AERODROME CHART

NIIGATA AIRPORT
ELEV 1.40m(4.6ft)

VAR 9°W(2025)
ANNUAL CHANGE 2'W

LOC

ELEV 27ft

PAPI ANGLE 3.0°
MEHT 22.9m (75ft)
535m INSIDE FM THR

7▽1 6▽2 5▽3 4▽4 3▽5 2▽6 1▽7

7△1 6△2 5△ 4△4 3△5

10 28

TAXIING GUIDANCE SIGN
WIND SPEED METER
WDI

B5 B4 B3 B2 B1

ARP
375721N
1390642E

C6 C5 C4 C3 C2 C1

JSDF-A

VORTAC
(GTC)

PAPI ANGLE 3.0°
MEHT 19.9m (65ft)
455m INSIDE FM THR

P4 P3

GP

A3

RWY TIL 22

ELEV 6ft

ELEV 10ft

RUNWAY
GUARD LIGHTS

WDI

CEILOMETER

WIND SPEED METER

RVR

PAPI ANGLE 3.0°
MEHT 18.6m (61ft)
361m INSIDE FM THR

APRON

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

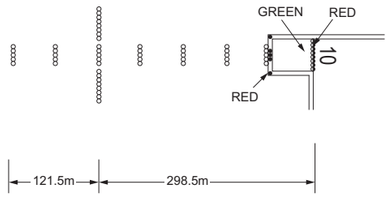
FIRE STN
TWR MET
TERMINAL BLDG

ASR
ABN
JCG

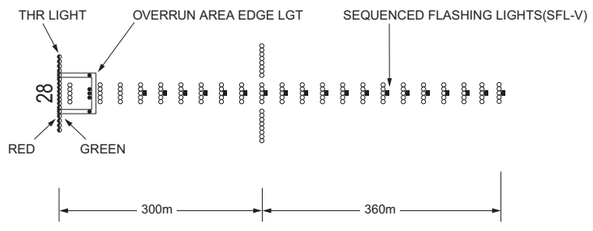
S APRON
S-TWY

A1
ELEV 23ft
04
RWY TIL

SIMPLE APPROACH LIGHTING SYSTEM



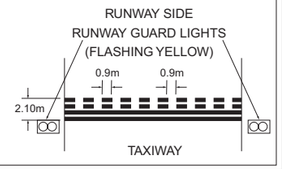
APPROACH LIGHTING SYSTEM



RUNWAY-HOLDING POSITION MARKINGS and RUNWAY GUARD LIGHTS

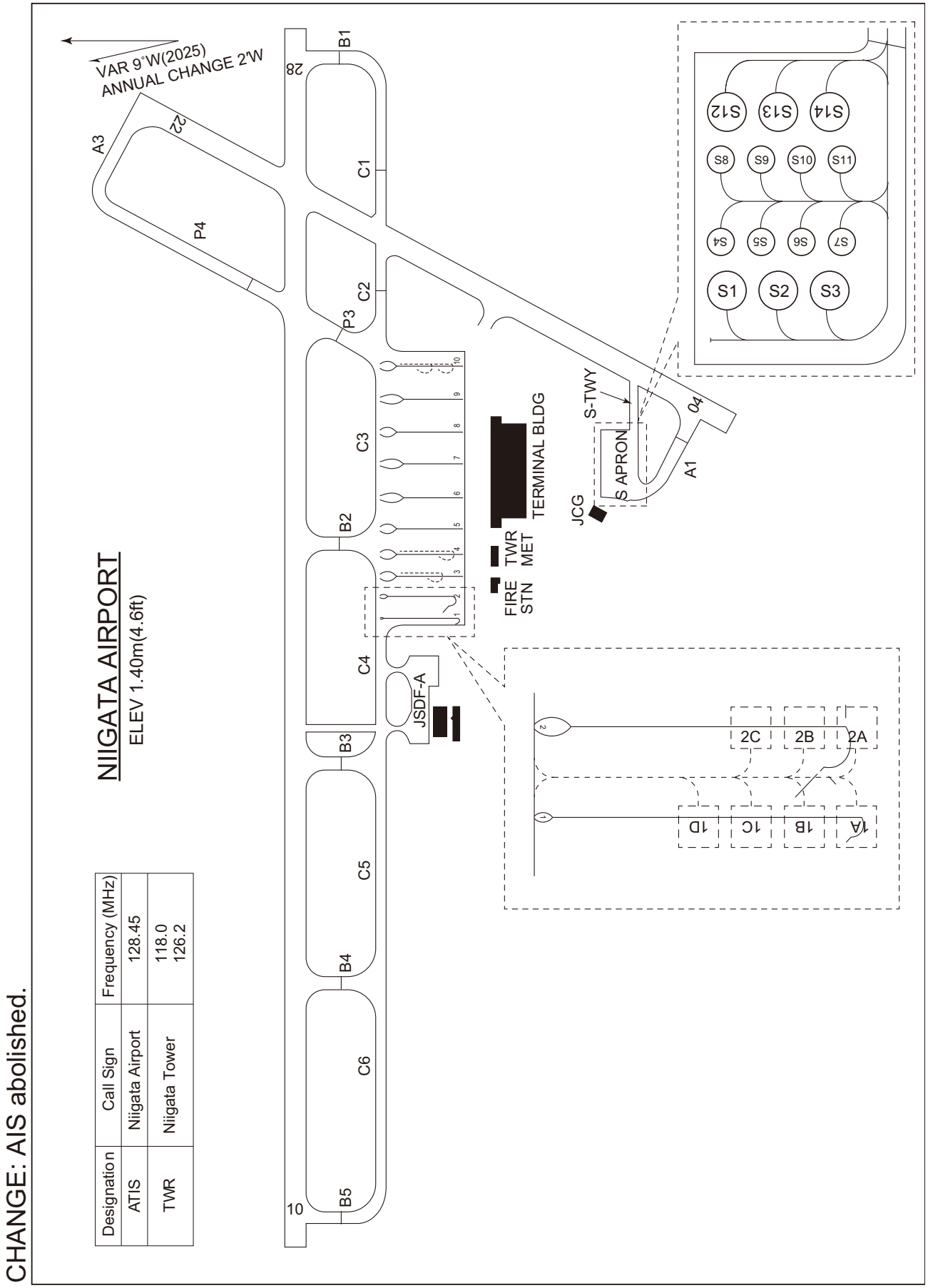
Runway-holding position markings and Runway guard lights are located on taxiway B-1 through B-5, C-1, C-2 and P-3. Their locations are 75m off the runway centerline.

COMMON WAYS OF ITS MARKING AND LIGHTS



CHANGE : AIS abolished.

RJSN / NIIGATA AD CHART



Designation	Call Sign	Frequency (MHz)
ATIS	Niigata Airport	128.45
TWR	Niigata Tower	118.0 126.2

CHANGE: AIS abolished.

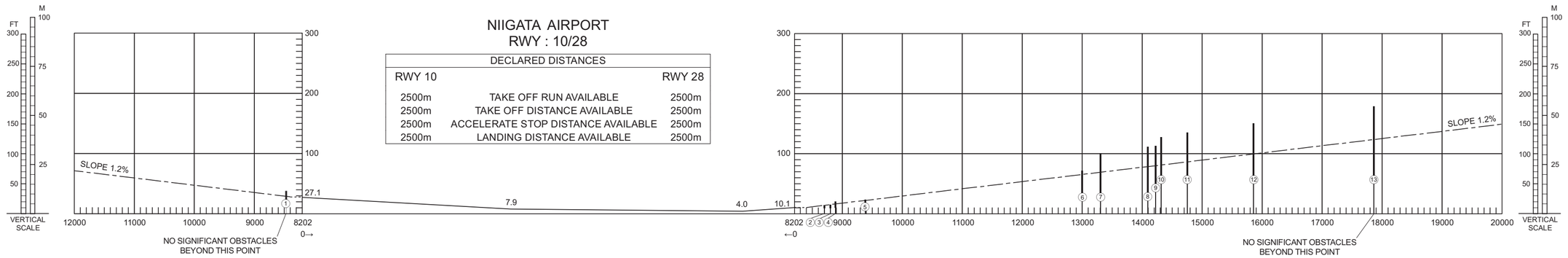
DIMENSIONS AND ELEVATIONS IN FEET, BEARINGS ARE MAGNETIC
Transverse Mercator Projection

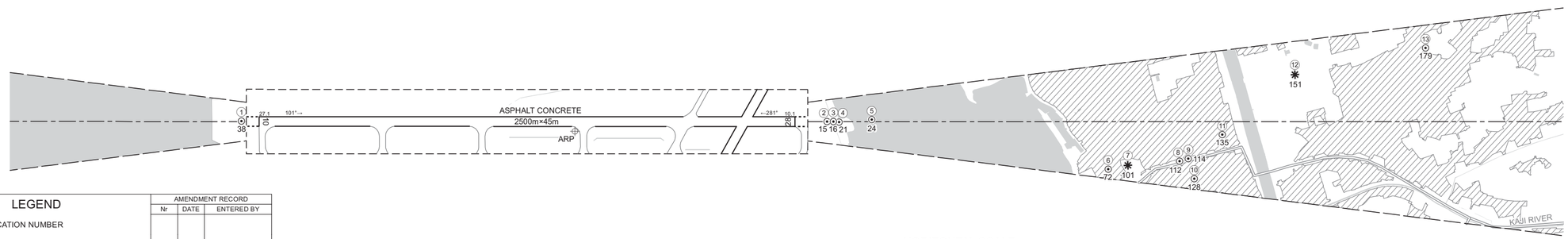
AERODROME OBSTACLE CHART-ICAO
TYPE A (OPERATING LIMITATIONS)

MAGNETIC VARIATION 9°W - AUG 2025

NIIGATA AIRPORT
RWY : 10/28

DECLARED DISTANCES		
RWY 10		RWY 28
2500m	TAKE OFF RUN AVAILABLE	2500m
2500m	TAKE OFF DISTANCE AVAILABLE	2500m
2500m	ACCELERATE STOP DISTANCE AVAILABLE	2500m
2500m	LANDING DISTANCE AVAILABLE	2500m





HORIZONTAL SCALE

FEET

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 ft

500 0 500 1000 1500 2000 2500 3000 m

METRES

LEGEND
① IDENTIFICATION NUMBER
POLE, TOWER, SPIRE, ANTENNA, ETC.
TREE
HYDROGRAPHY
BUILDING OR LARGE STRUCTURE
TERRAIN CONTOUR (ft)
TERRAIN PENETRATING OBSTACLE PLANE (ft)

AMENDMENT RECORD		
Nr	DATE	ENTERED BY

測量法に基づく国土地理院長承認(使用) R 6JHs 299　国土数値情報 （緊急輸送道路）

CHANGE:Update

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

AERODROME OBSTACLE CHART-ICAO
TYPE B

AERODROME ELEVATION 4.6ft ARP

HORIZONTAL SURFACE

APPROACH SURFACE SLOPE 1:30

TRANSITIONAL SURFACE SLOPE 1:7

TRANSITIONAL SURFACE SLOPE 1:7

TRANSITIONAL SURFACE SLOPE 1:7

TAKE-OFF FLIGHT PATH SLOPE 1.2%

APPROACH SURFACE SLOPE 1:50

TRANSITIONAL SURFACE SLOPE 1:7

TAKE-OFF FLIGHT PATH SLOPE 1.2%

APPROACH SURFACE SLOPE 1:50

APPROACH SURFACE SLOPE 1:30

TRANSITIONAL SURFACE SLOPE 1:7

ASPHALT CONCRETE PAVEMENT

MAGNETIC VAR 9°W AUG 2025
ANNUAL CHANGE 2°W

NIIGATA CITY

SHINANO RIVER

AGANO RIVER

KAJI RIVER

NEW SHIBATA RIVER

NEW FURUKAWA RIVER

TSUSEN RIVER

NATIONAL ROUTE 113

NATIONAL ROUTE 7

NATIONAL ROUTE 7 (NIIGATA BYPASS)

