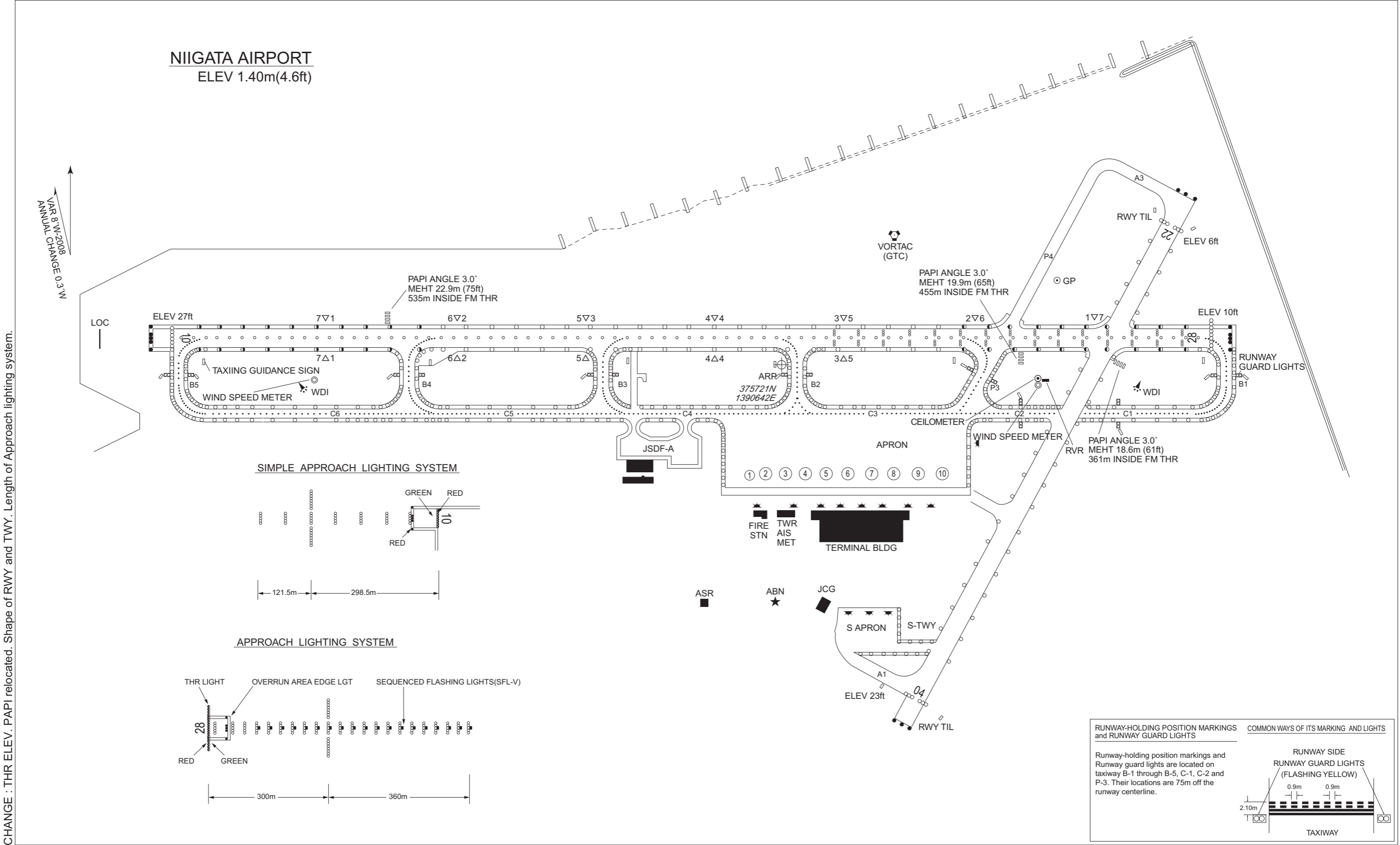
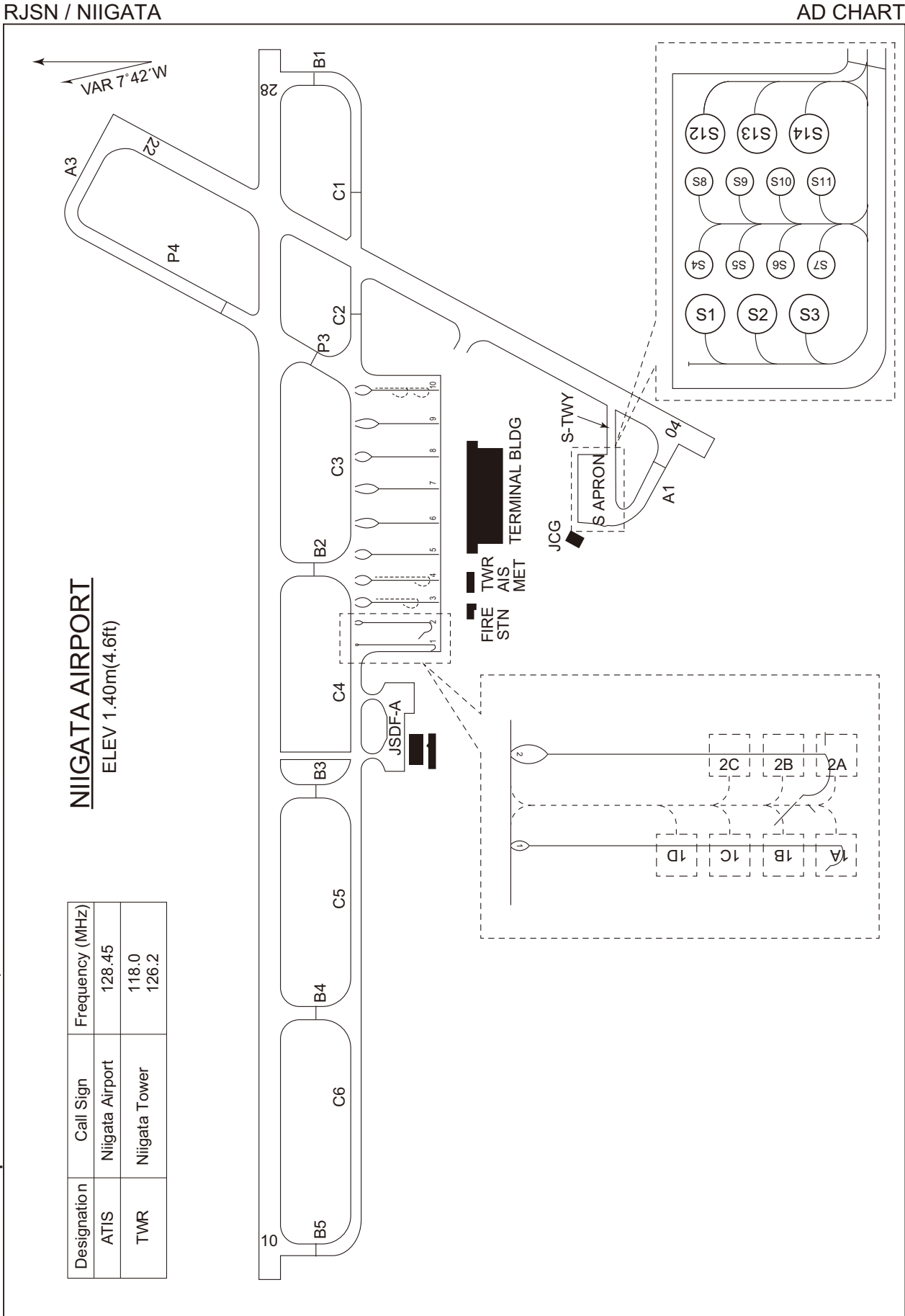


AERODROME CHART

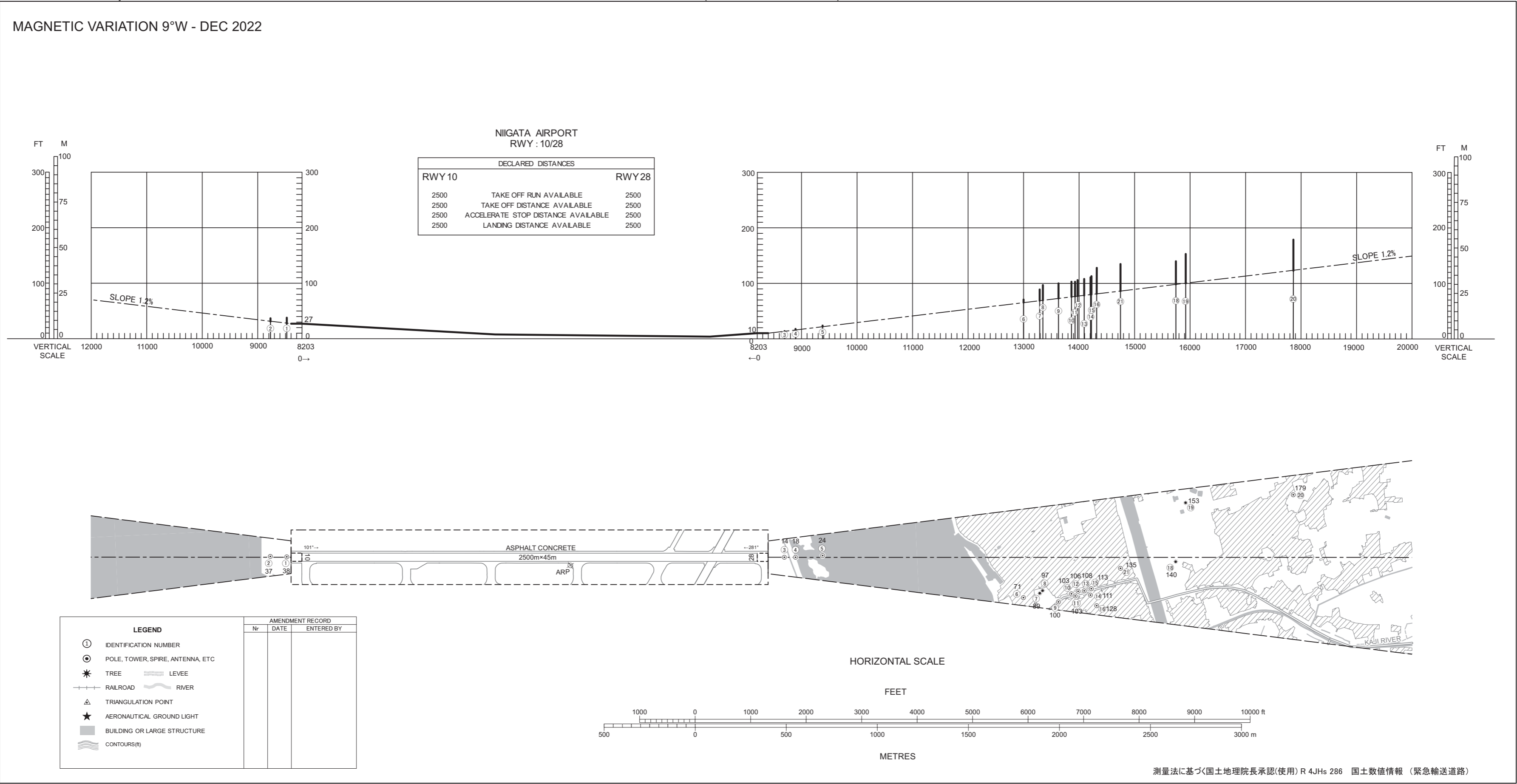


CHANGE: Spot FM 1A to 1D, FM 2A to 2C installed.



DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC
Transverse Mercator Projection

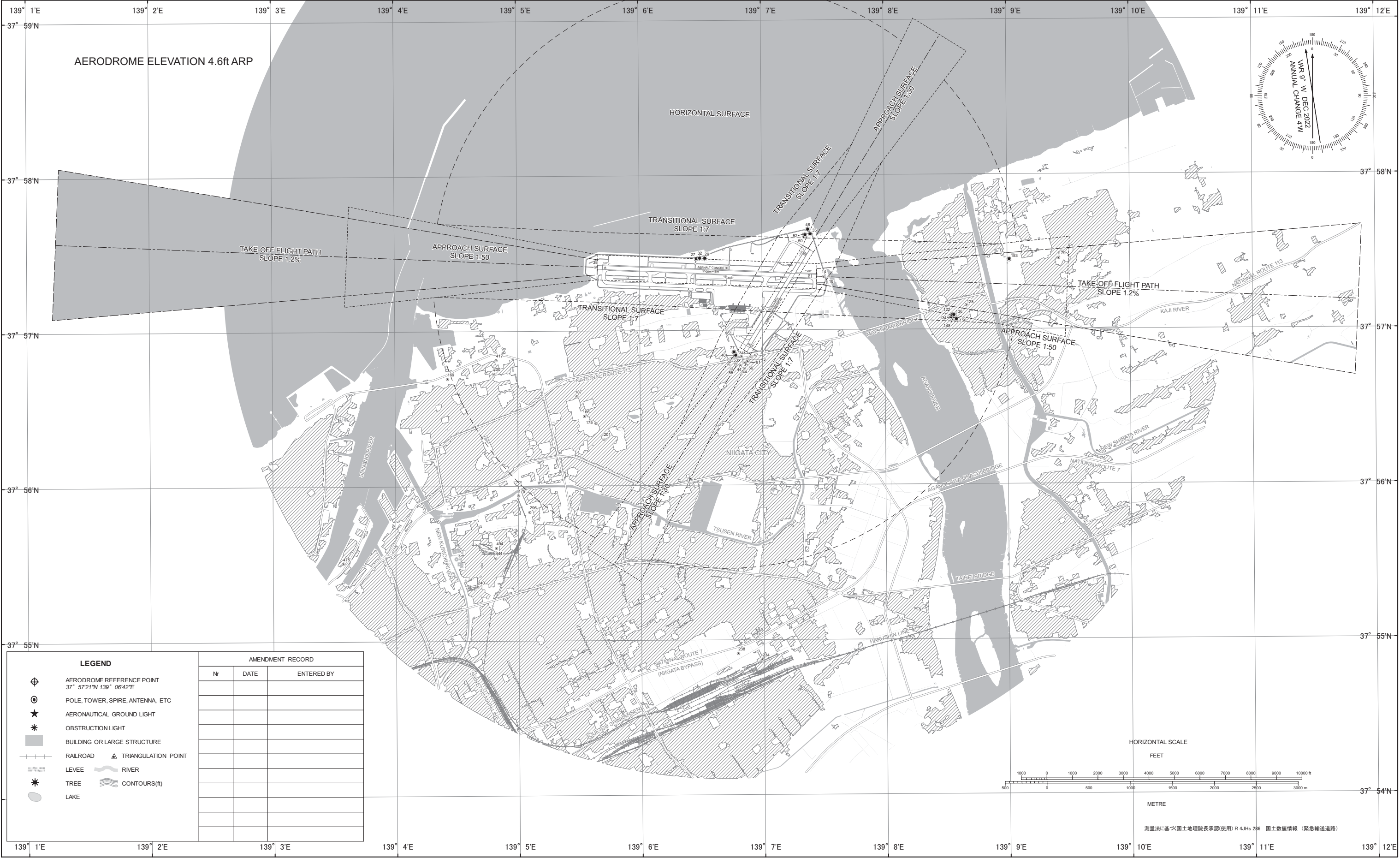
AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)



CHANGE: Update

DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC
Transverse Mercator Projection

AERODROME OBSTACLE CHART-ICAO
TYPE B



CHANGE:Update

STANDARD DEPARTURE CHART-INSTRUMENT

RJSN / NIIGATA

SID

OKESA SEVEN DEPARTURE

- RWY 04 : Turn left HDG 245°...
- RWY 10 : Climb RWY HDG to 500FT, turn left HDG 245°...
- RWY 22 : Climb RWY HDG to 800FT, turn left...
- RWY 28 : Climb RWY HDG to 500FT, turn right...
...to intercept and proceed via GTC R290 to OKESA.

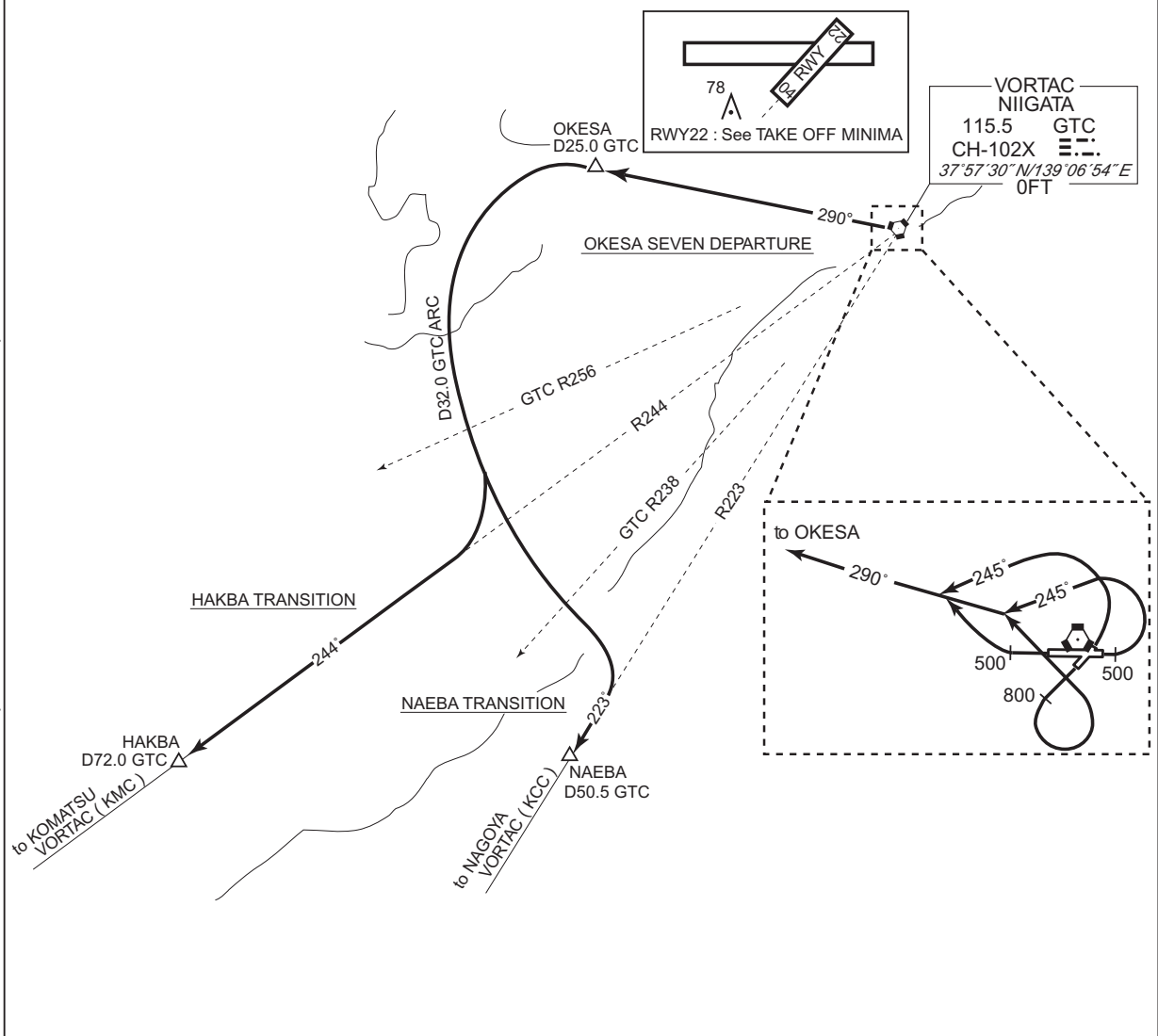
NAEBA TRANSITION

From over OKESA, turn left to intercept and proceed via GTC 32.0DME counterclockwise ARC, turn right to intercept and proceed via GTC R223 to NAEBA.

HAKBA TRANSITION

From over OKESA, turn left to intercept and proceed via GTC 32.0DME counterclockwise ARC, turn right to intercept and proceed via GTC R244 to HAKBA.

CHANGE : PROC renamed(OKESA SEVEN DEPARTURE).PROC course.



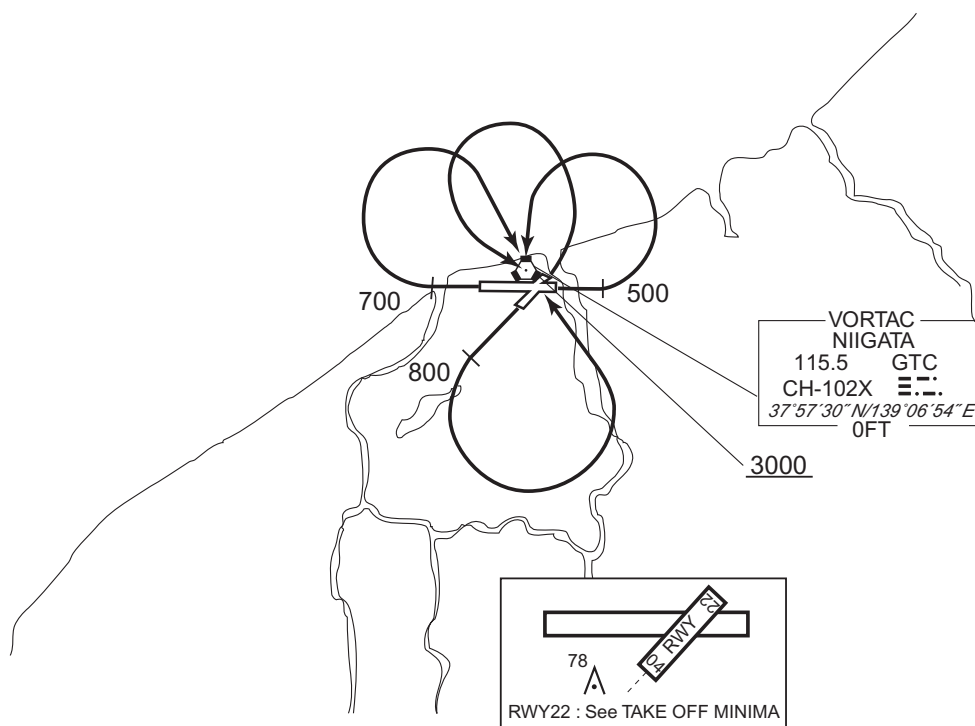
STANDARD DEPARTURE CHART-INSTRUMENT

RJSN / NIIGATA

SID

NIIGATA REVERSAL SEVEN DEPARTURE

- RWY 04 : Turn left...
 RWY 10 : Climb RWY HDG to 500FT, turn left...
 RWY 22 : Climb RWY HDG to 800FT, turn left...
 RWY 28 : Climb RWY HDG to 700FT, turn right...
 ...direct to GTC VORTAC.
 Cross GTC VORTAC at or above 3000FT.

