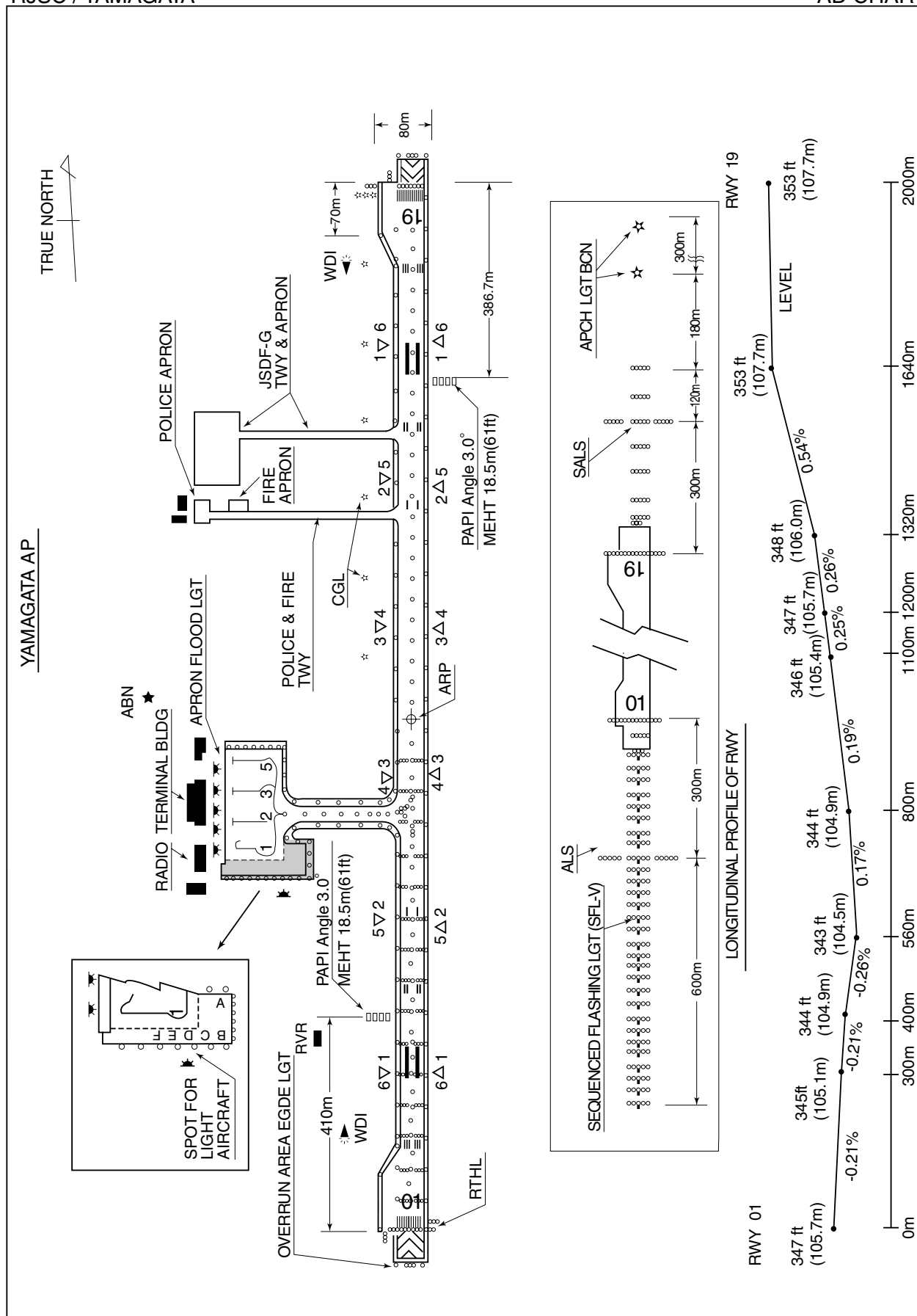


RJSC / YAMAGATA

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 RWY01

For RWY19



STANDARD DEPARTURE CHART-INSTRUMENT

RJSC / YAMAGATA

RNAV SID

RUBIS ONE DEPARTURE

Basic RNP1

Note GNSS required.

VAR 8°W (2017)

RUBIS ONE DEPARTURE

RWY01 : Climb on HDG015° at or above 800FT, direct to SC101, to SC102 at or above 7000FT,...

RWY19 : Climb on HDG195° at or above 1300FT, direct to SC903, to SC904, to SC905, to SC906,...

... to ZUNDA at or above FL170, to RUBIS at or above FL200.

Note RWY01 : 5.0% climb gradient required up to 2000FT.
OBST ALT 3609FT located at 16.0NM 039° FM end of RWY01.

RWY19 : 4.0% climb gradient required up to 1300FT.
OBST ALT 919FT located at 3.2NM 181° FM end of RWY19.

