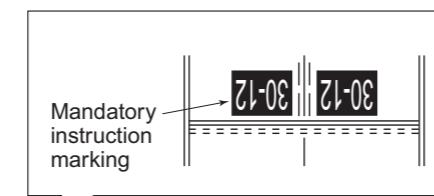


AERODROME CHART

MARKING AIDS



HAKODATE AIRPORT
ELEV34.1m (111.9ft)

A schematic diagram of a 3D-printed microfluidic device. It features a central horizontal channel with several vertical reservoirs connected to it. The reservoirs are labeled with numbers: 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, and 31. A scale bar at the bottom indicates a length of 30 micrometers.

CHANGE : AIS abolished.

AIRCRAFT PARKING/DOCKING CHART

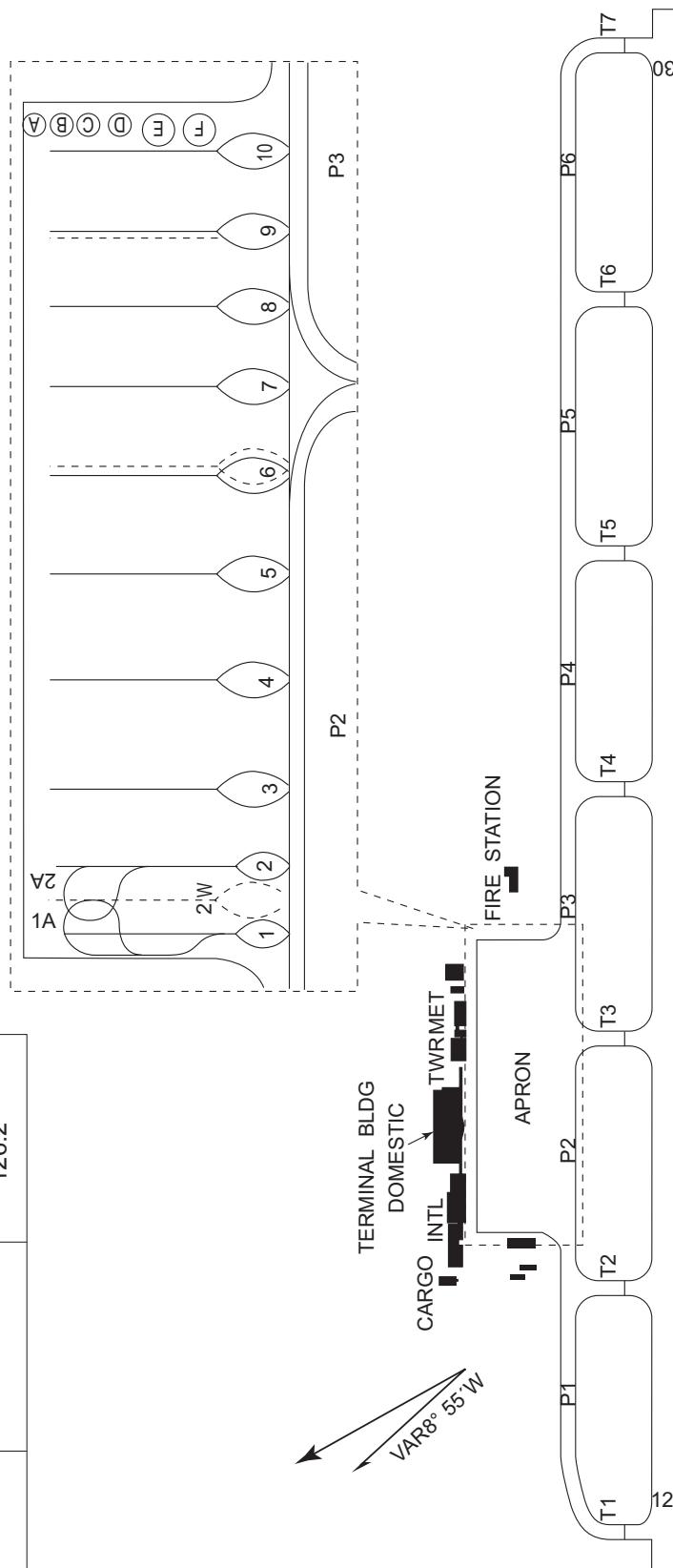
RJCH / HAKODATE

AD CHART

CHANGE : AIS abolished.

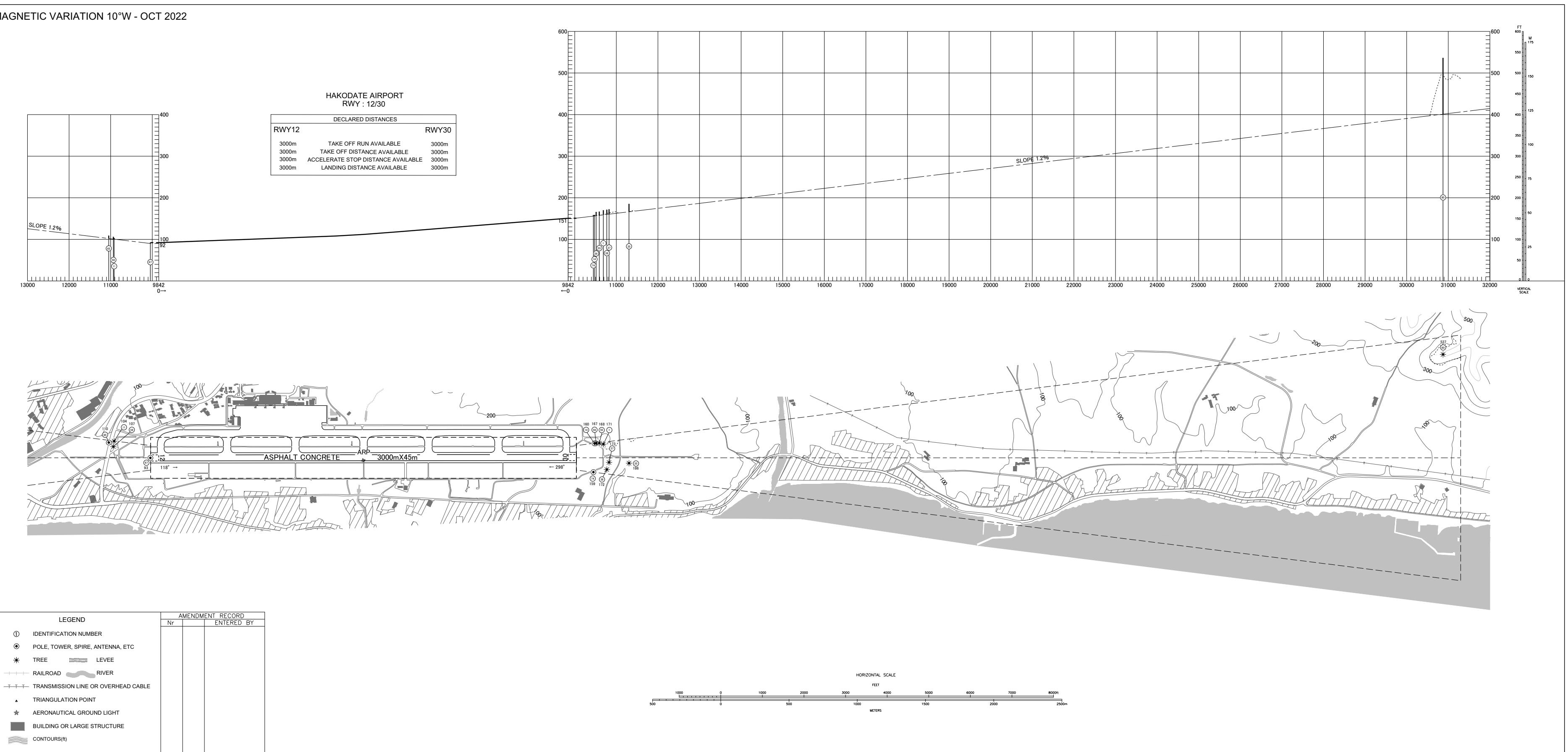
HAKODATE AIRPORT
ELEV34.1m (111.9ft)

Designation	Call Sign	Frequency (MHz)
ATIS	Hakodate Airport	126.6
TWR	Hakodate Tower	118.35 126.2