MATSUHAMA BRIDGE

AGANO-SAIGA OHASHI BRIDGE

TAIHEI BRIDGE

RANKUSHIN LINE

JOETSU SHINKANSEN

LEGEND

- AERODROME REFERENCE POINT
  37 ° 57 ' 21 " N 139 ° 06 ' 42 " E
- POLE, TOWER, SPIRE, ANTENNA, ETC.
- TREE
- RAILROAD
- HYDROGRAPHY
- BUILDING OR LARGE STRUCTURE
- TERRAIN CONTOUR (ft)
- TERRAIN PENETRATING OBSTACLE PLANE (ft)

AMENDMENT RECORD		
Nr	DATE	ENTERED BY

HORIZONTAL SCALE

FEET

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 ft

500 0 500 1000 1500 2000 2500 3000 m

METRES

測量法に基づく国土地理院長承認(使用) R 6JHs 299 国土数値情報 （緊急輸送道路、鉄道）

CHANGE:Update

STANDARD DEPARTURE CHART-INSTRUMENT

RJSN / NIIGATA SID

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

OKESA SEVEN DEPARTURE

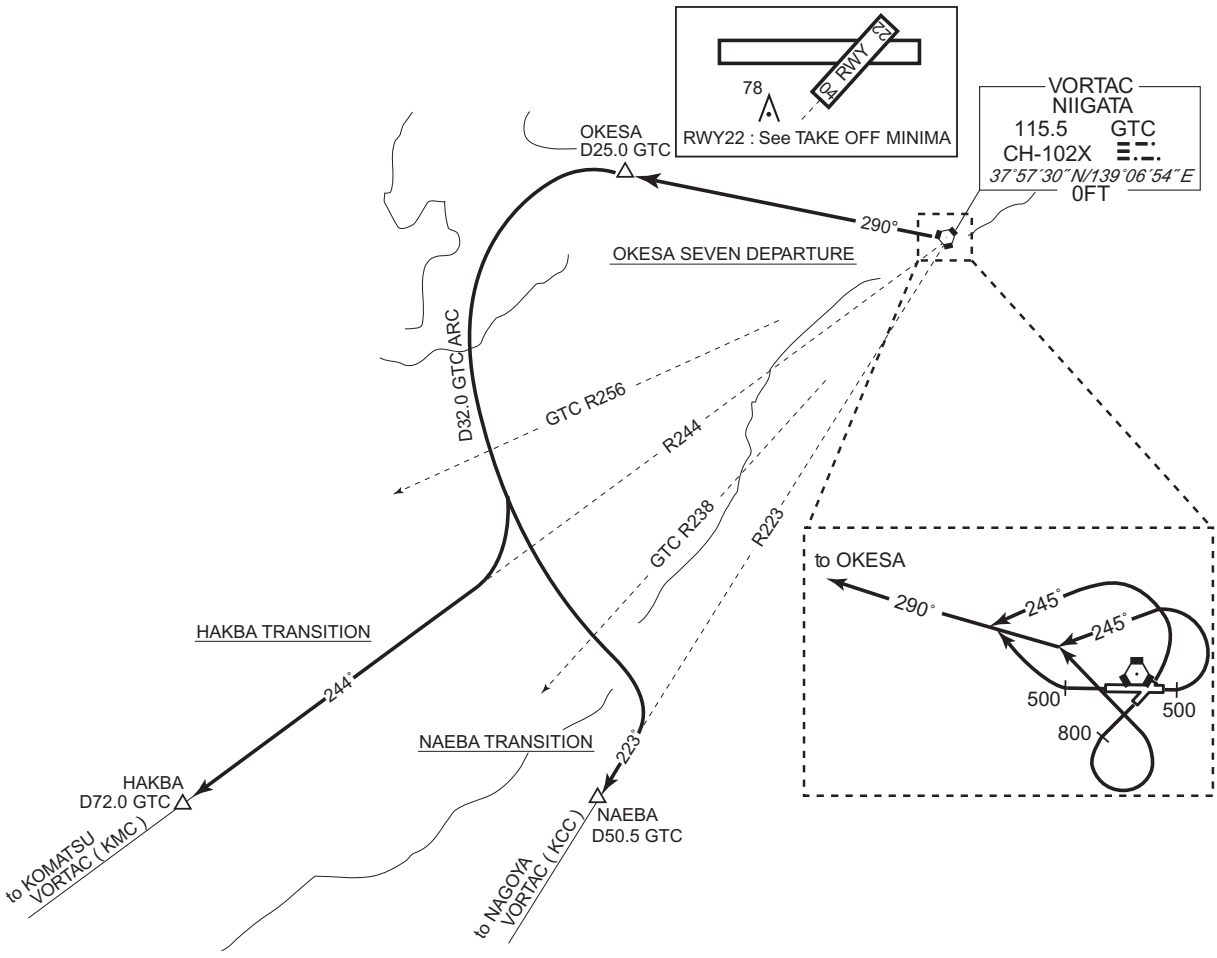
RWY 04 : Turn left HDG 245˚...
RWY 10 : Climb RWY HDG to 500FT, turn left HDG 245°...
RWY 22 : Climb RWY HDG to 800FT, turn left...
RWY 28 : Climb RWY HDG to 500FT, turn right...
...to intercept and proceed via GTC R290 to OKESA.

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.

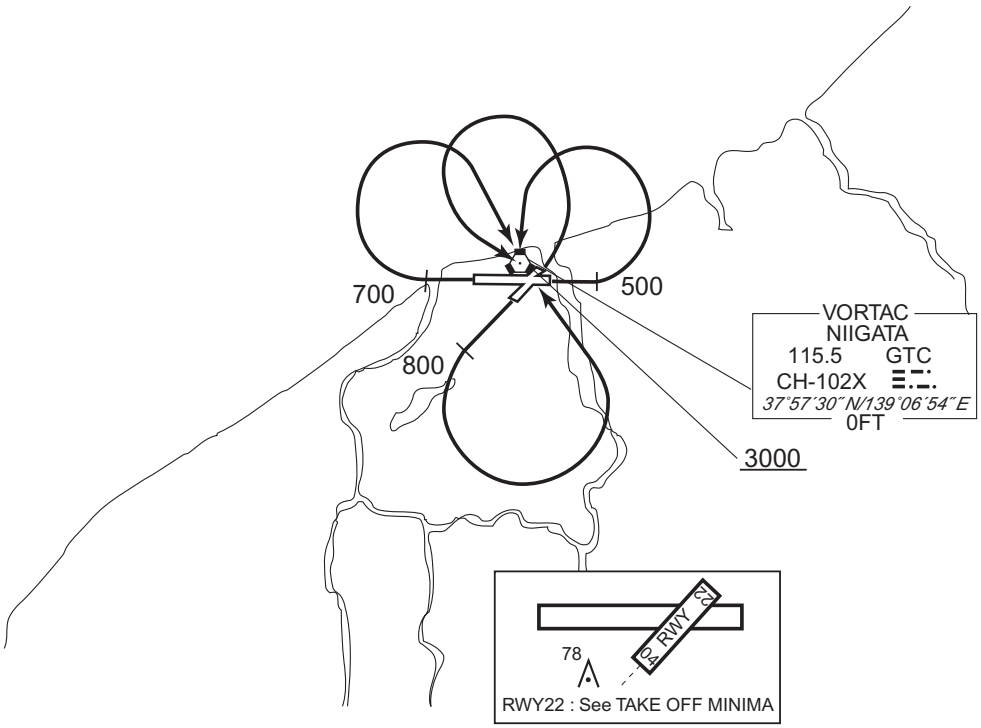


STANDARD DEPARTURE CHART-INSTRUMENT

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.

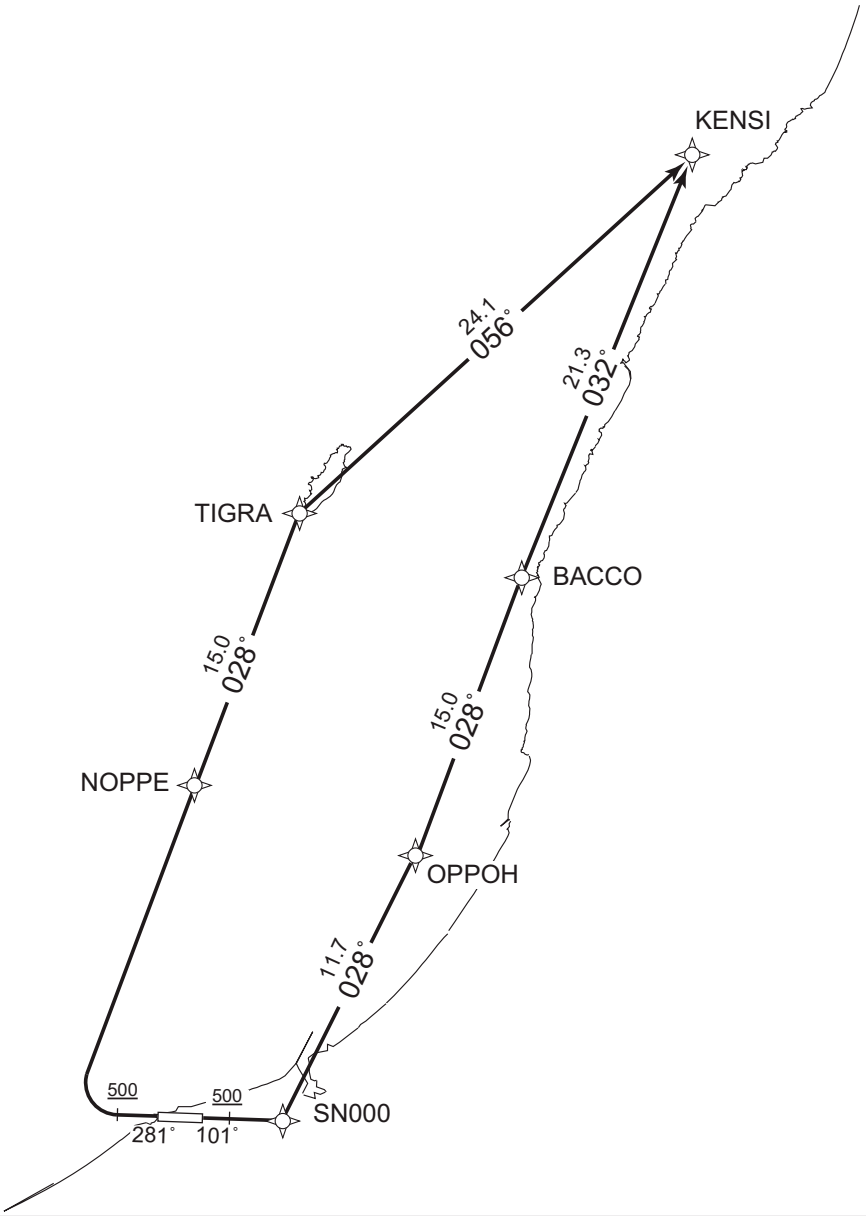
STANDARD DEPARTURE CHART-INSTRUMENT

RJSN / NIIGATA RNAV SID

SASAGA THREE DEPARTURE	RNP1

Note GNSS required.

VAR 9˚W



RWY10 : Climb on HDG101˚ at or above 500FT, direct to SN000, to OPPOH, to BACCO, to KENSI.
RWY28 : Climb on HDG281˚ at or above 500FT, turn right direct to NOPPE, to TIGRA, to KENSI.

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

CHANGE : Description of latitude and longitude.

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

Waypoint Coordinates

Waypoint Identifier	Coordinates	Waypoint Identifier	Coordinates
SN000	*375707.7N / 1391314.7E*	NOPPE	*381125.5N / 1390617.6E*
OPPOH	*380808.4N / 1391816.3E*	TIGRA	*382536.8N / 1391230.4E*
BACCO	*382219.9N / 1392431.5E*	KENSI	*384155.7N / 1393512.1E*

CHANGE : Waypoint Coordinates added.