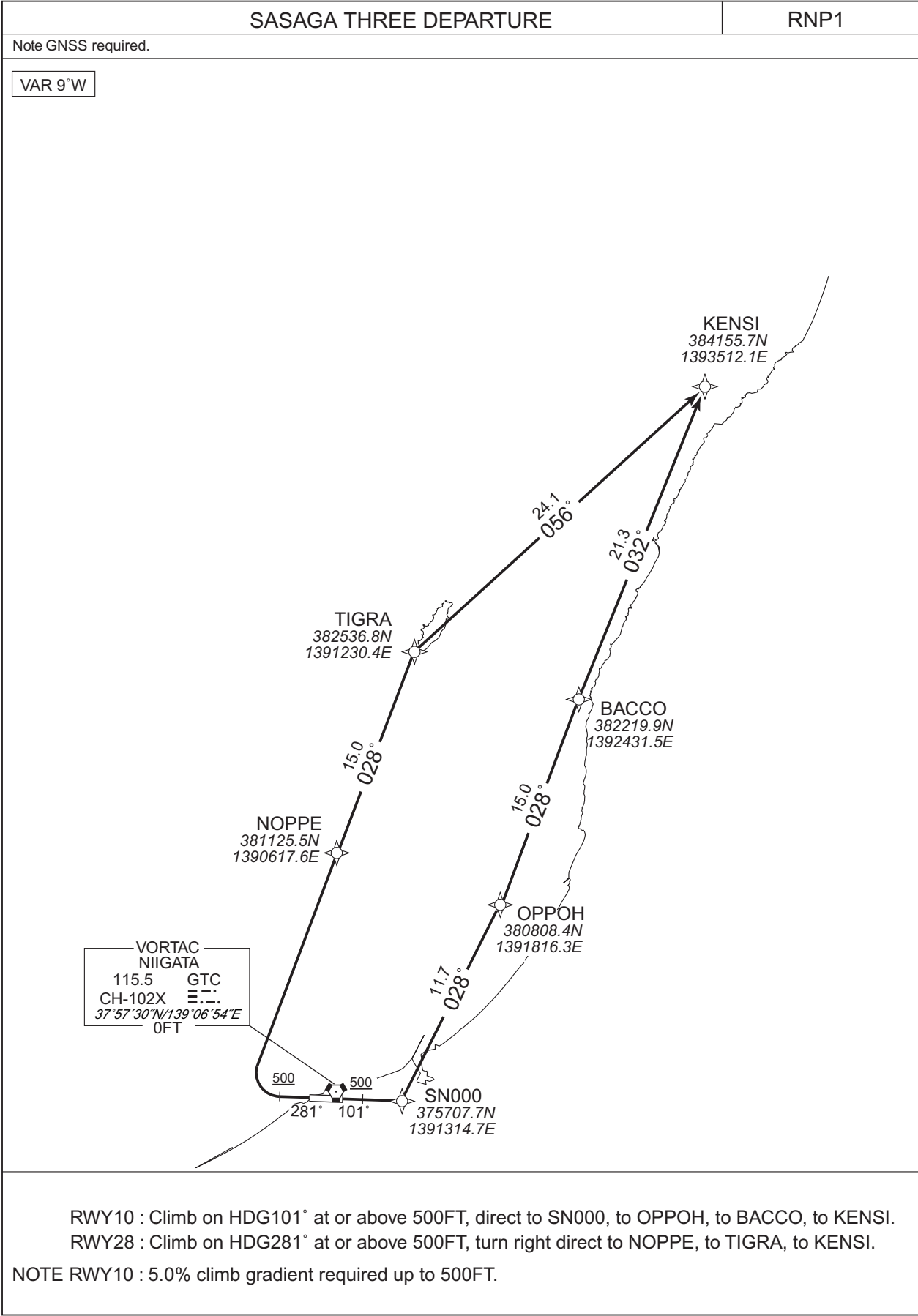


CHANGE : PROC renamed. ALT restriction.

STANDARD DEPARTURE CHART-INSTRUMENT

RJSN / NIIGATA

RNAV SID



CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART-INSTRUMENT

RJSN / NIIGATA

RNAV SID

SASAGA THREE DEPARTURE

RWY10

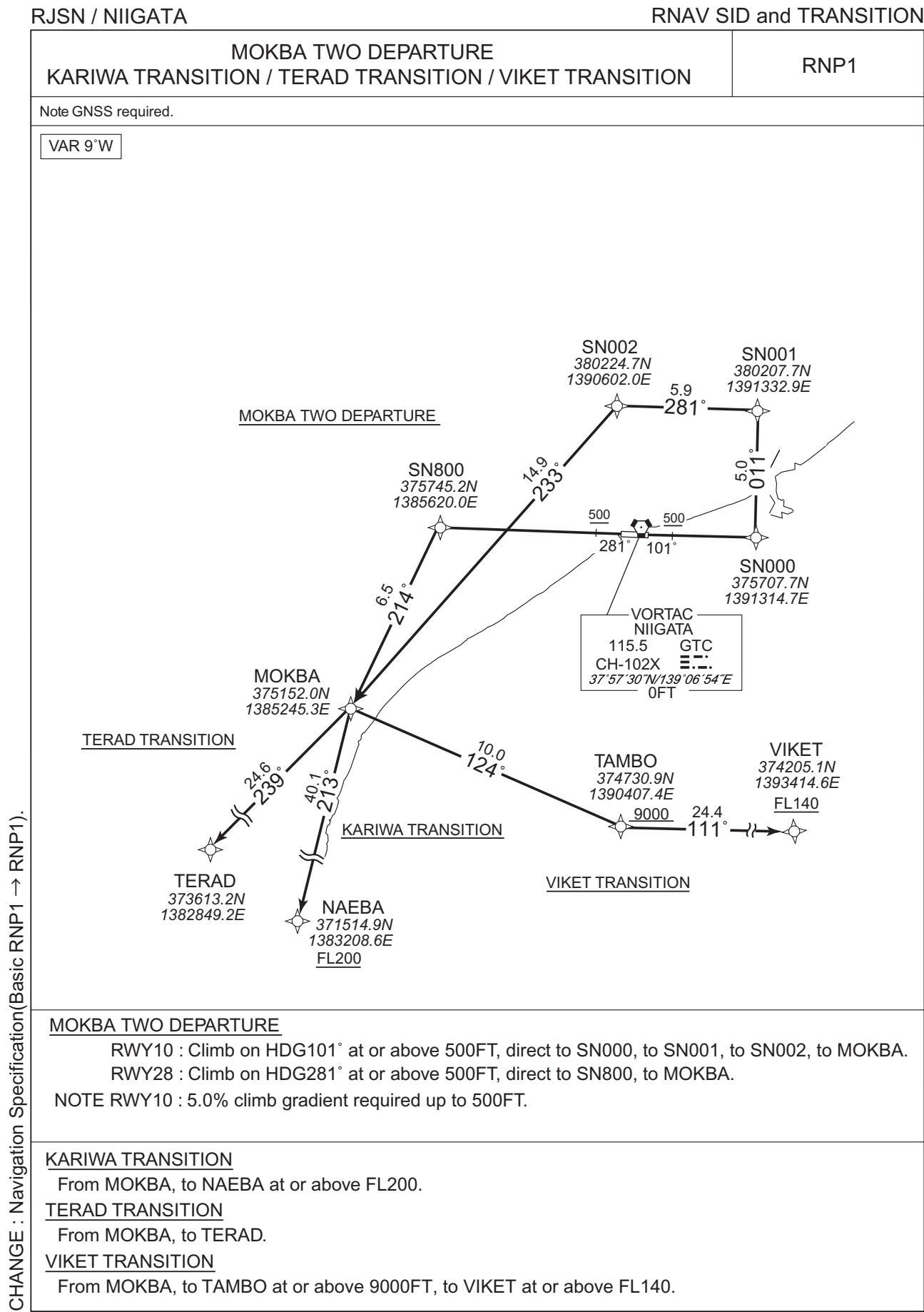
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	101 (092.7)	-8.6	-	-	+500	-	-	RNP1
002	DF	SN000	-	-	-8.6	-	-	-	-	-	RNP1
003	TF	OPPOH	-	028 (019.7)	-8.6	11.7	-	-	-	-	RNP1
004	TF	BACCO	-	028 (019.1)	-8.6	15.0	-	-	-	-	RNP1
005	TF	KENSI	-	032 (023.0)	-8.6	21.3	-	-	-	-	RNP1

RWY28

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	-	-	281 (272.7)	-8.6	-	-	+500	-	-	RNP1
002	DF	NOPPE	-	-	-8.6	-	R	-	-	-	RNP1
003	TF	TIGRA	-	028 (018.9)	-8.6	15.0	-	-	-	-	RNP1
004	TF	KENSI	-	056 (047.3)	-8.6	24.1	-	-	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART-INSTRUMENT



STANDARD DEPARTURE CHART-INSTRUMENT

RJSN / NIIGATA

RNAV SID and TRANSITION

MOKBA TWO DEPARTURERWY10

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	-	-	101 (092.7)	-8.6	-	-	+500	-	-	RNP1
002	DF	SN000	-	-	-8.6	-	-	-	-	-	RNP1
003	TF	SN001	-	011 (002.7)	-8.6	5.0	-	-	-	-	RNP1
004	TF	SN002	-	281 (272.8)	-8.6	5.9	-	-	-	-	RNP1
005	TF	MOKBA	-	233 (224.9)	-8.6	14.9	-	-	-	-	RNP1

RWY28

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	-	-	281 (272.7)	-8.6	-	-	+500	-	-	RNP1
002	DF	SN800	-	-	-8.6	-	-	-	-	-	RNP1
003	TF	MOKBA	-	214 (205.6)	-8.6	6.5	-	-	-	-	RNP1

KARIWA 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	MOKBA	-	-	-8.6	-	-	-	-	-	RNP1
002	TF	NAEBA	-	213 (204.2)	-8.6	40.1	-	+FL200	-	-	RNP1

TERAD 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	MOKBA	-	-	-8.6	-	-	-	-	-	RNP1
002	TF	TERAD	-	239 (230.5)	-8.6	24.6	-	-	-	-	RNP1

VIKET 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	MOKBA	-	-	-8.6	-	-	-	-	-	RNP1
002	TF	TAMBO	-	124 (115.8)	-8.6	10.0	-	+9000	-	-	RNP1
003	TF	VIKET	-	111 (102.7)	-8.6	24.4	-	+FL140	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART-INSTRUMENT

RJSN / NIIGATA

RNAV SID

SUKOB ONE DEPARTURE

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

RWY10 : GTC : 10.0NM to SUKOB - SUKOB
NTE : 10.0NM to SUKOB - SUKOB
RWY28 : GTC : 15.0NM to SUKOB - SUKOB
NTE : 15.0NM to SUKOB - SUKOB

DME GAP

RWY10 : DER - 10.0NM to SUKOB
RWY28 : DER - 15.0NM to SUKOB

Inappropriate Nav aids

See AD1.1.6.10.3. Inappropriate NAVAIDS for RNAV1.

VAR 9°W

SUKOB
382919.9N
1381752.8E
FL150



51.5
377°

SN001
380207.7N
1391332.9E

011°/5.0

SN000
375707.7N
1391314.7E

VORTAC
NIIGATA
115.5 GTC
CH-102X
37°57'30"N/139°06'54"E
0FT

CHANGE : Description of VAR.

RWY10 : Climb on HDG101° at or above 500FT, direct to SN000, to SN001, to SUKOB at or above FL150.

RWY28 : Climb on HDG281° at or above 500FT, turn right direct to SUKOB at or above FL150.