CHANGE : New PROC

STANDARD DEPARTURE CHART-INSTRUMENT

RJSC / YAMAGATA

RNAV SID

RUBIS ONE DEPARTURE

RWY01

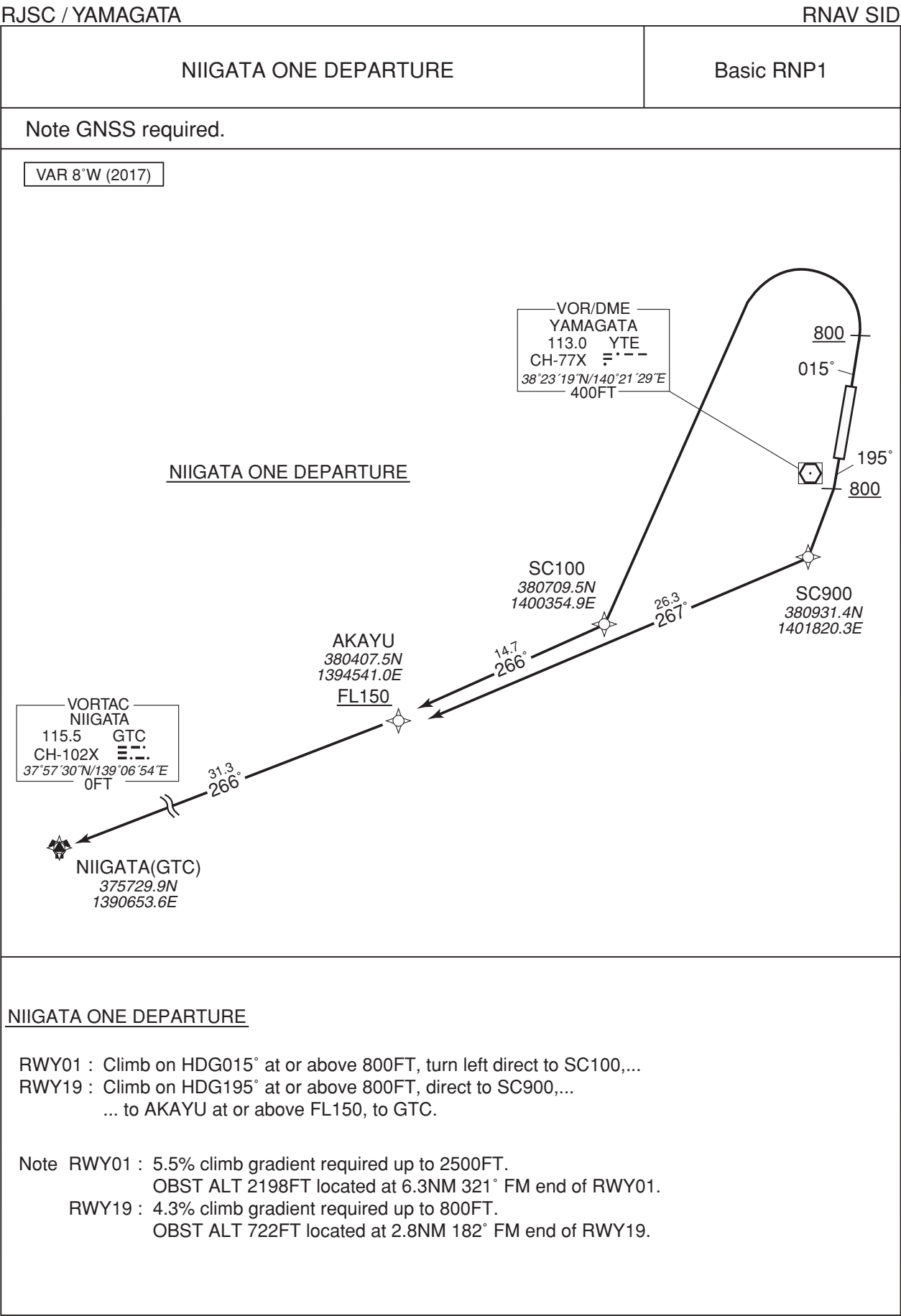
Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	Vertical Angle	Navigation Specification
001	VA	—	—	015 (006.6)	-8.2	—	—	+800	—	—	Basic RNP1
002	DF	SC101	—	—	-8.2	—	—	—	—	—	Basic RNP1
003	TF	SC102	—	105 (096.6)	-8.2	8.4	—	+7000	—	—	Basic RNP1
004	TF	ZUNDA	—	200 (192.2)	-8.2	31.2	—	+FL170	—	—	Basic RNP1
005	TF	RUBIS	—	169 (161.2)	-8.2	26.9	—	+FL200	—	—	Basic 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	—	—	Basic RNP1
002	DF	SC903	—	—	-8.2	—	—	—	—	—	Basic RNP1
003	TF	SC904	—	285 (276.6)	-8.2	9.4	—	—	—	—	Basic RNP1
004	TF	SC905	—	015 (006.4)	-8.2	10.5	—	—	—	—	Basic RNP1
005	TF	SC906	—	105 (096.5)	-8.2	10.6	—	—	—	—	Basic RNP1
006	TF	ZUNDA	—	179 (171.0)	-8.2	15.7	—	+FL170	—	—	Basic RNP1
007	TF	RUBIS	—	169 (161.2)	-8.2	26.9	—	+FL200	—	—	Basic RNP1

CHANGE : New PROC

STANDARD DEPARTURE CHART-INSTRUMENT



Note GNSS required.