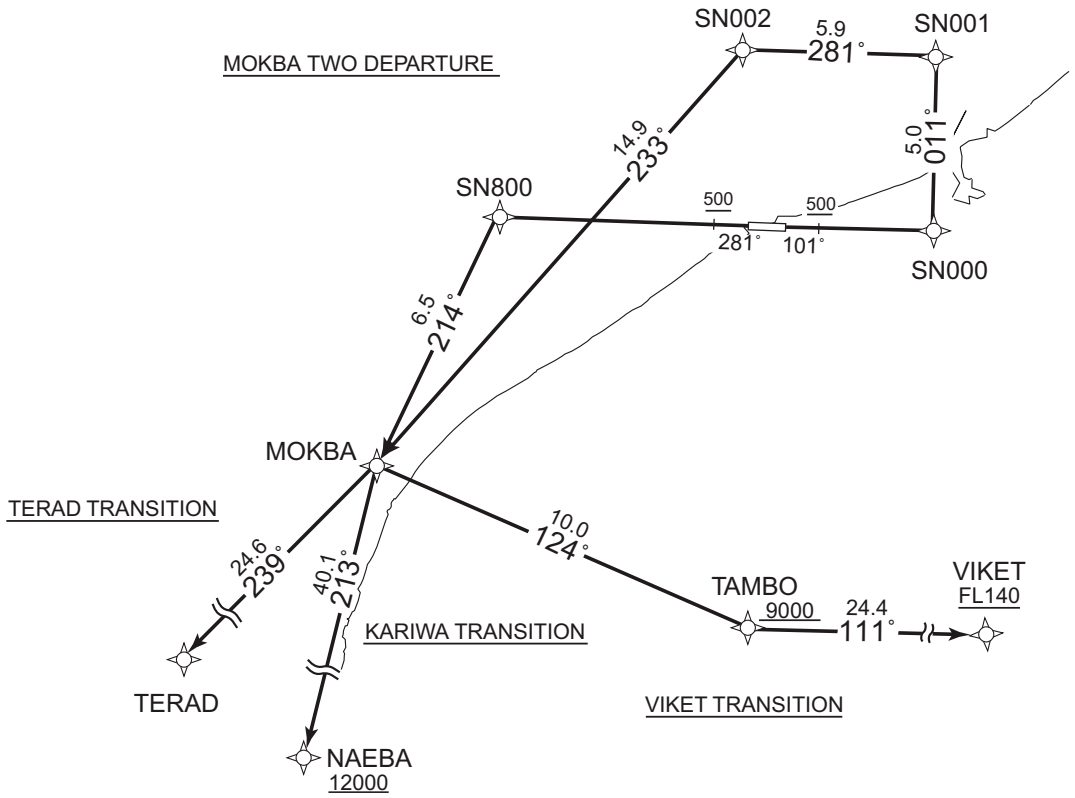
STANDARD DEPARTURE CHART-INSTRUMENT

RJSN / NIIGATA — RNAV SID and TRANSITION

MOKBA TWO DEPARTURE KARIWA TRANSITION / TERAD TRANSITION / VIKET TRANSITION	RNP1

Note GNSS required.

VAR 9˚W



MOKBA TWO DEPARTURE

RWY10 : Climb on HDG101˚ at or above 500FT, direct to SN000, to SN001, to SN002, to MOKBA.
RWY28 : Climb on HDG281˚ at or above 500FT, direct to SN800, to MOKBA.
Note RWY10 : 5.0% climb gradient required up to 500FT.

KARIWA TRANSITION (for Y312 only)

From MOKBA, to NAEBA at or above 12000FT.

TERAD TRANSITION

From MOKBA, to TERAD.

VIKET TRANSITION

From MOKBA, to TAMBO at or above 9000FT, to VIKET at or above FL140.

CHANGE : ALT restriction at NAEBA(KARIWA TRANSITION).

STANDARD DEPARTURE CHART-INSTRUMENT

RJSN / NIIGATA RNAV SID and TRANSITION

MOKBA TWO 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	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

Waypoint Coordinates

Waypoint Identifier	Coordinates
SN000	*375707.7N / 1391314.7E*
SN001	*380207.7N / 1391332.9E*
SN002	*380224.7N / 1390602.0E*
SN800	*375745.2N / 1385620.0E*
MOKBA	*375152.0N / 1385245.3E*

CHANGE : Waypoint Coordinates added.

STANDARD DEPARTURE CHART-INSTRUMENT

RJSN / NIIGATA RNAV SID and TRANSITION

CHANGE : ALT restriction at NAEBA. Waypoint Coordinates added.

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	-	+12000	-	-	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

Waypoint Coordinates

Waypoint Identifier	Coordinates
MOKBA	*375152.0N / 1385245.3E*
NAEBA	*371514.9N / 1383208.6E*
TERAD	*373613.2N / 1382849.2E*
TAMBO	*374730.9N / 1390407.4E*
VIKET	*374205.1N / 1393414.6E*

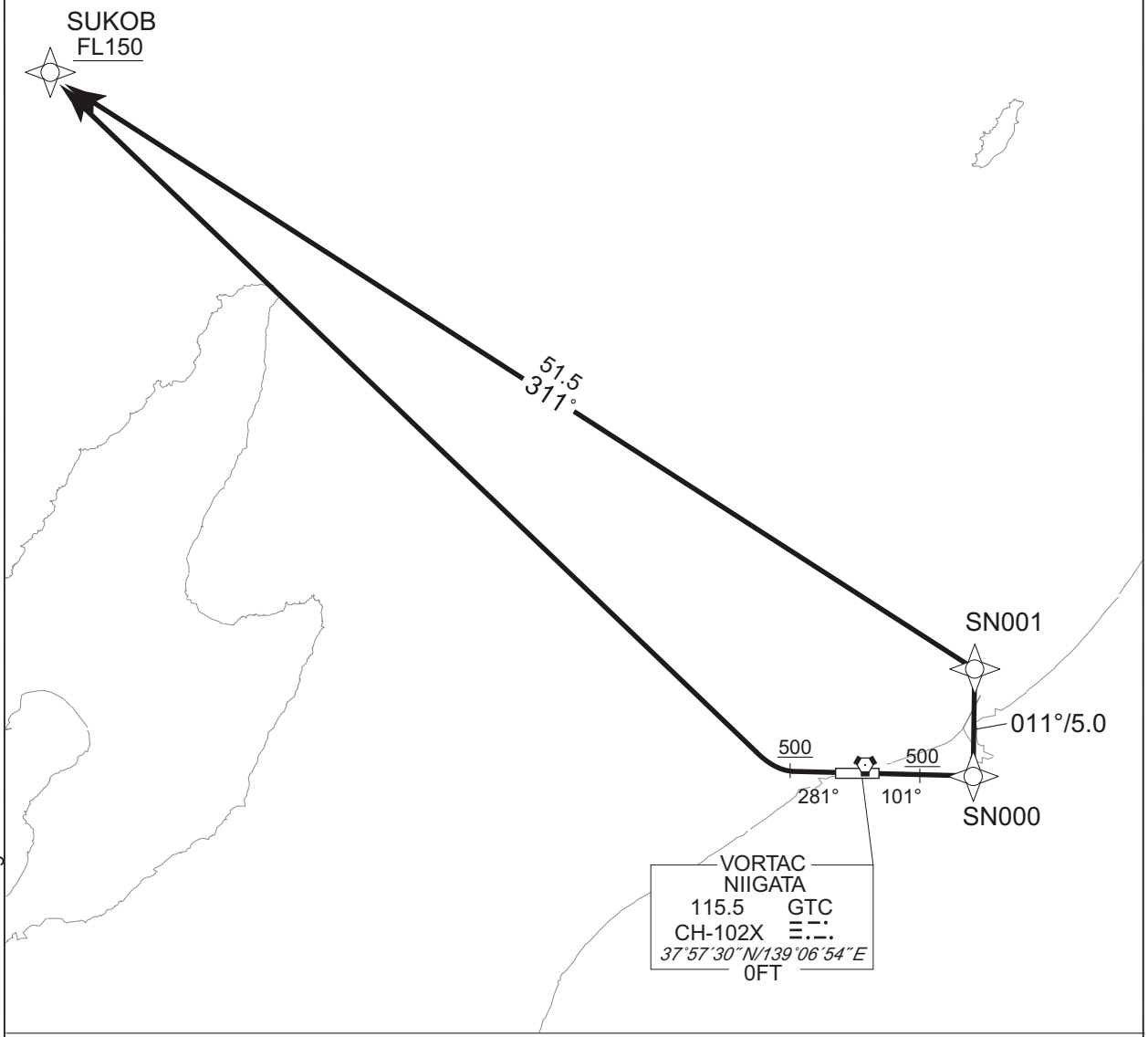
STANDARD DEPARTURE CHART-INSTRUMENT

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 Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1.

VAR 9°W



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.

CHANGE : Description of latitude and longitude.

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

Waypoint Coordinates

Waypoint Identifier	Coordinates
SN000	*375707.7N / 1391314.7E*
SN001	*380207.7N / 1391332.9E*
SUKOB	*382919.9N / 1381752.8E*

CHANGE : Waypoint Coordinates added.

STANDARD ARRIVAL CHART-INSTRUMENT

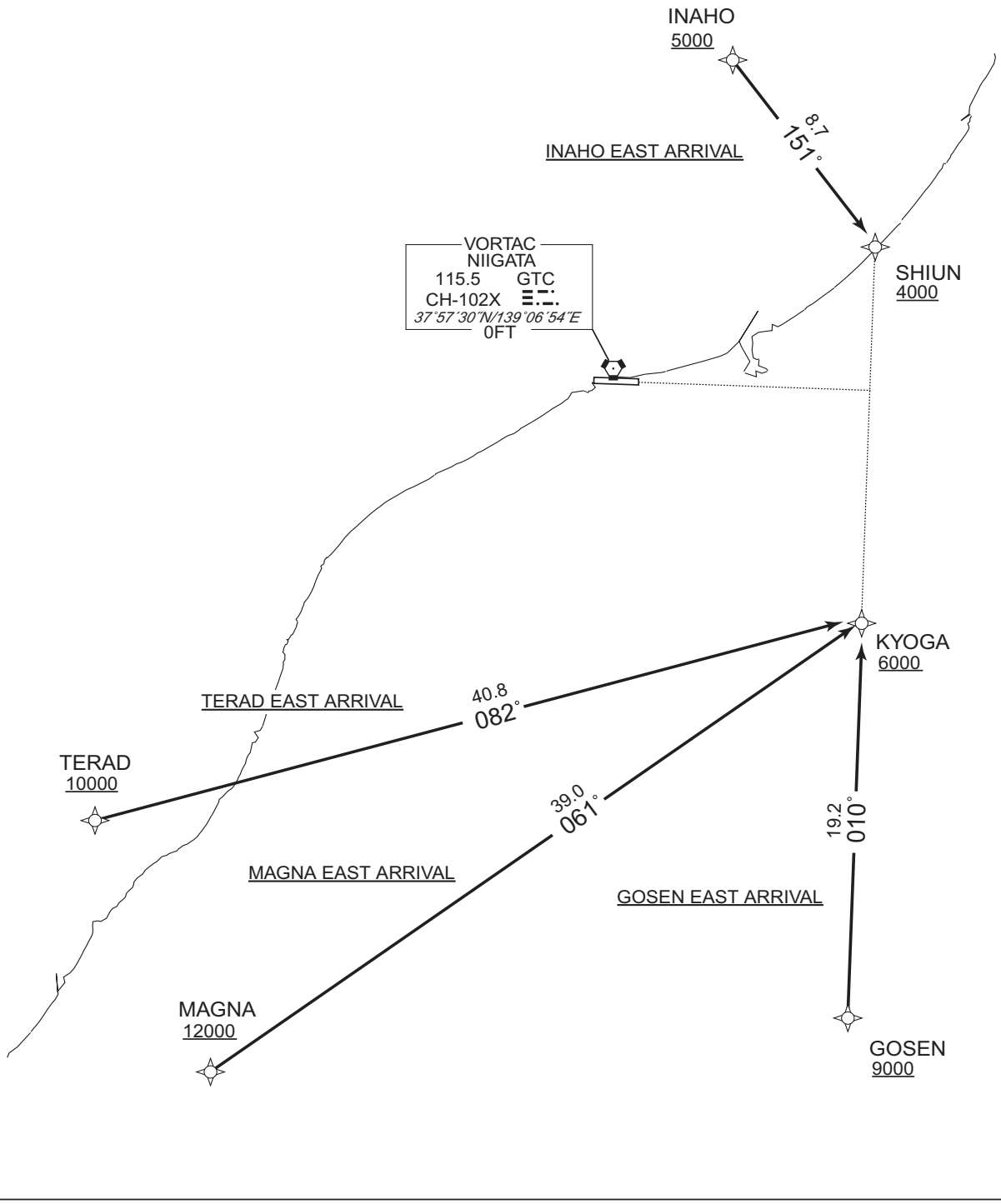
RJSN / NIIGATA

RNAV STAR RWY28

INAHO EAST ARRIVAL GOSEN EAST ARRIVAL MAGNA EAST ARRIVAL TERAD EAST ARRIVAL	RNAV1

Note 1) GNSS required.
2) RADAR service required.

