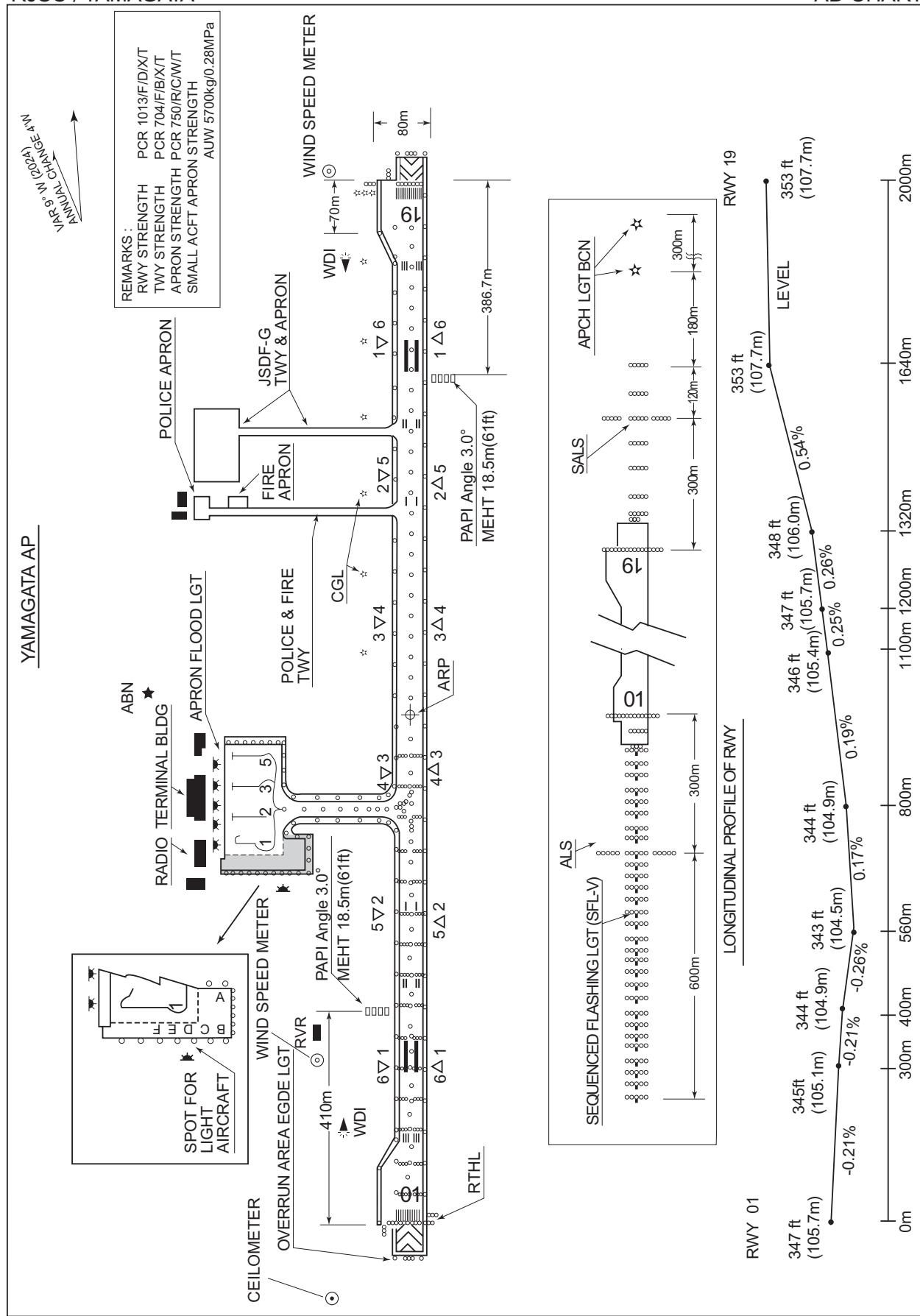


RJSC / YAMAGATA

AD CHART



STANDARD DEPARTURE CHART-INSTRUMENT

RJSC / YAMAGATA

SID

YAMAGATA FOUR DEPARTURE

RWY01 : Climb RWY HDG to 2000FT, via YTE R017 to 22.0DME, turn left, via YTE R003 to YTE VOR/DME.

RWY19 : Climb RWY HDG to 2000FT, turn right, direct to YTE VOR/DME, cross YTE VOR/DME at or above 4000FT, via YTE R017 to 15.0DME, turn left, via YTE R354 to YTE VOR/DME.

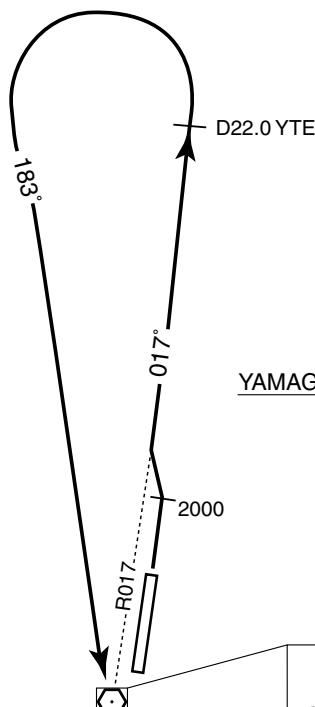
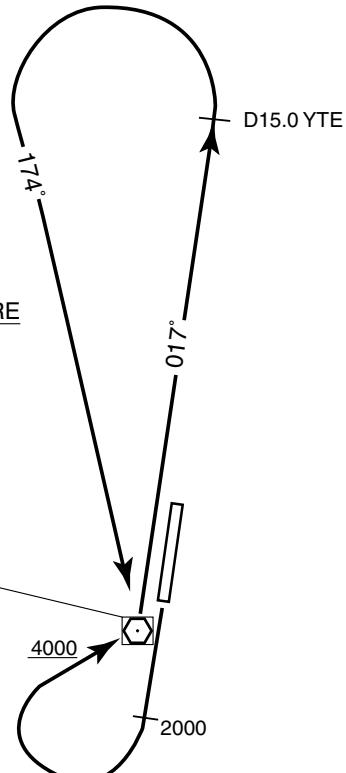
Note RWY01: 5.0% climb gradient required up to 2000FT.

OBST ALT 1182FT located at 4.2NM 033° FM end of RWY01.

RWY19: 5.0% climb gradient required up to 2000FT.

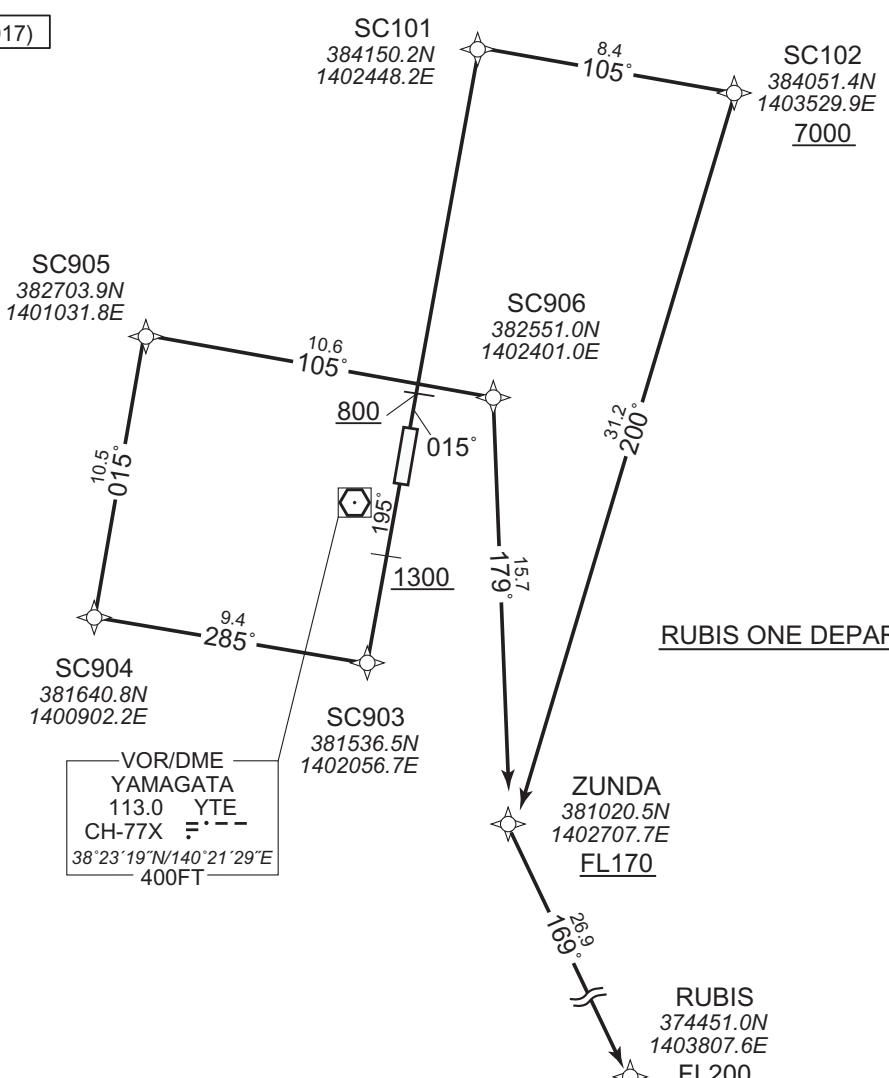
OBST ALT 788FT located at 3.1NM 181° FM end of RWY19.