Note RWY10 : 5.0% climb gradient required up to 500FT.

STANDARD DEPARTURE CHART-INSTRUMENT

RJSN/ NIIGATA

RNAV SID

SUKOB ONE DEPARTURE

RWY10

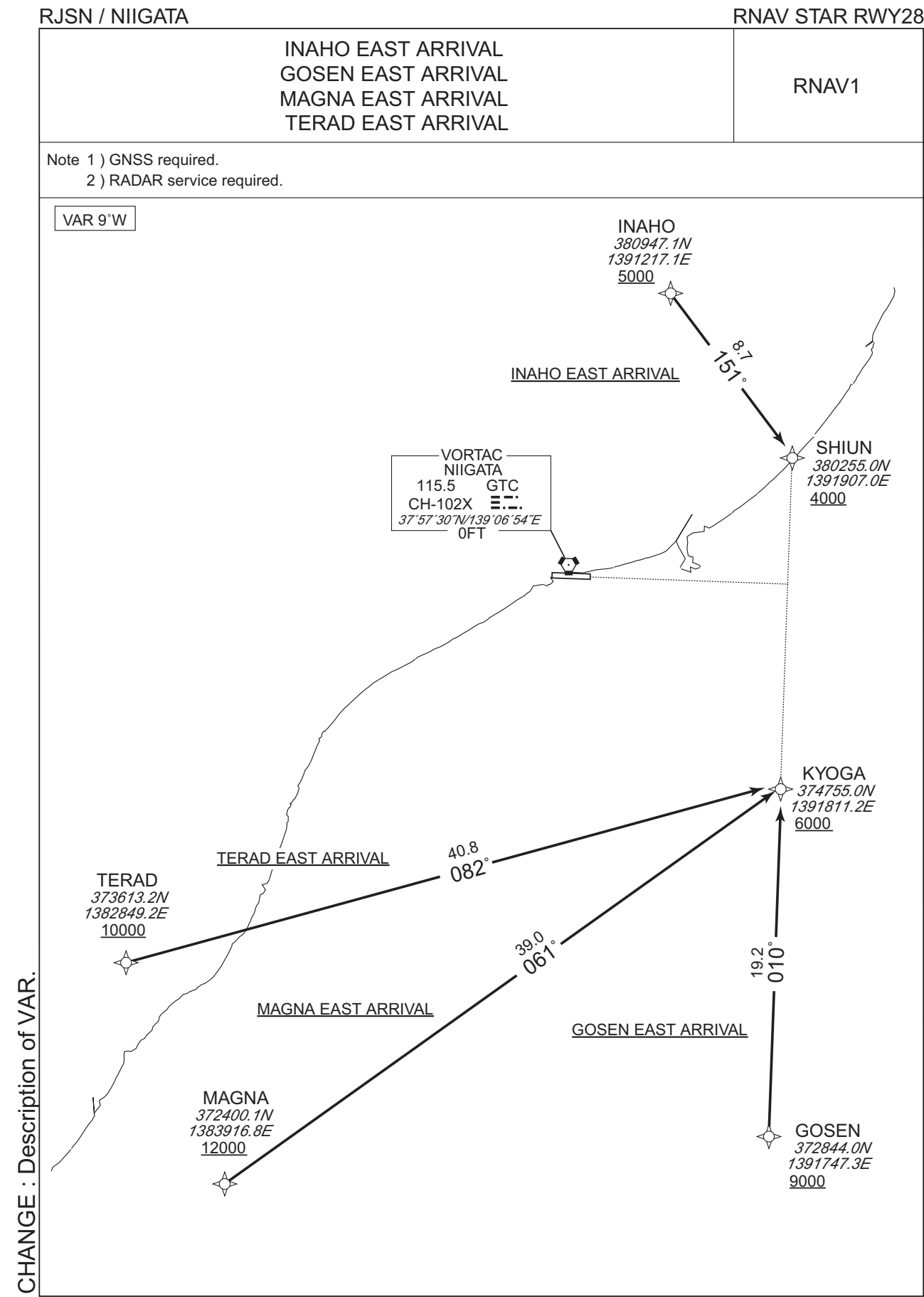
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	—	—	101 (092.7)	-8.6	—	—	+500	—	—	RNAV1
002	DF	SN000	—	—	-8.6	—	—	—	—	—	RNAV1
003	TF	SN001	—	011 (002.7)	-8.6	5.0	—	—	—	—	RNAV1
004	TF	SUKOB	—	311 (302.2)	-8.6	51.5	—	+FL150	—	—	RNAV1

RWY28

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	—	—	281 (272.7)	-8.6	—	—	+500	—	—	RNAV1
002	DF	SUKOB	—	—	-8.6	—	R	+FL150	—	—	RNAV1

CHANGE : New PROC.

STANDARD ARRIVAL CHART-INSTRUMENT



STANDARD ARRIVAL CHART-INSTRUMENT

RJSN / NIIGATA

RNAV STAR RWY28

INAHO EAST ARRIVAL

From INAHO at or above 5000FT, to SHIUN at or above 4000FT.

Critical DME	—
DME GAP	INAHO - SHIUN
Inappropriate Nav aids	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	INAHO	—	—	-8.6	—	—	+5000	—	—	RNAV1
002	TF	SHIUN	—	151 (141.9)	-8.6	8.7	—	+4000	—	—	RNAV1

GOSEN EAST ARRIVAL

From GOSEN at or above 9000FT, to KYOGA at or above 6000FT.

Critical DME	—
DME GAP	GOSEN - KYOGA
Inappropriate Nav aids	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	GOSEN	—	—	-8.6	—	—	+9000	—	—	RNAV1
002	TF	KYOGA	—	010 (000.9)	-8.6	19.2	—	+6000	—	—	RNAV1

MAGNA EAST ARRIVAL

From MAGNA at or above 12000FT, to KYOGA at or above 6000FT.

Critical DME	GTC:MAGNA - 10.0NM to KYOGA NTE:MAGNA - 10.0NM to KYOGA
DME GAP	10.0NM to KYOGA - KYOGA
Inappropriate Nav aids	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	MAGNA	—	—	-8.6	—	—	+12000	—	—	RNAV1
002	TF	KYOGA	—	061 (052.0)	-8.6	39.0	—	+6000	—	—	RNAV1

TERAD EAST ARRIVAL

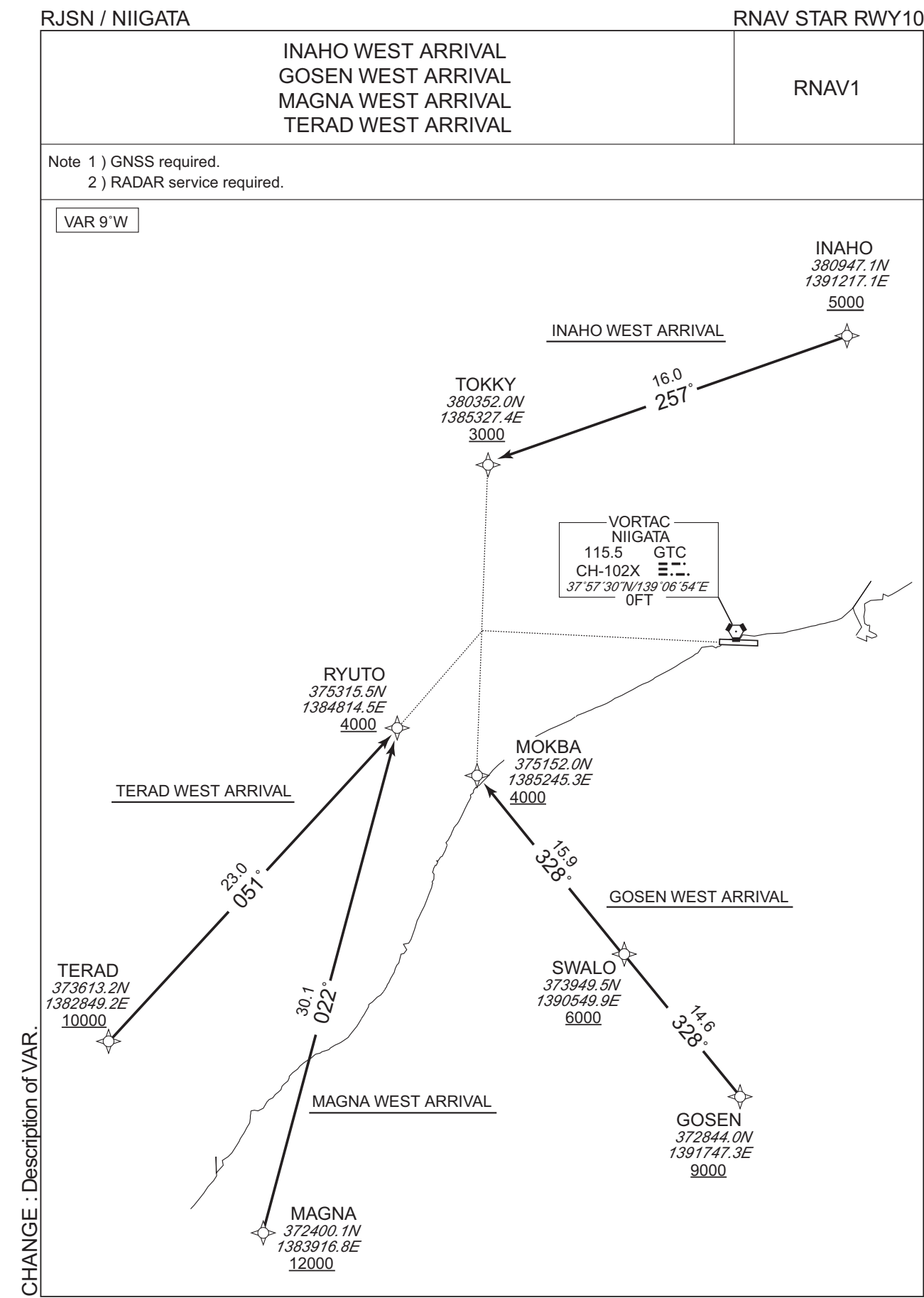
From TERAD at or above 10000FT, to KYOGA at or above 6000FT.

Critical DME	—
DME GAP	TERAD - KYOGA
Inappropriate Nav aids	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	TERAD	—	—	-8.6	—	—	+10000	—	—	RNAV1
002	TF	KYOGA	—	082 (073.1)	-8.6	40.8	—	+6000	—	—	RNAV1

CHANGE : VAR. PROC course.

STANDARD ARRIVAL CHART-INSTRUMENT



STANDARD ARRIVAL CHART-INSTRUMENT

RJSN / NIIGATA

RNAV STAR RWY10

INAHO WEST ARRIVAL

From INAHO at or above 5000FT, to TOKKY at or above 3000FT.

Critical DME	—
DME GAP	INAHO - TOKKY
Inappropriate Nav aids	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	INAHO	—	—	-8.6	—	—	+5000	—	—	RNAV1
002	TF	TOKKY	—	257 (248.3)	-8.6	16.0	—	+3000	—	—	RNAV1

GOSEN WEST ARRIVAL

From GOSEN at or above 9000FT, to SWALO at or above 6000FT, to MOKBA at or above 4000FT.

Critical DME	—
DME GAP	GOSEN - MOKBA
Inappropriate Nav aids	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	GOSEN	—	—	-8.6	—	—	+9000	—	—	RNAV1
002	TF	SWALO	—	328 (319.5)	-8.6	14.6	—	+6000	—	—	RNAV1
003	TF	MOKBA	—	328 (319.4)	-8.6	15.9	—	+4000	—	—	RNAV1

MAGNA WEST ARRIVAL

From MAGNA at or above 12000FT, to RYUTO at or above 4000FT.