VAR 8°W (2017)

NIIGATA ONE DEPARTURE

VOR/DME
YAMAGATA
113.0 YTE
CH-77X
38°23'19"N/140°21'29"E
400FT

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

NIIGATA(GTC)
37°57'30"N/139°06'54"E
0FT

AKAYU
38°04'07.5"N/139°45'41.0"E
FL150

SC100
38°07'09.5"N/140°03'54.9"E

SC900
38°09'31.4"N/140°18'20.3"E

800
015°
800
195°
267°
26.3

14.7
266°
31.3
266°

NIIGATA ONE DEPARTURE

RWY01 : Climb on HDG015° at or above 800FT, turn left direct to SC100,...

RWY19 : Climb on HDG195° at or above 800FT, direct to SC900,...

... to AKAYU at or above FL150, to GTC.

Note RWY01 : 5.5% climb gradient required up to 2500FT.
OBST ALT 2198FT located at 6.3NM 321° FM end of RWY01.

RWY19 : 4.3% climb gradient required up to 800FT.
OBST ALT 722FT located at 2.8NM 182° FM end of RWY19.

CHANGE : New PROC

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	—	—	Basic RNP1
002	DF	SC100	—	—	-8.2	—	L	—	—	—	Basic RNP1
003	TF	AKAYU	—	266 (258.2)	-8.2	14.7	—	+FL150	—	—	Basic RNP1
004	TF	GTC	—	266 (258.0)	-8.2	31.3	—	—	—	—	Basic 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	—	—	Basic RNP1
002	DF	SC900	—	—	-8.2	—	—	—	—	—	Basic RNP1
003	TF	AKAYU	—	267 (258.3)	-8.2	26.3	—	+FL150	—	—	Basic RNP1
004	TF	GTC	—	266 (258.0)	-8.2	31.3	—	—	—	—	Basic RNP1

CHANGE : New PROC

STANDARD DEPARTURE CHART-INSTRUMENT

RJSC / YAMAGATA

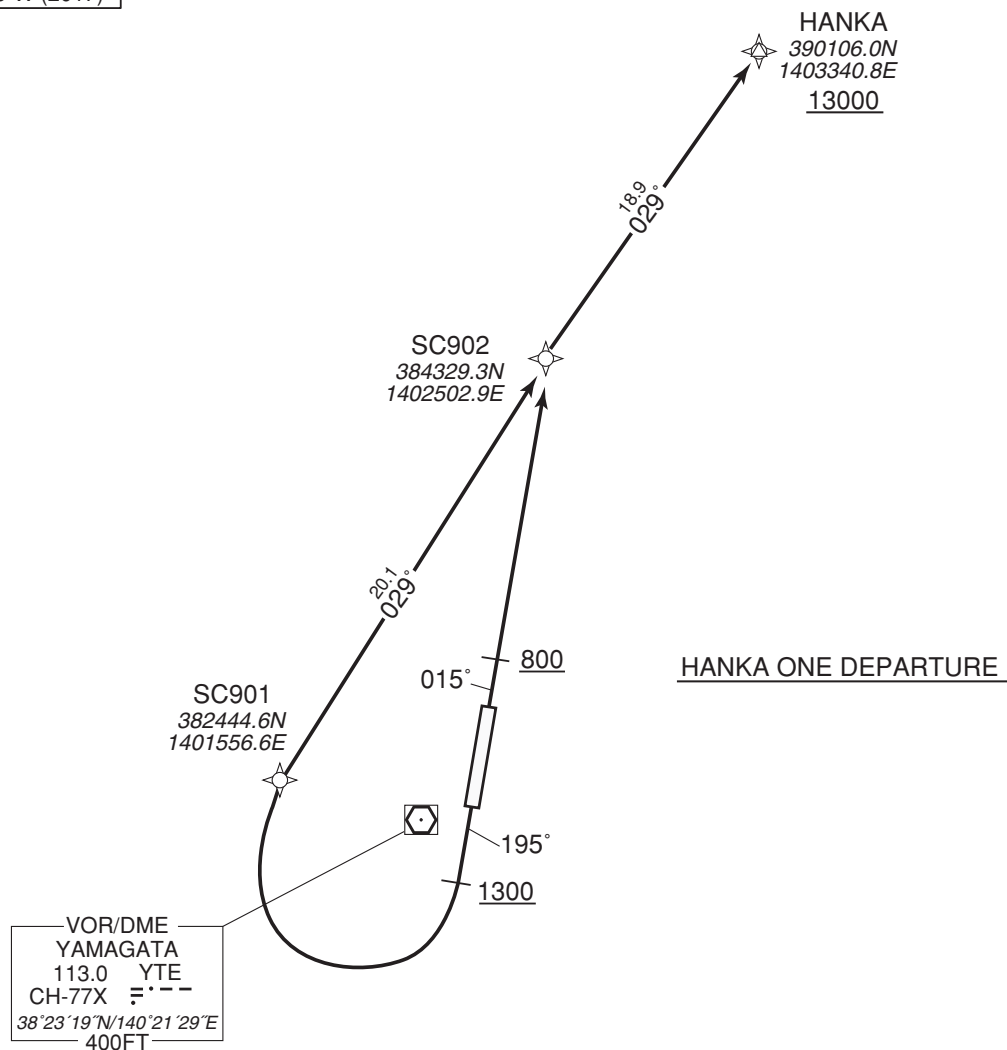
RNAV SID

HANKA ONE DEPARTURE

Basic RNP1

Note GNSS required.

