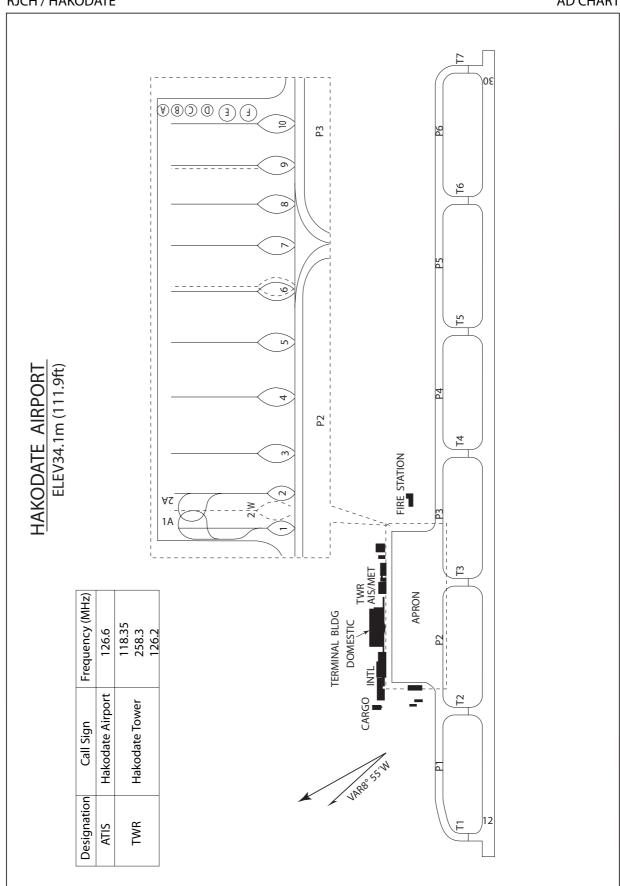
#### **AERODROME CHART**



## AIRCRAFT PARKING/DOCKING CHART

RJCH / HAKODATE **AD CHART** 



## AIP Japan HAKODATE

# AERODROME OBSTACLE CHART - ICAO TYPE A (OPERATING LIMITATIONS)

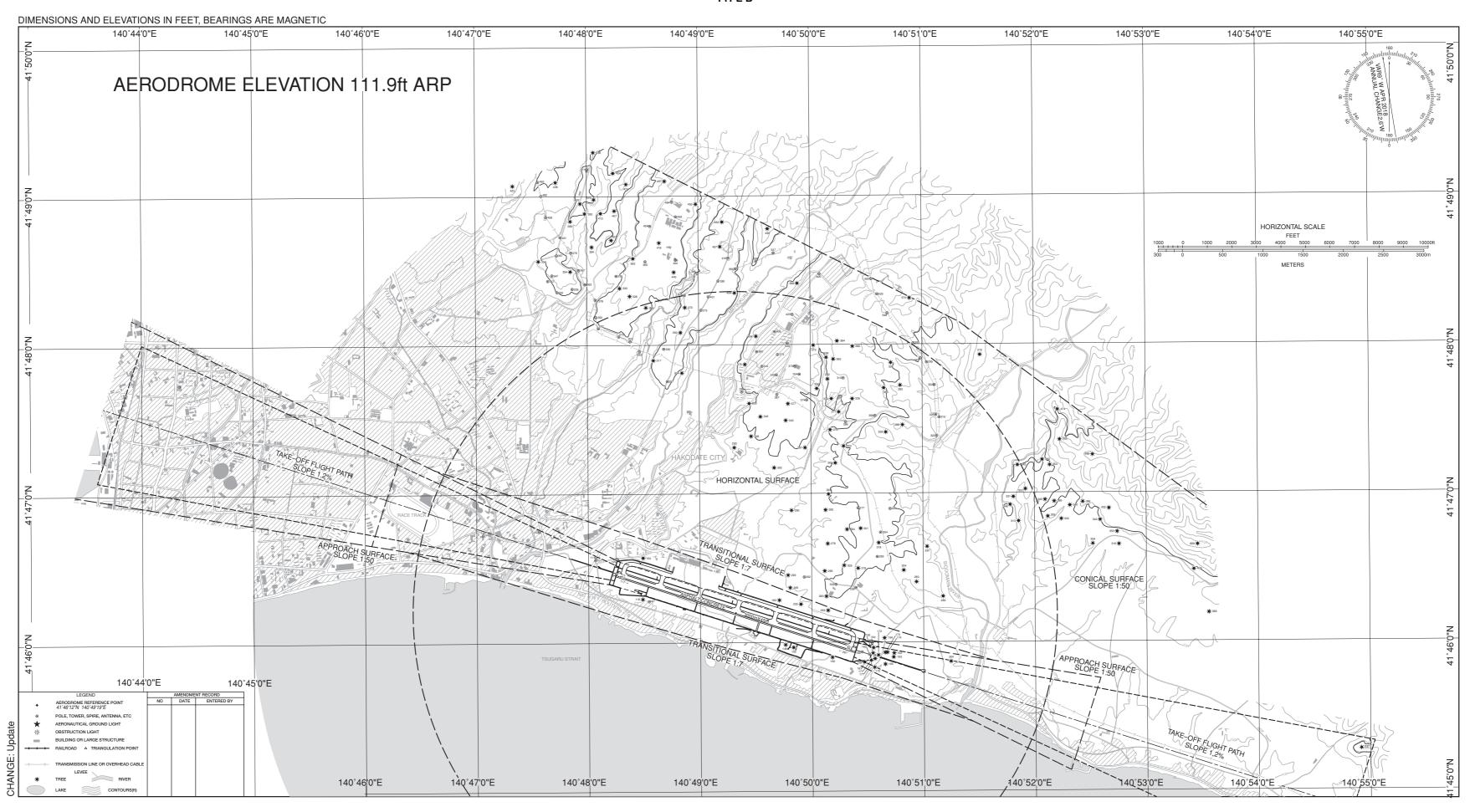


# AERODROME OBSTACLE CHART - ICAO TYPE A (OPERATING LIMITATIONS)

DIMENSIONS AND ELEVATIONS IN FEET, BEARINGS ARE MAGNETIC



# AERODROME OBSTACLE CHART - ICAO



#### **RJCH / HAKODATE**

SID and TRANSITION

# HAKODATE SOUTH SEVEN DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn right HDG239°...

RWY 30: Climb RWY HDG until 500FT, turn left HDG149°...

...to intercept and proceed via HWE R194 to MRE VOR/DME.

Cross HWE R194/30.0DME at or above 6000FT.

Note RWY12: 4.0% climb gradient required up to 1300FT.

OBST ALT 919FT located at 3.43NM 105° FM end of RWY12.

RWY30: 5.4% climb gradient required up to 1600FT.

OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.

## HAKODATE REVERSAL FIVE DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn right HDG239°...

RWY 30: Climb RWY HDG until 500FT, turn left HDG149°...

...to intercept and proceed via HWE R194 to 3000FT, turn right direct to HWE VOR/DME.

Cross HWE VOR/DME at or above 5000FT.

Note RWY12: 4.0% climb gradient required up to 1300FT.

OBST ALT 919FT located at 3.43NM 105° FM end of RWY12.

RWY30: 5.4% climb gradient required up to 1600FT.

OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.

## TAPPI SEVEN DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn right HDG272°...

RWY 30: Climb RWY HDG until 500FT, turn left HDG182°...

...to intercept and proceed via HWE R227 to TAPPI. Cross TAPPI at or above FL170.

Note RWY12: 4.0% climb gradient required up to 1300FT.

OBST ALT 919FT located at 3.43NM 105° FM end of RWY12.

RWY30: 5.4% climb gradient required up to 1600FT.

OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.

## YUWA TRANSITION

From over TAPPI, proceed via UWE R008 to UWE VOR/DME.

Cross UWE R008/21.0DME at assigned altitude.

### **ESASI FIVE DEPARTURE**

RWY 12: Climb RWY HDG until 600FT, turn right HDG340°...

RWY 30: Climb RWY HDG until 700FT, turn right,...

...to intercept and proceed via HWE R295 to ESASI.

Note RWY12: 4.9% climb gradient required up to 1300FT.

OBST ALT 919FT located at 3.43NM 105° FM end of RWY12.

## TIKYU ONE DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn left,...

RWY 30: Climb RWY HDG until 600FT, turn left HDG073°...

...to intercept and proceed via HWE R118 to TIKYU.

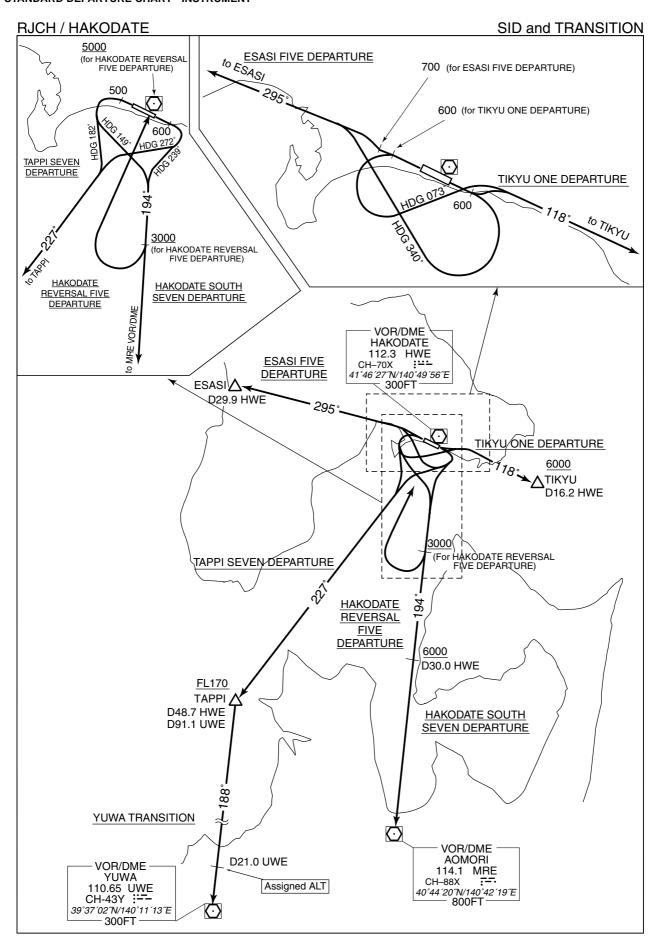
Cross TIKYU at or above 6000FT.

Note RWY12: 6.3% climb gradient required up to 1700FT.

OBST ALT 1302FT located at 4.03NM 101° FM end of RWY12.

RWY30 : 5.4% climb gradient required up to 1600FT.

OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.