Note No turn before DER.

For RWY01For RWY19YAMAGATA FOUR DEPARTURE

VOR/DME
YAMAGATA
113.0 YTE
CH-77X $\frac{1}{2}$
38°23'19"N/140°21'29"E
400FT

STANDARD DEPARTURE CHART-INSTRUMENT

RJSC / YAMAGATA	RNAV SID
RUBIS ONE DEPARTURE	RNP1
Note GNSS required.	
	
<u>RUBIS ONE DEPARTURE</u>	
<p>RWY01 : Climb on HDG015° at or above 800FT, direct to SC101, to SC102 at or above 7000FT,...</p> <p>RWY19 : Climb on HDG195° at or above 1300FT, direct to SC903, to SC904, to SC905, to SC906,...</p> <p>... to ZUNDA at or above FL170, to RUBIS at or above FL200.</p> <p>Note RWY01 : 5.0% climb gradient required up to 2000FT. OBST ALT 3609FT located at 16.0NM 039° FM end of RWY01.</p> <p>RWY19 : 4.0% climb gradient required up to 1300FT. OBST ALT 919FT located at 3.2NM 181° FM end of RWY19.</p>	

STANDARD DEPARTURE CHART-INSTRUMENT

RJSC / YAMAGATA

RNAV SID

RUBIS ONE DEPARTURE

RWY01

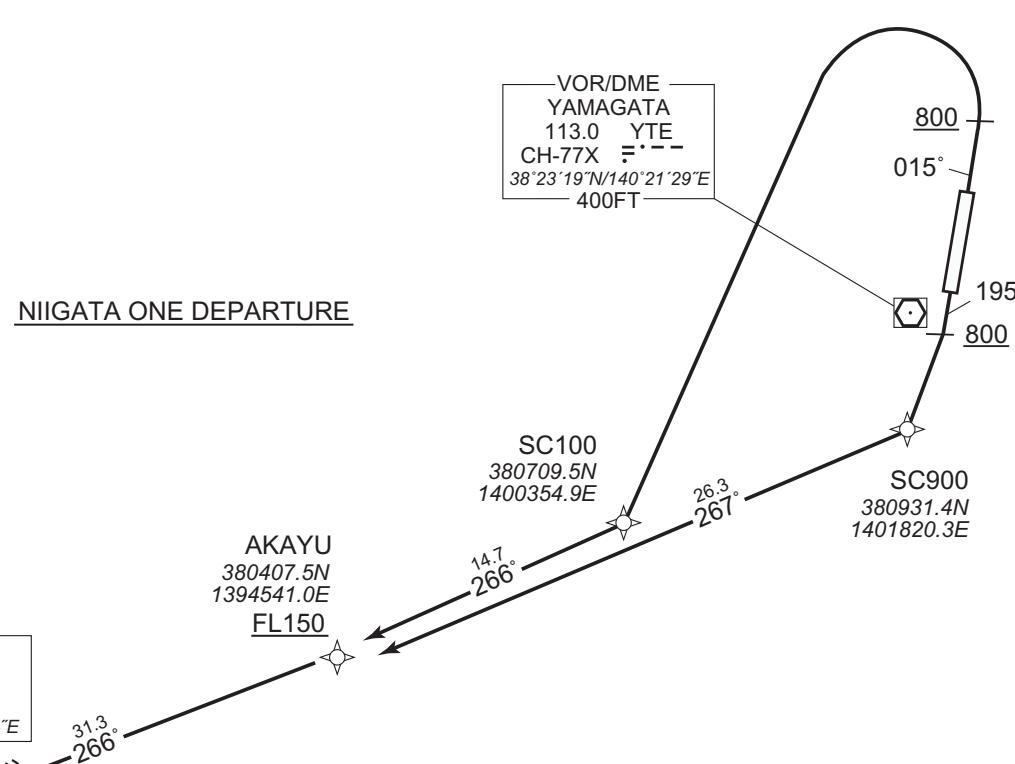
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	015 (006.6)	-8.2	-	-	+800	-	-	RNP1
002	DF	SC101	-	-	-8.2	-	-	-	-	-	RNP1
003	TF	SC102	-	105 (096.6)	-8.2	8.4	-	+7000	-	-	RNP1
004	TF	ZUNDA	-	200 (192.2)	-8.2	31.2	-	+FL170	-	-	RNP1
005	TF	RUBIS	-	169 (161.2)	-8.2	26.9	-	+FL200	-	-	RNP1

RWY19

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	-	-	195 (186.6)	-8.2	-	-	+1300	-	-	RNP1
002	DF	SC903	-	-	-8.2	-	-	-	-	-	RNP1
003	TF	SC904	-	285 (276.6)	-8.2	9.4	-	-	-	-	RNP1
004	TF	SC905	-	015 (006.4)	-8.2	10.5	-	-	-	-	RNP1
005	TF	SC906	-	105 (096.5)	-8.2	10.6	-	-	-	-	RNP1
006	TF	ZUNDA	-	179 (171.0)	-8.2	15.7	-	+FL170	-	-	RNP1
007	TF	RUBIS	-	169 (161.2)	-8.2	26.9	-	+FL200	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART-INSTRUMENT

RJSC / YAMAGATA	RNAV SID
NIIGATA ONE DEPARTURE	RNP1
Note GNSS required.	
VAR 8°W (2017)	
	
<u>NIIGATA ONE DEPARTURE</u> <p>CHANGE : Navigation Specification(Basic RNP1 → RNP1).</p> <p>RWY01 : Climb on HDG015° at or above 800FT, turn left direct to SC100,...</p> <p>RWY19 : Climb on HDG195° at or above 800FT, direct to SC900,...</p> <p>... to AKAYU at or above FL150, to GTC.</p> <p>Note RWY01 : 5.5% climb gradient required up to 2500FT. OBST ALT 2198FT located at 6.3NM 321° FM end of RWY01.</p> <p>RWY19 : 4.3% climb gradient required up to 800FT. OBST ALT 722FT located at 2.8NM 182° FM end of RWY19.</p>	