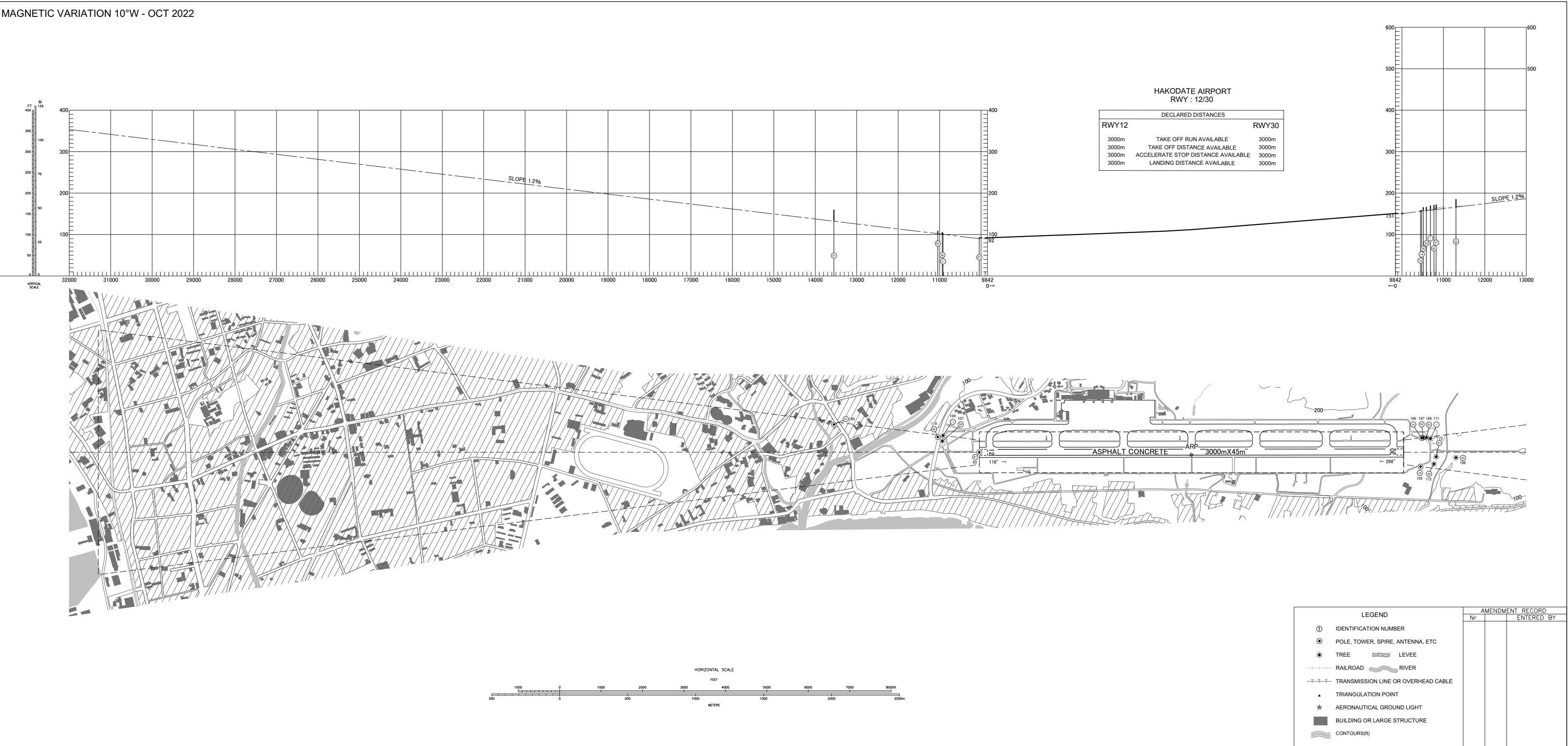
DIMENSIONS AND ELEVATIONS IN FEET, BEARINGS ARE MAGNETIC
Transverse Mercator Projection

AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)



DIMENSIONS AND ELEVATIONS IN FEET, BEARINGS ARE MAGNETIC
Transverse Mercator Projection

AERODROME OBSTACLE CHART - ICAO
TYPE A (OPERATING LIMITATIONS)



AERODROME OBSTACLE CHART - ICAO TYPE B

**DIMENSIONS AND ELEVATIONS IN FEET, BEARINGS ARE MAGNETIC
Transverse Mercator Projection**



CHANGE:Update

STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

SID

HAKODATE REVERSAL SIX DEPARTURE

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

RWY 30: Climb RWY HDG to 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.

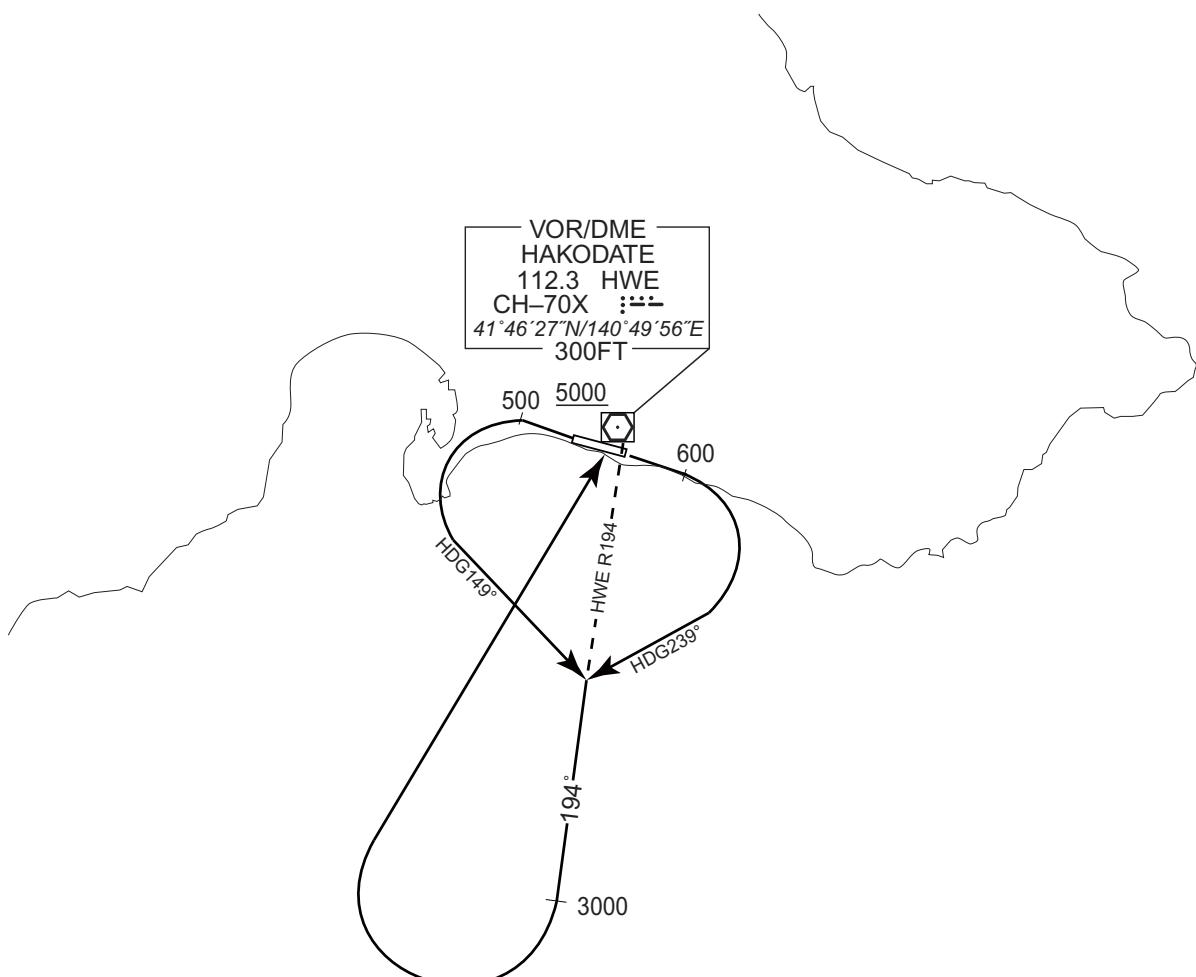
Note RWY12 : 4.0% climb gradient required up to 600FT.

OBST ALT 657FT located at 3.4NM 108° FM end of RWY12.

RWY30 : 5.2% climb gradient required up to 1600FT.

OBST ALT 1294FT located at 4.6NM 268° FM end of RWY30.

CHANGE : PROC renamed(HAKODATE REVERSAL SIX DEPARTURE). PROC abolished(HAKODATE SOUTH SEVEN DEPARTURE, TAPP1 SEVEN DEPARTURE, YUWA TRANSITION, ESASI SIX DEPARTURE, TIKYU ONE DEPARTURE). Note(HAKODATE REVERSAL SIX DEPARTURE).



STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE	RNAV SID and TRANSITION
TSUGARU TWO DEPARTURE KOMACHI TRANSITION	RNP1
Note GNSS required.	
TSUGARU TWO DEPARTURE RWY12 : Climb on HDG118° at or above 600FT, turn right direct to TAPPI. RWY30 : Climb on HDG298° at or above 500FT, turn left direct to TAPPI. Note RWY12 : 4.0% climb gradient required up to 600FT. OBST ALT 657FT located at 3.4NM 108° FM end of RWY12. RWY30 : 5.2% climb gradient required up to 1600FT. OBST ALT 1294FT located at 4.6NM 268° FM end of RWY30.	
KOMACHI TRANSITION From TAPPI, to UWE.	

CHANGE : Description of VAR, HWE, UWE, MRE, Note.

STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

RNAV SID and TRANSITION

TSUGARU TWO DEPARTURE

RWY12

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	-	-	118 (108.0)	-9.6	-	-	+600	-	-	RNP1
002	DF	TAPPI	-	-	-9.6	-	R	-	-	-	RNP1

RWY30

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	-	-	298 (288.1)	-9.6	-	-	+500	-	-	RNP1
002	DF	TAPPI	-	-	-9.6	-	L	-	-	-	RNP1

KOMACHI 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	TAPPI	-	-	-9.6	-	-	-	-	-	RNP1
002	TF	UWE	-	189 (179.4)	-9.6	91.1	-	-	-	-	RNP1

Waypoint Coordinates

Waypoint Identifier	Coordinates
TAPPI	410805.5N / 1400954.5E
UWE	393701.7N / 1401113.0E

CHANGE : Waypoint Coordinates added.

STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

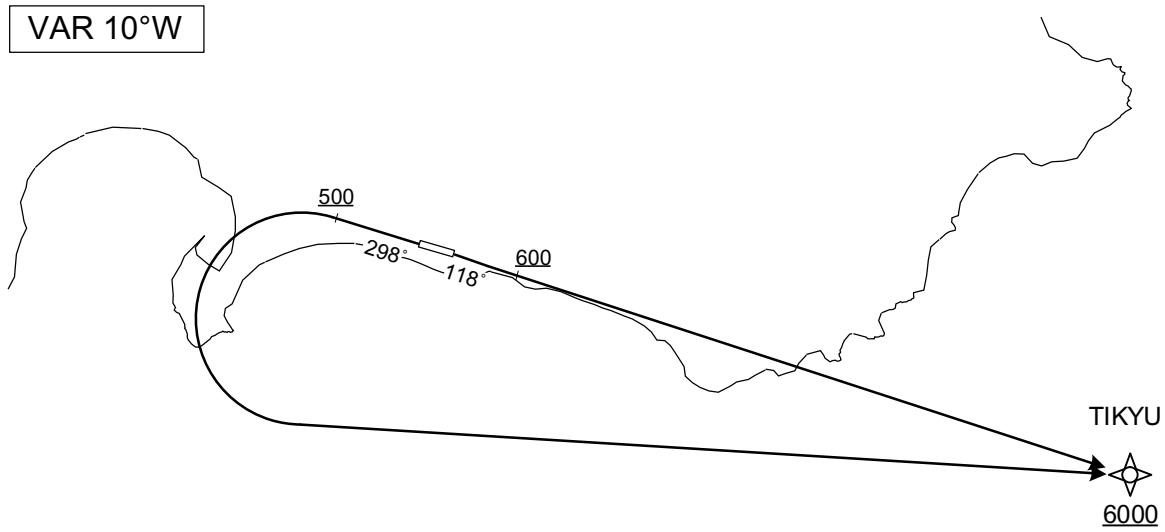
RNAV SID

TOI ONE DEPARTURE

RNP1

Note GNSS required.

VAR 10°W



RWY12 : Climb on HDG118° at or above 600FT, direct to TIKYU at or above 6000FT.

RWY30 : Climb on HDG298° at or above 500FT, turn left direct to TIKYU at or above 6000FT.

Note RWY12 : 6.0% climb gradient required up to 1500FT.

OBST ALT 1247FT located at 3.6NM 101° FM end of RWY12.

RWY30 : 5.2% climb gradient required up to 1600FT.

OBST ALT 1294FT located at 4.6NM 268° FM end of RWY30.

RWY12

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	-	-	118 (108.1)	-9.6	-	-	+600	-	-	RNP1
002	DF	TIKYU	-	-	-9.6	-	-	+6000	-	-	RNP1

RWY30

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	-	-	298 (288.1)	-9.6	-	-	+500	-	-	RNP1
002	DF	TIKYU	-	-	-9.6	-	L	+6000	-	-	RNP1

Waypoint Coordinates

Waypoint Identifier	Coordinates
TIKYU	414102.5N / 1411021.5E

CHANGE : Waypoint Coordinates added.

STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

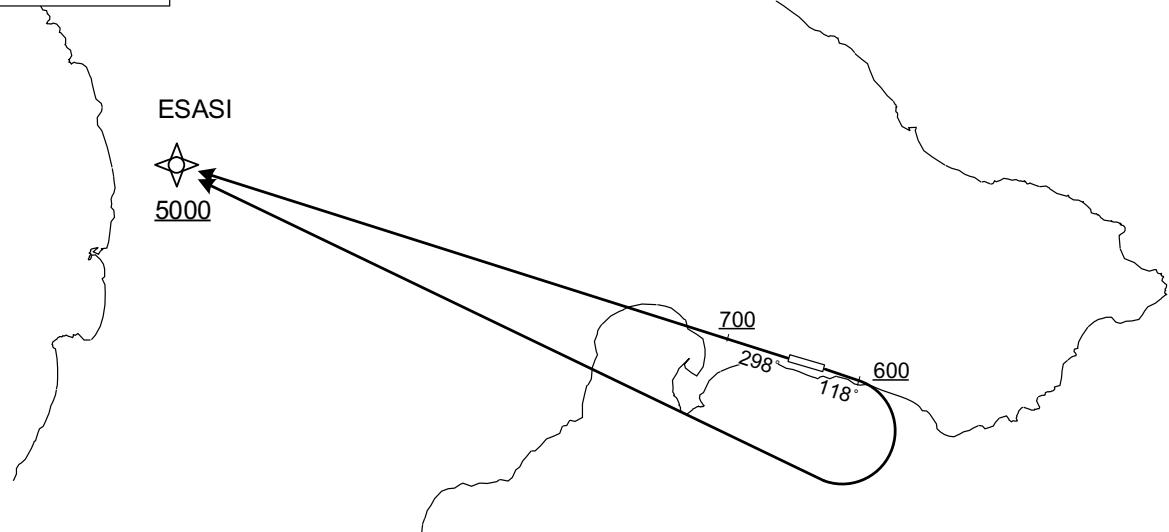
RNAV SID

OKUSHIRI ONE DEPARTURE

RNP1

Note GNSS required.

VAR 10°W



RWY12 : Climb on HDG118° at or above 600FT, turn right direct to ESASI at or above 5000FT.
 RWY30 : Climb on HDG298° at or above 700FT, direct to ESASI at or above 5000FT.

Note RWY12 : 4.0% climb gradient required up to 600FT.

OBST ALT 657FT located at 3.4NM 108° FM end of RWY12.

RWY30 : 3.4% climb gradient required up to 700FT.

OBST ALT 1969FT located at 12.2NM 304° FM end of RWY30.

RWY12

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	-	-	118 (108.1)	-9.6	-	-	+600	-	-	RNP1
002	DF	ESASI	-	-	-9.6	-	R	+5000	-	-	RNP1

RWY30

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	-	-	298 (288.1)	-9.6	-	-	+700	-	-	RNP1
002	DF	ESASI	-	-	-9.6	-	-	+5000	-	-	RNP1

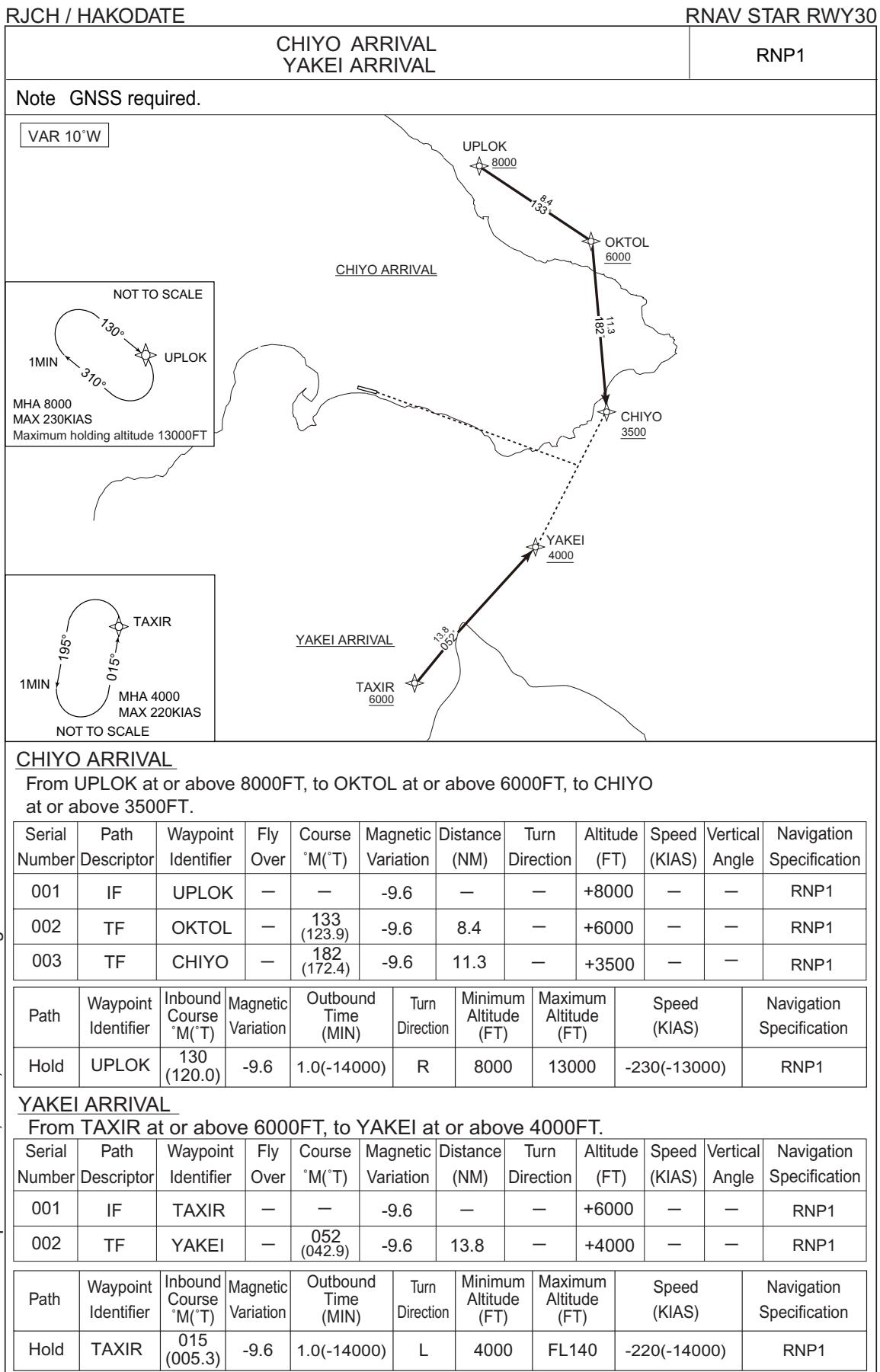
Waypoint Coordinates

Waypoint Identifier	Coordinates
ESASI	415448.3N / 1401124.5E

CHANGE : Waypoint Coordinates added.