Critical DME	GTC:MAGNA - 15.0NM to RYUTO NTE:MAGNA - 15.0NM to RYUTO
DME GAP	15.0NM to RYUTO - RYUTO
Inappropriate Nav aids	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	MAGNA	—	—	-8.6	—	—	+12000	—	—	RNAV1
002	TF	RYUTO	—	022 (013.6)	-8.6	30.1	—	+4000	—	—	RNAV1

TERAD WEST ARRIVAL

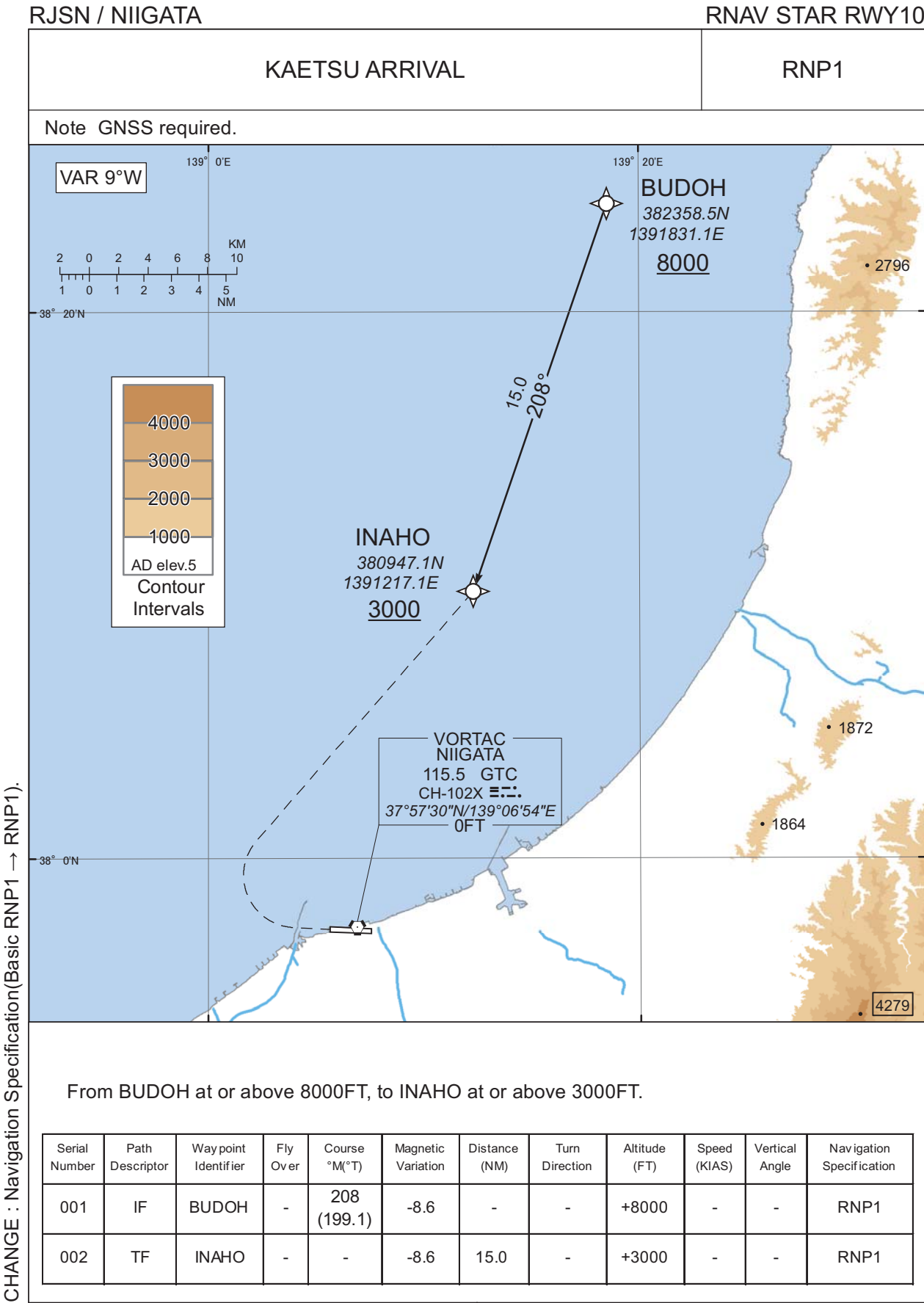
From TERAD at or above 10000FT, to RYUTO at or above 4000FT.

Critical DME	—
DME GAP	TERAD - RYUTO
Inappropriate Nav aids	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	TERAD	—	—	-8.6	—	—	+10000	—	—	RNAV1
002	TF	RYUTO	—	051 (041.9)	-8.6	23.0	—	+4000	—	—	RNAV1

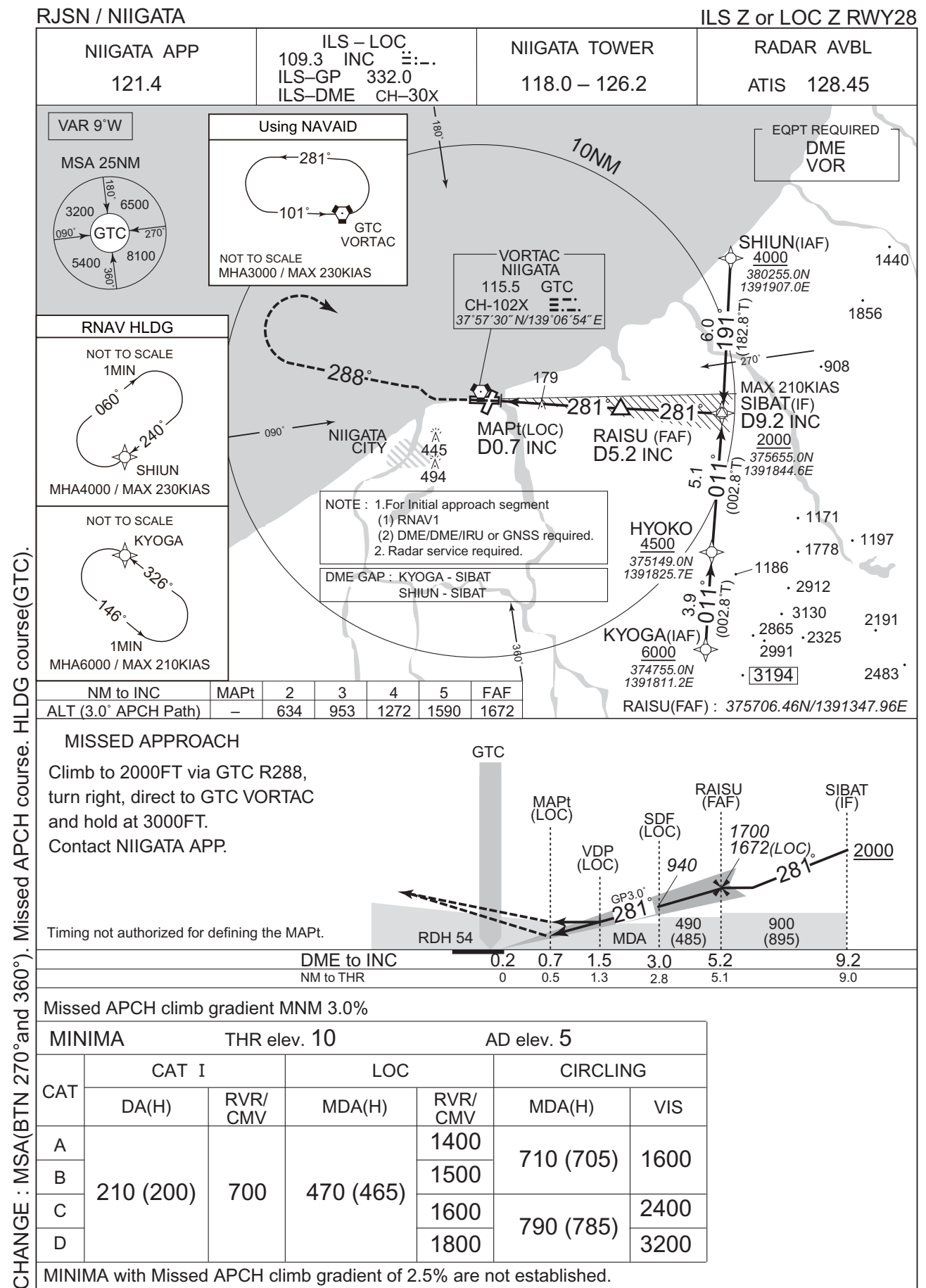
CHANGE : VAR. PROC course FM TERAD to RYUTO.

STANDARD ARRIVAL CHART-INSTRUMENT



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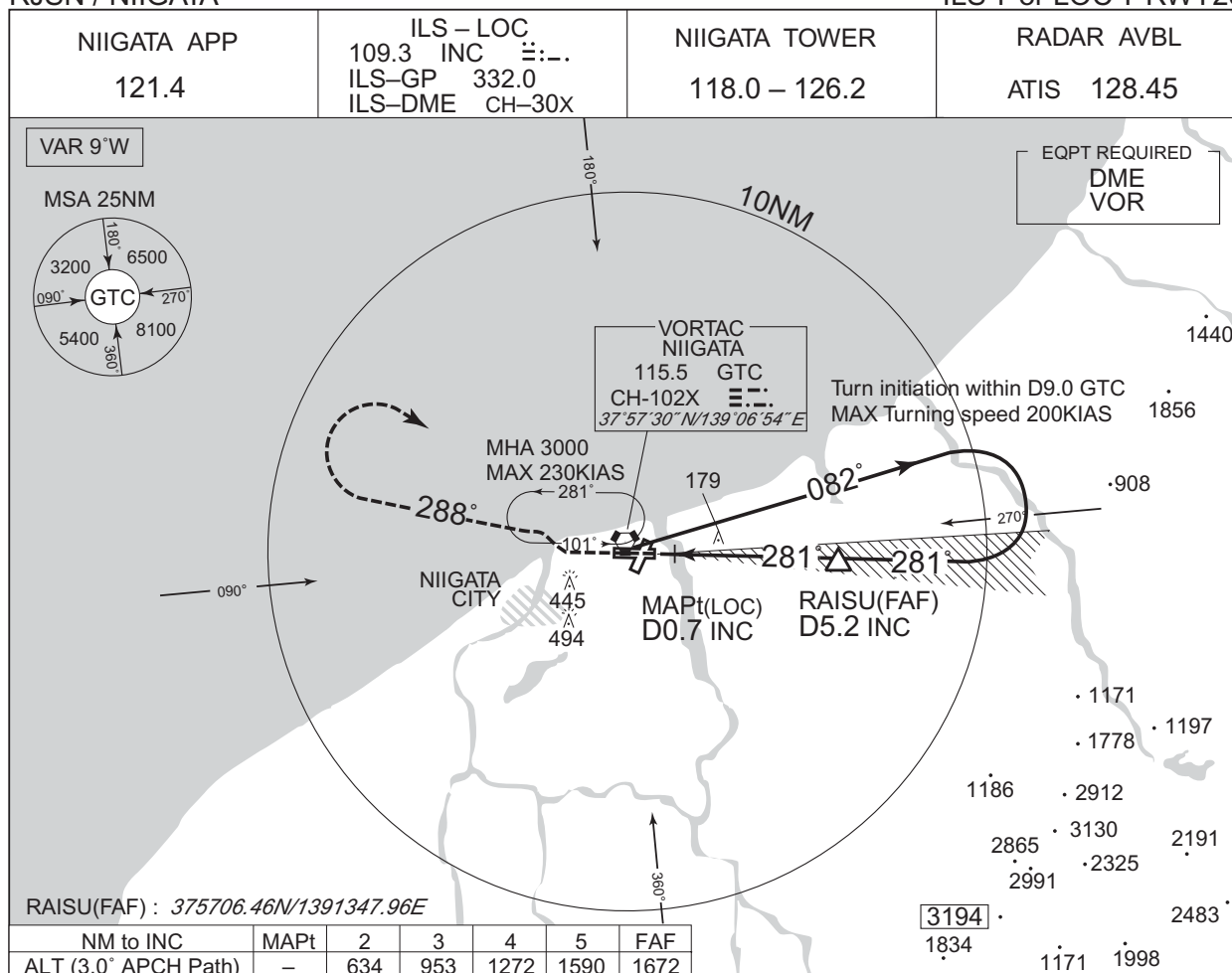
INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJSN / NIIGATA