VAR 9°W



CHANGE : Description of latitude and longitude.

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 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	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 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	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 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	MAGNA	–	–	-8.6	–	–	+12000	–	–	RNAV1
002	TF	KYOGA	–	061 (052.0)	-8.6	39.0	–	+6000	–	–	RNAV1

CHANGE : Update.

STANDARD ARRIVAL CHART-INSTRUMENT

RJSN / NIIGATA RNAV STAR RWY28

TERAD EAST ARRIVAL

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

Critical DME	–
DME GAP	TERAD - KYOGA
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	TERAD	–	–	-8.6	–	–	+10000	–	–	RNAV1
002	TF	KYOGA	–	082 (073.1)	-8.6	40.8	–	+6000	–	–	RNAV1

Waypoint Coordinates

Waypoint Identifier	Coordinates	Waypoint Identifier	Coordinates
INAHO	*380947.1N / 1391217.1E*	MAGNA	*372400.1N / 1383916.8E*
SHIUN	*380255.0N / 1391907.0E*	TERAD	*373613.2N / 1382849.2E*
GOSEN	*372844.0N / 1391747.3E*	KYOGA	*374755.0N / 1391811.2E*

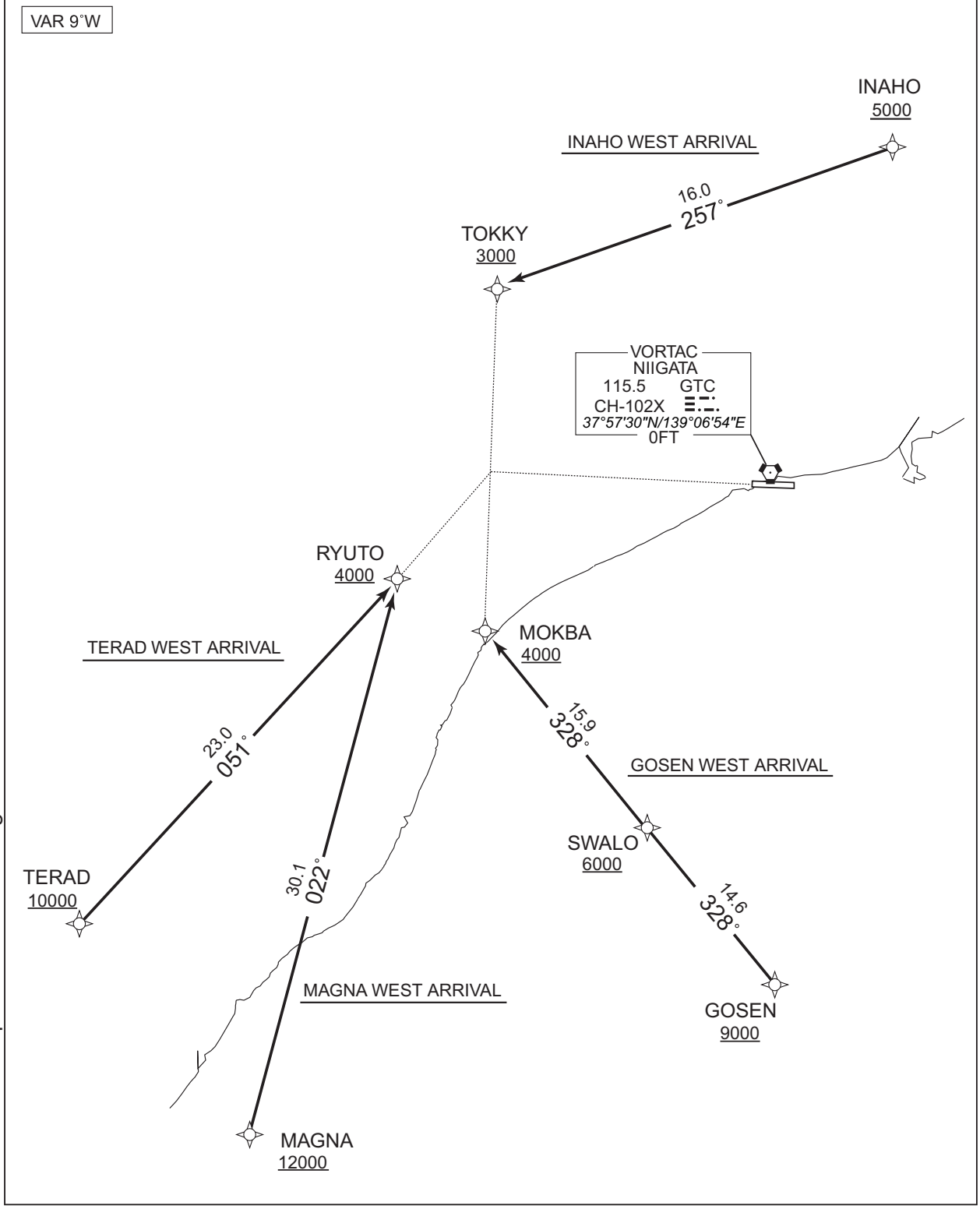
CHANGE : Waypoint Coordinates added.

STANDARD ARRIVAL CHART-INSTRUMENT

RJSN / NIIGATA — RNAV STAR RWY10

INAHO WEST ARRIVAL GOSEN WEST ARRIVAL MAGNA WEST ARRIVAL TERAD WEST ARRIVAL	RNAV1

Note 1) GNSS required.
2) RADAR service required.



CHANGE : Description of latitude and longitude.

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 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	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 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	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 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	MAGNA	–	–	-8.6	–	–	+12000	–	–	RNAV1
002	TF	RYUTO	–	022 (013.6)	-8.6	30.1	–	+4000	–	–	RNAV1

CHANGE : Updade.

STANDARD ARRIVAL CHART-INSTRUMENT

RJSN / NIIGATA RNAV STAR RWY10

TERAD WEST ARRIVAL

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

Critical DME	–
DME GAP	TERAD - RYUTO
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	TERAD	–	–	-8.6	–	–	+10000	–	–	RNAV1
002	TF	RYUTO	–	051 (041.9)	-8.6	23.0	–	+4000	–	–	RNAV1

Waypoint Coordinates

Waypoint Identifier	Coordinates	Waypoint Identifier	Coordinates
INAHO	*380947.1N / 1391217.1E*	MOKBA	*375152.0N / 1385245.3E*
TOKKY	*380352.0N / 1385327.4E*	MAGNA	*372400.1N / 1383916.8E*
GOSEN	*372844.0N / 1391747.3E*	TERAD	*373613.2N / 1382849.2E*
SWALO	*373949.5N / 1390549.9E*	RYUTO	*375315.5N / 1384814.5E*

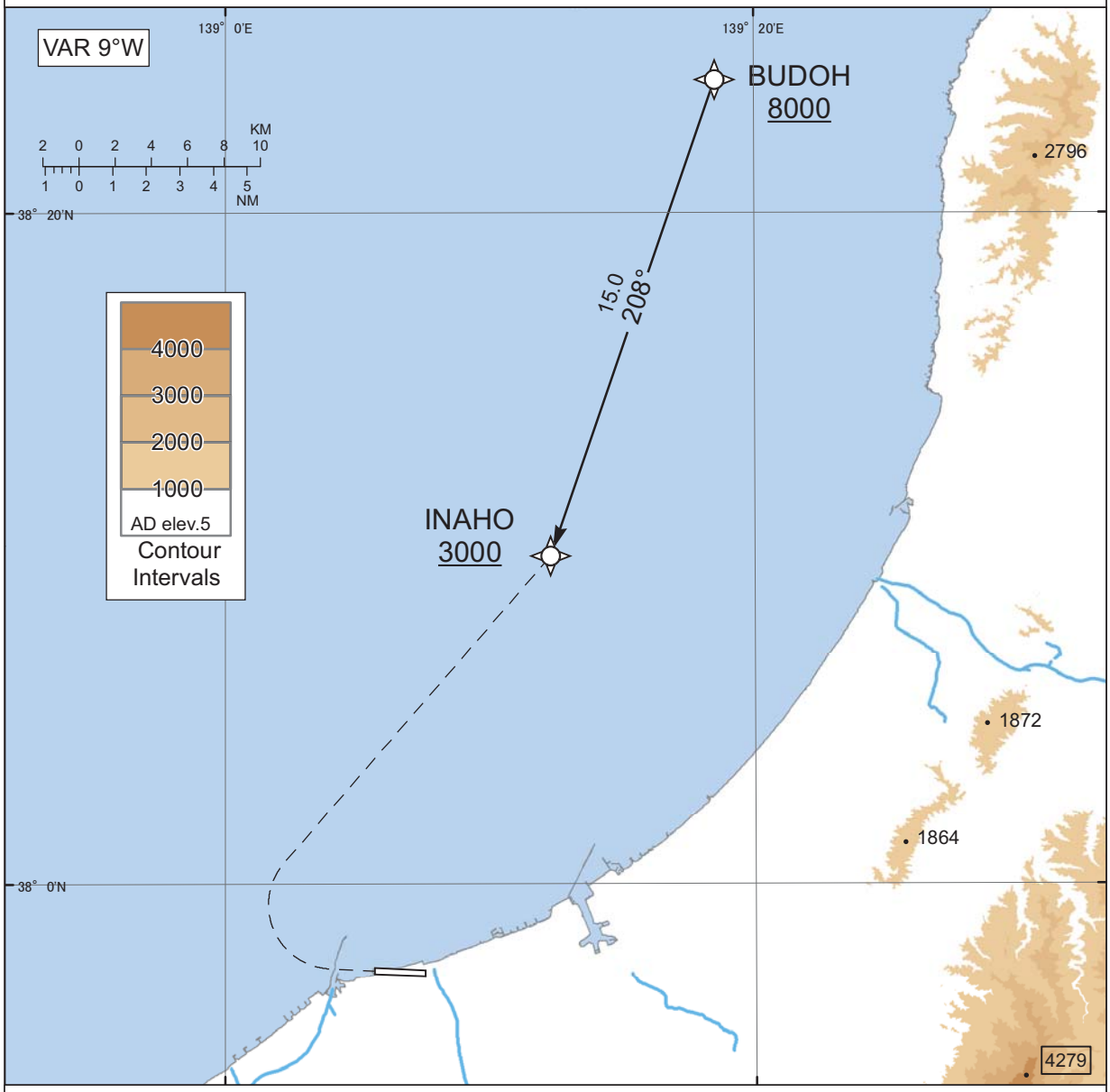
CHANGE : Waypoint Coordinates added.

STANDARD ARRIVAL CHART-INSTRUMENT

RJSN / NIIGATA — RNAV STAR RWY10

KAETSU ARRIVAL	RNP1

Note GNSS required.



From BUDOH at or above 8000FT, to INAHO at or above 3000FT.