STANDARD DEPARTURE CHART-INSTRUMENT

RJSC / YAMAGATA

RNAV SID

NIIGATA ONE DEPARTURE

RWY01

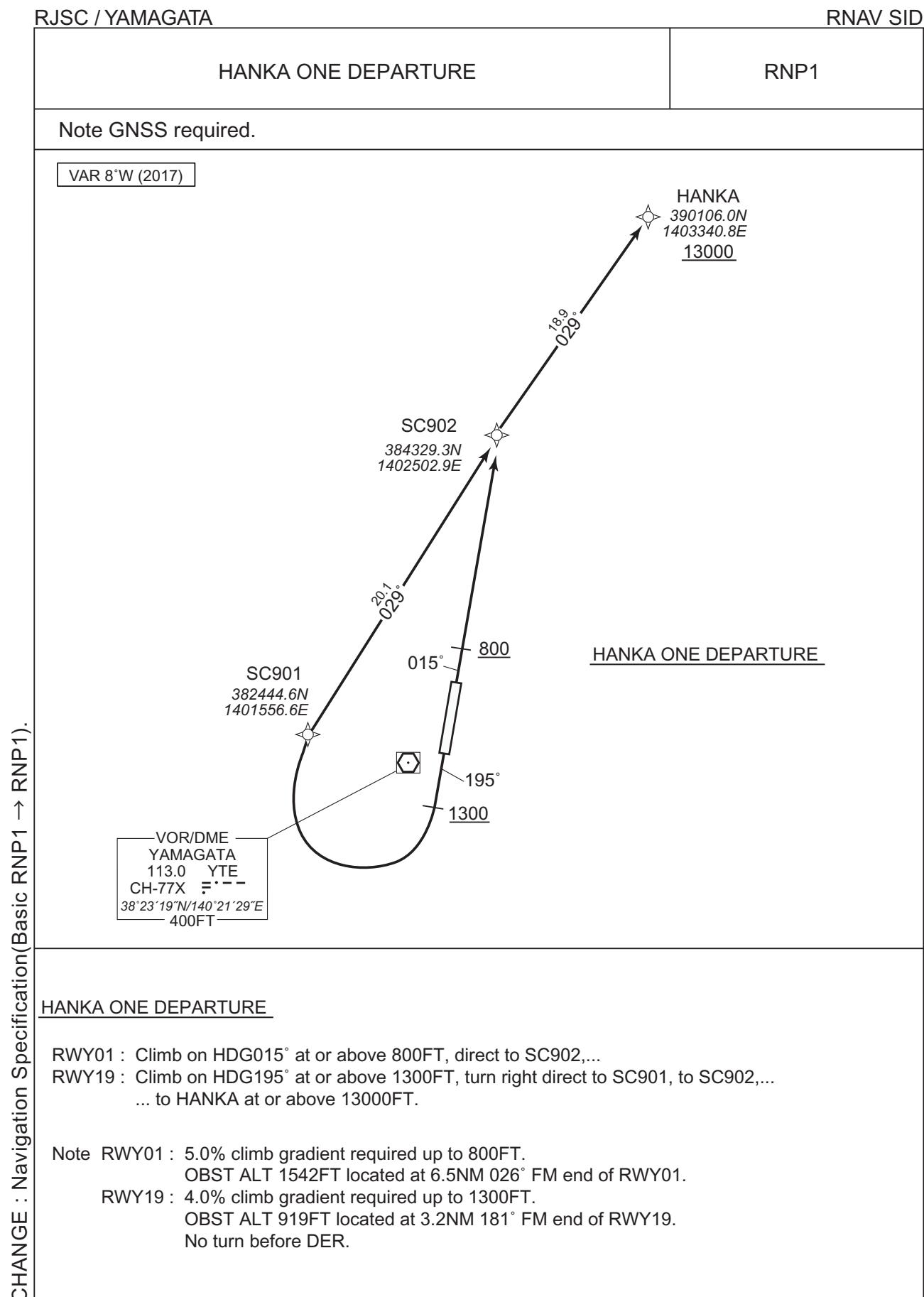
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	-	-	015 (006.6)	-8.2	-	-	+800	-	-	RNP1
002	DF	SC100	-	-	-8.2	-	L	-	-	-	RNP1
003	TF	AKAYU	-	266 (258.2)	-8.2	14.7	-	+FL150	-	-	RNP1
004	TF	GTC	-	266 (258.0)	-8.2	31.3	-	-	-	-	RNP1

RWY19

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	-	-	195 (186.6)	-8.2	-	-	+800	-	-	RNP1
002	DF	SC900	-	-	-8.2	-	-	-	-	-	RNP1
003	TF	AKAYU	-	267 (258.3)	-8.2	26.3	-	+FL150	-	-	RNP1
004	TF	GTC	-	266 (258.0)	-8.2	31.3	-	-	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART-INSTRUMENT



CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD DEPARTURE CHART-INSTRUMENT

RJSC / YAMAGATA

RNAV SID

HANKA ONE DEPARTURE

RWY01

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	-	-	015 (006.6)	-8.2	-	-	+800	-	-	RNP1
002	DF	SC902	-	-	-8.2	-	-	-	-	-	RNP1
003	TF	HANKA	-	029 (020.8)	-8.2	18.9	-	+13000	-	-	RNP1

RWY19

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	-	-	195 (186.6)	-8.2	-	-	+1300	-	-	RNP1
002	DF	SC901	-	-	-8.2	-	R	-	-	-	RNP1
003	TF	SC902	-	029 (020.7)	-8.2	20.1	-	-	-	-	RNP1
004	TF	HANKA	-	029 (020.8)	-8.2	18.9	-	+13000	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD ARRIVAL CHART - INSTRUMENT

RJSC / YAMAGATA

RNAV STAR RWY01

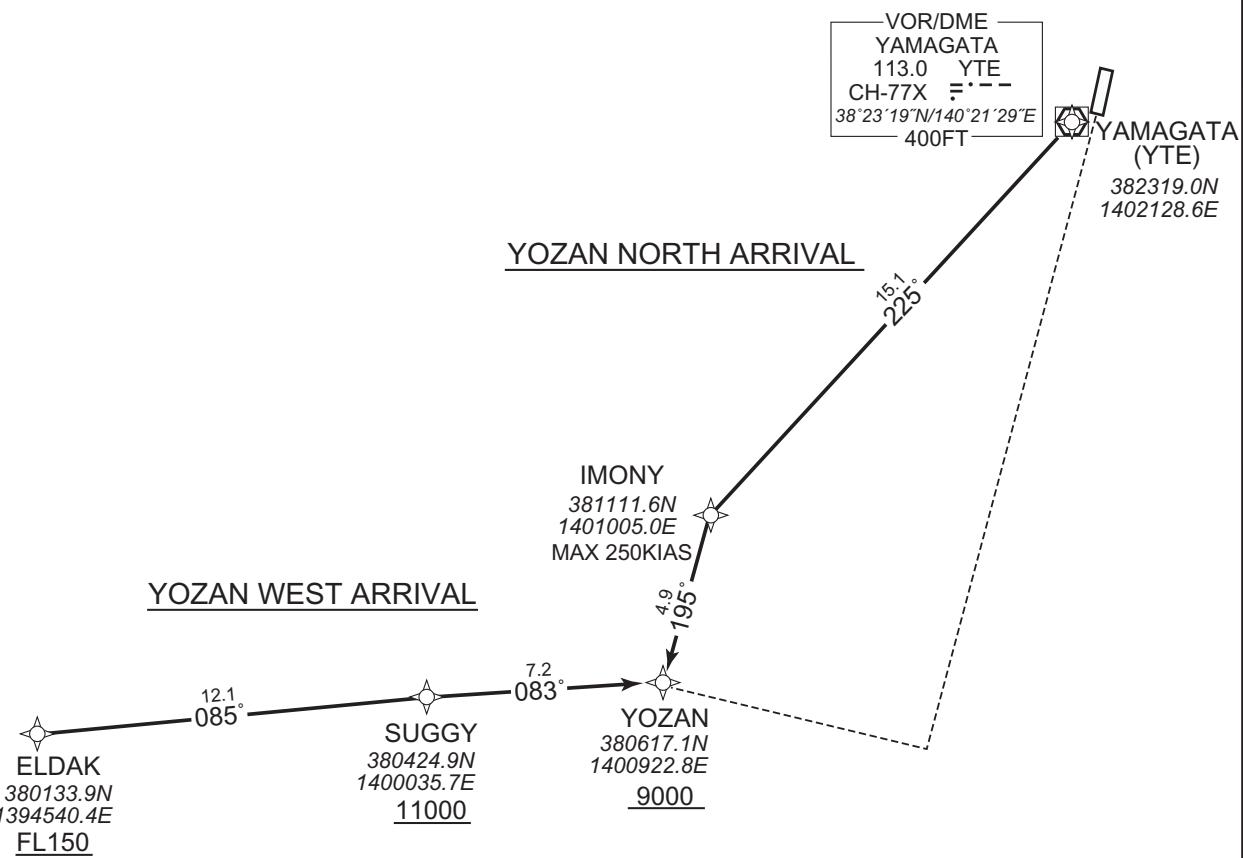
YOZAN WEST ARRIVAL / YOZAN NORTH ARRIVAL

RNP1

Note GNSS required.

VAR 8°W (2017)

CHANGE : Navigation Specification(Basic RNP1 → RNP1).



STANDARD ARRIVAL CHART - INSTRUMENT

RJSC / YAMAGATA

RNAV STAR RWY01

YOZAN WEST ARRIVAL

From ELDAK at or above FL150, to SUGGY at or above 11000FT,
to YOZAN at or above 9000FT.

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	ELDAK	-	-	-8.2	-	-	+FL150	-	-	RNP1
002	TF	SUGGY	-	085 (076.3)	-8.2	12.1	-	+11000	-	-	RNP1
003	TF	YOZAN	-	083 (074.8)	-8.2	7.2	-	+9000	-	-	RNP1

YOZAN NORTH ARRIVAL

From YTE, to IMONY, to YOZAN at or above 9000FT.