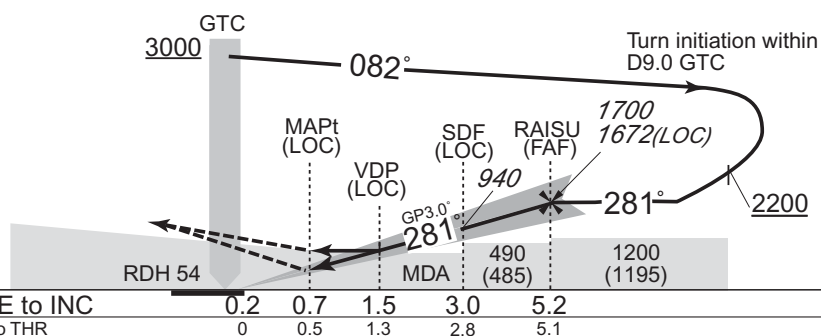
ILS Y or LOC Y RWY28



MISSED APPROACH

Climb to 2000FT via GTC R288,
turn right, direct to GTC
VORTAC and hold at 3000FT.
Contact NIIGATA APP.

Timing not authorized for defining the MAPt.



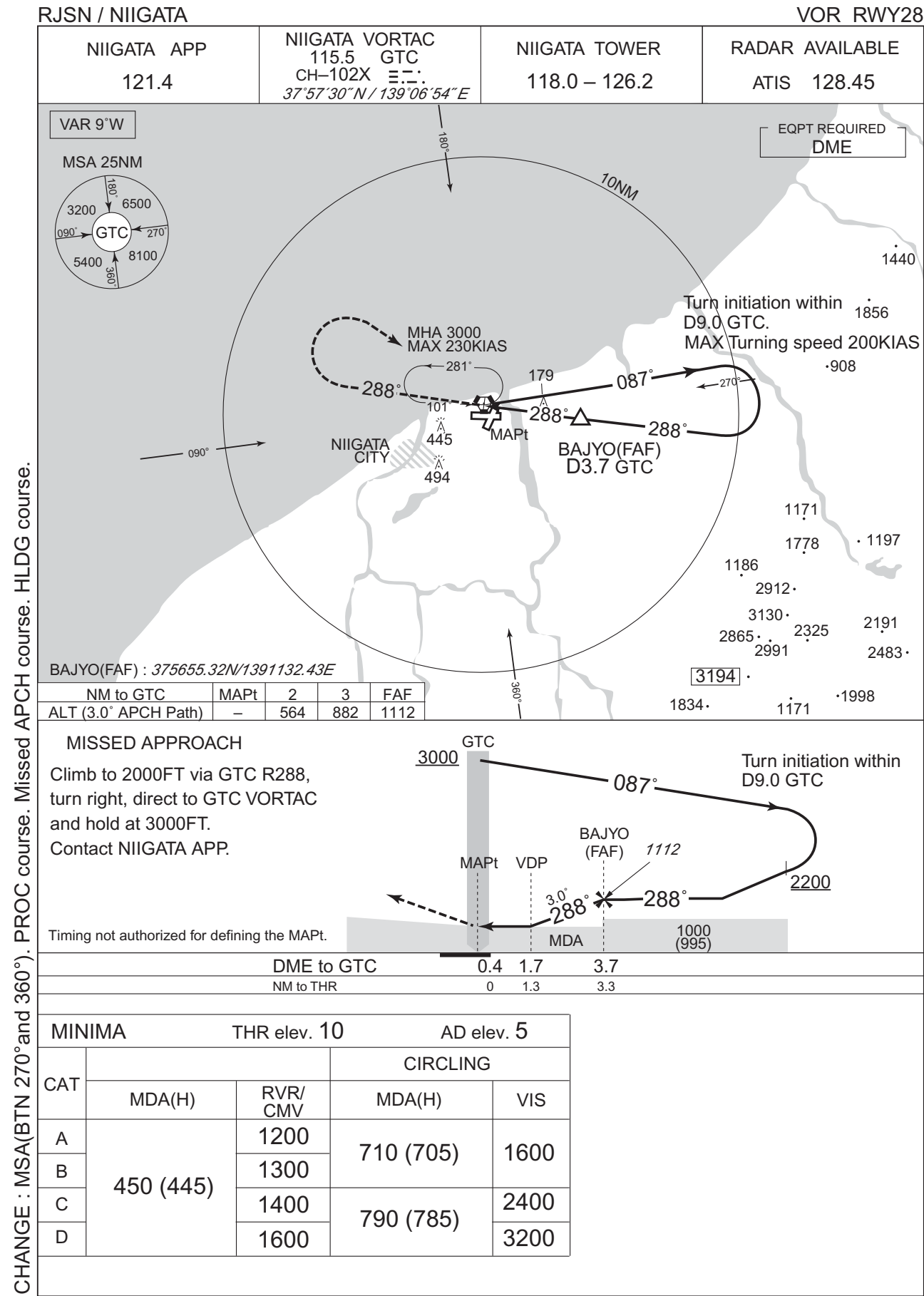
Missed APCH climb gradient MNM 3.0%

MINIMA		THR elev. 10		AD elev. 5		
CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	210 (200)	700	470 (465)	1400	710 (705)	1600
B				1500		
C				1600	790 (785)	2400
D				1800		

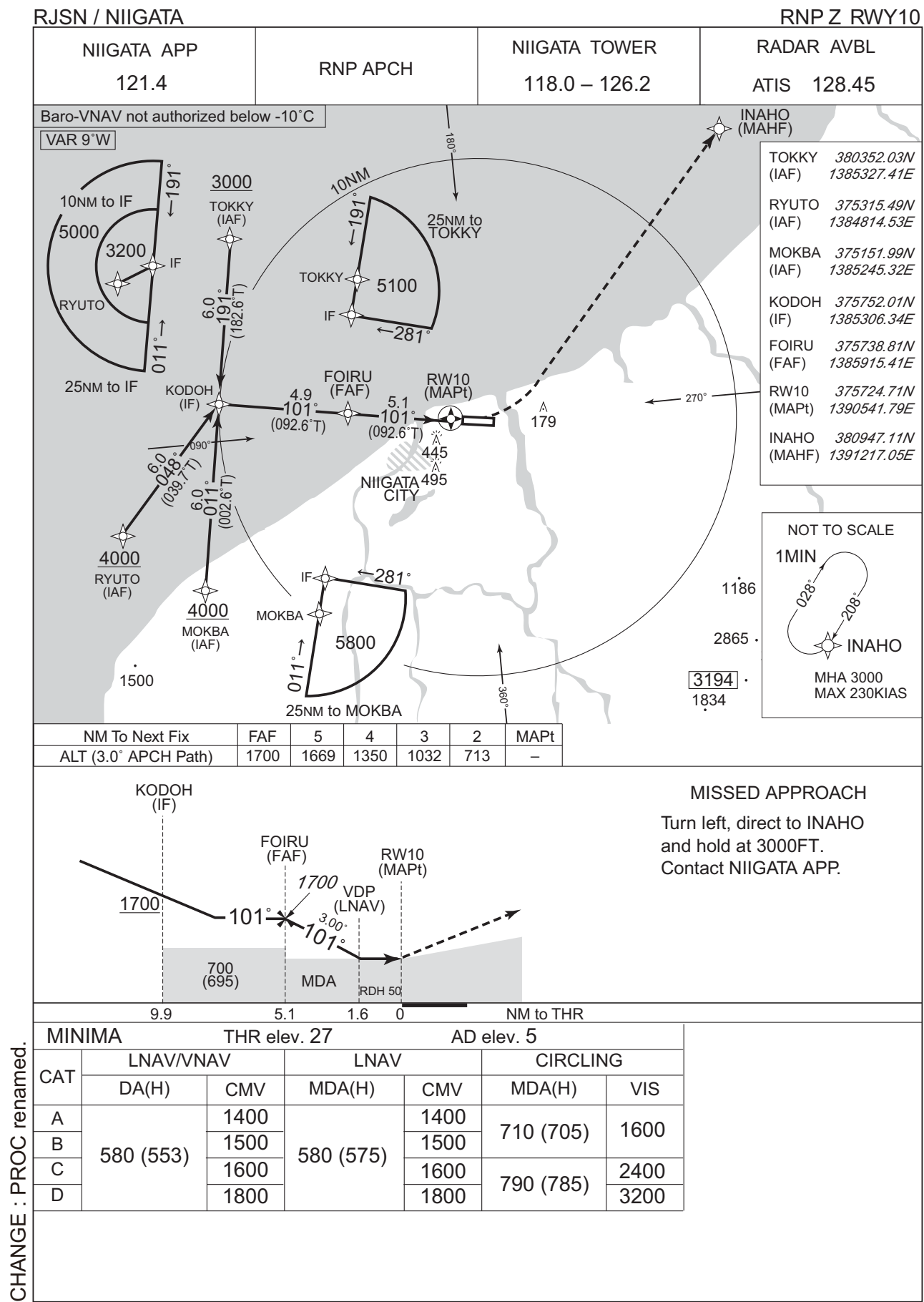
MINIMA with Missed APCH climb gradient of 2.5% are not established.

CHANGE : MSA(BTN 270° and 360°). PROC course. Missed APCH course. HLDG course.