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	BUDOH	-	-	-8.6	-	-	+8000	-	-	RNP1
002	TF	INAHO	-	208 (199.1)	-8.6	15.0	-	+3000	-	-	RNP1

Waypoint Coordinates

Waypoint Identifier	Coordinates	Waypoint Identifier	Coordinates
BUDOH	*382358.5N / 1391831.1E*	INAHO	*380947.1N / 1391217.1E*

CHANGE : Waypoint Coordinates added.

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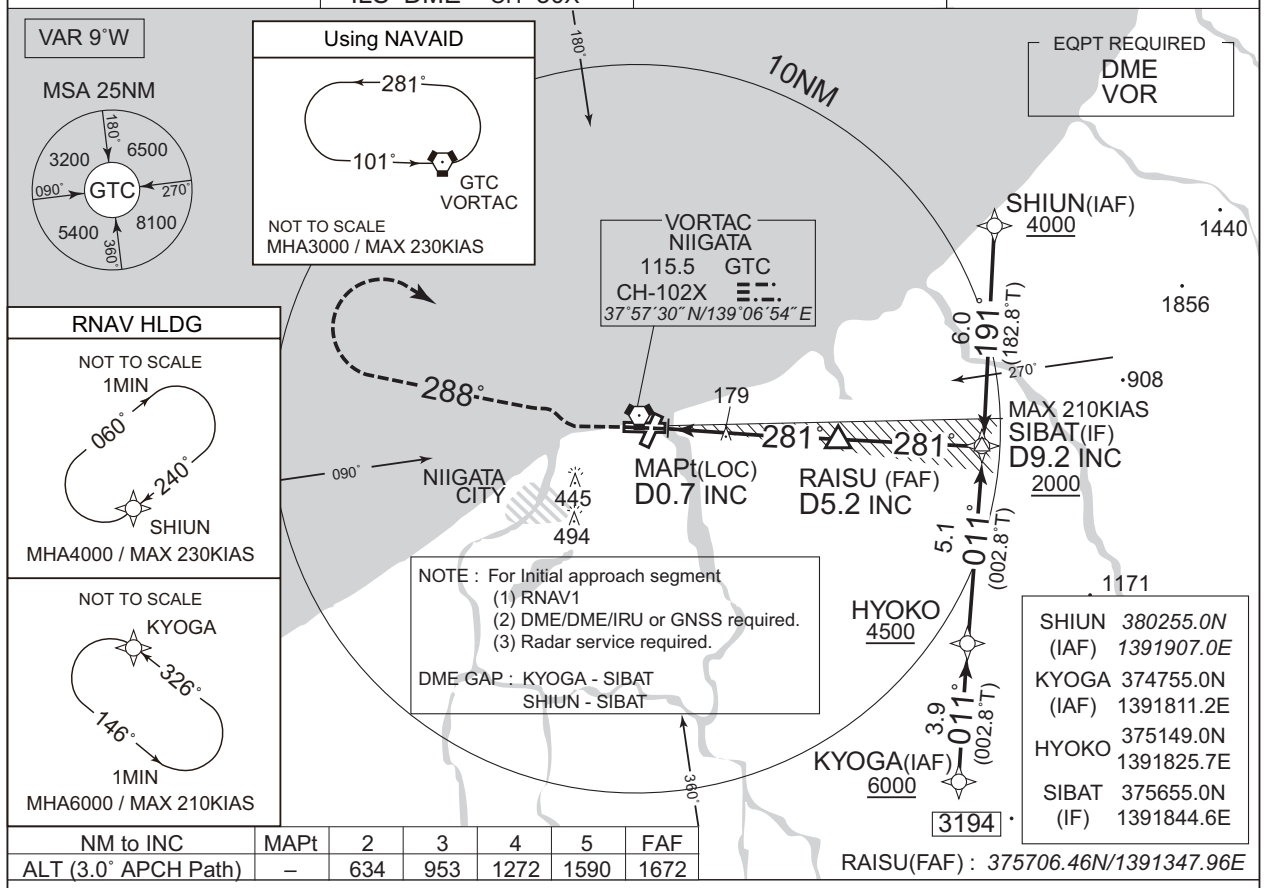
INSTRUMENT APPROACH CHART

RJSN / NIIGATA — ILS Z or LOC Z RWY28

NIIGATA APP	ILS – LOC	NIIGATA TOWER	RADAR AVBL
121.4	109.3 INC ILS–GP 332.0 ILS–DME CH–30X	118.0 – 126.2	ATIS 128.45

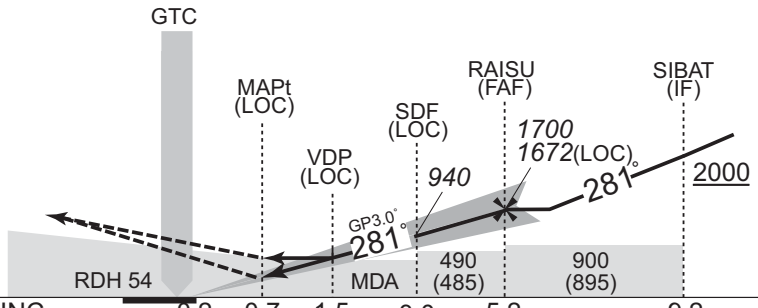


NM to INC	MAPt	2	3	4	5	FAF
ALT (3.0° APCH Path)	–	634	953	1272	1590	1672

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.



DME to INC	0.2	0.7	1.5	3.0	5.2	9.2
NM to THR	0	0.5	1.3	2.8	5.1	9.0

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		3200

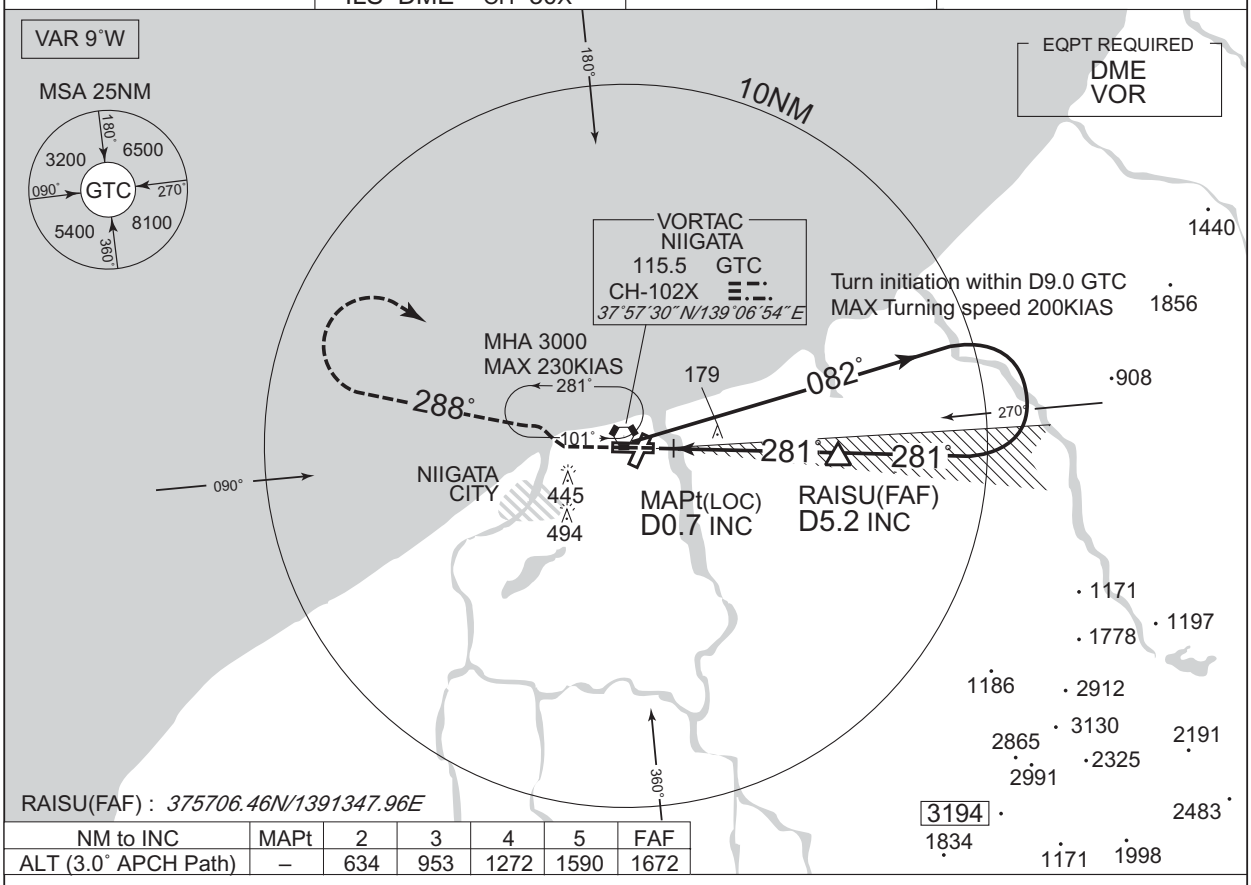
MINIMA with Missed APCH climb gradient of 2.5% are not established.

CHANGE : Description of latitude and longitude.

INSTRUMENT APPROACH CHART

RJSN / NIIGATA — ILS Y or LOC Y RWY28

NIIGATA APP	ILS – LOC	NIIGATA TOWER	RADAR AVBL
121.4	109.3 INC ILS–GP 332.0 ILS–DME CH–30X	118.0 – 126.2	ATIS 128.45

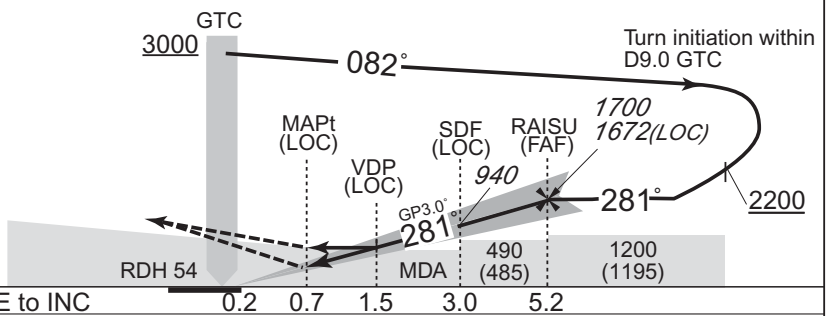


NM to INC	MAPt	2	3	4	5	FAF
ALT (3.0˚ APCH Path)	–	634	953	1272	1590	1672

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.