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	YTE	-	-	-8.2	-	-	-	-	-	RNP1
002	TF	IMONY	-	225 (216.5)	-8.2	15.1	-	-	-250	-	RNP1
003	TF	YOZAN	-	195 (186.4)	-8.2	4.9	-	+9000	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

STANDARD ARRIVAL CHART - INSTRUMENT

RJSC / YAMAGATA

RNAV STAR RWY19

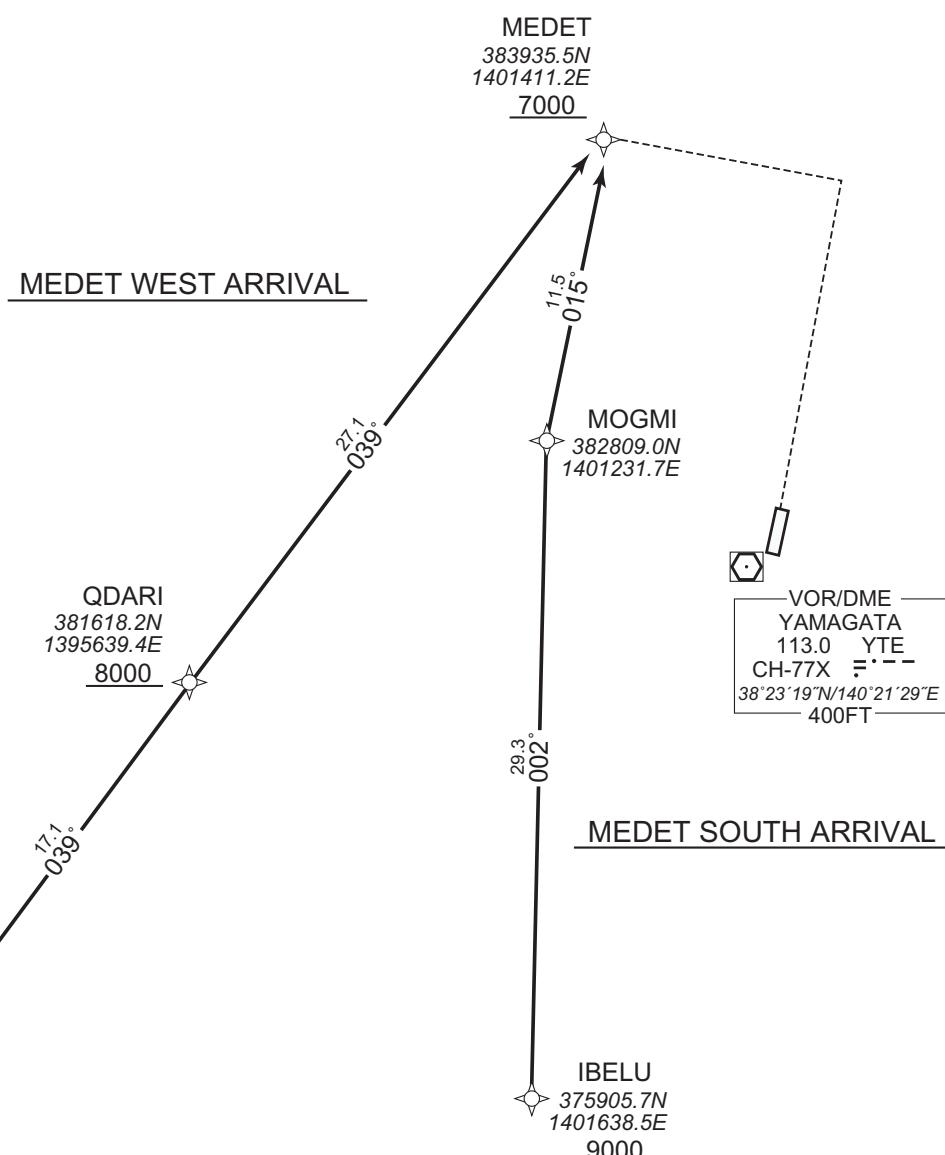
MEDET WEST ARRIVAL / MEDET SOUTH ARRIVAL

RNP1

Note GNSS required.

VAR 8°W (2017)

CHANGE : Navigation Specification(Basic RNP1 → RNP1).



STANDARD ARRIVAL CHART - INSTRUMENT

RJSC / YAMAGATA

RNAV STAR RWY19

MEDET WEST ARRIVAL

From ELDAK at or above FL150, to QDARI at or above 8000FT,
to MEDET at or above 7000FT.

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	ELDAK	-	-	-8.2	-	-	+FL150	-	-	RNP1
002	TF	QDARI	-	039 (030.3)	-8.2	17.1	-	+8000	-	-	RNP1
003	TF	MEDET	-	039 (030.4)	-8.2	27.1	-	+7000	-	-	RNP1

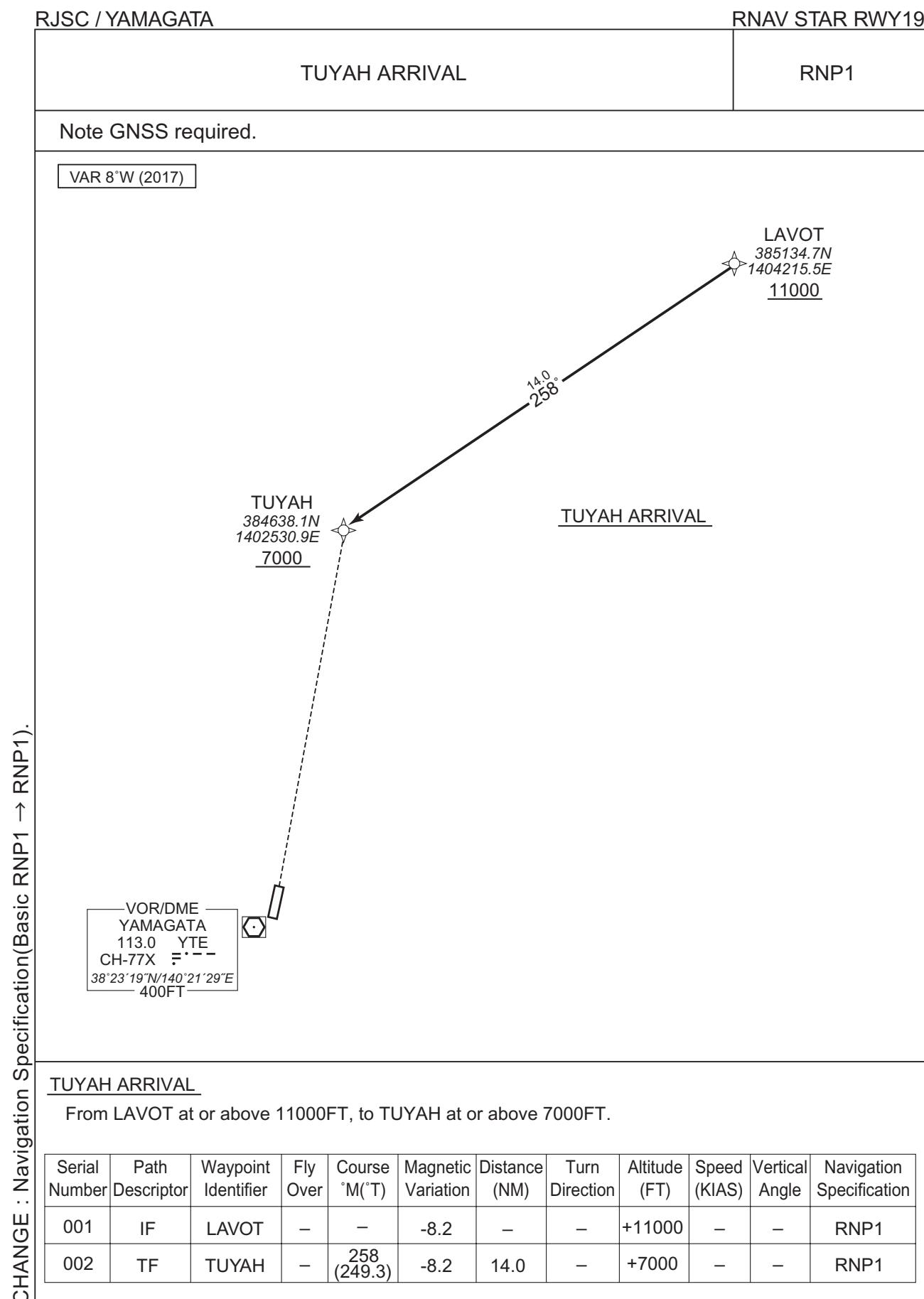
MEDET SOUTH ARRIVAL

From IBELU at or above 9000FT, to MOGMI, to MEDET at or above 7000FT.

