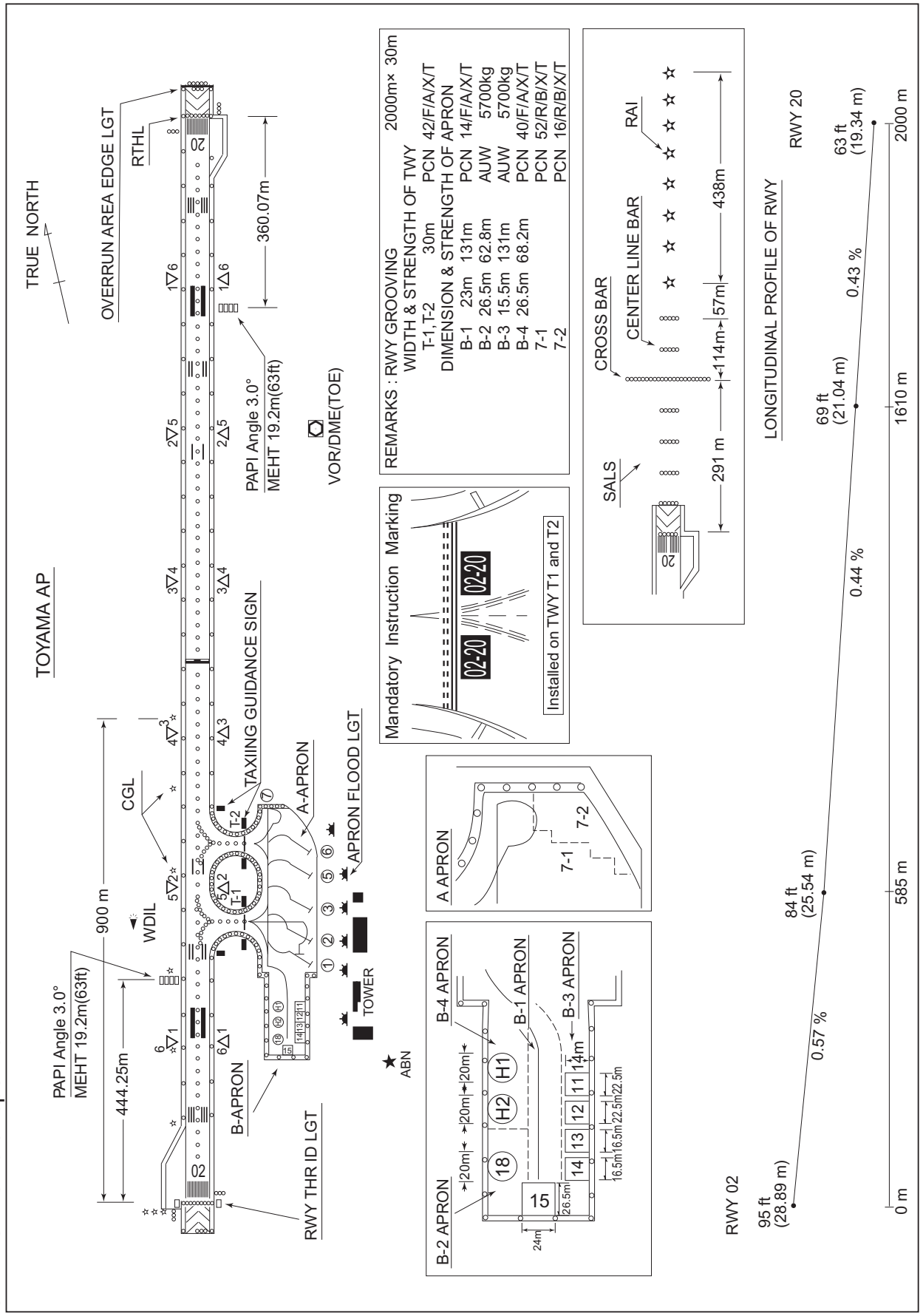
RJNT / TOYAMA AD CHART

CHANGE: Size of spot 15.