INSTRUMENT APPROACH CHART



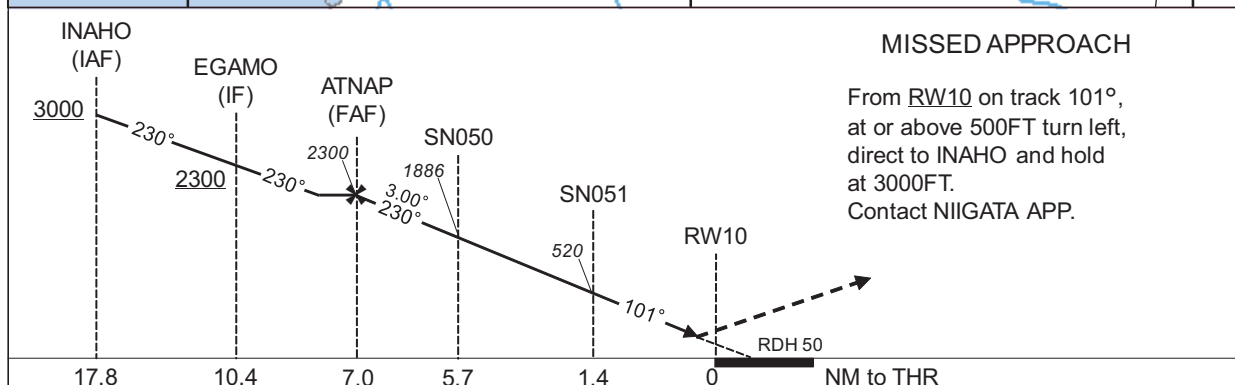
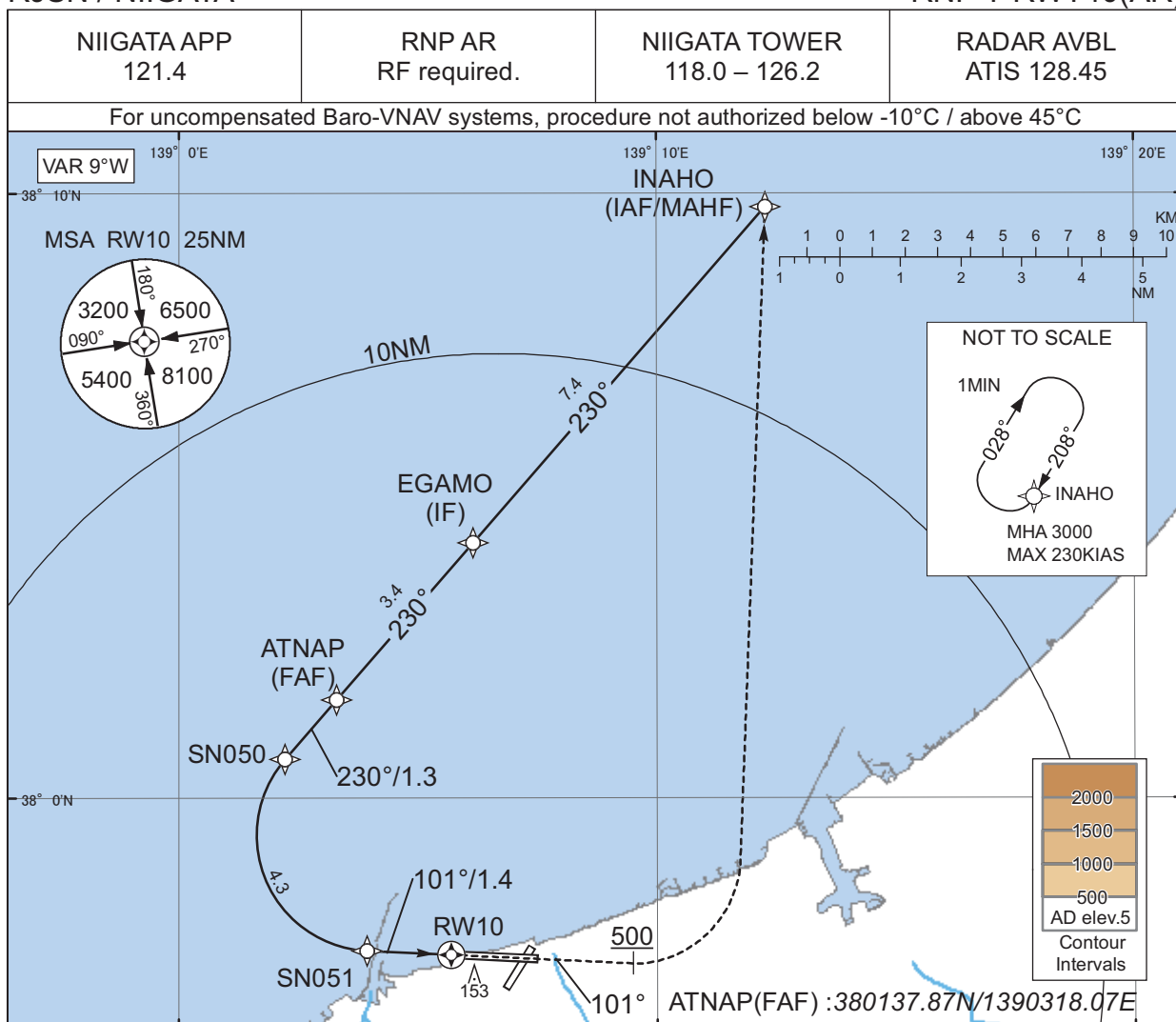
INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJSN / NIIGATA

RNP Y RWY10(AR)



CHANGE : New PROC.

MINIMA	THR elev. 27	AD elev. 5
CAT	RNP 0.30	
	DA(H)	CMV
A	-	-
B	-	-
C	305(278)	1200
D	315(288)	1400

Authorization Required

INSTRUMENT APPROACH CHART

RJSN / NIIGATA

RNP Y RWY10(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	INAHO	-	-	-8.6	-	-	+3000	-	-	-
002	TF	EGAMO	-	230 (221.0)	-8.6	7.4	-	+2300	-	-	1.0
003	TF	ATNAP	-	230 (220.9)	-8.6	3.4	-	2300	-	-	1.0
004	TF	SN050	-	230 (220.9)	-8.6	1.3	-	1886	-	-3.00	0.3
005	RF Center: SNRF1 r=1.91NM	SN051	-	-	-8.6	4.3	L	520	-	-3.00	0.3
006	TF	RW10	Y	101 (092.7)	-8.6	1.4	-	77	-	-3.00/50	0.3
007	FA	-	-	101 (092.7)	-8.6	-	-	+500	-	-	1.0
008	DF	INAHO	-	-	-8.6	-	L	3000	-	-	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	INAHO	208 (199.1)	-8.6	1.0 (-14000)	R	3000	FL140	-230 (-14000)	1.0

Waypoint Coordinates

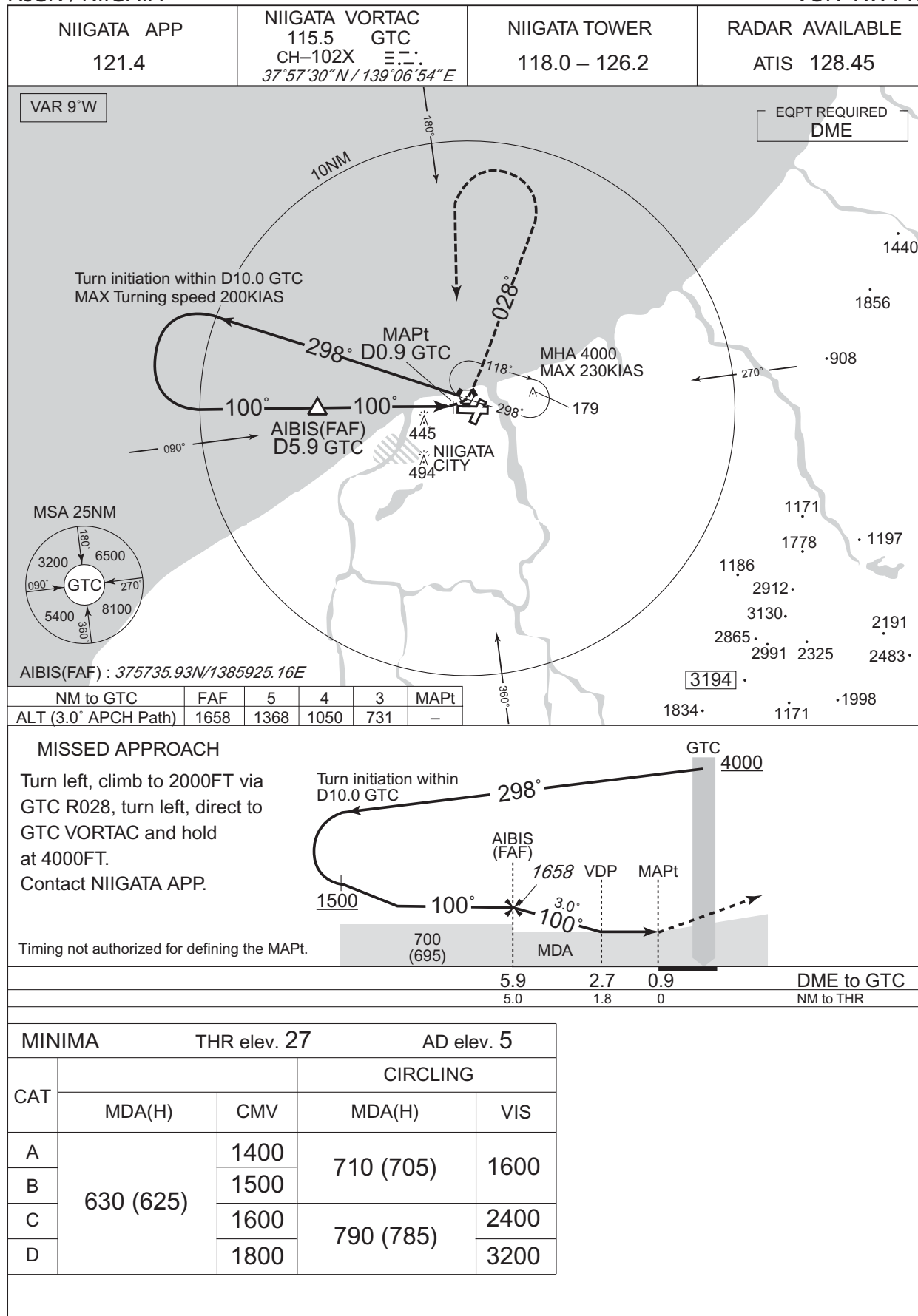
Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
INAHO	380947.11N / 1391217.05E	SNRF1	375923.46N / 1390402.94E
EGAMO	380413.79N / 1390609.55E		
ATNAP	380137.87N / 1390318.07E		
SN050	380038.89N / 1390213.27E		
SN051	375728.60N / 1390356.21E		
RW10	375724.71N / 1390541.79E		

CHANGE : New PROC.