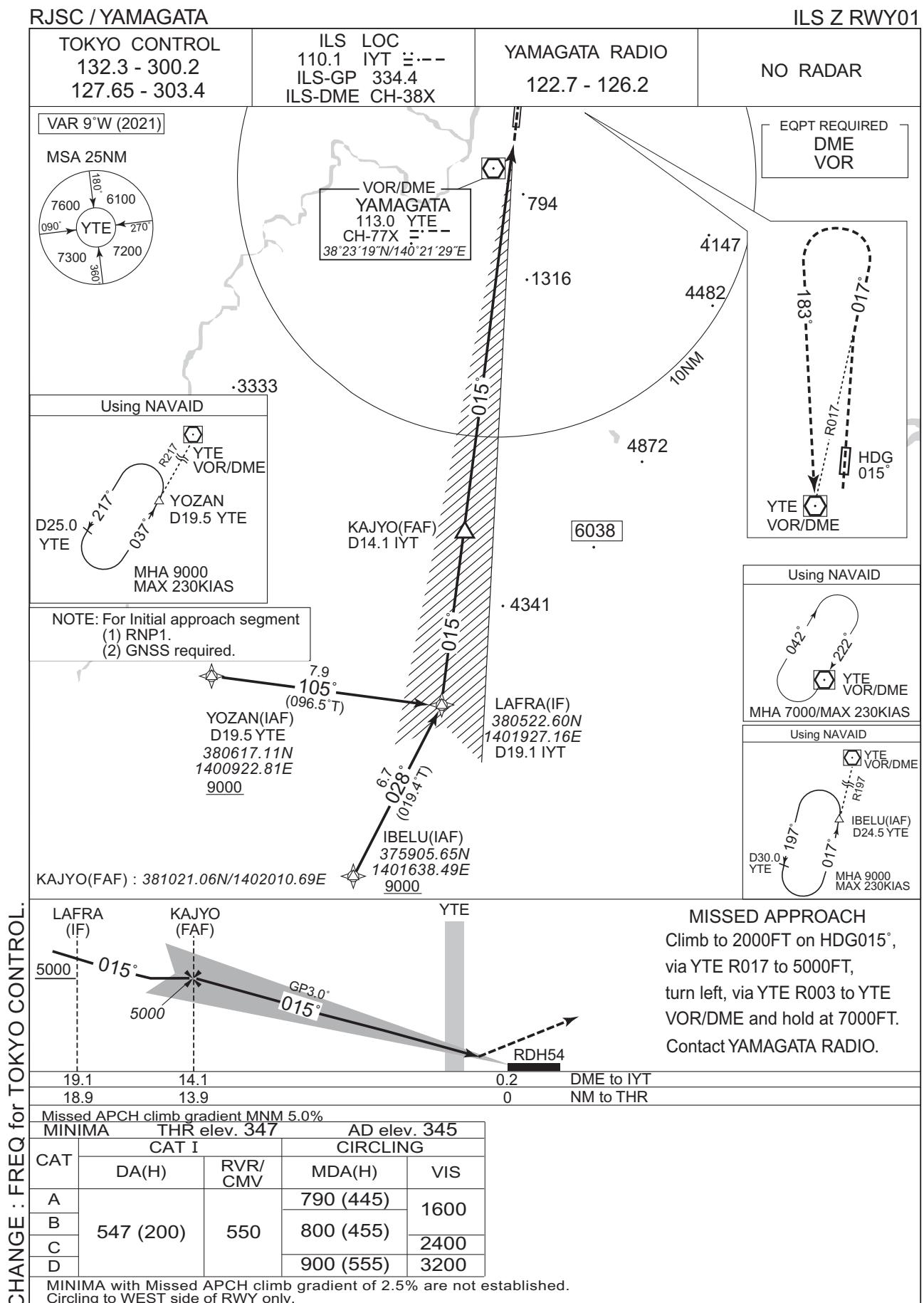
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	IF	IBELU	-	-	-8.2	-	-	+9000	-	-	RNP1
002	TF	MOGMI	-	002 (353.7)	-8.2	29.3	-	-	-	-	RNP1
003	TF	MEDET	-	015 (006.5)	-8.2	11.5	-	+7000	-	-	RNP1

CHANGE : Navigation Specification(Basic RNP1 → RNP1).