STANDARD DEPARTURE CHART -INSTRUMENT

RJNT / TOYAMA SID and TRANSITION

IKUJI FIVE DEPARTURE

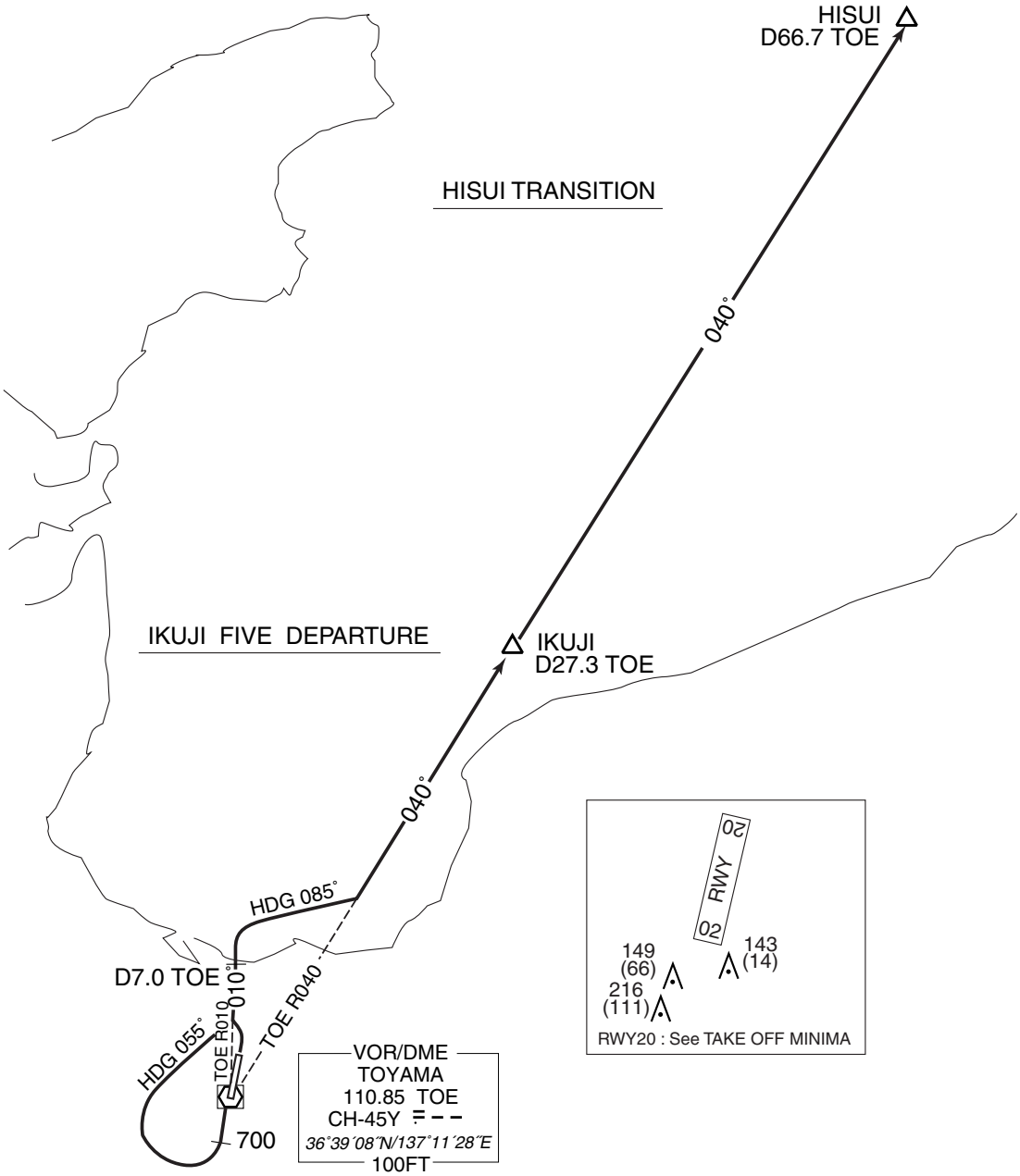
RWY02 : Climb via TOE R010 to 7.0DME...

RWY20 : Climb RWY HDG until 700FT, turn right HDG 055˚ to intercept and proceed via TOE R010 to TOE 7.0DME...
...turn right HDG 085˚ to intercept and proceed via TOE R040 to IKUJI.

NOTE RWY20 : 5.0% climb gradient required up to 2000FT.
OBST ALT 762FT located at 3.8NM 202˚ FM end of RWY20.

HISUI TRANSITION

From over IKUJI, climb via TOE R040 to HISUI.