RJCH / HAKODATE		RNAV SI	D and TRANSITION
	ONE DEPARTURE I TRANSITION		RNAV1
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	RWY12: MRE: 30.0NM to  RWY30: MRE: 47.6NM to  HWE: 47.6NM to  KOMACHI Transition:  MRE: TAPPI - 24.0NM to U'  HWE: TAPPI - 55.0NM to U  UWE: 55.0NM to UWE - 24  HPE: 16.0NM to UWE - UWE	TAPPI – TAPPI TAPPI – 40.0NM to TAPPI WE WE .0NM to UWE
	DME GAP		6NM to TAPPI If to UWE – 22.0NM to UWE If to UWE – 16.0NM to UWE
	Inappropriate Navaids	See AD1.1.6.10.3. Inapprop	riate NAVAIDs for RNAV1
VAR 9°W (2014)  TSUGA	ARU ONE DEPARTURE	297° 500 600 117°	VOR/DME HAKODATE 112.3 HWE CH-70X :::- 41'46'27'N/140'49'56'E 300FT
KOMACHI TRANSITION	TAPPI 410805.5N 1400954.5E		
YUWA(UWE) 393701.7N 1401113.0E	VOR/DME — YUWA 110.65 UWE CH-43Y :=- 39°37′02″N/140°11′13 300FT	VOR/DME AOMORI 114.1 MRE CH-88X : 40°44′20″N/140°42′19″E 800FT	
TSUGARU ONE DEPARTURE			
RWY12 : Climb on HDG117° at RWY30 : Climb on HDG297° at		· ·	
NOTE RWY12 : 4.0% climb gradient re OBST ALT 919FT loca RWY30 : 5.4% climb gradient re OBST ALT 1296FT loc	ated at 3.43NM 105° equired up to 1600FT	FM end of RWY12.	
KOMACHI TRANSITION From TAPPI, to UWE.			

# RJCH / HAKODATE

# RNAV SID and TRANSITION

# TSUGARU ONE DEPARTURE

### RWY12

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	_	_	117 (108.0)	-8.9	_	_	+600	_	_	RNAV1
002	DF	TAPPI	_	_	-8.9	_	R	_	_	_	RNAV1

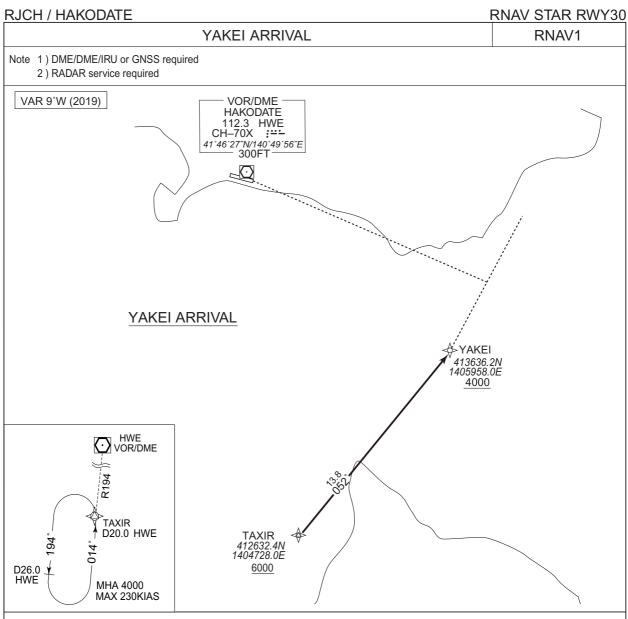
### RWY30

Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	$^{\circ}M(^{\circ}T)$	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	VA	_	_	297 (288.1)	-8.9	_	_	+500	_	_	RNAV1
002	DF	TAPPI	_	_	-8.9	_	L	_	_	_	RNAV1

## **KOMACHI TRANSITION**

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	TAPPI	_	_	-8.9	_	_	_	_	_	RNAV1
002	TF	UWE	_	188 (179.4)	-8.9	91.1	_	_	_	_	RNAV1

### STANDARD ARRIVAL CHART - INSTRUMENT



## YAKEI ARRIVAL

From TAXIR at or above 6000FT, to YAKEI at or above 4000FT.