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STANDARD ARRIVAL CHART - INSTRUMENT



STANDARD ARRIVAL CHART - INSTRUMENT

RJCH/HAKODATE

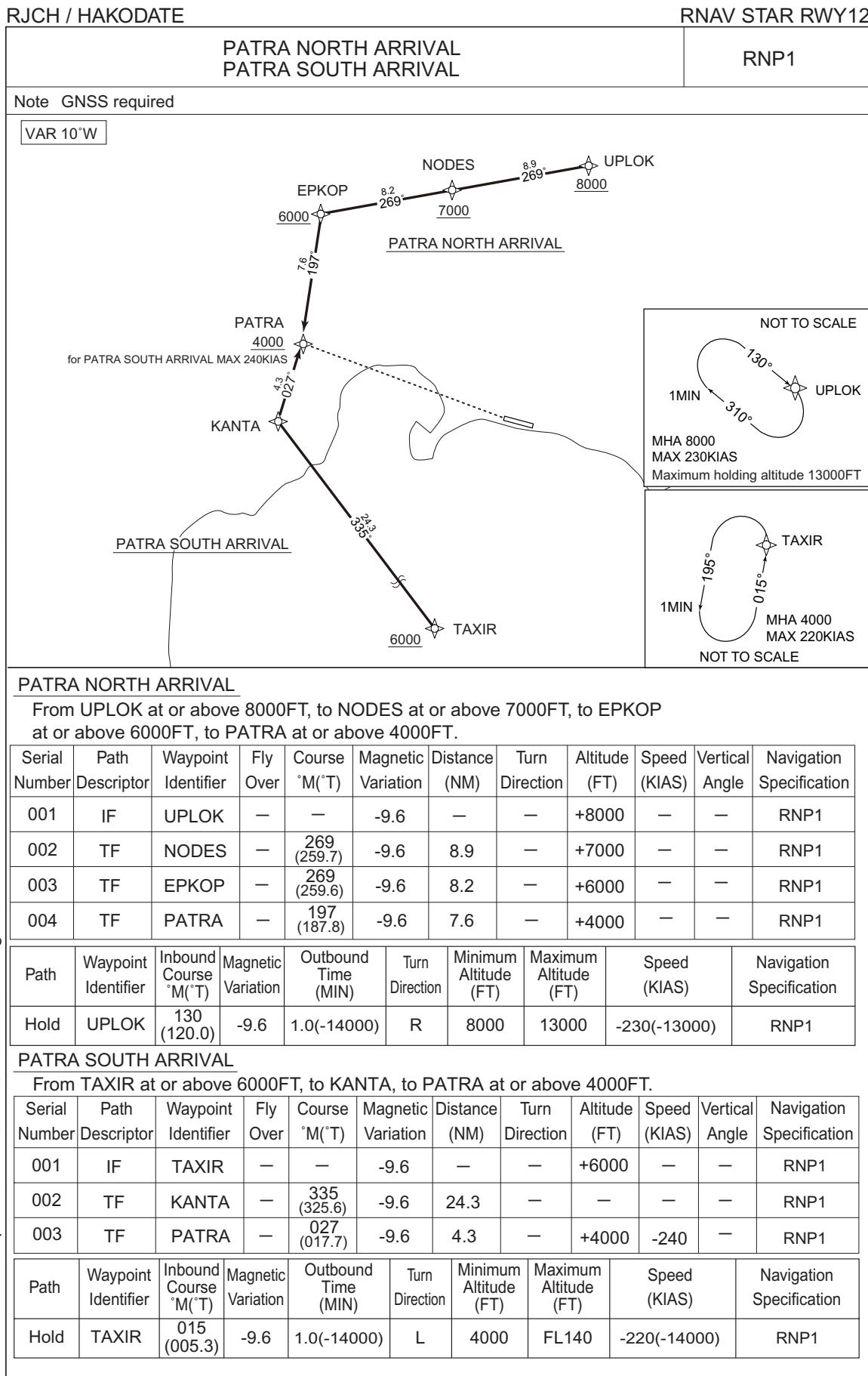
RNAV STAR

Waypoint Coordinates

Waypoint Identifier	Coordinates
UPLOK	420119.1N / 1405451.7E
OKTOL	415638.3N / 1410413.3E
CHIYO	414526.1N / 1410614.2E
TAXIR	412632.4N / 1404728.0E
YAKEI	413636.2N / 1405958.0E

CHANGE : Waypoint Coordinates added.

STANDARD ARRIVAL CHART - INSTRUMENT



STANDARD ARRIVAL CHART - INSTRUMENT

RJCH/HAKODATE

RNAV STAR

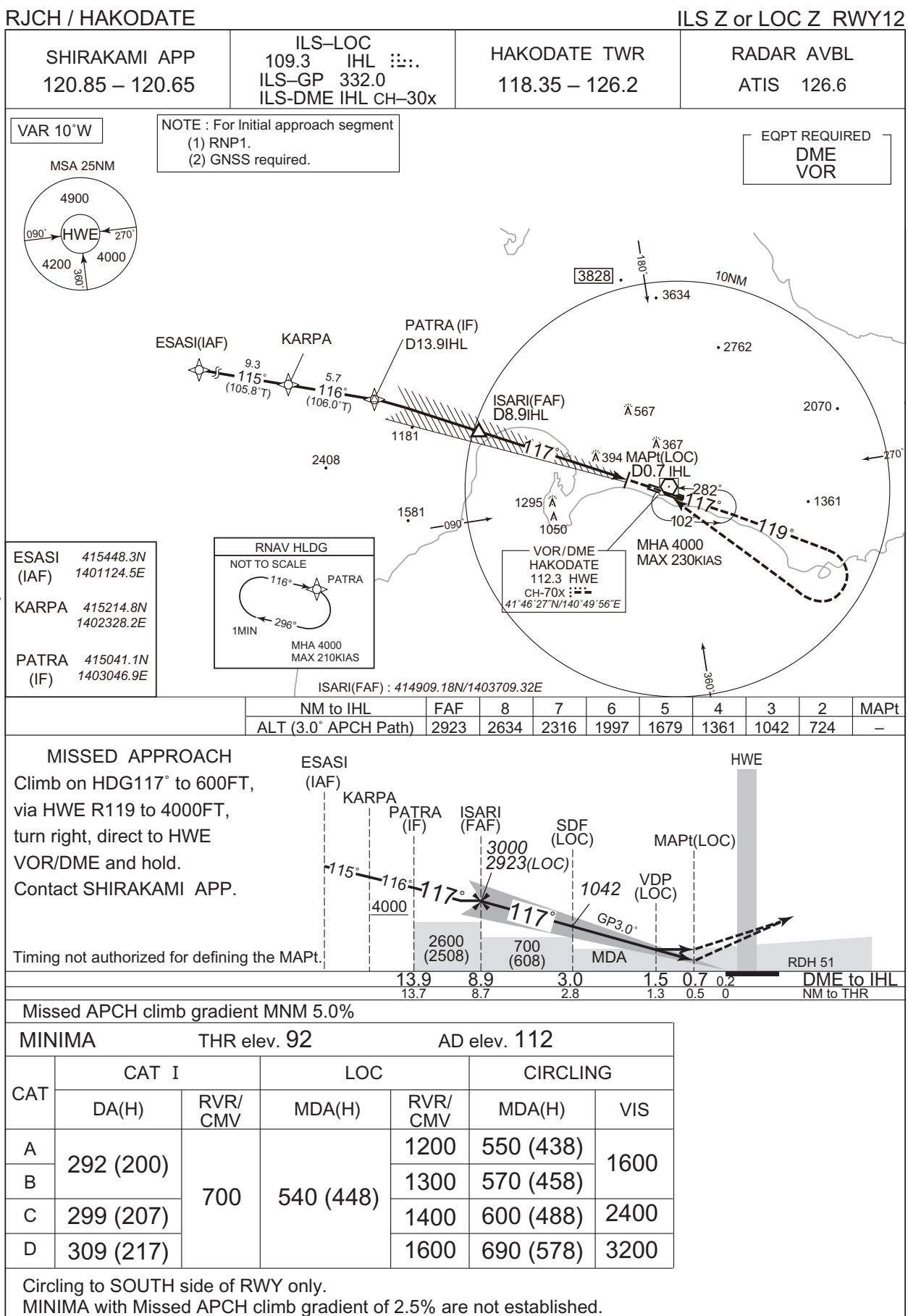
Waypoint Coordinates

Waypoint Identifier	Coordinates
UPLOK	420119.1N / 1405451.7E
NODES	415943.0N / 1404301.8E
EPKOP	415813.5N / 1403209.6E
PATRA	415041.1N / 1403046.9E
TAXIR	412632.4N / 1404728.0E
KANTA	414635.2N / 1402901.6E

CHANGE : Waypoint Coordinates added.

