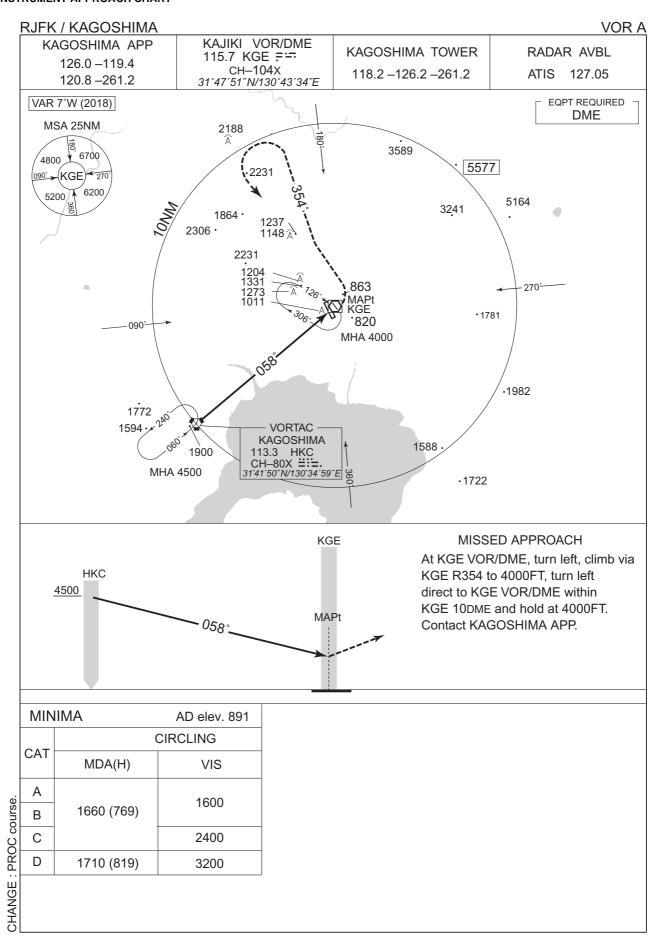
Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	IF	HKC	_	_	-6.9	_	_	+4500	_	_	RNAV1
002	TF	OIDON	_	351 (343.6)	-6.9	13.7	_	+4500	_	_	RNAV1