VAR 8°W (2017)

HANKA ONE DEPARTURE

RWY01 : Climb on HDG015° at or above 800FT, direct to SC902,...

RWY19 : Climb on HDG195° at or above 1300FT, turn right direct to SC901, to SC902,...
... to HANKA at or above 13000FT.

Note RWY01 : 5.0% climb gradient required up to 800FT.

OBST ALT 1542FT located at 6.5NM 026° FM end of RWY01.

RWY19 : 4.0% climb gradient required up to 1300FT.

OBST ALT 919FT located at 3.2NM 181° FM end of RWY19.

No turn before DER.

CHANGE : New PROC

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

CHANGE : Editorial

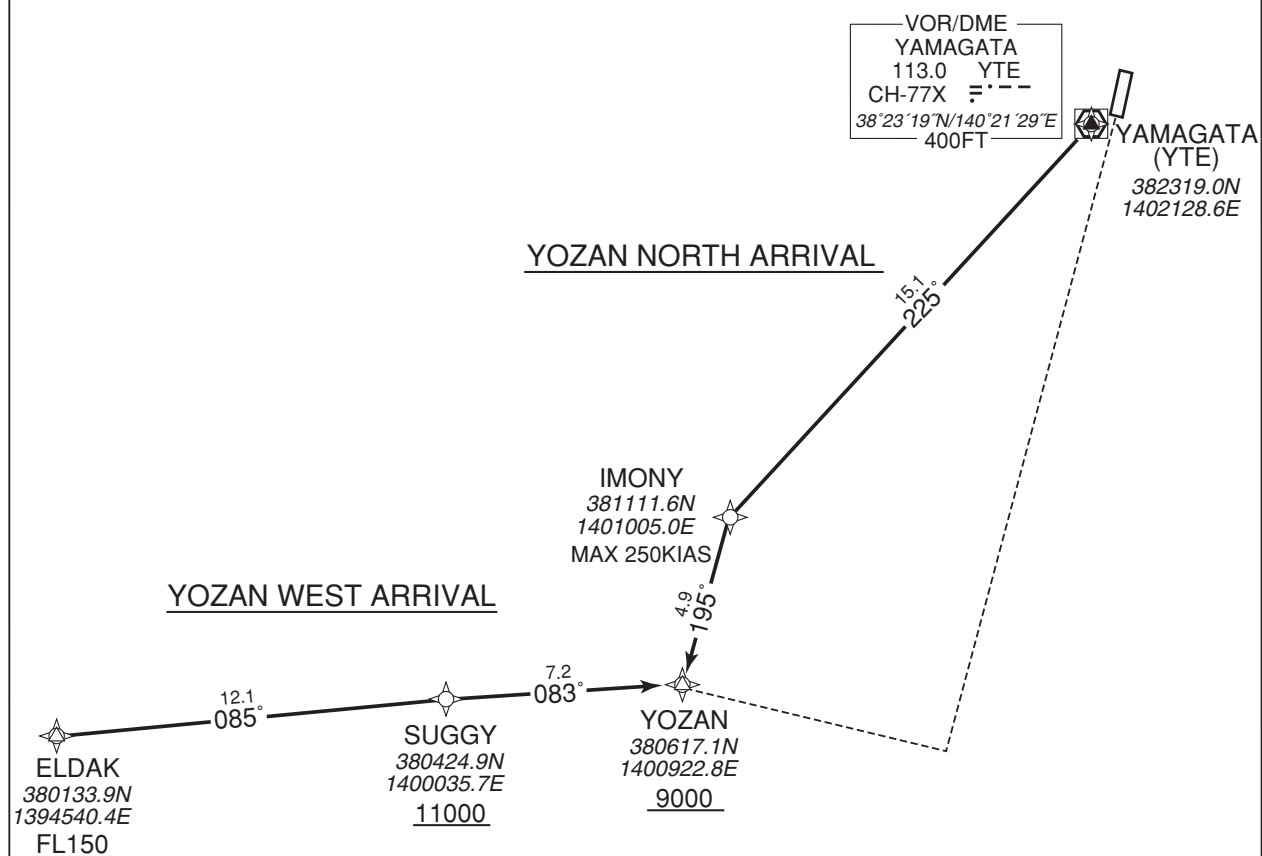
CHANGE : New PROC

RNAV STAR RWY01

Basic RNP1

Note GNSS required.