Critical DME	MKE: TAXIR – 10.0NM to YAKEI HWE: 3.0NM to YAKEI – YAKEI
DME GAP	_
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	TAXIR	_	_	-9.4	_	_	+6000	_	_	RNAV1
	002	TF	YAKEI	_	052 (042.9)	-9.4	13.8	_	+4000	_	_	RNAV1

#### STANDARD ARRIVAL CHART - INSTRUMENT

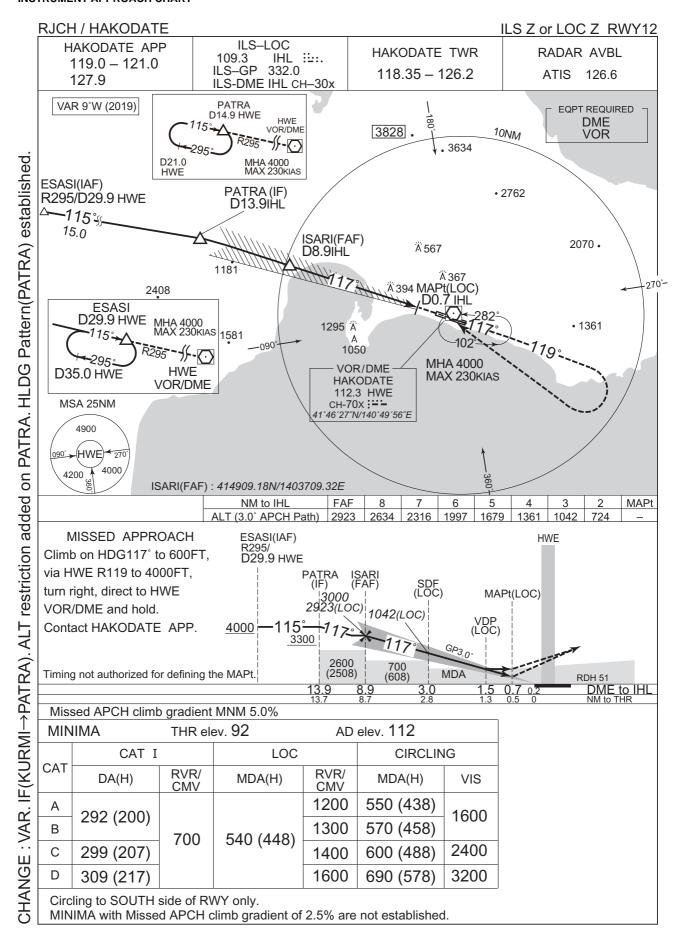
# RJCH / HAKODATE **RNAV STAR RWY12** PATRA ARRIVAL RNAV1 Note 1) DME/DME/IRU or GNSS required 2) RADAR service required VAR 9°W (2019) **PATRA** 415041.1N 1403046.9E VOR/DME 4000 **HAKODATE** 112.3 HWE CH-70X :--41°46′27″N/140°49′56″E 300FT 4.3 KANTA ∜ 414635.2N 1402901.6E PATRA ARRIVAL HWE VOR/DME R194 TAXIR D20.0 HWE TAXIR 412632.4N 1404728.0E 194 D26.0 ¥ HWE MHA 4000 MAX 230KIAS

## PATRA ARRIVAL

From TAXIR at or above 6000FT, to KANTA, to PATRA at or above 4000FT.

Critical DME	MRE: 18.0NM to KANTA – KANTA HWE: 2.2NM to KANTA – KANTA
DME GAP	KANTA – PATRA
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