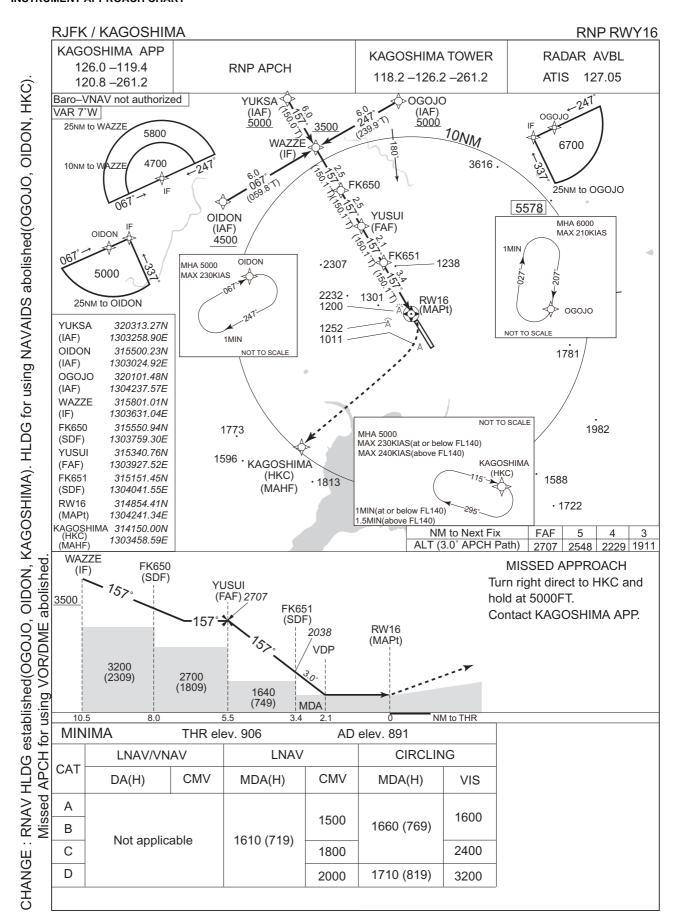




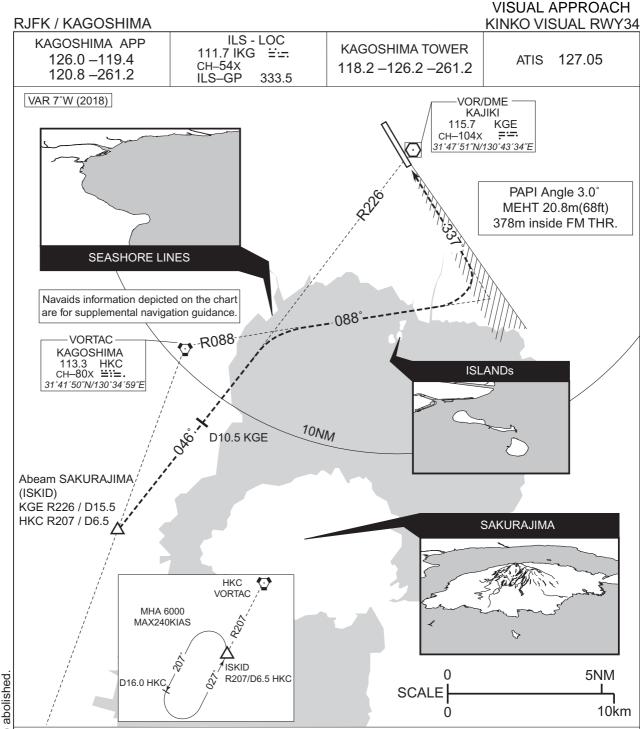












When visual approaches to RWY34 are in progress, arriving aircraft may be vectored into the ISKID for KINKO VISUAL RWY34 APPROACH.

In the event of a go-around, climb via IKG LOC and RWY HDG to 3500FT until receiving ATC instructions.

#### <KINKO VISUAL RWY34 APPROACH>

After ISKID, aircraft proceed via seashore lines to the mouth of the Beppu River (KGE R226), proceed via seashore lines to ISLANDs(HKC R088) until intercept to RWY34 RWY center line, and proceed to RWY34(IKG LOC course).

Aircraft is recommended KGE 10.5DME(HKC R167) at or above 3500FT.

Note1: Pilot is urged to report promptly to ATC when lose sight of landmark(SAKURAJIMA, Seashore Lines and ISLANDs) and the preceding aircraft concerned.

Note2: Reference NAVAIDS(KGE, HKC and IKG LOC) must be operating.

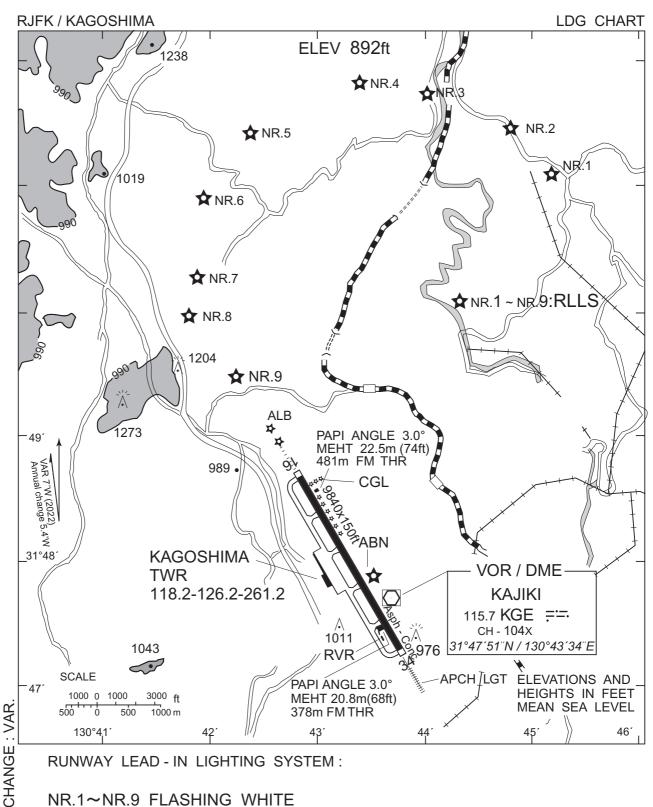
Note3: RADAR service required.

Note4: Procedure not authorized at night.



※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).

	Call sign	BRG / DIST from ARP	Remarks			
ARP.	鶴田ダム Tsuruta Dam	314°T / 16.0NM	ダム Dam			
from	栗野 Kurino	001°T / 8.8NM	JR駅 JR Station			
BRG/DIST	神宮 Jingu	081°T / 6.1NM	JR駅 JR Station			
	蒲生 Kamo	254°T / 6.8NM	住吉池 Pond			
pdated	都城 Miyakonojo	102°T / 18.6NM	JR駅 JR Station			
Map updated.	加治木タウン Kajiki Town	214°T / 5.3NM	網掛川河口 River mouth (The Amikake)			
	大崎鼻 Osakibana	211°T / 10.0NM	崎 Point			
CHANGE	鹿児島シティ Kagoshima City	211°T / 14.7NM	港 Harbor			



RUNWAY LEAD - IN LIGHTING SYSTEM:

NR.1~NR.9 FLASHING WHITE