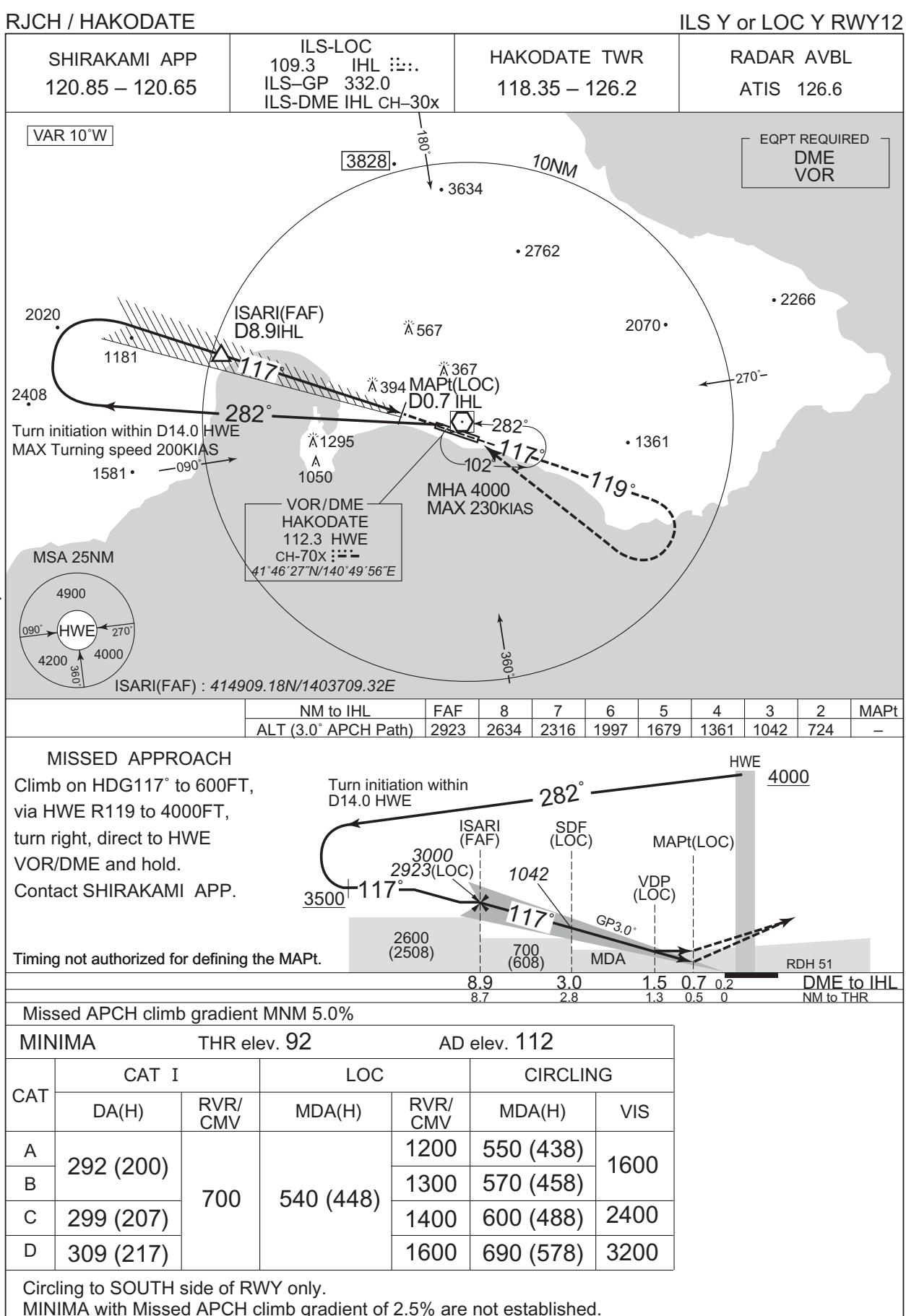
INSTRUMENT APPROACH CHART

CHANGE : SHIRAKAMI APP established. HAKODATE APP abolished. Description of VAR, MSA, RNAV HLDG. Missed APCH PROC.

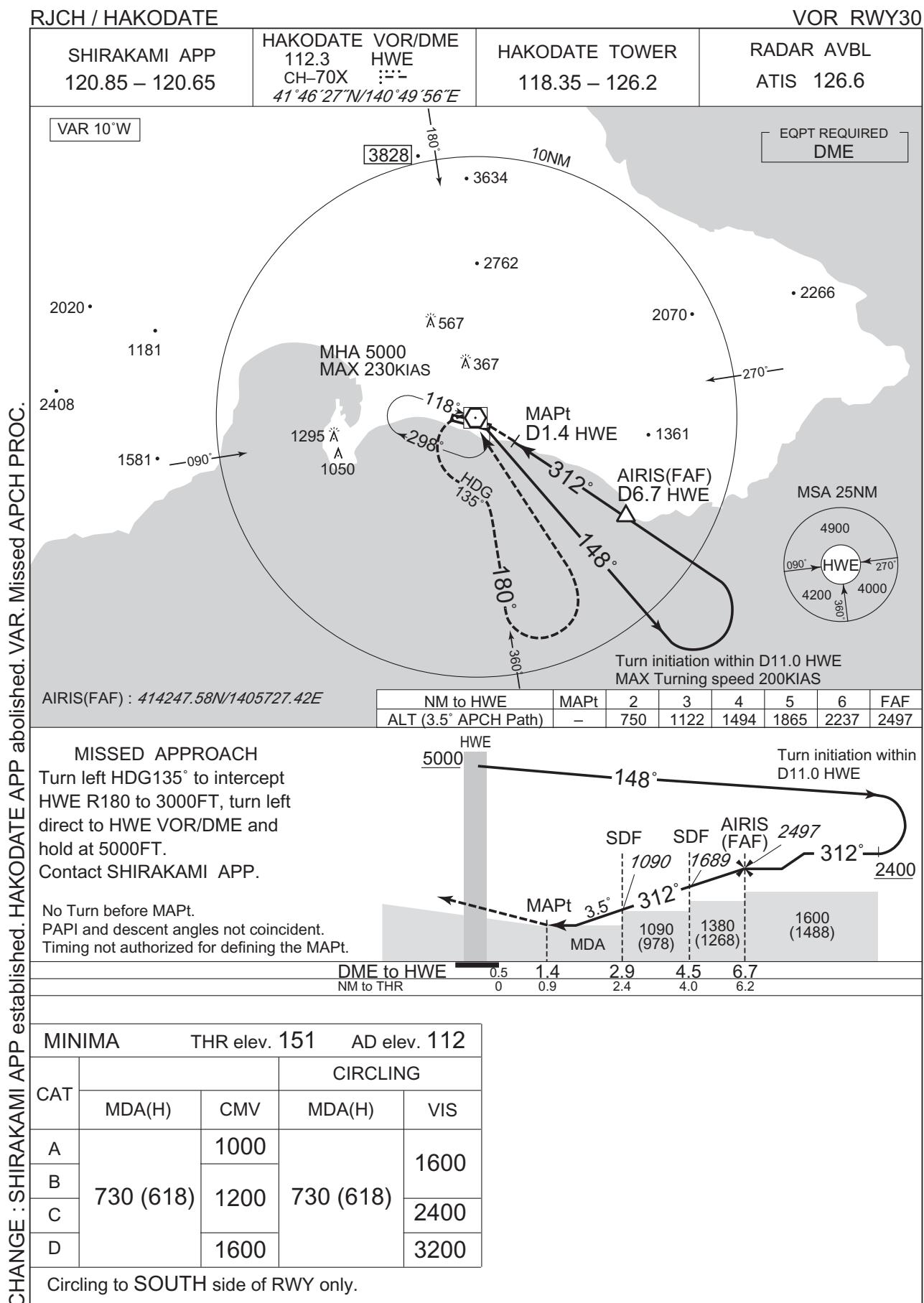


INSTRUMENT APPROACH CHART

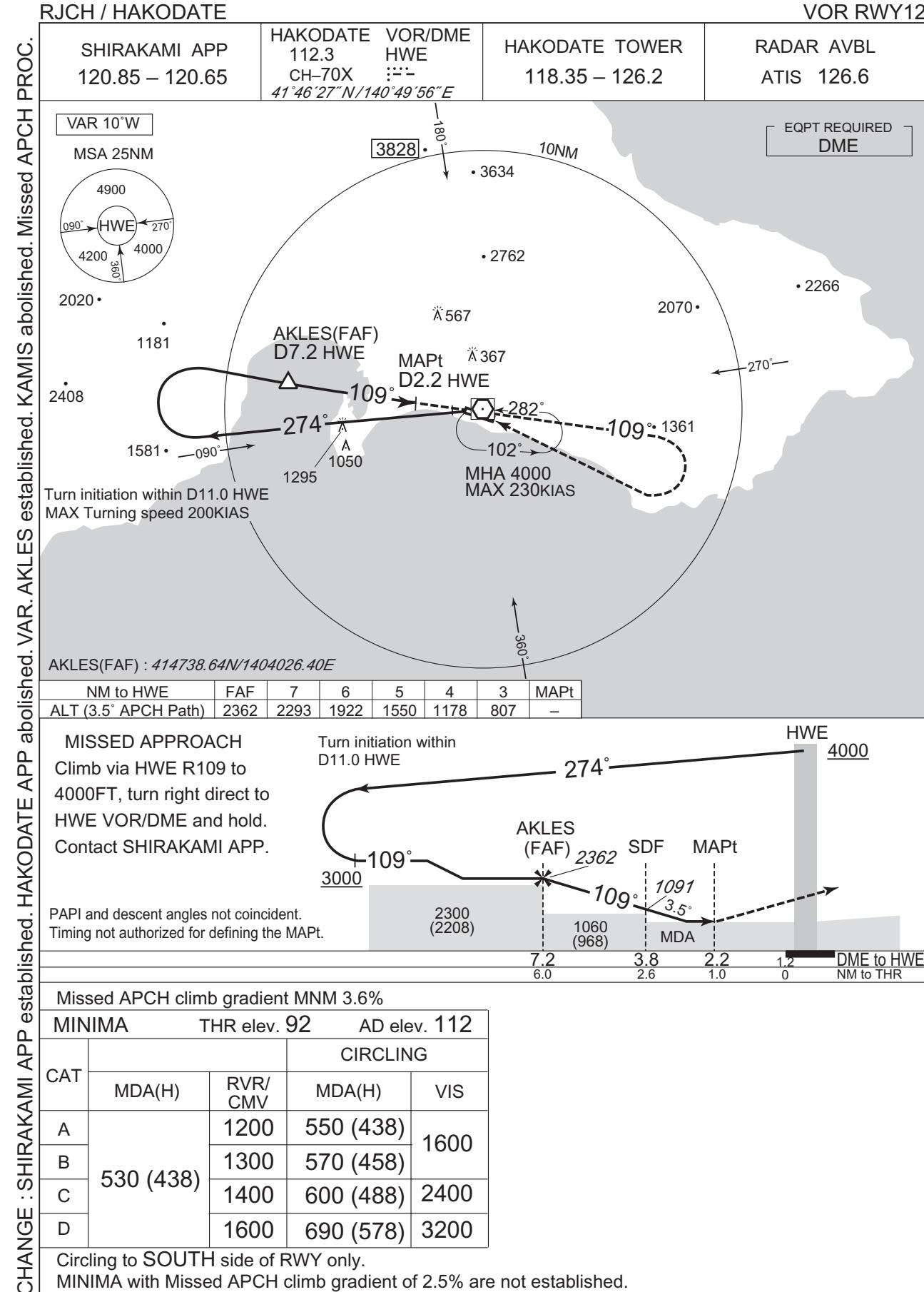
CHANGE : SHIRAKAMI APP established. HAKODATE APP abolished. Description of VAR. Missed APCH PROC.