VAR 8°W (2017)



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	—	—	Basic RNP1
002	TF	SUGGY	—	085 (076.3)	-8.2	12.1	—	+11000	—	—	Basic RNP1
003	TF	YOZAN	—	083 (074.8)	-8.2	7.2	—	+9000	—	—	Basic 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	—	—	—	—	—	Basic RNP1
002	TF	IMONY	—	255 (216.5)	-8.2	15.1	—	—	-250	—	Basic RNP1
003	TF	YOZAN	—	195 (186.4)	-8.2	4.9	—	+9000	—	—	Basic RNP1

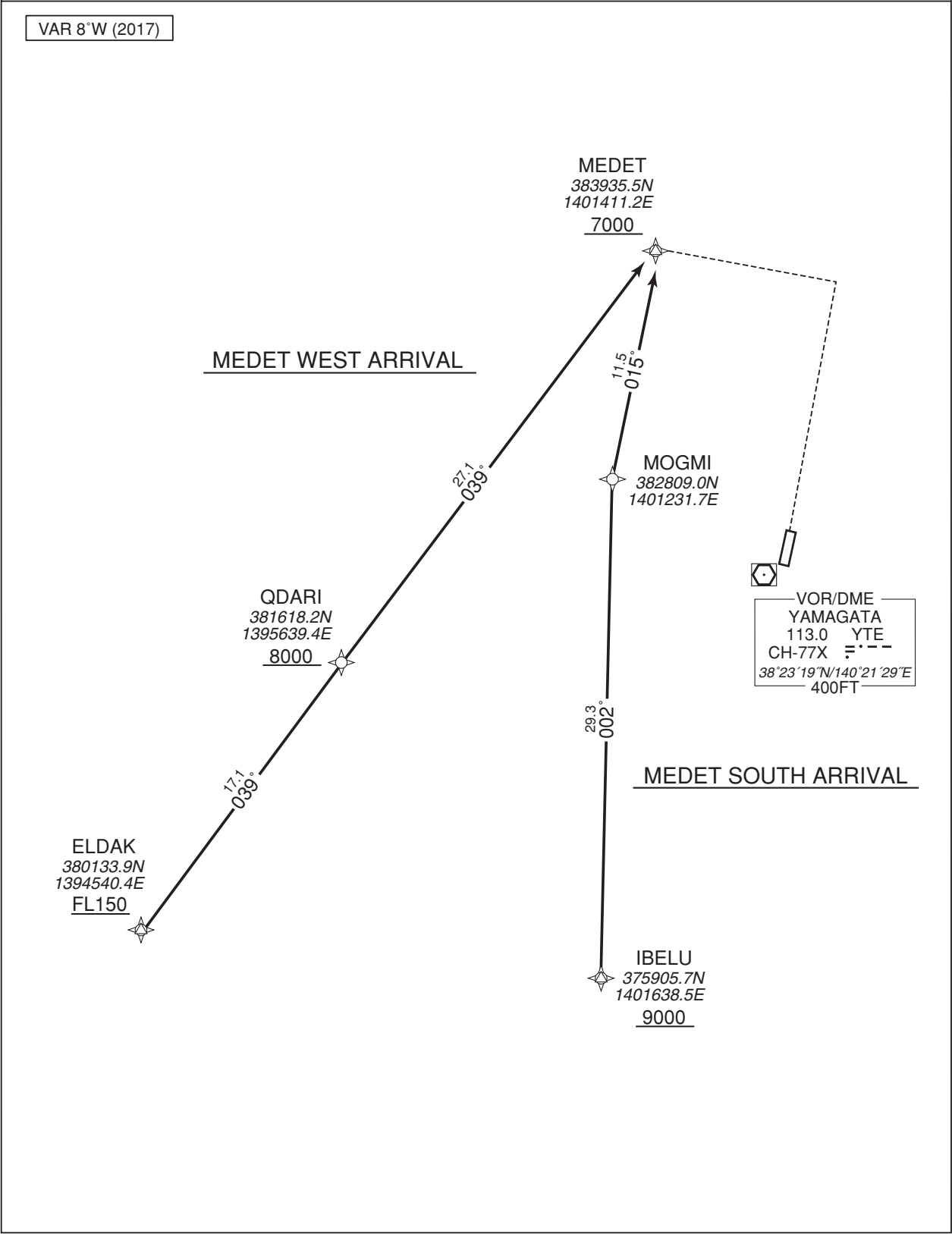
CHANGE : New PROC

STANDARD ARRIVAL CHART - INSTRUMENT

RJSC / YAMAGATARNAV STAR RWY19

MEDET WEST ARRIVAL / MEDET SOUTH ARRIVAL	Basic RNP1
--	------------

Note GNSS required.



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	—	—	Basic RNP1
002	TF	QDARI	—	039 (030.3)	-8.2	17.1	—	+8000	—	—	Basic RNP1
003	TF	MEDET	—	039 (030.4)	-8.2	27.1	—	+7000	—	—	Basic 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	—	—	Basic RNP1
002	TF	MOGMI	—	002 (353.7)	-8.2	29.3	—	—	—	—	Basic RNP1
003	TF	MEDET	—	015 (006.5)	-8.2	11.5	—	+7000	—	—	Basic RNP1

CHANGE : New PROC

STANDARD ARRIVAL CHART - INSTRUMENT

RJSC / YAMAGATARNAV STAR RWY19

TUYAH ARRIVAL	Basic RNP1
---------------	------------

Note GNSS required.