DME to INC		0.2	0.7	1.5	3.0	5.2
NM to THR		0	0.5	1.3	2.8	5.1

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		3200

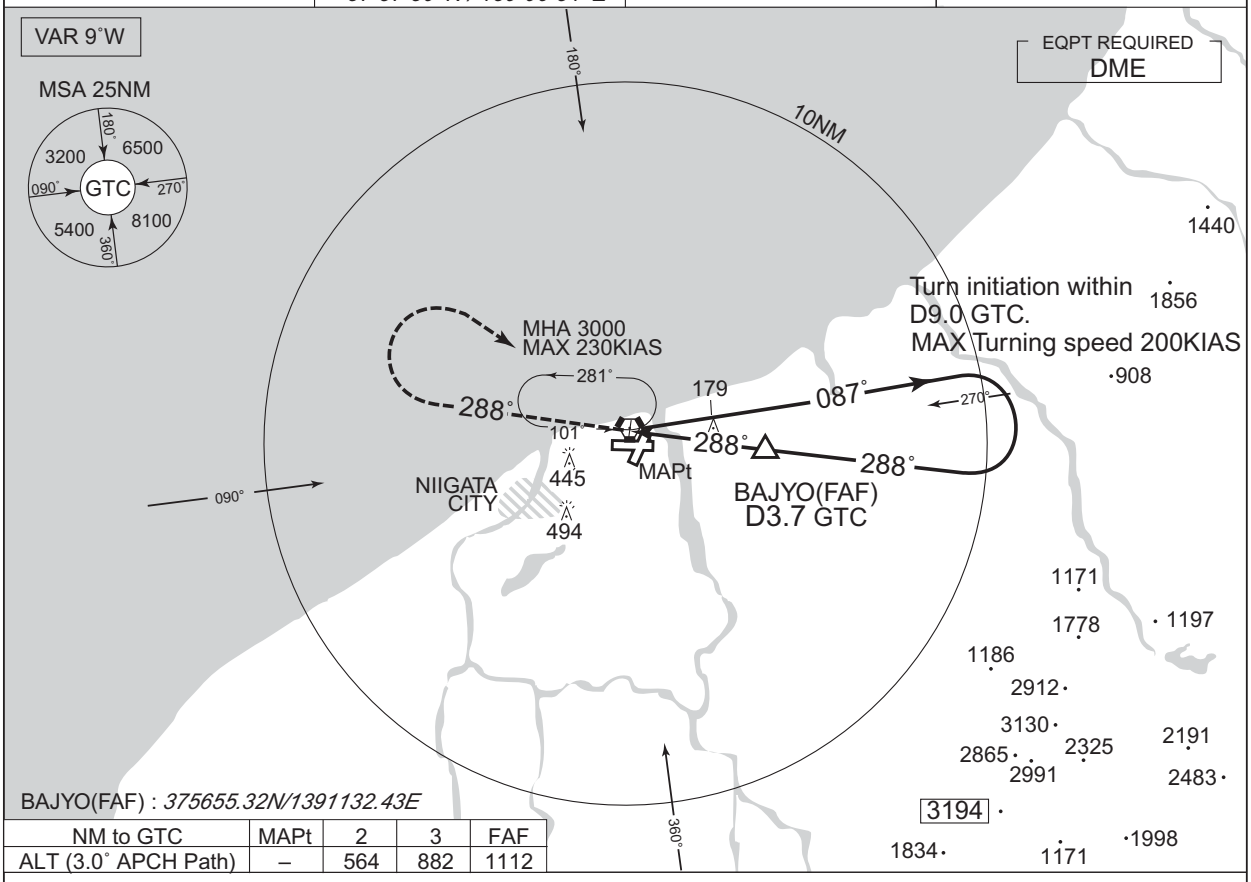
MINIMA with Missed APCH climb gradient of 2.5% are not established.

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

INSTRUMENT APPROACH CHART

RJSN / NIIGATA VOR RWY28

NIIGATA APP	NIIGATA VORTAC	NIIGATA TOWER	RADAR AVAILABLE
121.4	115.5 GTC CH–102X 37°57′30″N / 139°06′54″E	118.0 – 126.2	ATIS 128.45

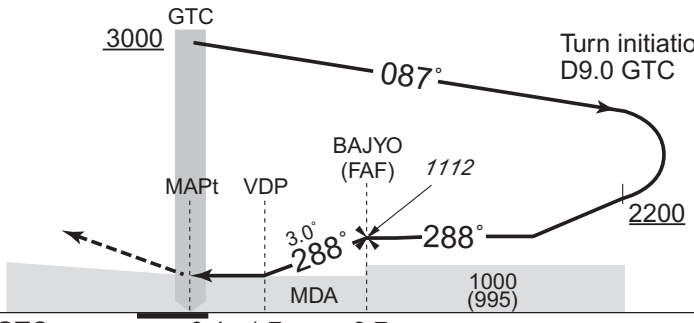


NM to GTC	MAPt	2	3	FAF
ALT (3.0° APCH Path)	–	564	882	1112

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.



DME to GTC	0.4	1.7	3.7
NM to THR	0	1.3	3.3

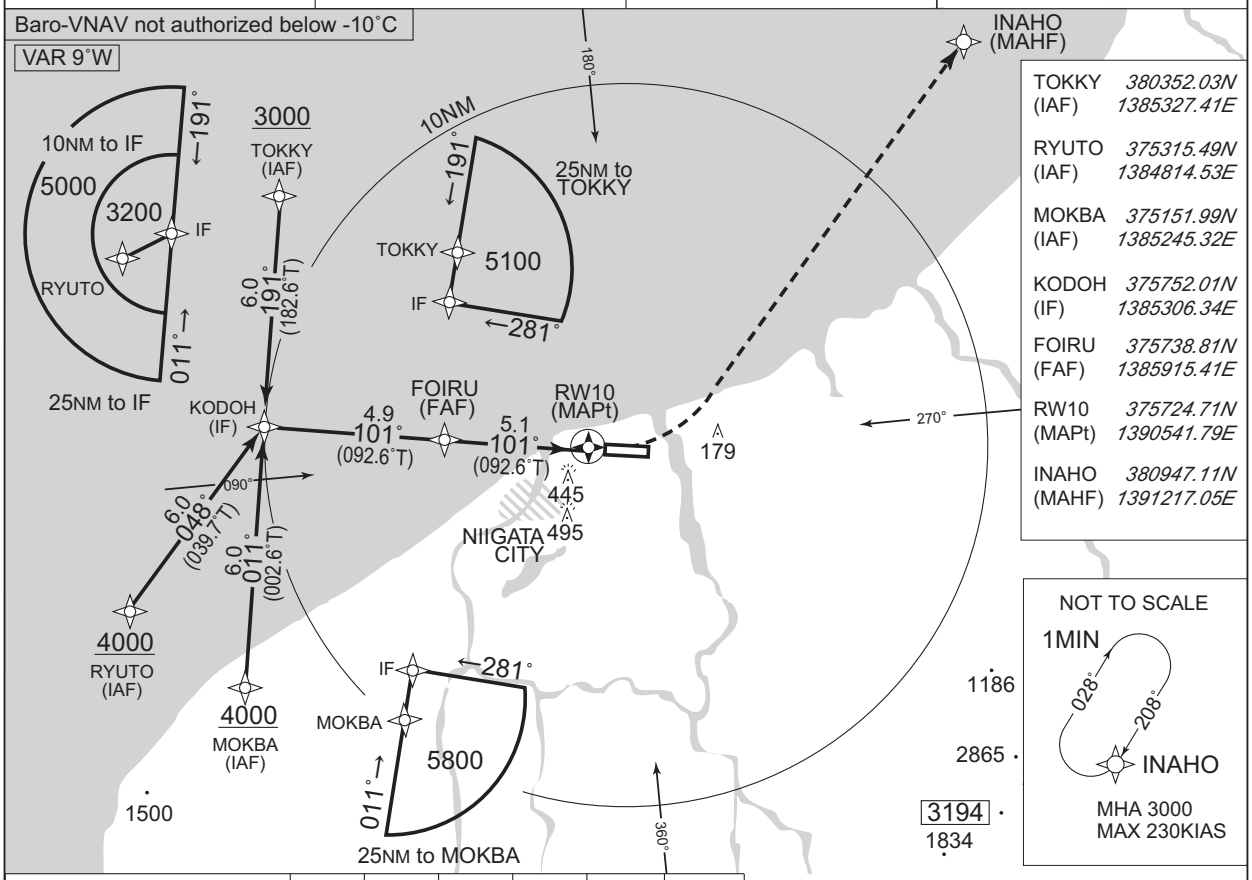
MINIMA	THR elev. 10		AD elev. 5	
CAT			CIRCLING	
	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	450 (445)	1200	710 (705)	1600
B		1300		
C		1400	790 (785)	2400
D		1600		3200

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

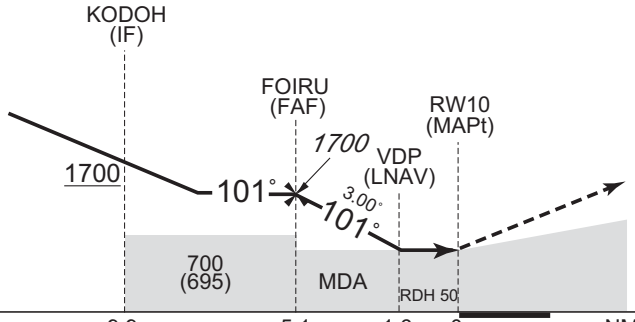
INSTRUMENT APPROACH CHART

RJSN / NIIGATA RNP Z RWY10

NIIGATA APP	RNP APCH	NIIGATA TOWER	RADAR AVBL
121.4		118.0 – 126.2	ATIS 128.45



NM To Next Fix	FAF	5	4	3	2	MAPt
ALT (3.0˚ APCH Path)	1700	1669	1350	1032	713	–



MISSED APPROACH

Turn left, direct to INAHO
and hold at 3000FT.
Contact NIIGATA APP.

MINIMA THR elev. 27 AD elev. 5

CAT	LNAV/VNAV		LNAV		CIRCLING	
	DA(H)	CMV	MDA(H)	CMV	MDA(H)	VIS
A	580 (553)	1400	580 (575)	1400	710 (705)	1600
B		1500		1500		
C		1600		1600	790 (785)	2400
D		1800		1800		3200

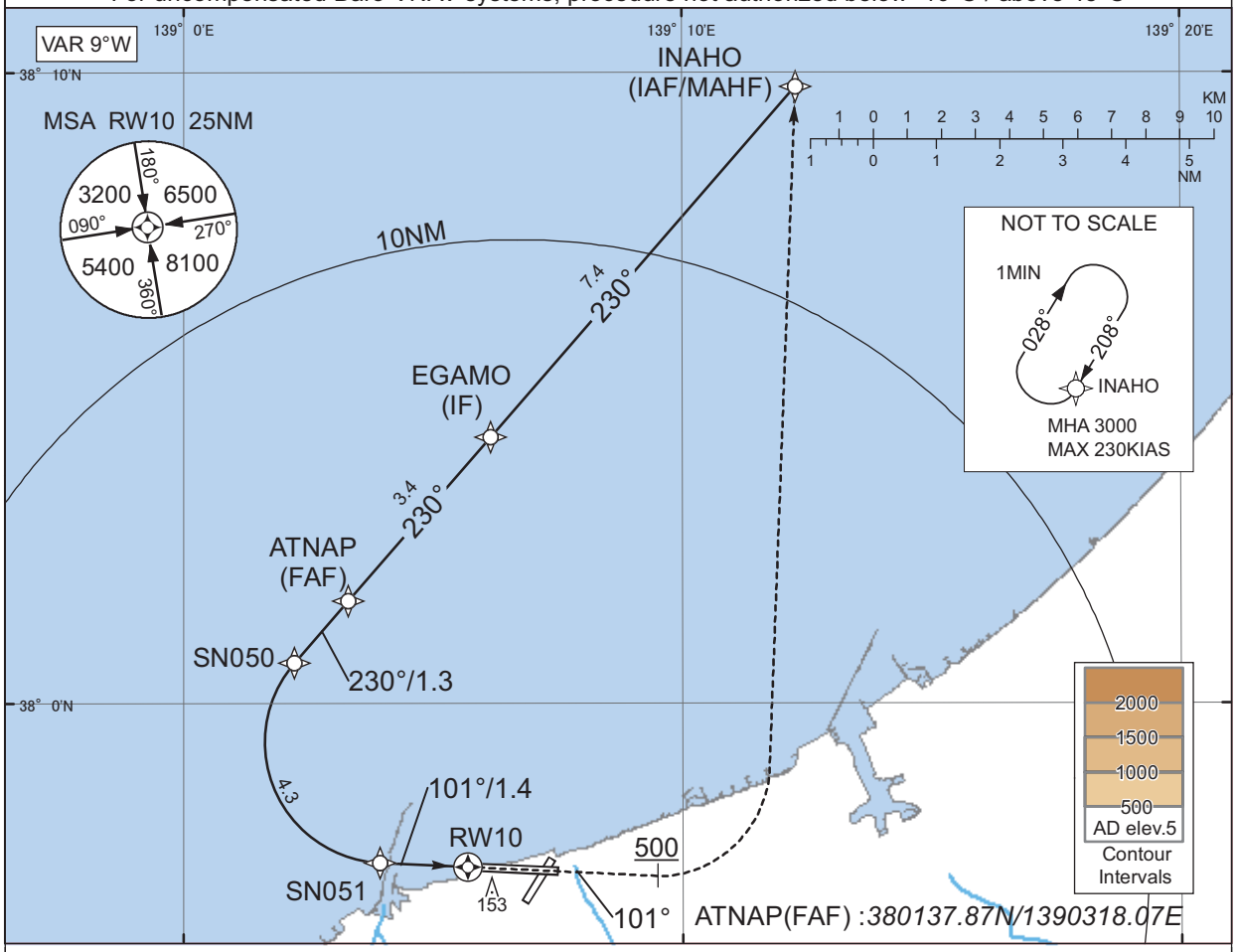
CHANGE : PROC renamed.