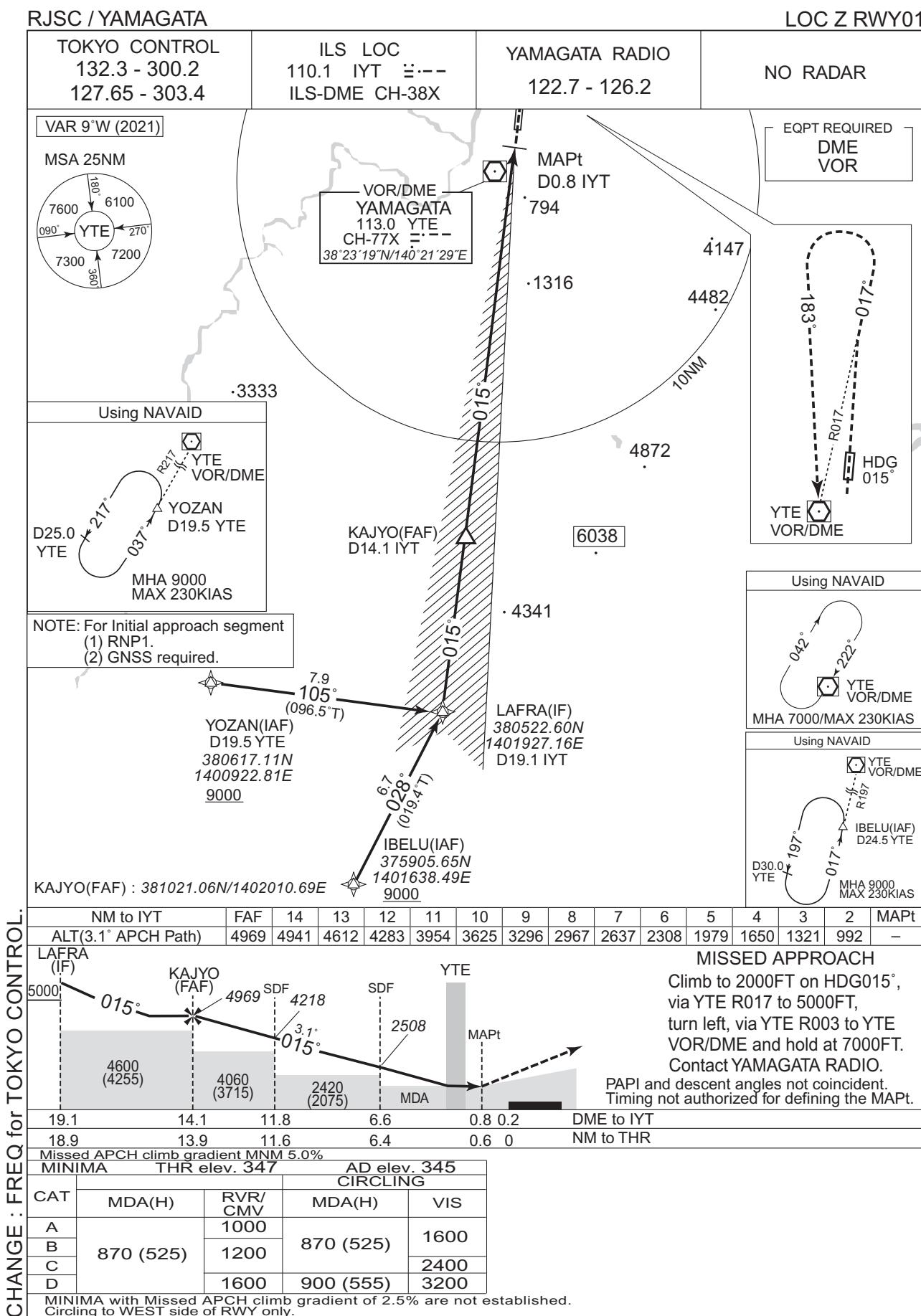
STANDARD ARRIVAL CHART - INSTRUMENT



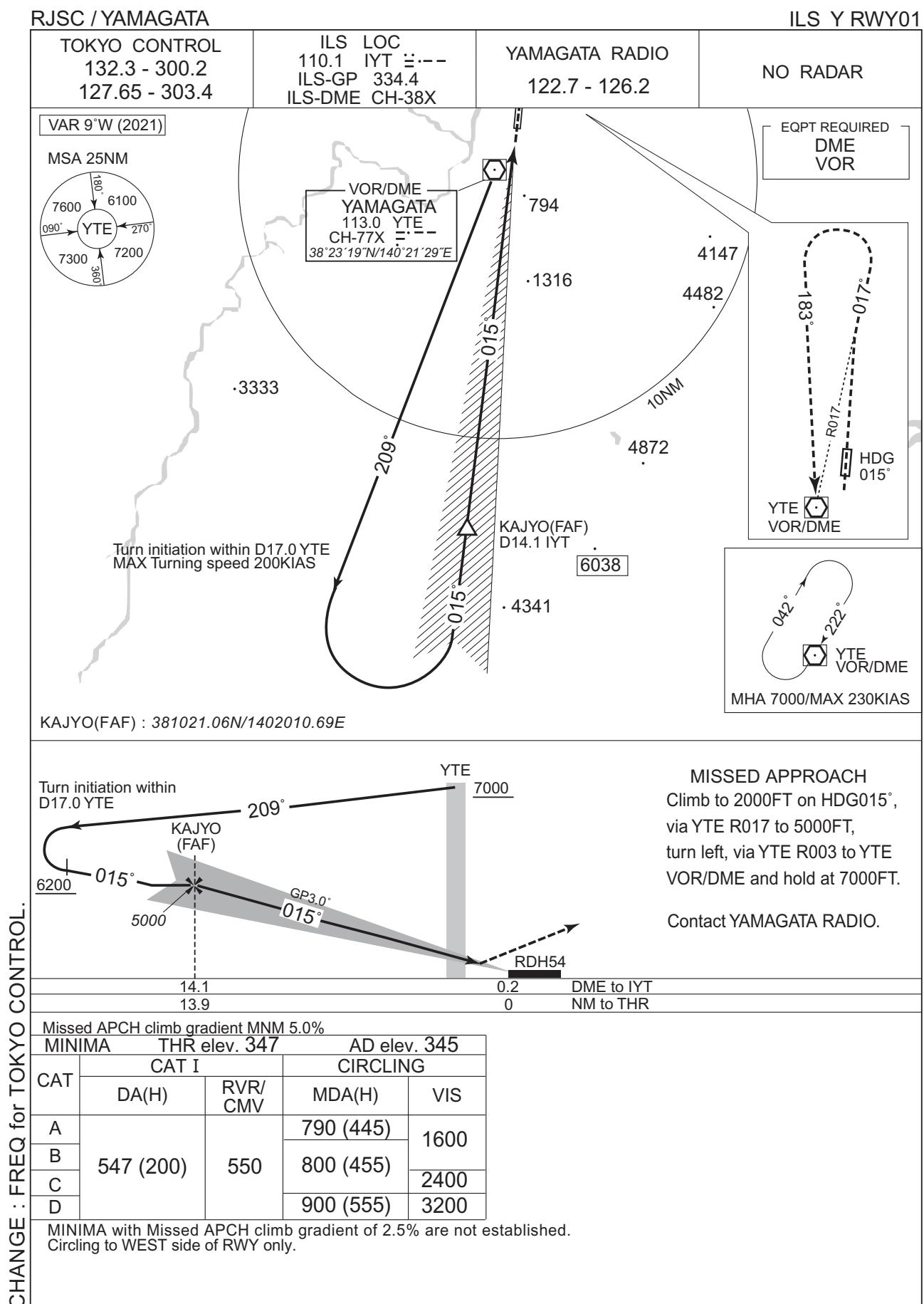
INSTRUMENT APPROACH CHART



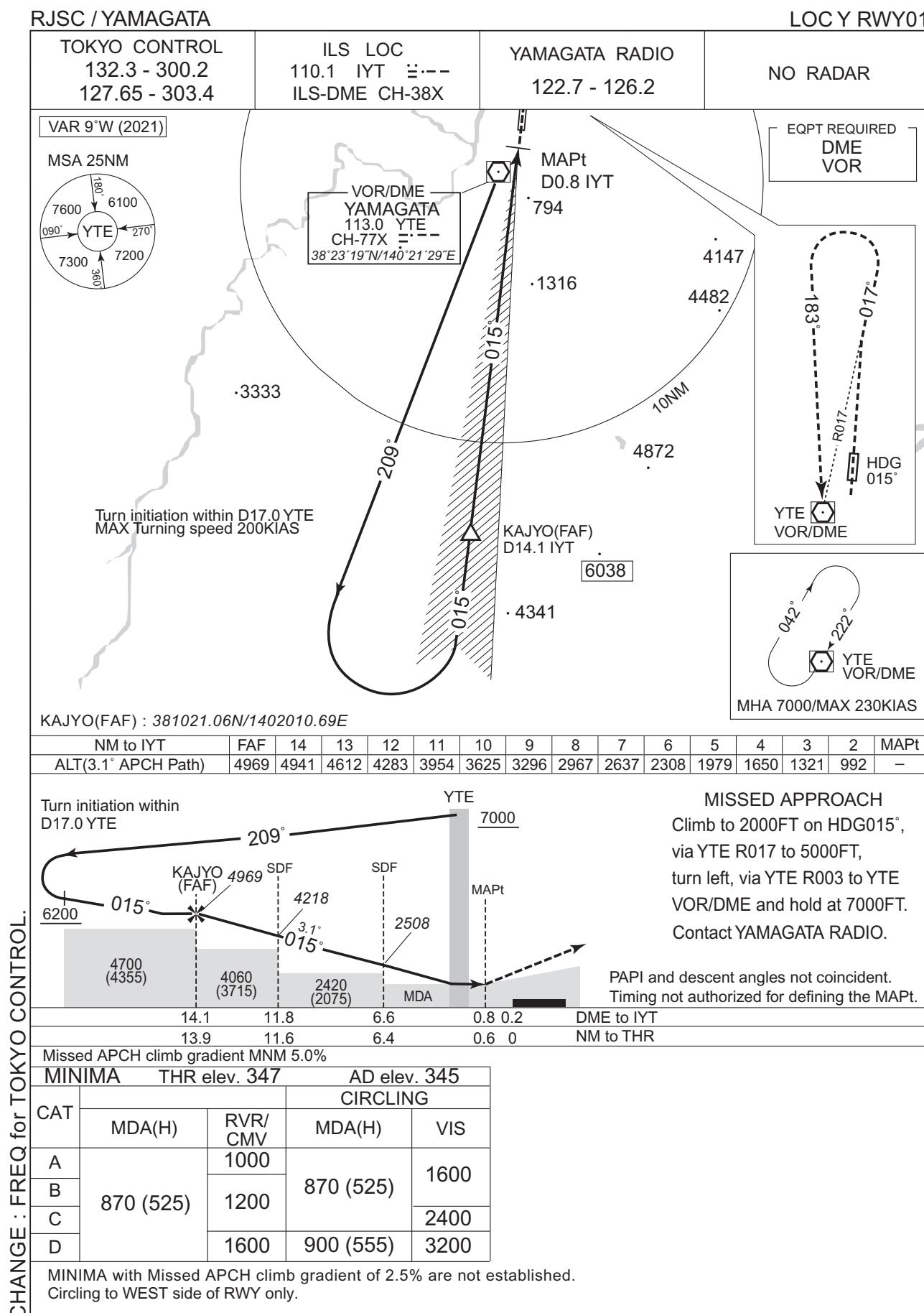
INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART



INSTRUMENT APPROACH CHART

RJSC / YAMAGATA

VOR A

MINIMA AD elev. 345

CAT	CIRCLING	
	MDA(H)	VIS
A		1600
B	850 (505)	
C		2400
D	900 (555)	3200

MINIMA with Missed APCH climb gradient of 2.5% are not established.
Circling to WEST side of RWY only.