<u>TUYAH ARRIVAL</u> From LAVOT at or above 11000FT, to TUYAH 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	LAVOT	—	—	-8.2	—	—	+11000	—	—	Basic RNP1	
002	TF	TUYAH	—	258 (249.3)	-8.2	14.0	—	+7000	—	—	Basic RNP1	

CHANGE : New PROC

INSTRUMENT APPROACH CHART

RJSC / YAMAGATA

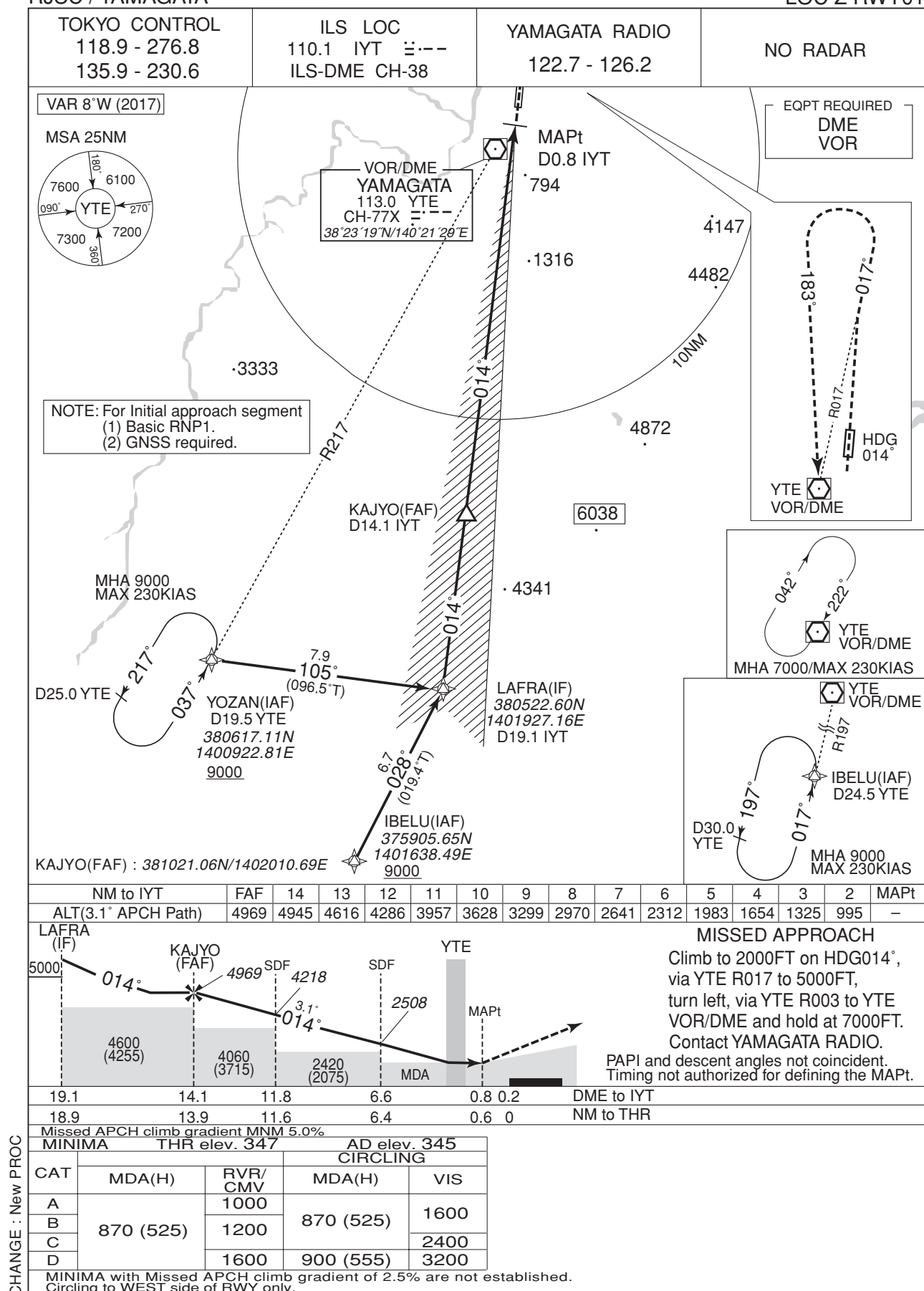
ILS Z RWY01



CHANGE : New PROC

RJSC / YAMAGATA

LOC Z RWY01



INSTRUMENT APPROACH CHART

RJSC / YAMAGATA

ILS Y RWY01



CHANGE : New PROC

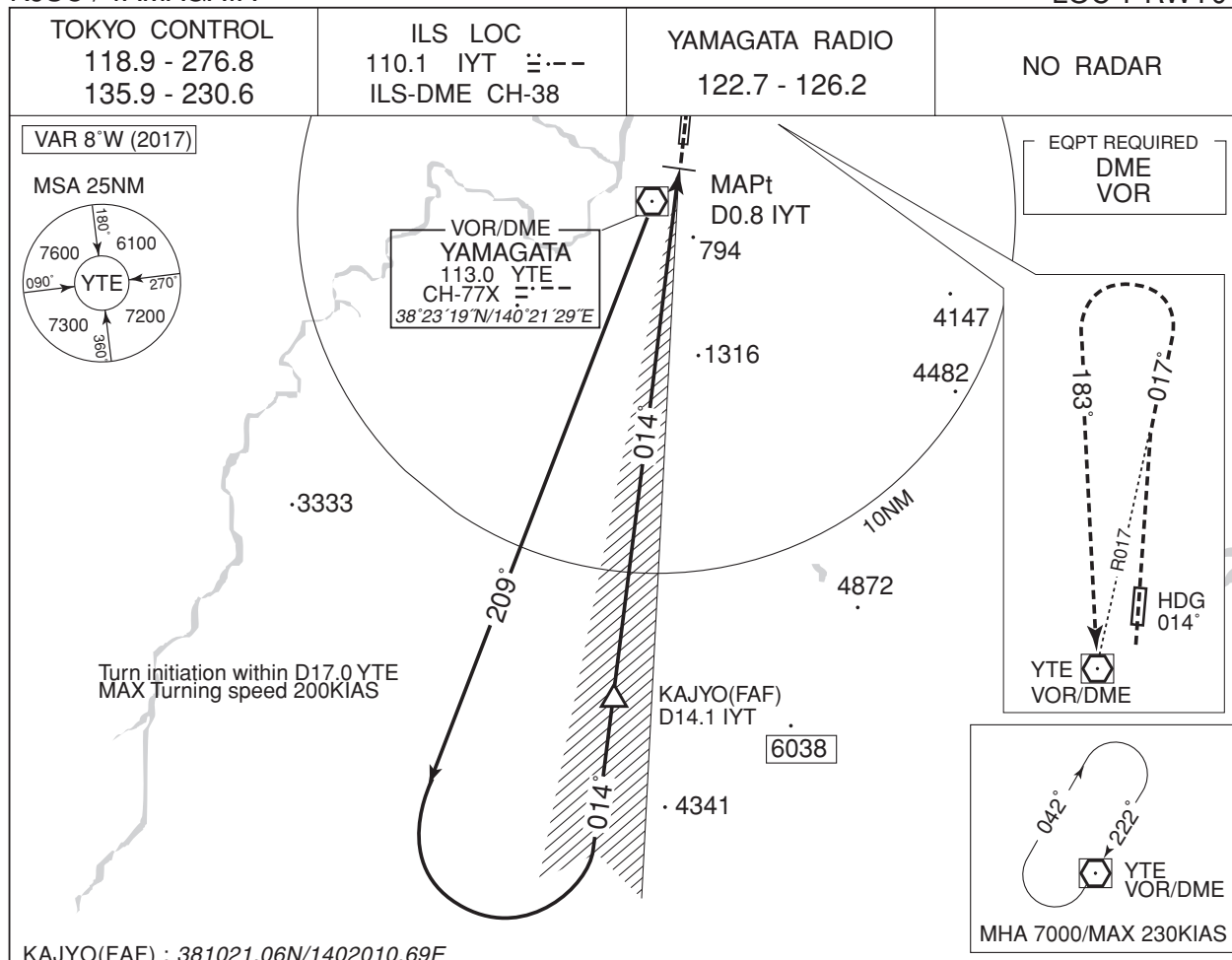
Missed APCH climb gradient MNM 5.0%				
MINIMA	THR elev. 347		AD elev. 345	
CAT	CAT I		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	VIS
A	547 (200)	550	790 (445)	1600
B			800 (455)	2400
C			900 (555)	
D				

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

INSTRUMENT APPROACH CHART

RJSC / YAMAGATA

LOC Y RWY01



NM to IYT	FAF	14	13	12	11	10	9	8	7	6	5	4	3	2	MAPt
ALT(3.1° APCH Path)	4969	4945	4616	4286	3957	3628	3299	2970	2641	2312	1983	1654	1325	995	-



Missed APCH climb gradient MNM 5.0%				
MINIMA		THR elev. 347		AD elev. 345
CAT			CIRCLING	
	MDA(H)	RVR/ CMV	MDA(H)	VIS
	870 (525)	1000	870 (525)	1600
		1200		2400
		1600	900 (555)	3200