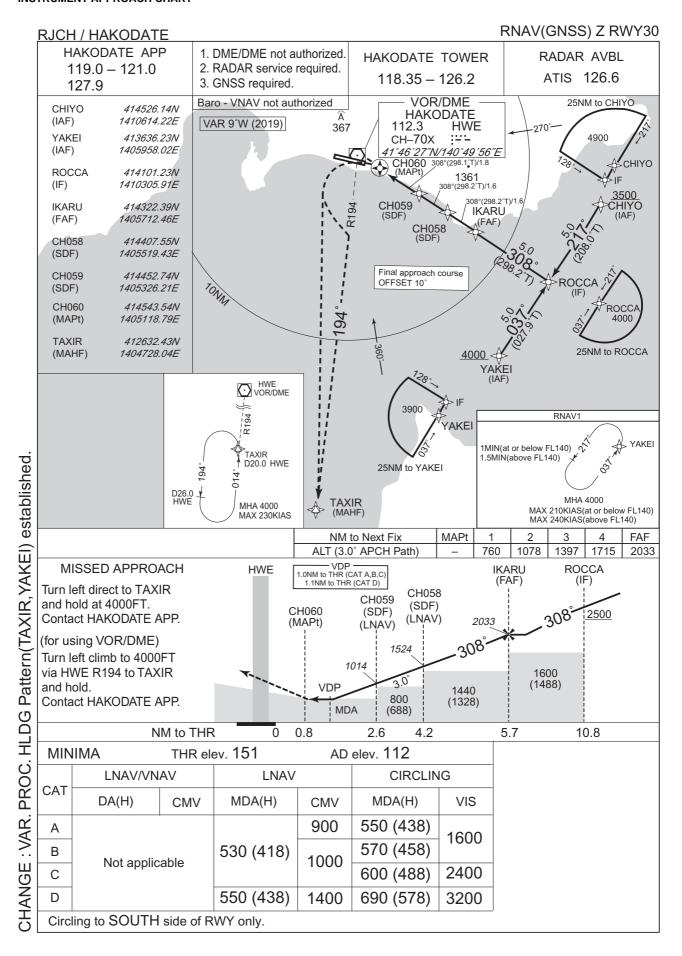
Serial	Path	Waypoint	Fly	Course	Magnetic	Distance	Turn	Altitude	Speed	Vertical	Navigation
Number	Descriptor	Identifier	Over	°M(°T)	Variation	(NM)	Direction	(FT)	(KIAS)	Angle	Specification
001	IF	TAXIR	_	_	-9.4	_	_	+6000	_	_	RNAV1
002	TF	KANTA	_	335 (325.6)	-9.4	24.3	_	_	_	_	RNAV1
003	TF	PATRA	_	027 (017.7)	-9.4	4.3	_	+4000	_	_	RNAV1