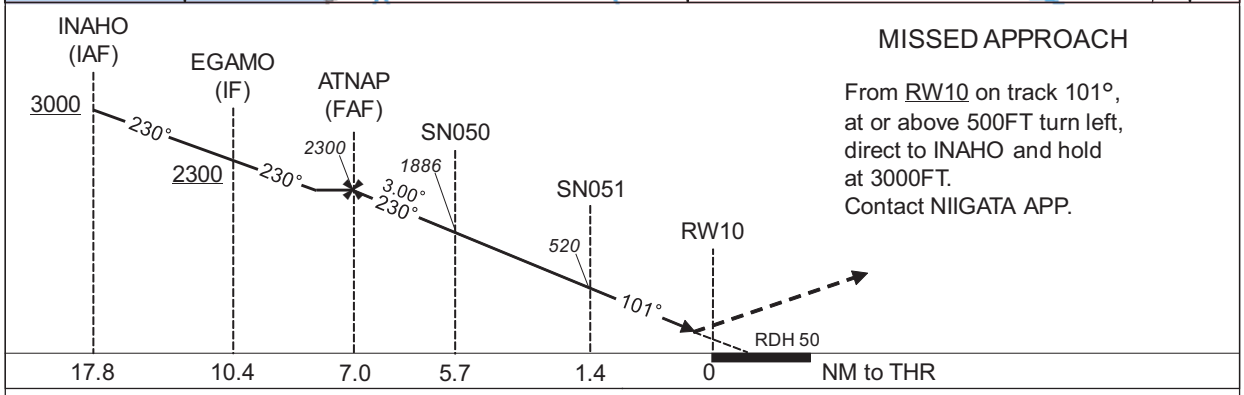
INSTRUMENT APPROACH CHART

RJSN / NIIGATA — RNP Y RWY10(AR)

NIIGATA APP 121.4	RNP AR RF required.	NIIGATA TOWER 118.0 – 126.2	RADAR AVBL ATIS 128.45

For uncompensated Baro-VNAV systems, procedure not authorized below -10°C / above 45°C





MISSED APPROACH

From RW10 on track 101°,
at or above 500FT turn left,
direct to INAHO and hold
at 3000FT.
Contact NIIGATA APP.

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

CHANGE : New PROC.

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

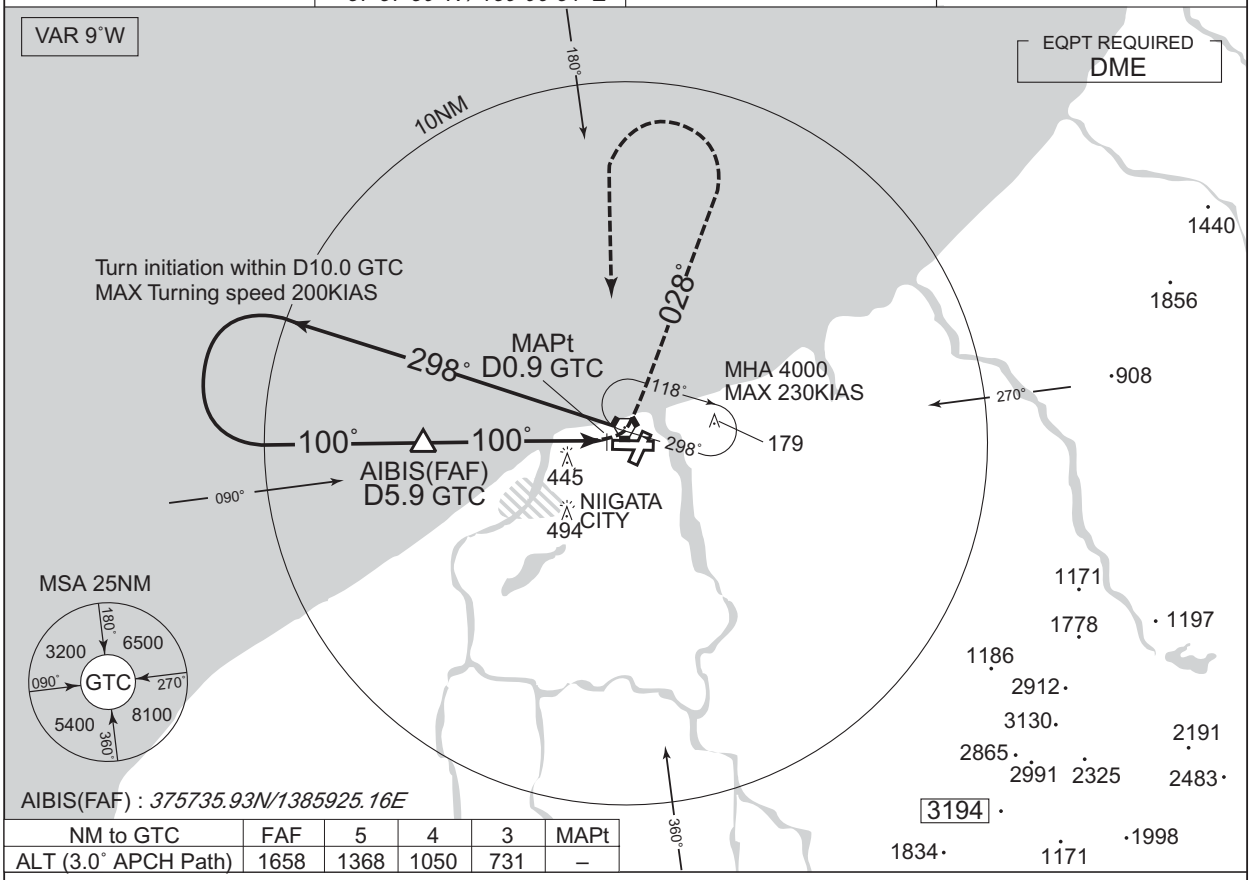
Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
INAHO	*380947.11N / 1391217.05E*	SNRF1	*375923.46N / 1390402.94E*
EGAMO	*380413.79N / 1390609.55E*		
ATNAP	*380137.87N / 1390318.07E*		
SN050	*380038.89N / 1390213.27E*		
SN051	*375728.60N / 1390356.21E*		
RW10	*375724.71N / 1390541.79E*		

CHANGE : New PROC.

INSTRUMENT APPROACH CHART

RJSN / NIIGATA VOR RWY10

NIIGATA APP	NIIGATA VORTAC	NIIGATA TOWER	RADAR AVAILABLE
121.4	115.5 GTC CH–102X *37°57′30″N / 139°06′54″E*	118.0 – 126.2	ATIS 128.45

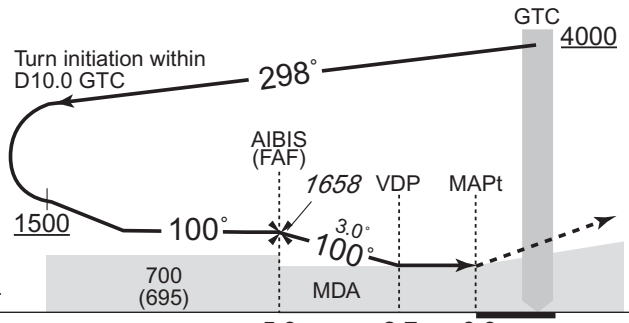


NM to GTC	FAF	5	4	3	MAPt
ALT (3.0° APCH Path)	1658	1368	1050	731	–

MISSED APPROACH

Turn left, climb to 2000FT via GTC R028, turn left, direct to GTC VORTAC and hold at 4000FT.
Contact NIIGATA APP.

Timing not authorized for defining the MAPt.



MINIMA	THR elev. 27		AD elev. 5	
CAT			CIRCLING	
	MDA(H)	CMV	MDA(H)	VIS
A	630 (625)	1400	710 (705)	1600
B		1500		
C		1600	790 (785)	2400
D		1800		3200

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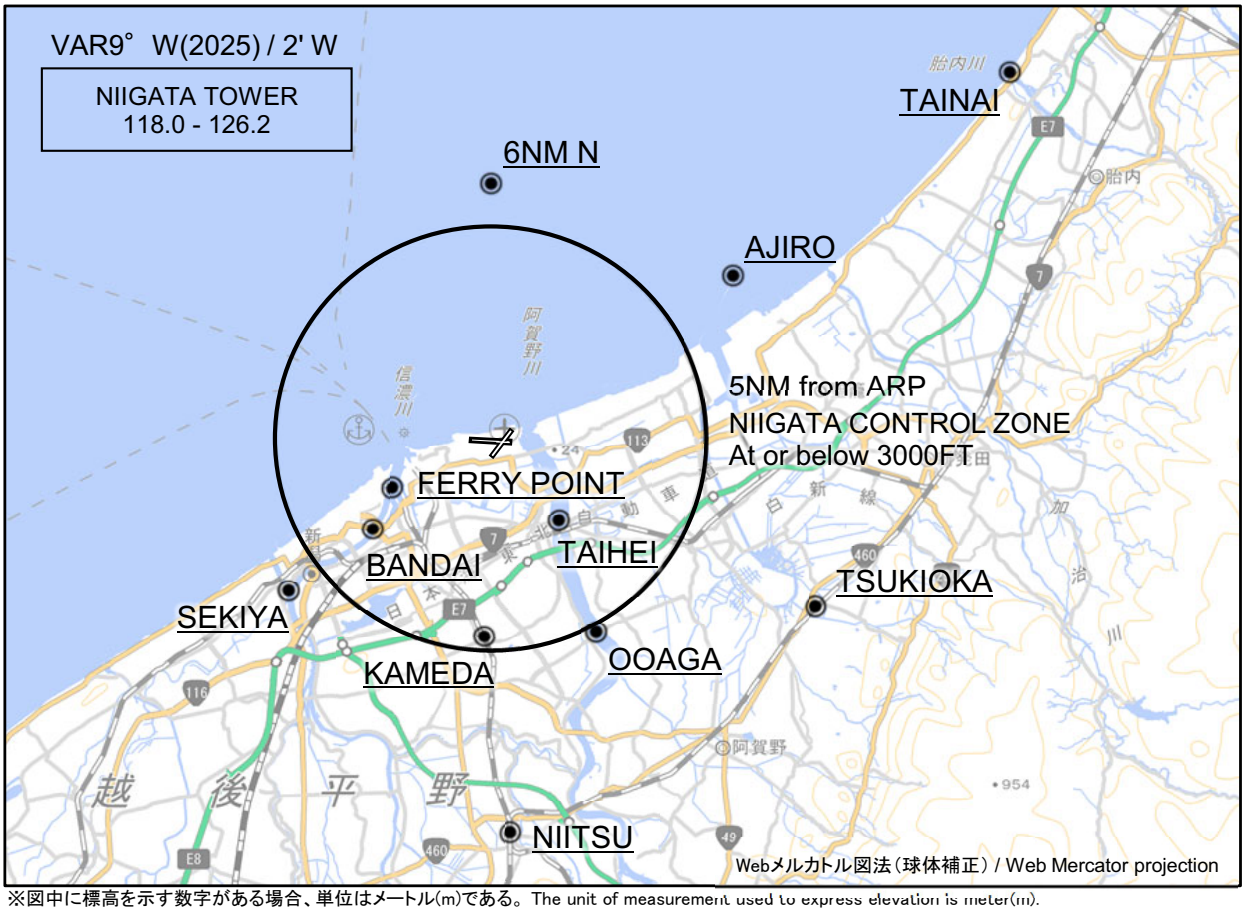
RJSN / NIIGATA Visual REP