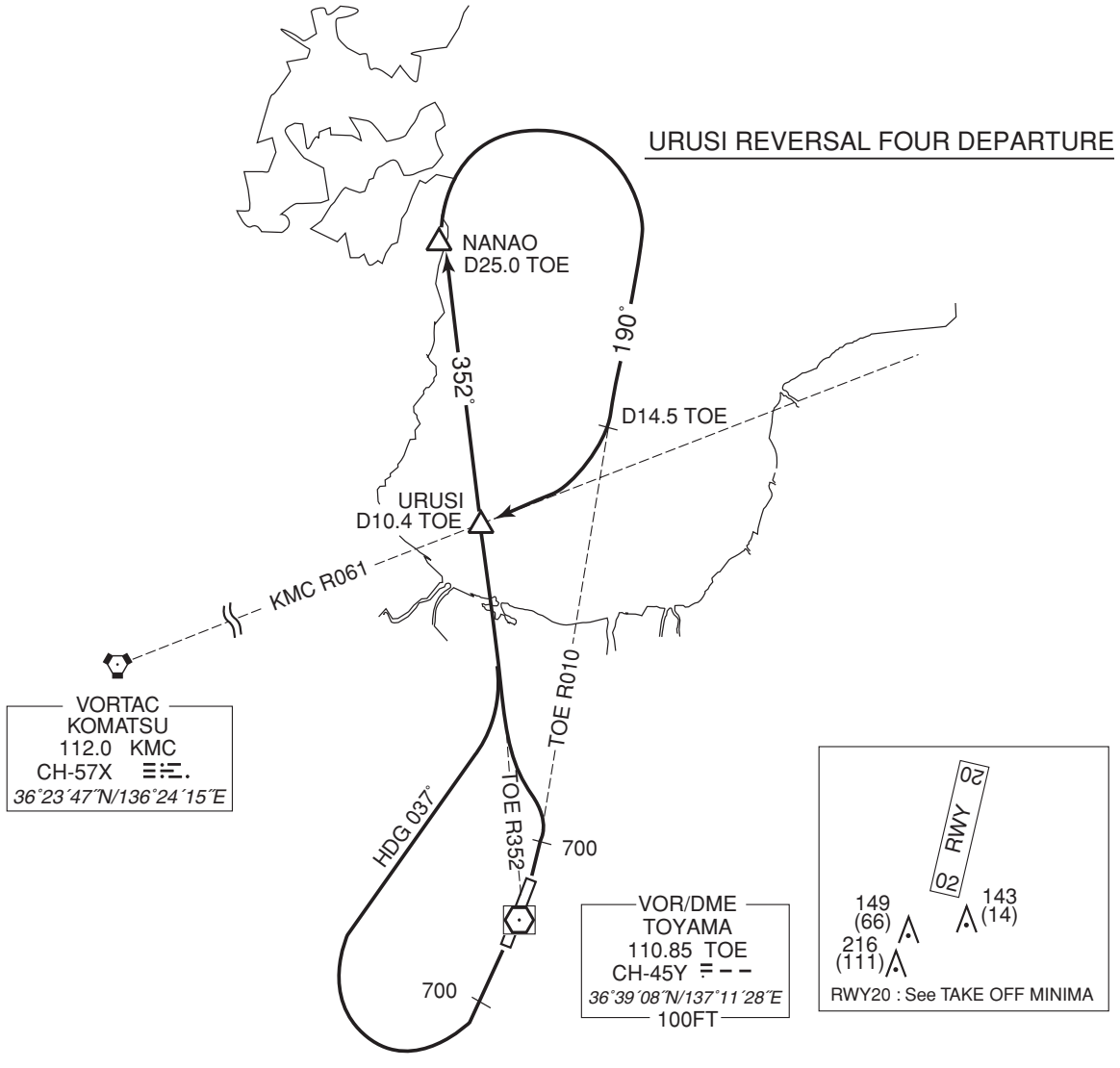
STANDARD DEPARTURE CHART -INSTRUMENT

RJNT / TOYAMA SID

URUSI REVERSAL FOUR DEPARTURE

RWY02 : Climb RWY HDG until 700FT, turn left, climb...
RWY20 : Climb RWY HDG until 700FT, turn right HDG 037˚ to intercept and proceed...
...via TOE R352 to NANAO, turn right, proceed via TOE R010 to intercept and proceed via KMC R061 to URUSI.

NOTE RWY02 : 4.0% climb gradient required up to 1000FT.
OBST ALT 621FT located at 2.8NM 345˚ FM end of RWY02.
RWY20 : 5.0% climb gradient required up to 2000FT.
OBST ALT 762FT located at 3.8NM 202˚ FM end of RWY20.