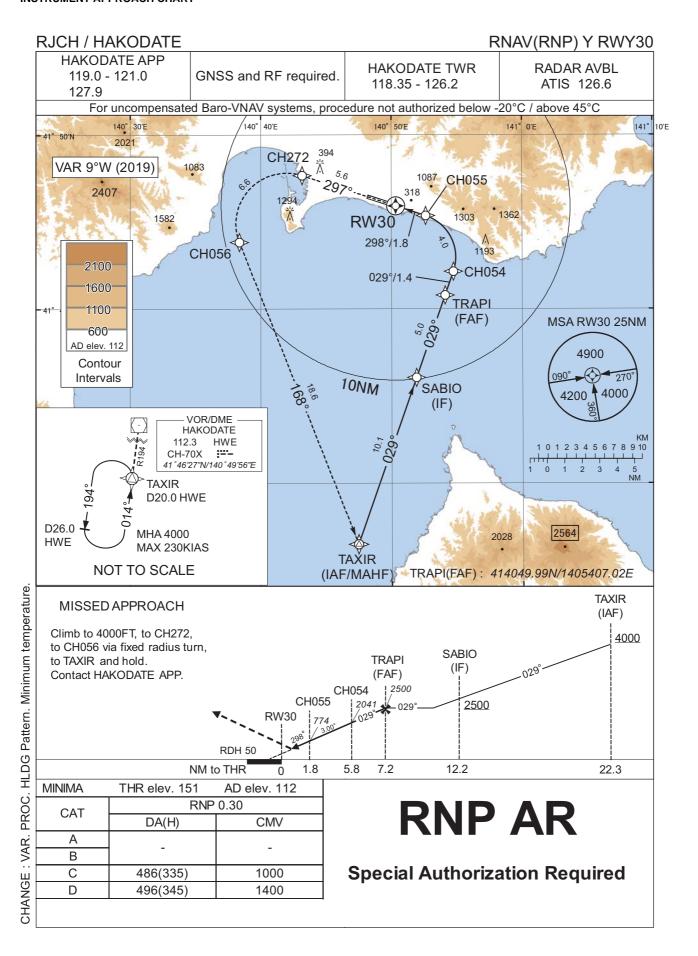












# RJCH / HAKODATE

# RNAV(RNP) Y RWY30

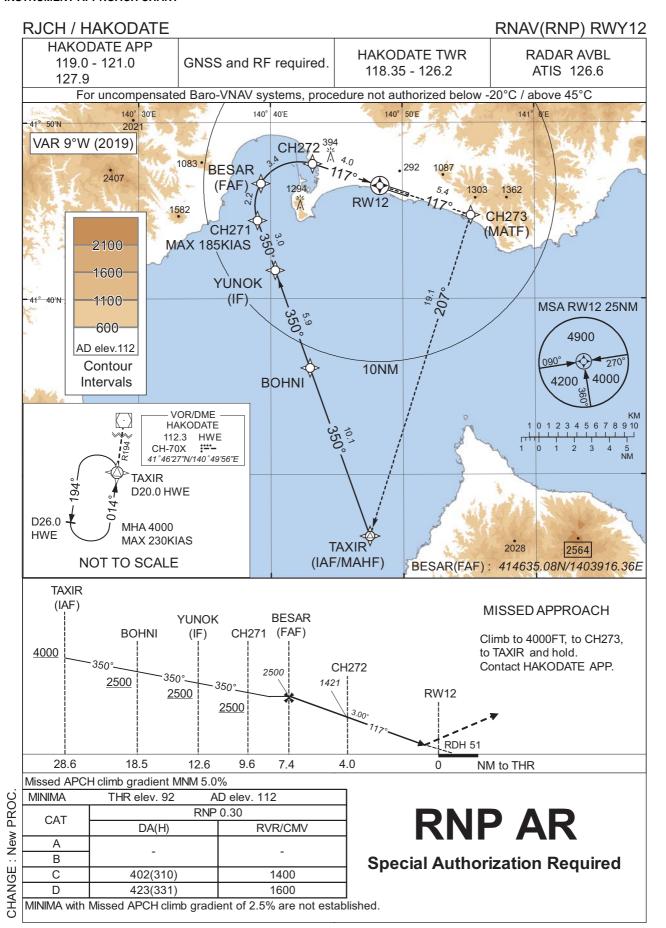
# RNAV(RNP) Y RWY30

# **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	TAXIR	-	-	-9.4	-	-	+4000	-	-	-
002	TF	SABIO	-	029 (019.2)	-9.4	10.1	-	+2500	-	-	1.0
003	TF	TRAPI	-	029 (019.2)	-9.4	5.0	ı	2500	1	1	1.0
004	TF	CH054	-	029 (019.2)	-9.4	1.4	ı	2041	-	-3.00	0.3
005	RF Center: CHRF3 r=2.50NM	CH055	1	-	-9.4	4.0	٦	774	-	-3.00	0.3
006	TF	RW30	Υ	298 (288.1)	-9.4	1.8	-	201	-	-3.00/50	0.3
007	TF	CH272	-	297 (288.1)	-9.4	5.6	-	-	-	-	1.0
008	RF Center: CHRF4 r=2.90NM	CH056	-	-	-9.4	6.6	L	-	-	-	1.0
009	TF	TAXIR	-	168 (158.5)	-9.4	18.6	1	4000	-	-	1.0

# Waypoint Coordinates

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
TAXIR	412632.43N / 1404728.04E	CHRF3	414301.30N / 1405136.09E
SABIO	413606.58N / 1405154.81E	CHRF4	414456.26N / 1404159.49E
TRAPI	414049.99N / 1405407.02E		
CH054	414211.71N / 1405445.20E		
CH055	414524.03N / 1405238.26E		
RW30	414557.54N / 1405021.00E		
CH272	414742.10N / 1404311.31E		
CH056	414352.33N / 1403822.94E		