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

CHANGE : New PROC

INSTRUMENT APPROACH CHART

RJSC / YAMAGATA

VOR A

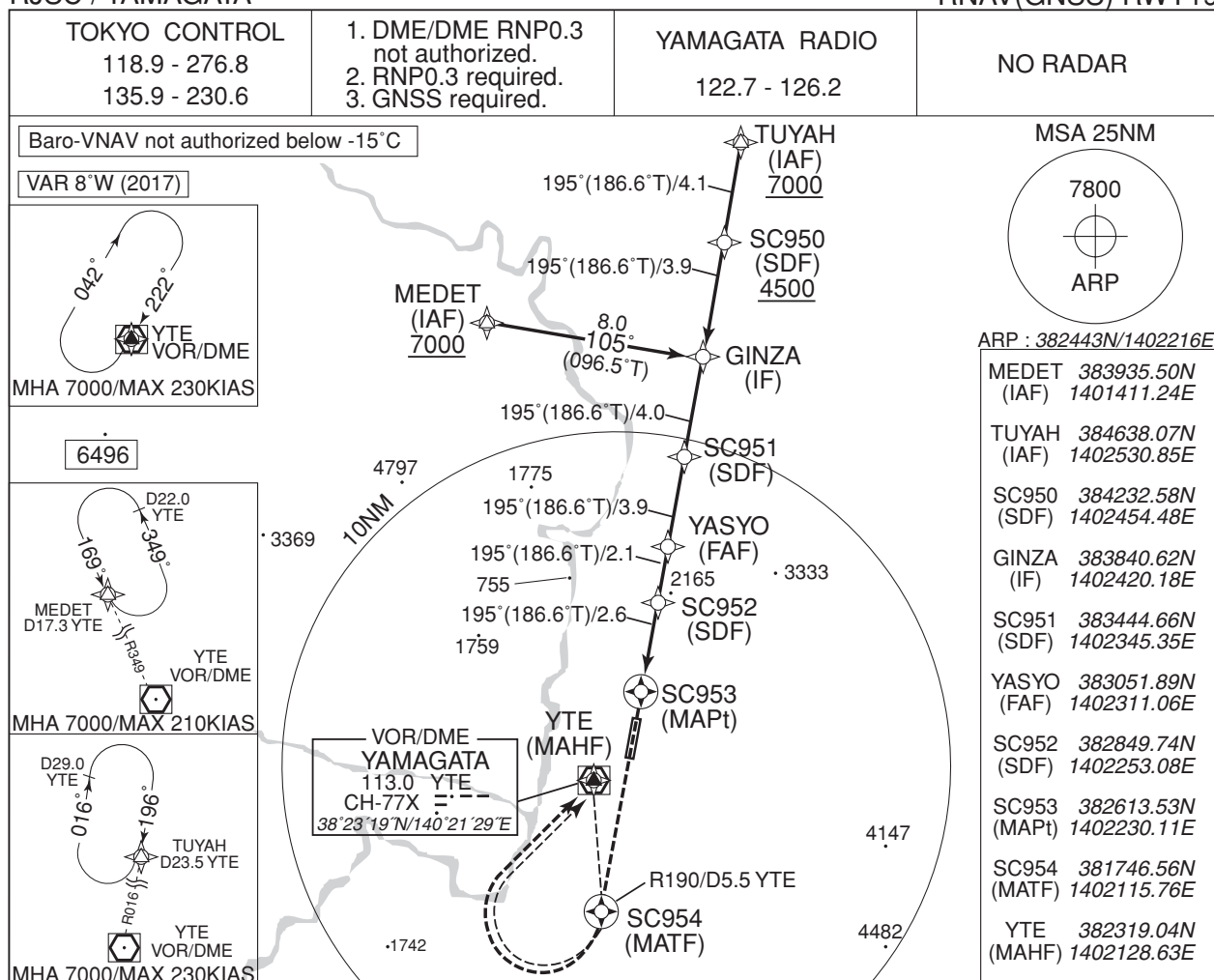


CHANGE : MHA

INSTRUMENT APPROACH CHART

RJSC / YAMAGATA

RNAV(GNSS) RWY19

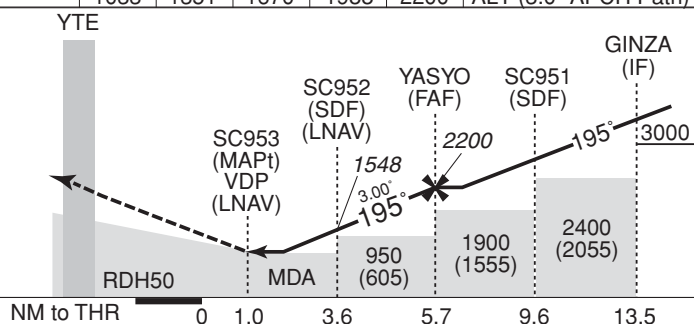


MISSED APPROACH

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%

CAT	MINIMA		THR elev. 353		AD elev. 345	
	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.

CHANGE : New PROC



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
楯 岡 Tateoka	010°T/ 4.0NM	村山駅(旧楯岡駅) JR station
基 点 Goten	344°T/ 4.5NM	村山市民体育館 Gymnasium
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
西 川 Nishikawa	274°T/ 9.8NM	西川インターチェンジ Interchange
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	上山温泉駅 JR station

CHANGE : Obanazawa deleted, Funagata, Tokurako added



RJSC / YAMAGATA

Minimum Vectoring Altitude CHART



CENTER : 382443N/1402216E (ARP)