INSTRUMENT APPROACH CHART

RJSC / YAMAGATA

RNP RWY19

TOKYO CONTROL
132.3 - 300.2
127.65 - 303.4

RNP APCH

YAMAGATA RADIO
122.7 - 126.2

NO RADAR

MSA 25NM

ALT (3.0° APCH Path)

Baro-VNAV not authorized below -15°C

VAR 8°W (2017)

RNAV HLDG
NOT TO SCALE
1MIN
078° 258°
TUYAH
MHA 7000 / MAX 230KIAS
6510

RNAV HLDG
NOT TO SCALE
MEDET
015° 195°
1MIN
MHA 7000 / MAX 210KIAS

Using NAVAID
NOT TO SCALE
YTE VOR/DME
MHA 7000 / MAX 230KIAS

RNAV HLDG
NOT TO SCALE
1MIN
042° 222°
YTE VOR/DME
MHA 7000 / MAX 230KIAS

10NM

195°(186.6°T)/4.1
2717
TUYAH (IAF) 7000

195°(186.6°T)/3.9
SC950 (SDF) 4500

8.0
105° (096.5°T)
GINZA (IF)

195°(186.6°T)/4.0
4797
1774
195°(186.6°T)/3.9
4193
195°(186.6°T)/2.1
1757
195°(186.6°T)/2.6
3332
4144
SC951 (SDF)
YASYO (FAF)
SC952 (SDF)
SC953 (MAPt)

VOR/DME YAMAGATA 113.0 YTE CH-77X
38°23'19"N/140°21'29"E

R190/ D5.5 YTE
SC954 (MATF)

RNAV HLDG
NOT TO SCALE
1MIN
042° 222°
YTE VOR/DME
MHA 7000 / MAX 230KIAS

ARP
ARP : 382443N/1402216E

MEDET 383935.50N (IAF) 1401411.24E

TUYAH 384638.07N (IAF) 1402530.85E

SC950 384232.58N (SDF) 1402454.48E

GINZA 383840.62N (IF) 1402420.18E

SC951 383444.66N (SDF) 1402345.35E

YASYO 383051.89N (FAF) 1402311.06E

SC952 382849.74N (SDF) 1402253.08E

SC953 382613.53N (MAPt) 1402230.11E

SC954 381746.56N (MATF) 1402115.76E

YTE 382319.04N (MAHF) 1402128.63E

MISSED APPROACH

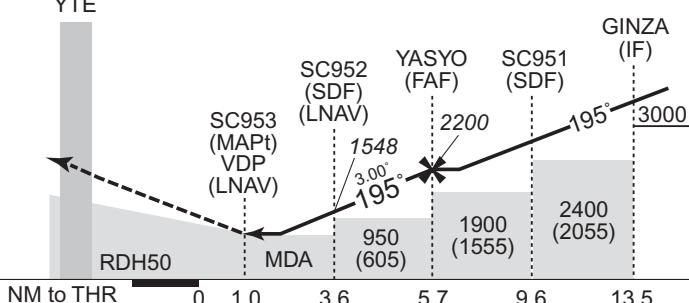
Direct to SC954, turn right direct to YTE and hold at 7000FT.

Contact YAMAGATA RADIO.

(For using VOR/DME)

Climb via YTE R190 to YTE 5.5DME, turn right, direct to YTE VOR/DME and hold at 7000FT.

Contact YAMAGATA RADIO.



Missed APCH climb gradient MNM 5.0%

(For using VOR/DME)
Climb via YTE R190 to YTE 5.5DME, turn right, direct to YTE VOR/DME and hold at 7000FT.
Contact YAMAGATA RADIO.

RDH50 MDA 950 (605) 1900 (1555) 2400 (2055)

1548 3.00° 1.95°

NM to THR 0 1.0 3.6 5.7 9.6 13.5

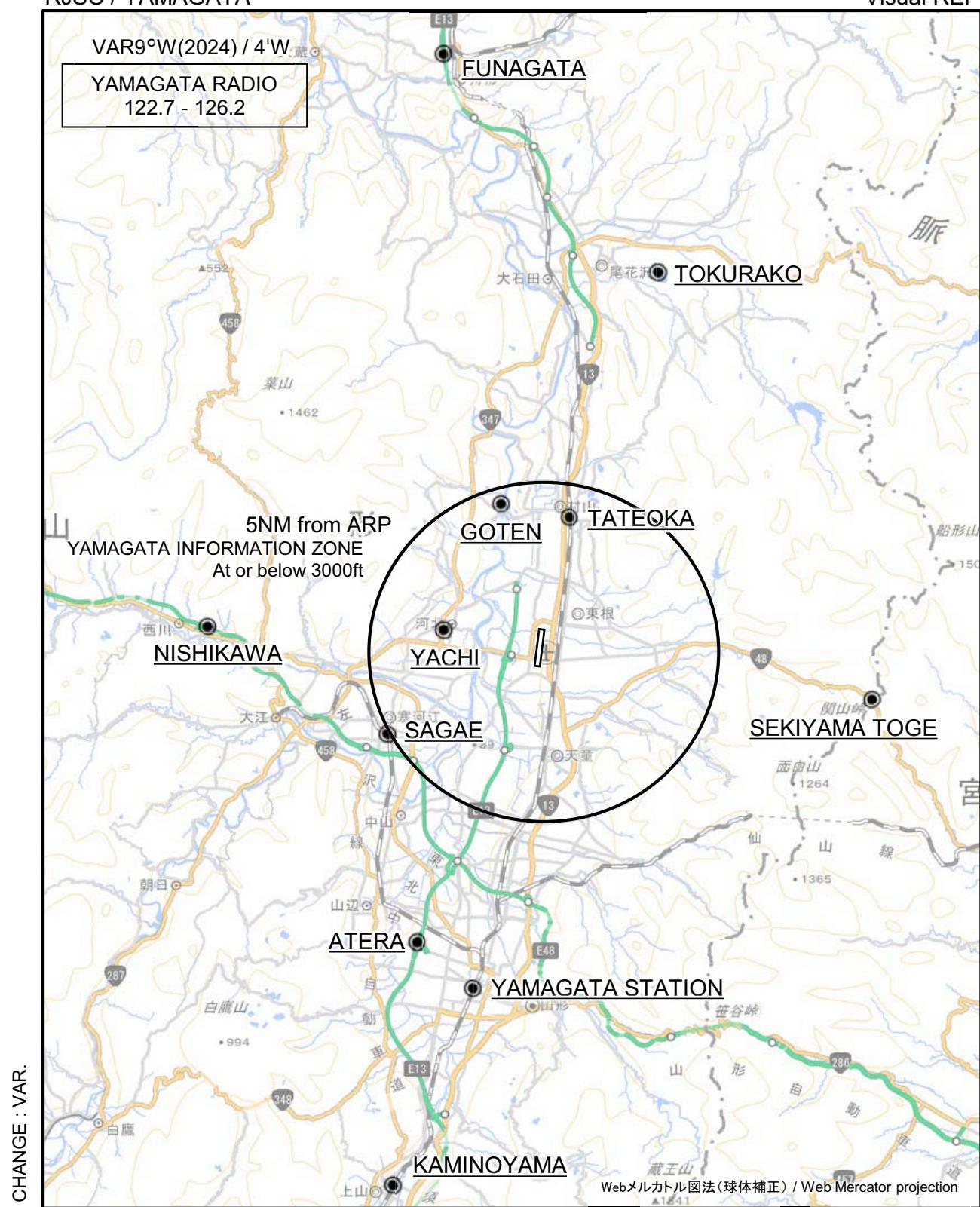
Missed APCH climb gradient MNM 5.0%

MINIMA		THR elev. 353		AD elev. 345		
CAT	LNAV/VNAV		LNAV		CIRCLING	
	DA(H)	CMV	MDA(H)	CMV	MDA(H)	VIS
A	720 (367)	1200	720 (375)	1200	790 (445)	1600
B		1300		1300	800 (455)	
C		1400		1400	2400	
D		1600		1600	900 (555)	3200

MINIMA with Missed APCH climb gradient of 2.5% are not established.
Circling to WEST side of RWY only.