# RJCH / HAKODATE

# RNAV(RNP) RWY12

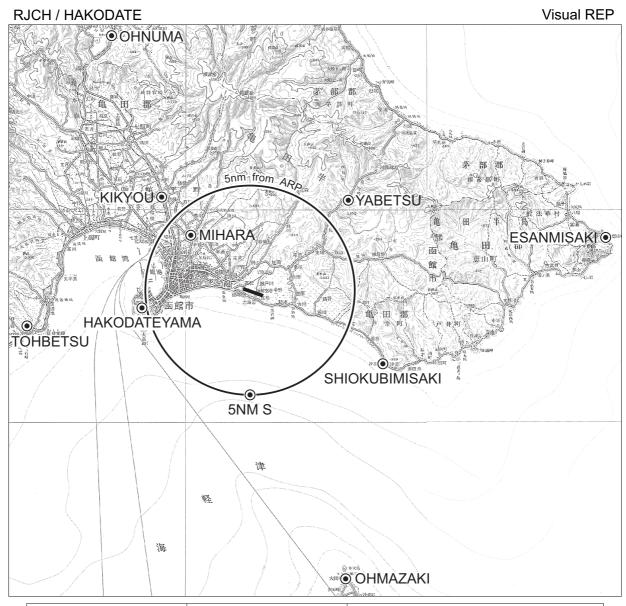
# RNAV(RNP) RWY12

# 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	TAXIR	-	-	-9.4	-	-	+4000	-	-	-
002	TF	BOHNI	-	350 (340.6)	-9.4	10.1	-	+2500	-	-	1.0
003	TF	YUNOK	-	350 (340.6)	-9.4	5.9	-	+2500	-	-	1.0
004	TF	CH271	-	350 (340.5)	-9.4	3.0	-	+2500	-185	-	1.0
005	RF Center: CHRF5 r=2.50NM	BESAR	-	-	-9.4	2.2	R	2500	-	-	1.0
006	RF Center: CHRF5 r=2.50NM	CH272	-	-	-9.4	3.4	R	1421	-	-3.00	0.3
007	TF	RW12	Υ	117 (108.0)	-9.4	4.0	-	143	-	-3.00/51	0.3
800	TF	CH273	1	117 (108.1)	-9.4	5.4	-	-	-	-	1.0
009	TF	TAXIR	-	207 (197.6)	-9.4	19.1	-	4000	-	-	1.0

# **Waypoint Coordinates**

Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
TAXIR	412632.43N / 1404728.04E	CHRF5	414519.29N / 1404209.46E
BOHNI	413606.23N / 1404258.19E		
YUNOK	414139.34N / 1404020.87E		
CH271	414429.13N / 1403900.50E		
BESAR	414635.08N / 1403916.36E		
CH272	414742.10N / 1404311.31E		
RW12	414627.62N / 1404817.61E		
CH273	414446.88N / 1405510.13E		



Call sign	BRG / DIST from ARP	Remarks
矢 別 Yabetsu	052°/ 5.7NM	ダム Dam
恵 山 岬 Esanmisaki	089°/16.4NM	灯台 Lighthouse
汐 首 岬 Shiokubimisaki	128°/ 7.3NM	灯台 Lighthouse
大 間 崎 Ohmazaki	170°/14.2NM	岬 Cape
5NM S	180°/ 5.0NM	海上 Over the sea
美原 Mihara	319°/ 4.5NM	ラジオアンテナ Radio antenna
桔 梗 Kikyou	325°/ 5.7NM	JR駅 JR Station
当 別 Tohbetsu	270°/11.5NM	トラピスト修道院 Religious house
函館山 Hakodateyama	271°/ 5.3NM	テレビ塔 TV tower
大 沼 Ohnuma	340°/14.4NM	JR駅 JR Station

LDG CHART