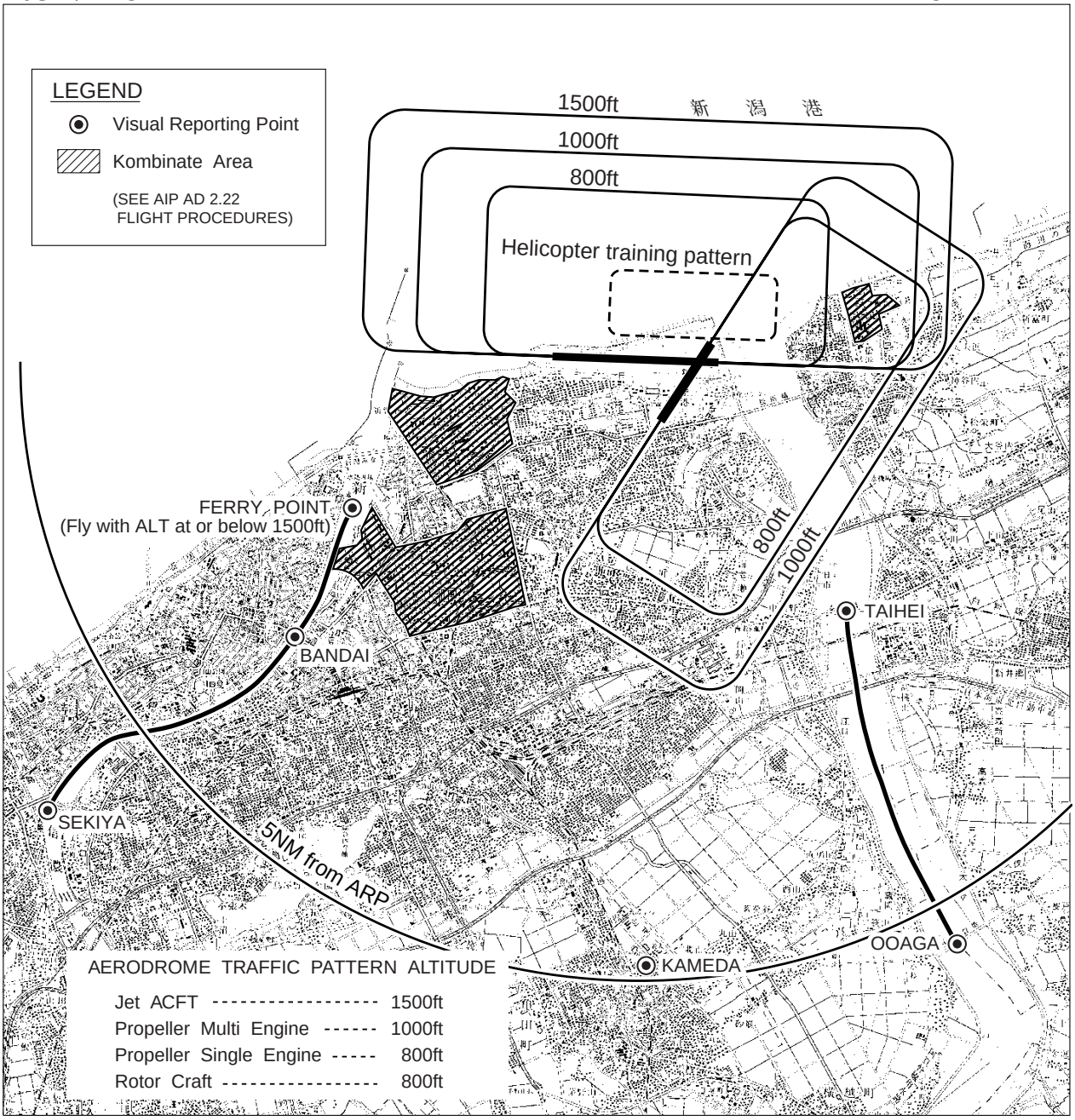


※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

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

CHANGE : VAR.

RJSN / NIIGATA 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)

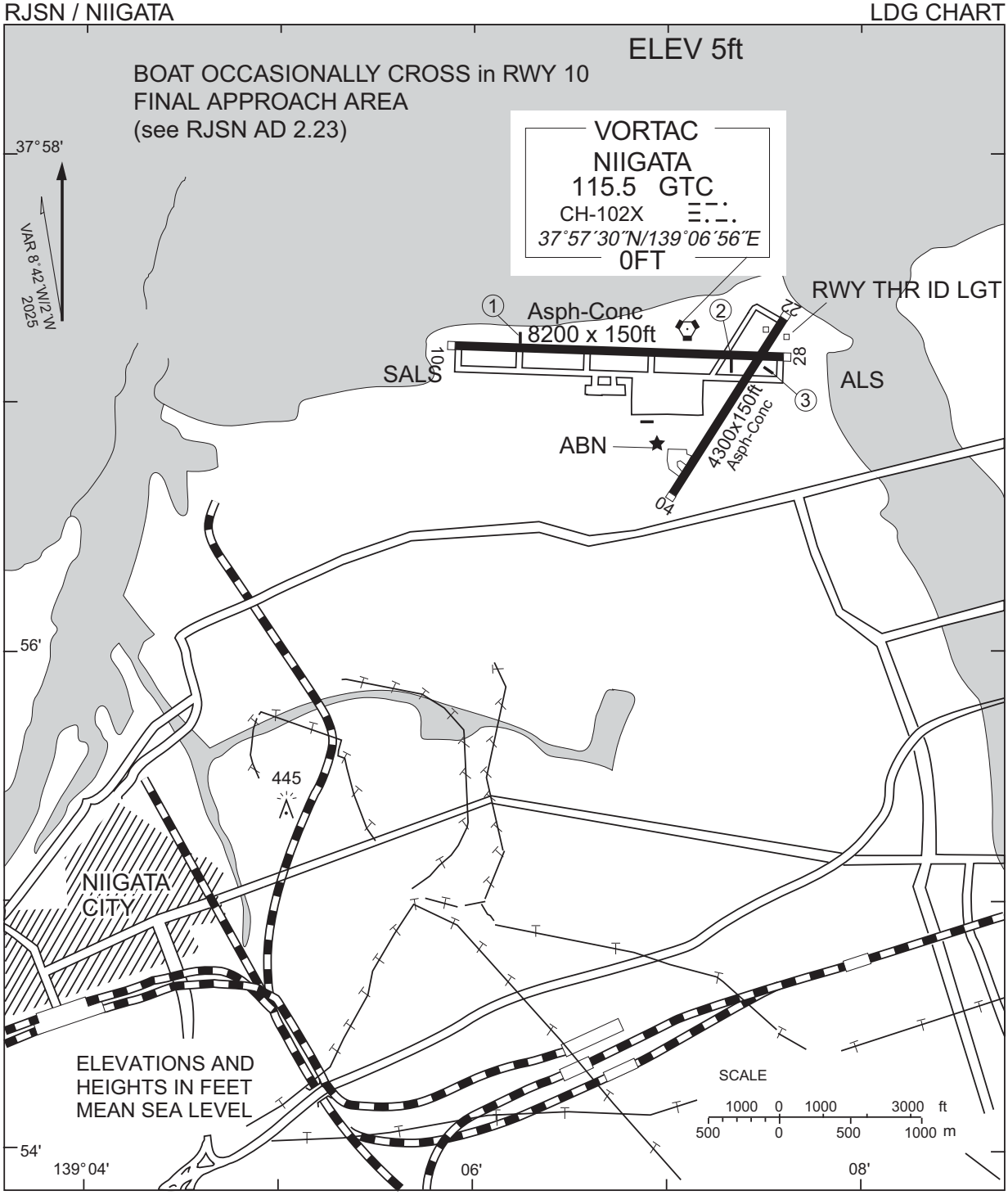
信濃ルート：関屋～万代～フェリーポイント間の信濃川に沿う飛行経路（回転翼航空機用）

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 insrtucted by Niigata tower. (except the case of IMC)

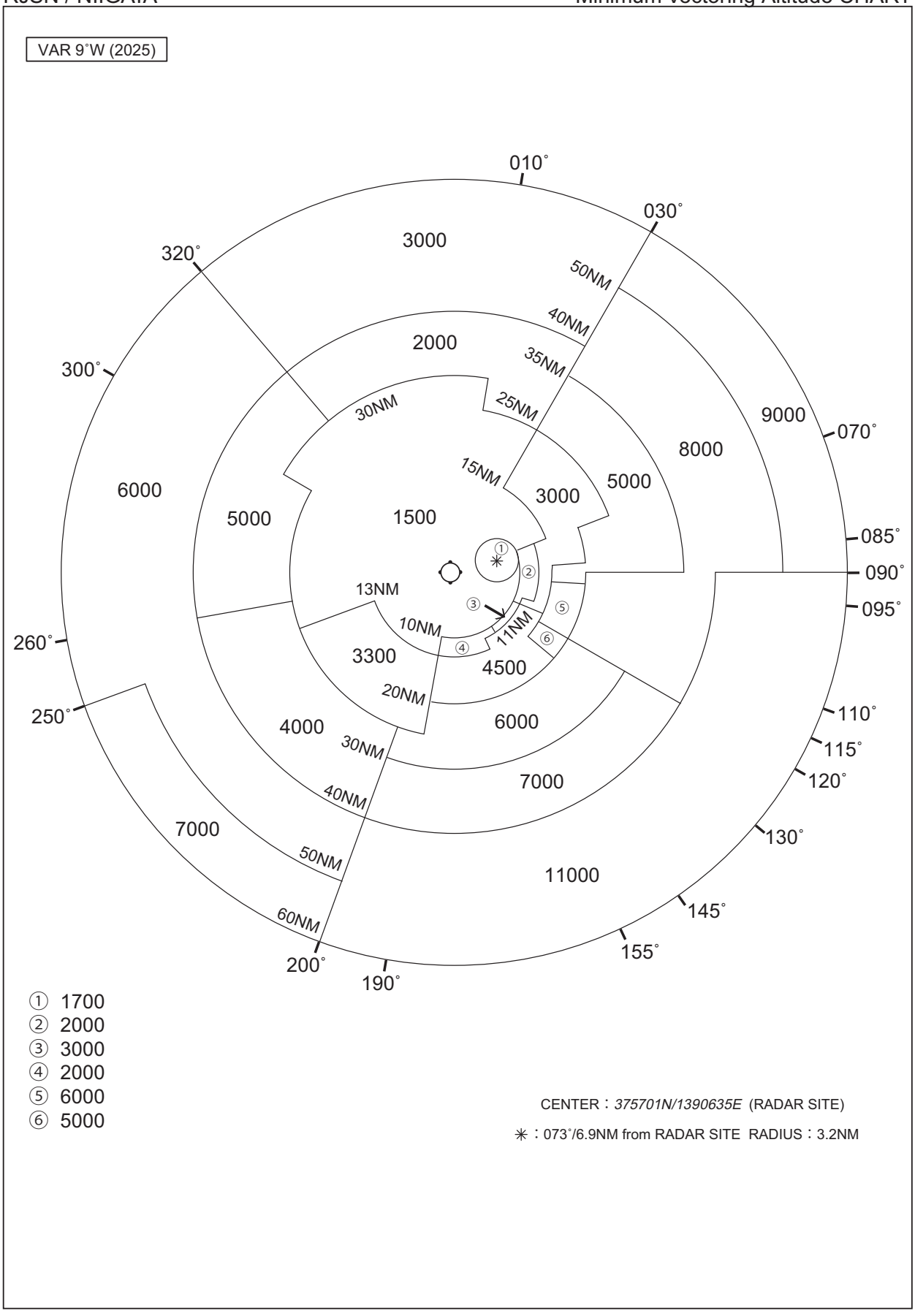
RJSN / NIIGATA LDG CHART



CHANGE : VAR.

①RWY10:	②RWY28:	③RWY22:
Angle 3.0°	Angle 3.0°	Angle 3.0°
MEHT 22.9m (75ft)	MEHT 19.9m (65ft)	MEHT 18.6m (61ft)
535m inside fm THR	455m inside fm THR	361m inside fm THR

RJSN / NIIGATA Minimum Vectoring Altitude CHART



CHANGE : VAR.