RJSC / YAMAGATA

Visual REP



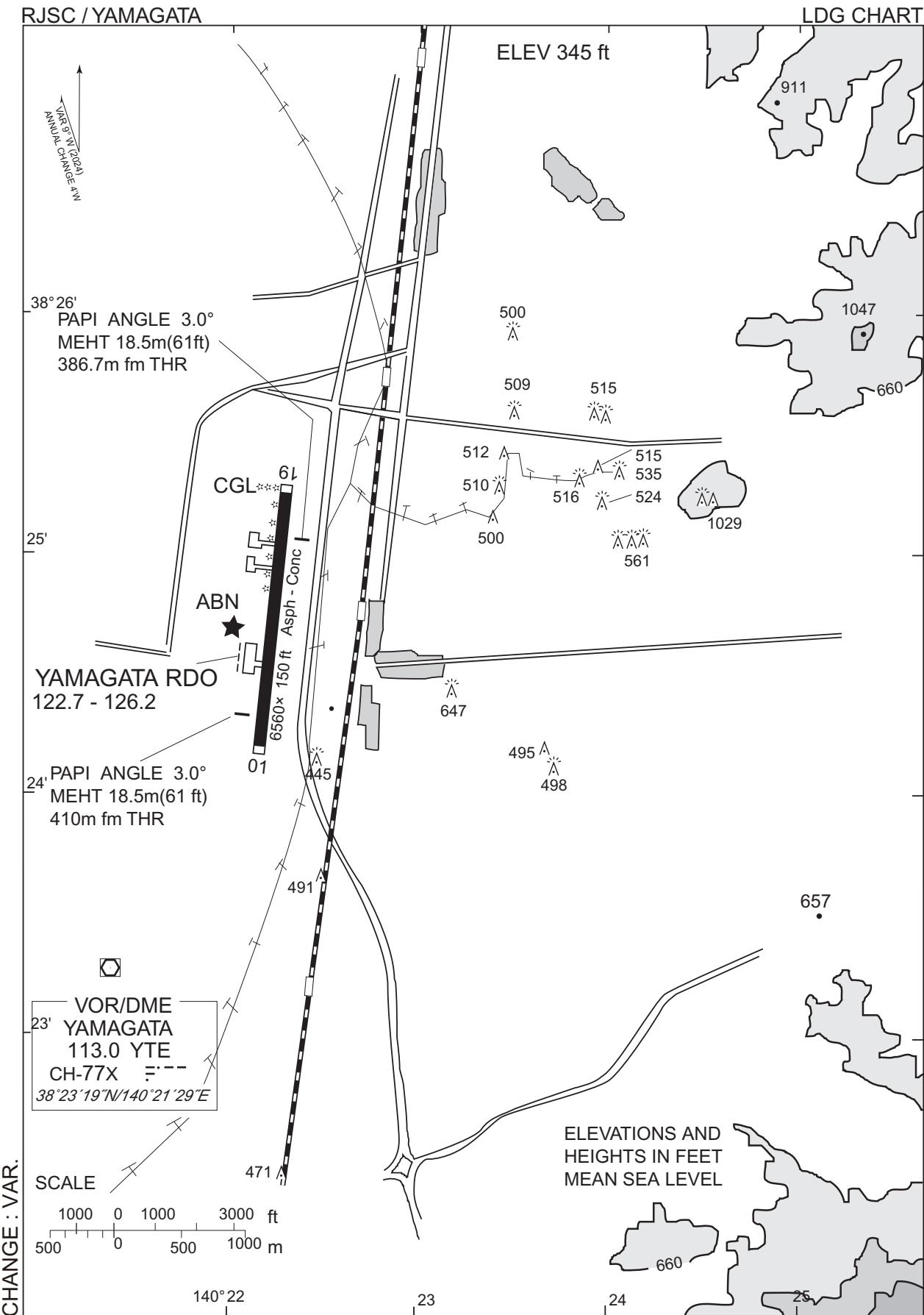
※図中に標高を示す数字がある場合、単位はメートル(m)である。The unit of measurement used to express elevation is meter(m).

RJSC / YAMAGATA

Visual REP

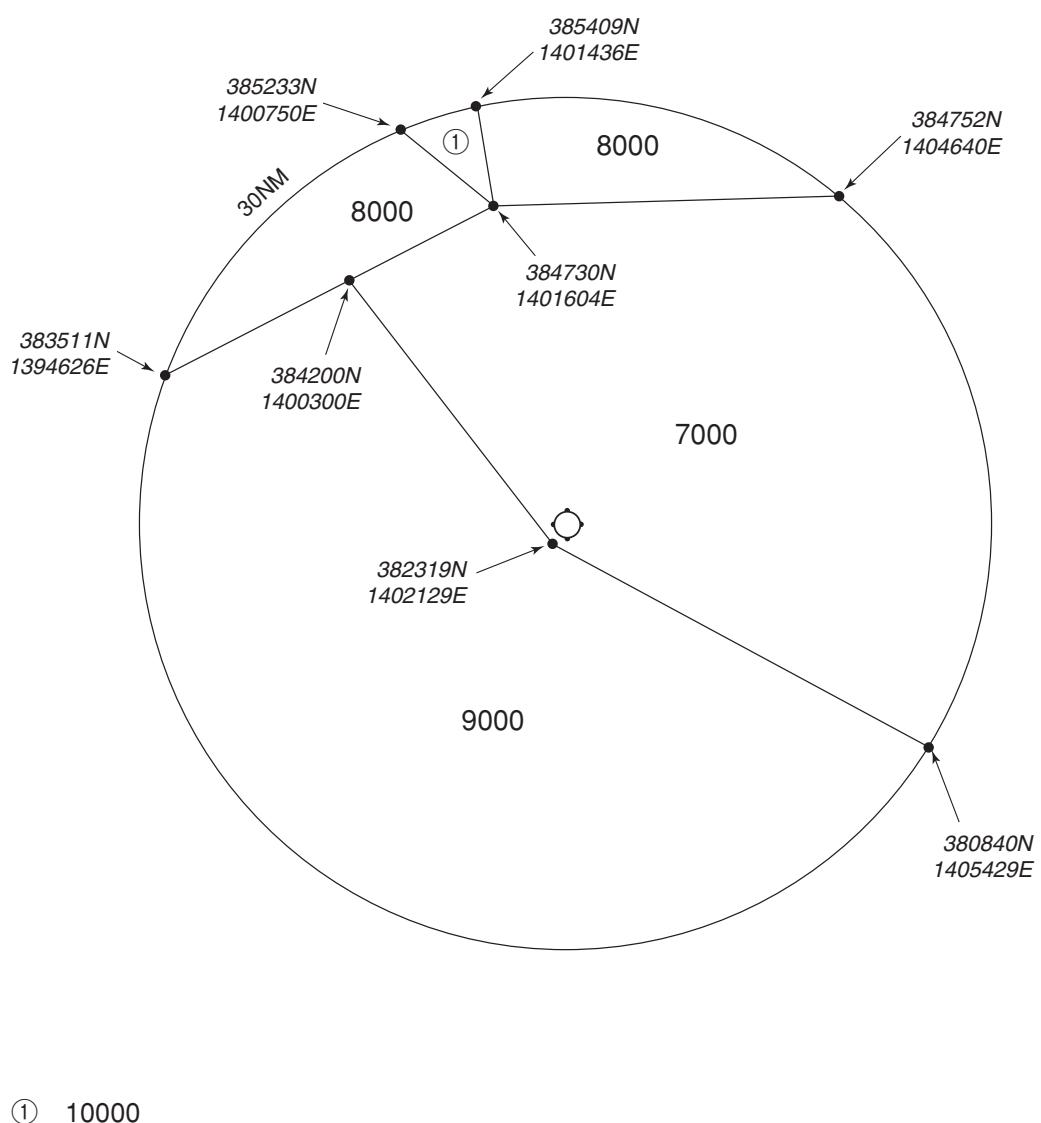
Call sign	BRG / DIST from ARP	Remarks
舟形 Funagata	351°T / 17.7NM	舟形インターチェンジ Interchange
徳良湖 Tokurako	017°T / 11.5NM	徳良湖 Lake
碁点 Goten	344°T / 4.5NM	村山市民体育館 Gymnasium
楯岡 Tateoka	010°T / 4.0NM	村山駅(旧楯岡駅) JR station
西川 Nishikawa	274°T / 9.8NM	西川インターチェンジ Interchange
谷地 Yachi	282°T / 3.0NM	谷地高校 School
関山峠 Sekiyama Toge	100°T / 9.5NM	関山トンネル Tunnel
寒河江 Sagae	242°T / 5.1NM	寒河江駅 JR station
アテラ Atera	203°T / 9.3NM	山形中央インターチェンジ Interchange
山形ステーション Yamagata Station	192°T / 10.0NM	山形駅 JR station
上山 Kaminoyama	196°T / 16.2NM	かみのやま温泉駅 JR station

CHANGE : Kaminoyama(Remarks).



RJSC / YAMAGATA

Minimum Vectoring Altitude CHART



CENTER : 382443N/1402216E (ARP)