INSTRUMENT APPROACH CHART

RJSN / NIIGATA

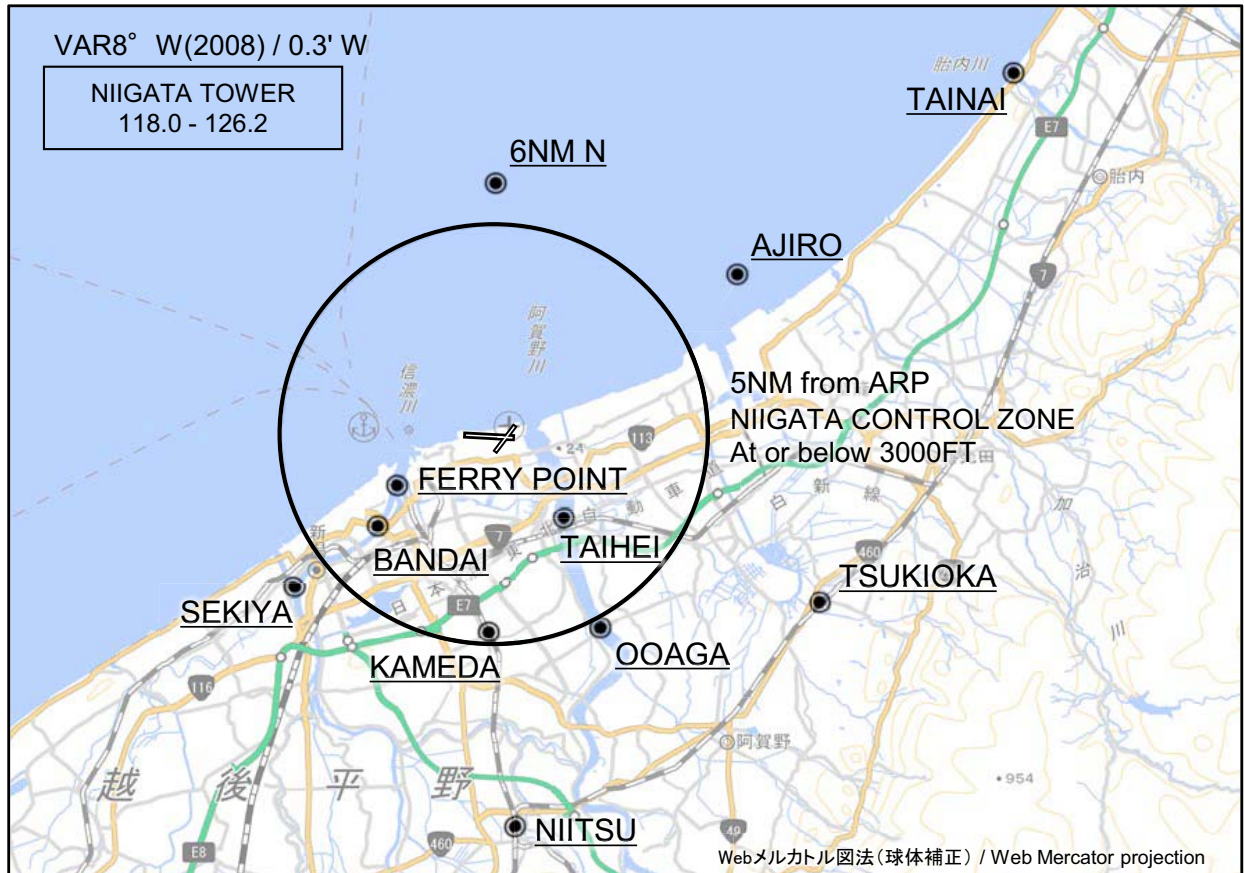
VOR RWY10



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RJSN / NIIGATA

Visual REP



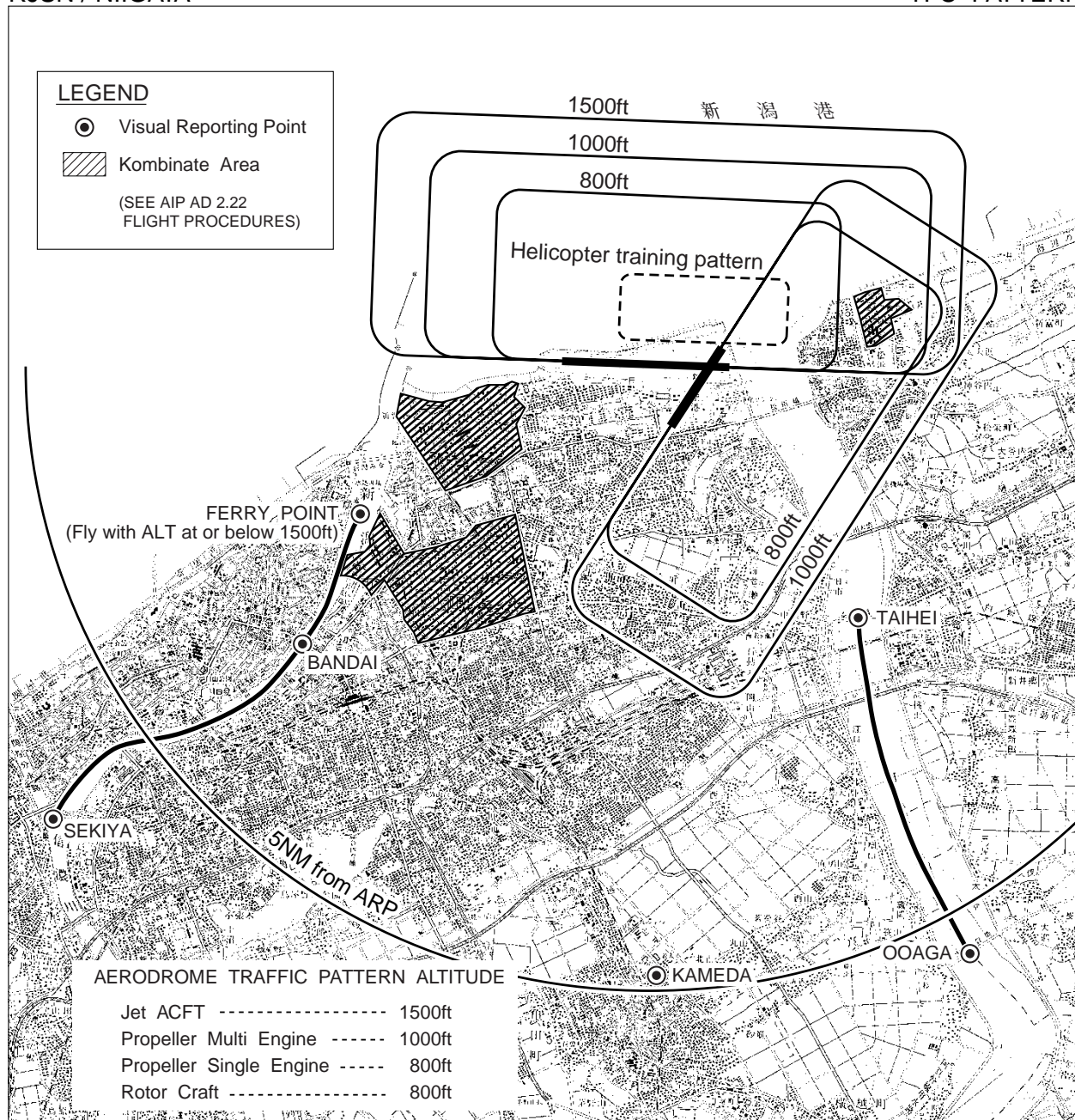
※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

Call sign	BRG / DIST from ARP	Remarks
胎内 Tainai	054°T / 14.9NM	胎内川河口 River-mouth
6NM N	360°T / 6.0NM	海上 Over the sea
網代 Ajiro	056°T / 6.9NM	防波堤突端の赤色灯台 Red lighthouse at the tip of breakwater
*フェリーポイント Ferry point	243°T / 2.6NM	万代橋より信濃川下流2kmの地点 (1,500FT以下で通過すること) The point 2km down the Shinano from the Bandai Bridge.(Fly with ALT at or below 1500FT)
*泰平 Taihei	141°T / 2.5NM	橋 Bridge
*万代 Bandai	232°T / 3.5NM	橋 Bridge
関屋 Sekiya	232°T / 6.0NM	分水路への分岐点 Diverging-point for Flood-control channel
月岡 Tsukioka	118°T / 8.6NM	JR駅 Station
大阿賀 Ooaga	152°T / 5.2NM	橋 Bridge
亀田 Kameda	182°T / 4.7NM	JR駅 Station
新津 Niitsu	177°T / 9.4NM	JR駅 Station

*ヘリコプター Use for helicopter

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TFC PATTERN



阿賀野ルート：大阿賀～泰平間の阿賀野川に沿う飛行経路（回転翼航空機用）

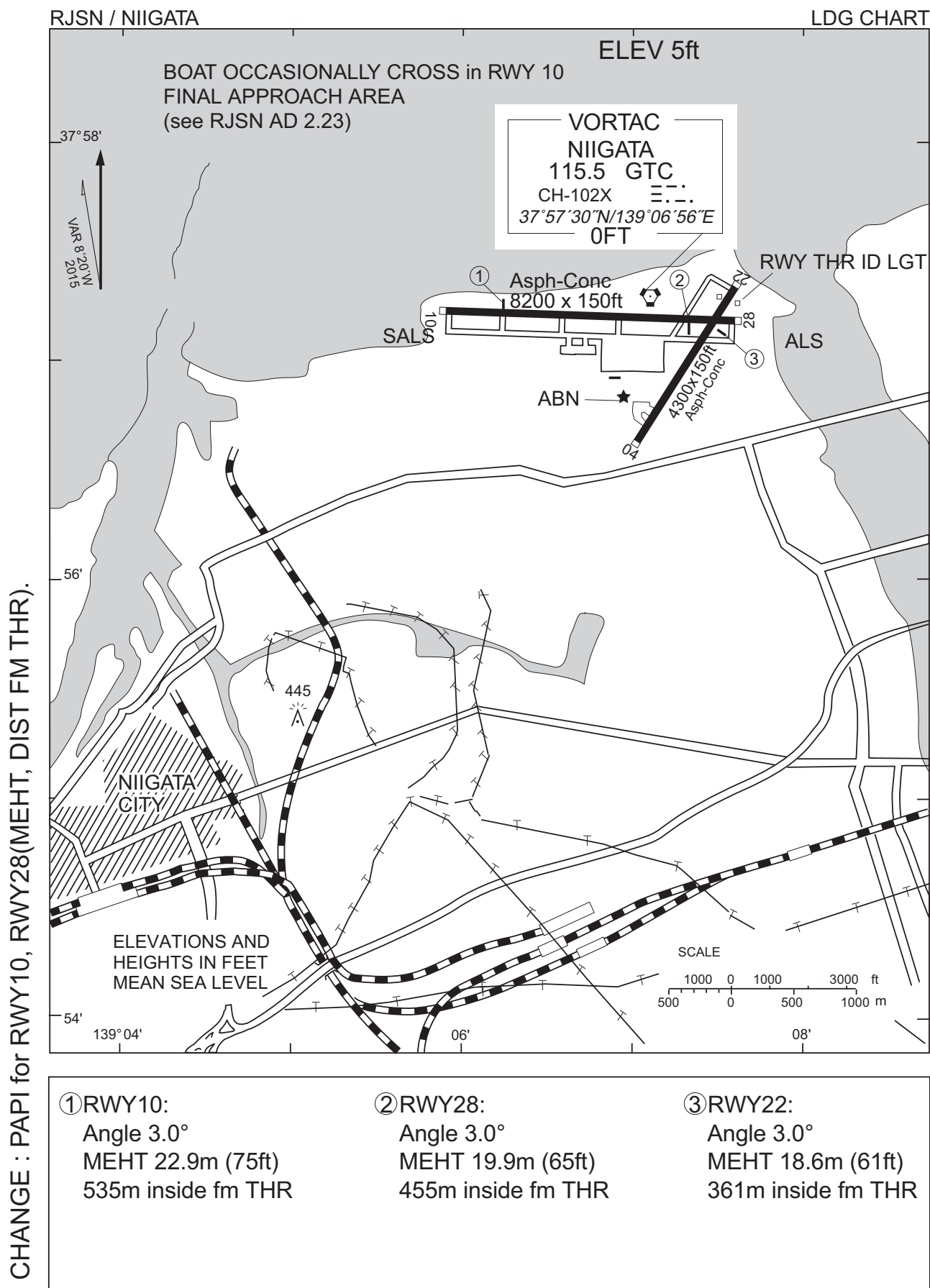
AGANO ROUTE : The route along Agano river between OOAGA and TAIHEI (Use for Rotor Craft)

信濃ルート：関屋～万代～フェリーポイント間の信濃川に沿う飛行経路（回転翼航空機用）

SHINANO ROUTE : The route along Shinano river between SEKIYA, BANDAI and FERRY POINT
(Use for Rotor Craft)

※新潟タワーから上記ルートによる飛行の指示があった場合、VFR回転翼航空機は空港周辺における航空機騒音軽減のためVMCを維持できない場合を除き可能な限り当該ルートに沿って飛行することが望ましい。

※In order to reduce aircraft noise in the vicinity of airport, VFR Rotor Craft is expected to follow the above mentioned route when insructed by Niigata tower. (except the case of IMC)



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Minimum Vectoring Altitude CHART