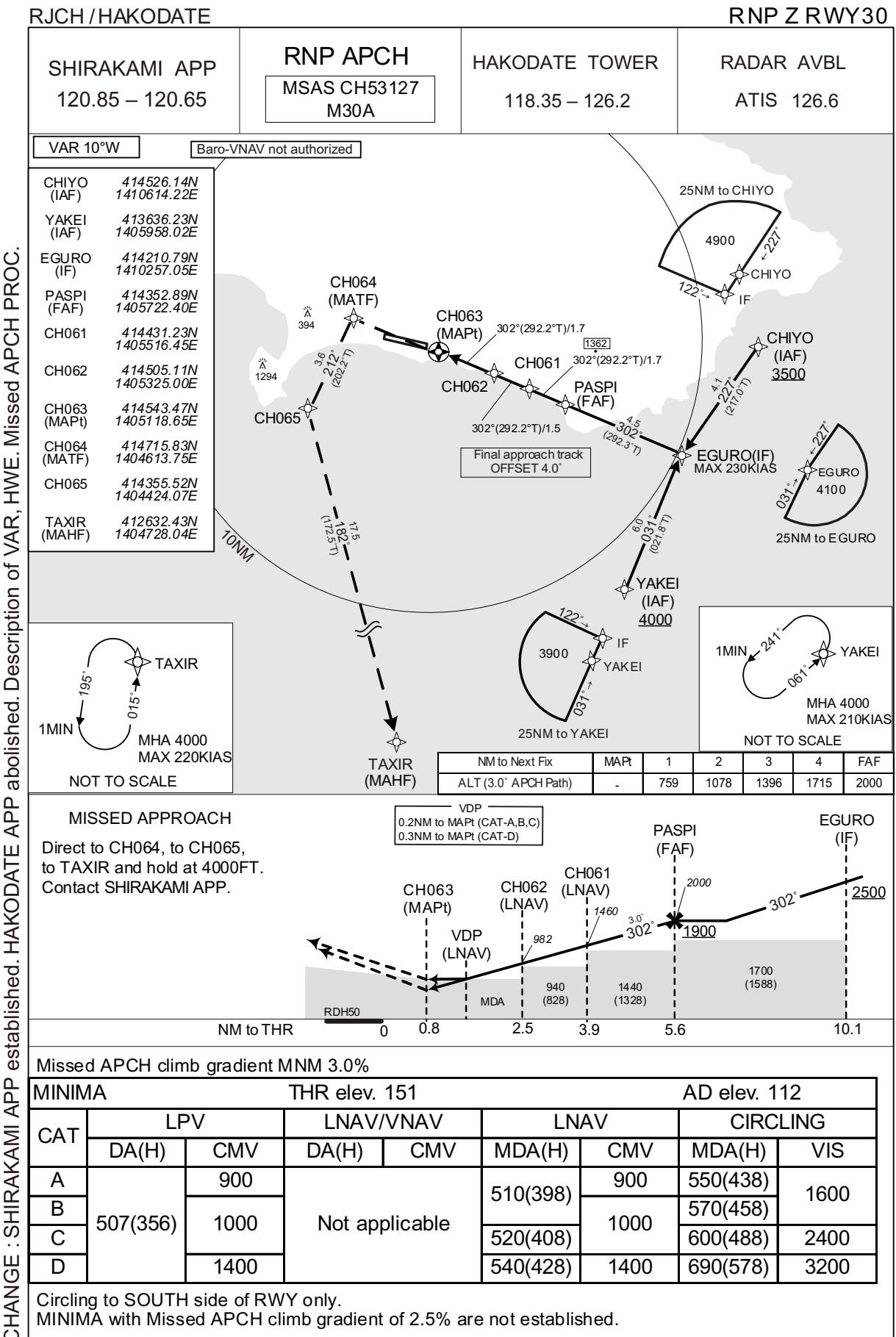
INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP Z RWY30

FAS DATA BLOCK

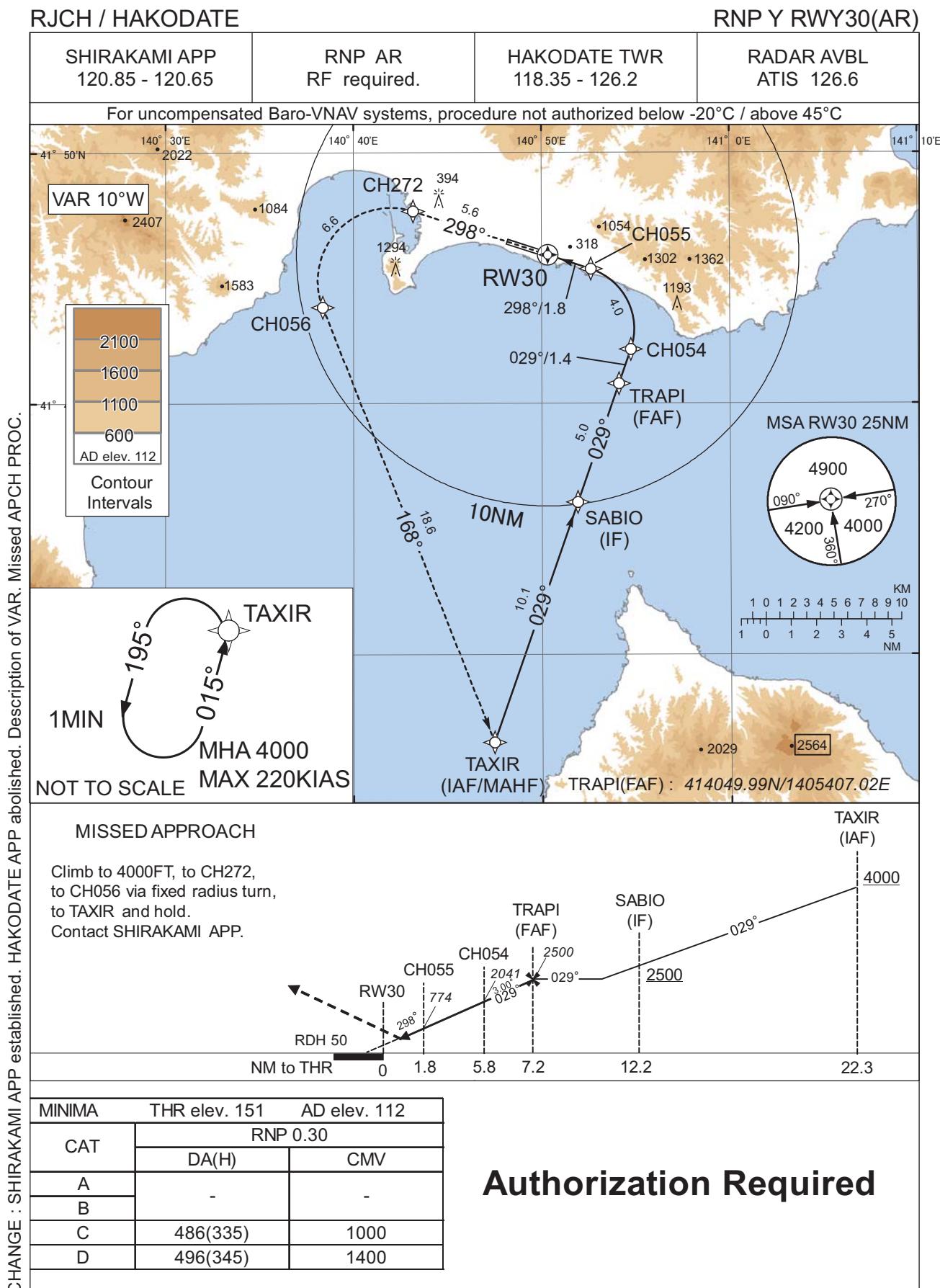
Operation type	0	LTP/FTP ellipsoidal height	+00803
SBAS service provider identifier	2	FPAP latitude	414636.9835N
Airport identifier	RJCH	FPAP longitude	1404822.0795E
Runway	30	Threshold crossing height	00015.0
Approach performance designator	0	TCH units selector	1
Route indicator	Z	Glide path angle	03.00
Reference path data selector	0	Course width at threshold	105.00
Reference path ID	M30A	Δ length offset	0000
LTP/FTP latitude	414600.5615N	HAL	40.0
LTP/FTP longitude	1405022.5820E	VAL	50.0
CRC remainder	5F964DC7		

Required additional data

LTP/FTP orthometric height	46.0
----------------------------	------

CHANGE : Description of FAS DATA BLOCK ITEM(CRC remainder).

INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP Y RWY30(AR)

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	-	-	-9.6	-	-	+4000	-	-	-
002	TF	SABIO	-	029 (019.2)	-9.6	10.1	-	+2500	-	-	1.0
003	TF	TRAPI	-	029 (019.2)	-9.6	5.0	-	2500	-	-	1.0
004	TF	CH054	-	029 (019.2)	-9.6	1.4	-	2041	-	-3.00	0.3
005	RF Center: CHRF3 r=2.50NM	CH055	-	-	-9.6	4.0	L	774	-	-3.00	0.3
006	TF	RW30	Y	298 (288.1)	-9.6	1.8	-	201	-	-3.00/50	0.3
007	TF	CH272	-	298 (288.1)	-9.6	5.6	-	-	-	-	1.0
008	RF Center: CHRF4 r=2.90NM	CH056	-	-	-9.6	6.6	L	-	-	-	1.0
009	TF	TAXIR	-	168 (158.5)	-9.6	18.6	-	4000	-	-	1.0

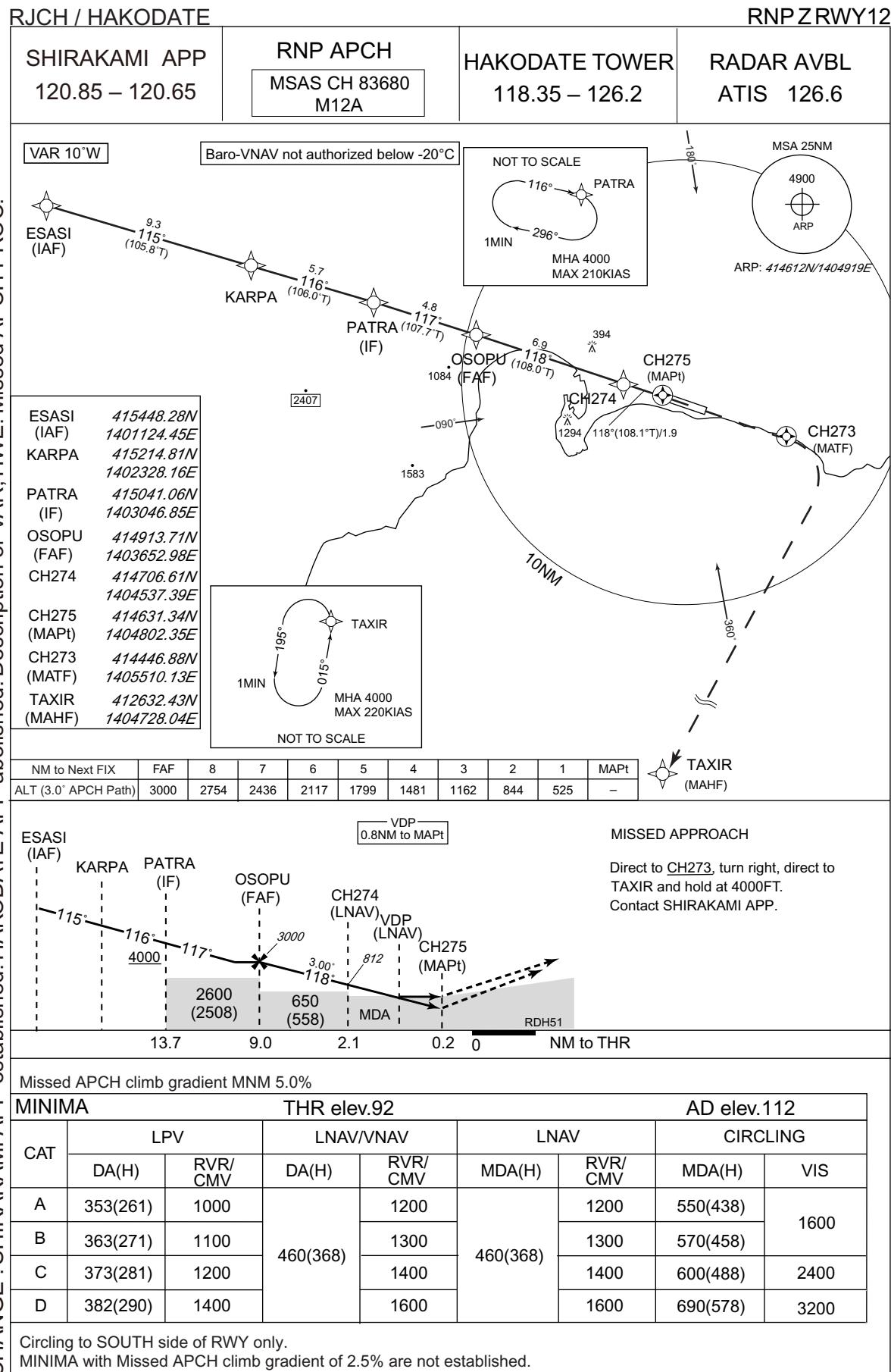
Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	RNP Value
Hold	TAXIR	015 (005.3)	-9.6	1.0 (-14000)	L	4000	FL140	-220 (-14000)	1.0

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		

CHANGE : VAR. Course FM RW30 to CH272. RNAV HLDG established (TAXIR).

INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP Z RWY12

FAS DATA BLOCK

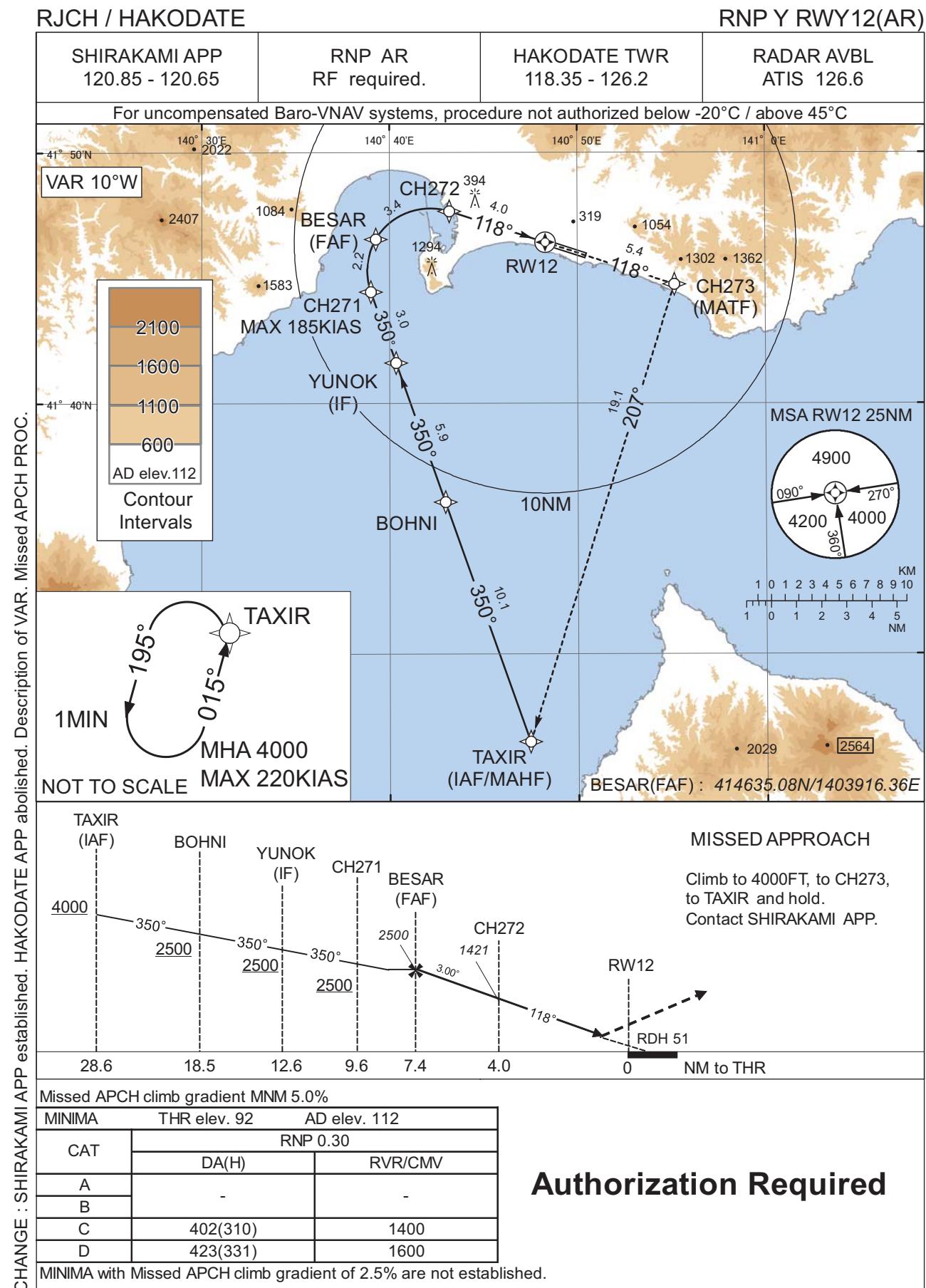
Operation type	0	LTP/FTP ellipsoidal height	+00625
SBAS service provider identifier	2	FPAP latitude	414557.5735N
Airport identifier	RJCH	FPAP longitude	1405021.1555E
Runway	12	Threshold crossing height	00015.5
Approach performance designator	0	TCH units selector	1
Route indicator	Z	Glide path angle	03.00
Reference path data selector	0	Course width at threshold	105.00
Reference path ID	M12A	△ length offset	0000
LTP/FTP latitude	414627.5895N	HAL	40.0
LTP/FTP longitude	1404817.5995E	VAL	50.0
CRC remainder	69B323C3		

Required additional data

LTP/FTP orthometric height	28.1
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CHANGE : Description of FAS DATA BLOCK ITEM(CRC remainder).

INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJCH / HAKODATE

RNP Y RWY12(AR)

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	-	-	-9.6	-	-	+4000	-	-	-
002	TF	BOHNI	-	350 (340.6)	-9.6	10.1	-	+2500	-	-	1.0
003	TF	YUNOK	-	350 (340.6)	-9.6	5.9	-	+2500	-	-	1.0
004	TF	CH271	-	350 (340.5)	-9.6	3.0	-	+2500	-185	-	1.0
005	RF Center: CHRF5 r=2.50NM	BESAR	-	-	-9.6	2.2	R	2500	-	-	1.0
006	RF Center: CHRF5 r=2.50NM	CH272	-	-	-9.6	3.4	R	1421	-	-3.00	0.3
007	TF	RW12	Y	118 (108.0)	-9.6	4.0	-	143	-	-3.00/51	0.3
008	TF	CH273	-	118 (108.1)	-9.6	5.4	-	-	-	-	1.0
009	TF	TAXIR	-	207 (197.6)	-9.6	19.1	-	4000	-	-	1.0

Path	Waypoint Identifier	Inbound Course °M(°T)	Magnetic Variation	Outbound Time (MIN)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FT)	Speed (KIAS)	RNP Value
Hold	TAXIR	015 (005.3)	-9.6	1.0 (-14000)	L	4000	FL140	-220 (-14000)	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		

CHANGE : VAR. PROC renamed. RPROC course. RNAV HLDG established (TAXIR).

RJCH / HAKODATE

Visual REP

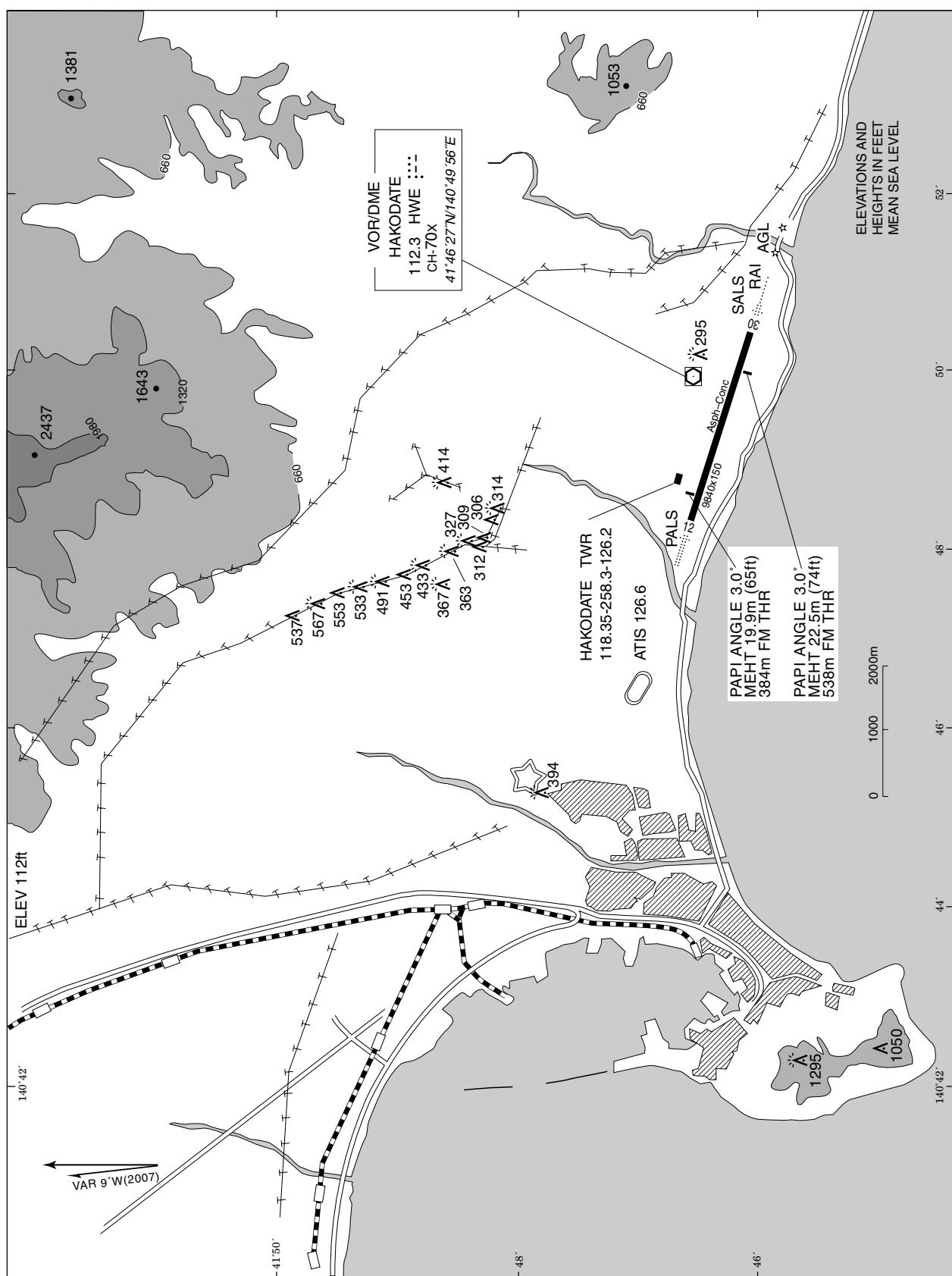


※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

Call sign	BRG / DIST from ARP	Remarks
大沼 Onuma	330°T / 13.9NM	JR駅 JR Station
桔梗 Kikyo	316°T / 6.4NM	JR駅 JR Station
矢別 Yabetsu	043°T / 5.7NM	ダム Dam
恵山岬 Esanmisaki	081°T / 16.5NM	灯台 Lighthouse
美原 Mihara	310°T / 3.9NM	NHKラジオアンテナ NHK radio antenna
立待 Tachimachi	252°T / 4.8NM	岬 Cape
当別 Tobetsu	261°T / 11.5NM	トラピスト修道院 Religious house
汐首岬 Shiokubimisaki	119°T / 7.3NM	灯台 Lighthouse
5NM S	180°T / 5.0NM	海上 Over the sea
大間崎 Omazaki	163°T / 14.0NM	岬 Cape

CHANGE : DIST from ARP(Mihara).

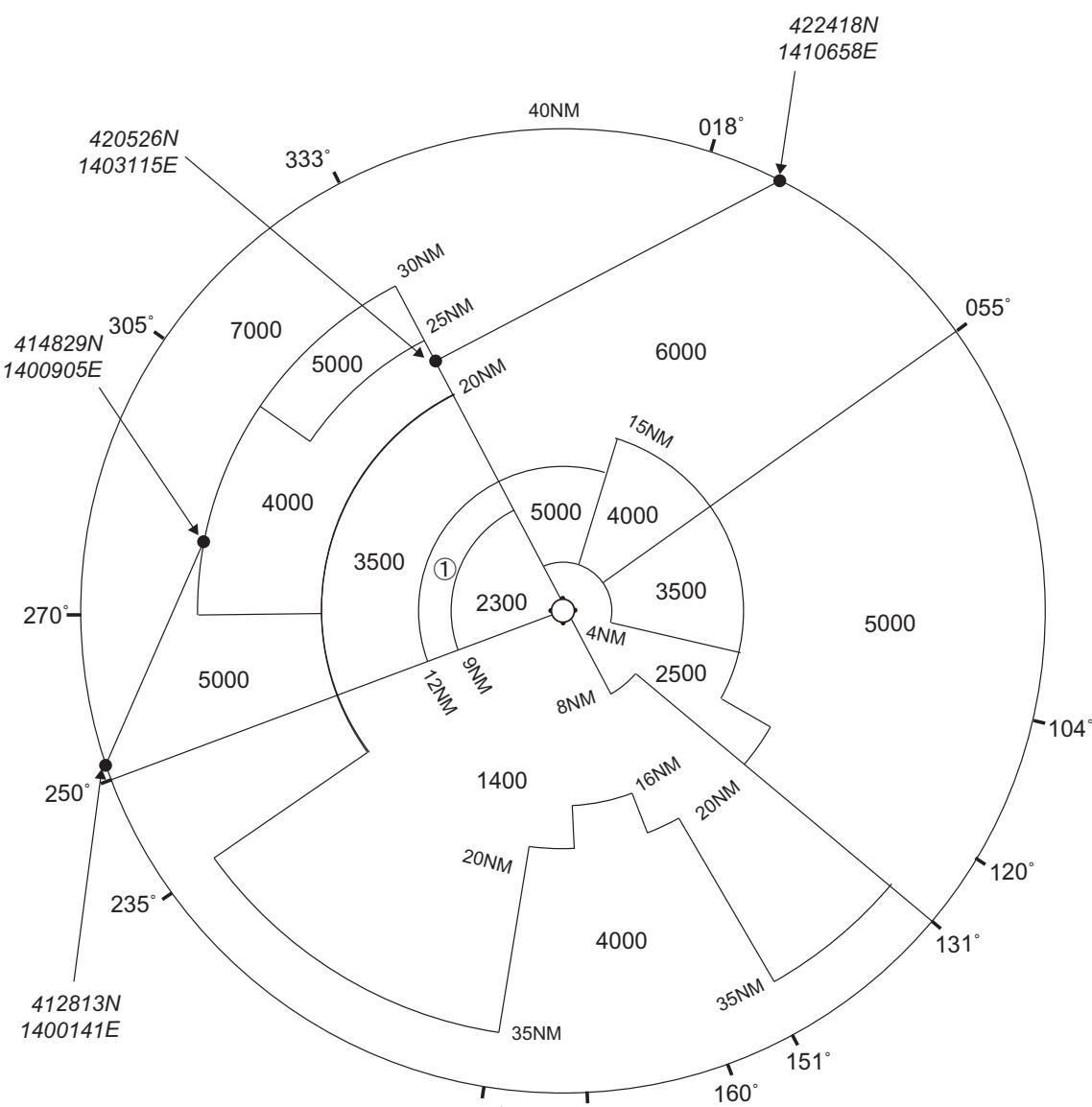
LDG CHART



RJCH / HAKODATE

Minimum Vectoring Altitude CHART

VAR 9°W (2024)



CHANGE : Update.

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