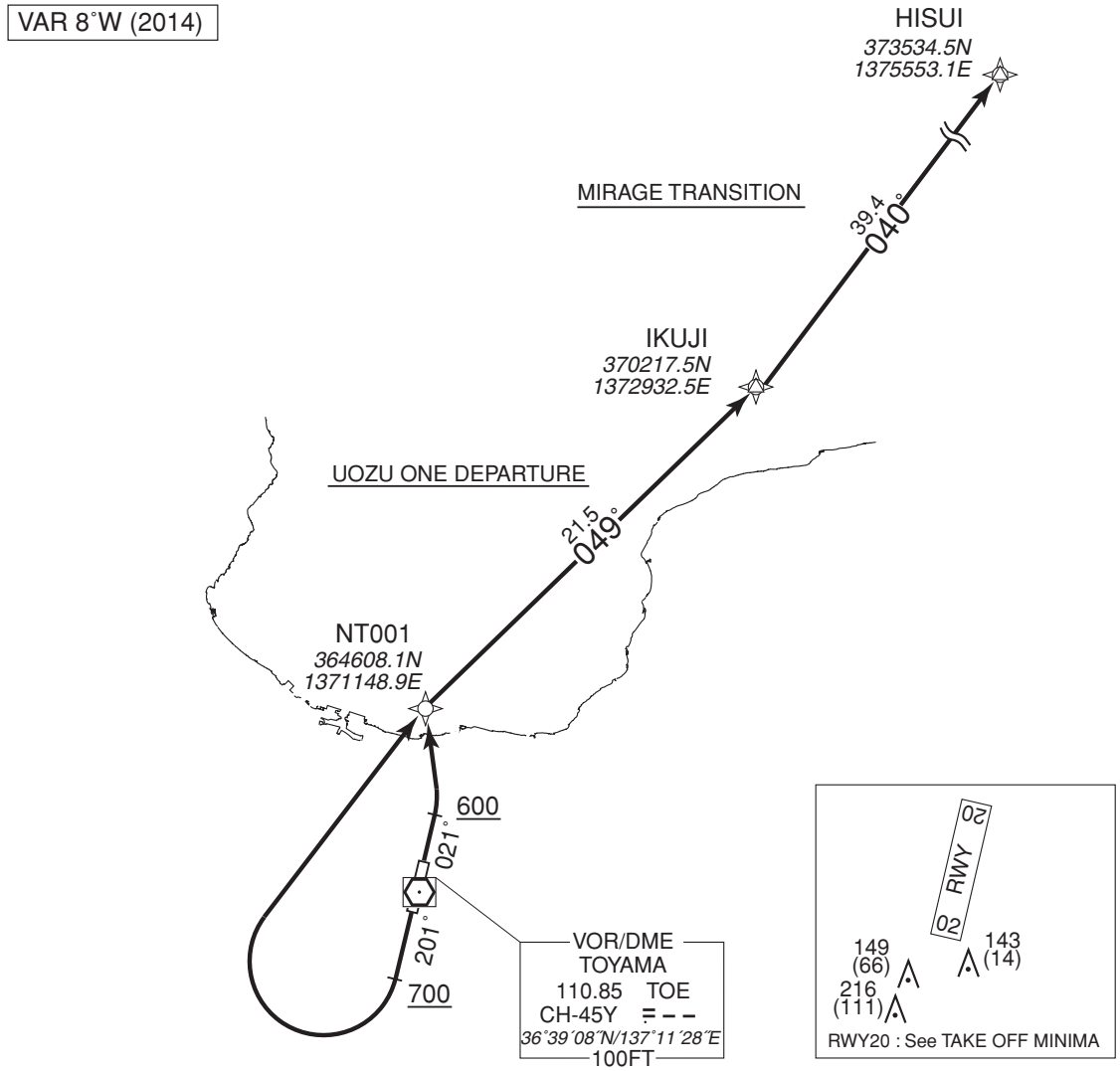
CHANGE : Minor change

STANDARD DEPARTURE CHART -INSTRUMENT

RJNT / TOYAMA RNAV SID and TRANSITION

UOZU ONE DEPARTURE MIRAGE TRANSITION	Basic RNP1

Note GNSS required.



UOZU ONE DEPARTURE

RWY02 : Climb on HDG 021˚ at or above 600FT, direct to NT001, to IKUJI.
RWY20 : Climb on HDG 201˚ at or above 700FT, turn right direct to NT001, to IKUJI.

NOTE RWY02 : 5.0% climb gradient required up to 600FT.
OBST ALT 517FT located at 2.8NM 351˚ FM end of RWY02.
RWY20 : 5.0% climb gradient required up to 2000FT.
OBST ALT 762FT located at 3.8NM 202˚ FM end of RWY20.

MIRAGE TRANSITION

From IKUJI, to HISUI.

STANDARD DEPARTURE CHART -INSTRUMENT

RJNT / TOYAMA RNAV SID and TRANSITION

UOZU ONE DEPARTURE

RWY02

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	–	–	021 (013.5)	-7.8	–	–	+600	–	–	Basic RNP1
002	DF	NT001	–	–	-7.8	–	–	–	–	–	Basic RNP1
003	TF	IKUJI	–	049 (041.2)	-7.8	21.5	–	–	–	–	Basic RNP1

RWY20

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	–	–	201 (193.5)	-7.8	–	–	+700	–	–	Basic RNP1
002	DF	NT001	–	–	-7.8	–	R	–	–	–	Basic RNP1
003	TF	IKUJI	–	049 (041.2)	-7.8	21.5	–	–	–	–	Basic RNP1

MIRAGE 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	IKUJI	–	–	-7.8	–	–	–	–	–	Basic RNP1
002	TF	HISUI	–	040 (032.1)	-7.8	39.4	–	–	–	–	Basic RNP1

STANDARD ARRIVAL CHART -INSTRUMENT

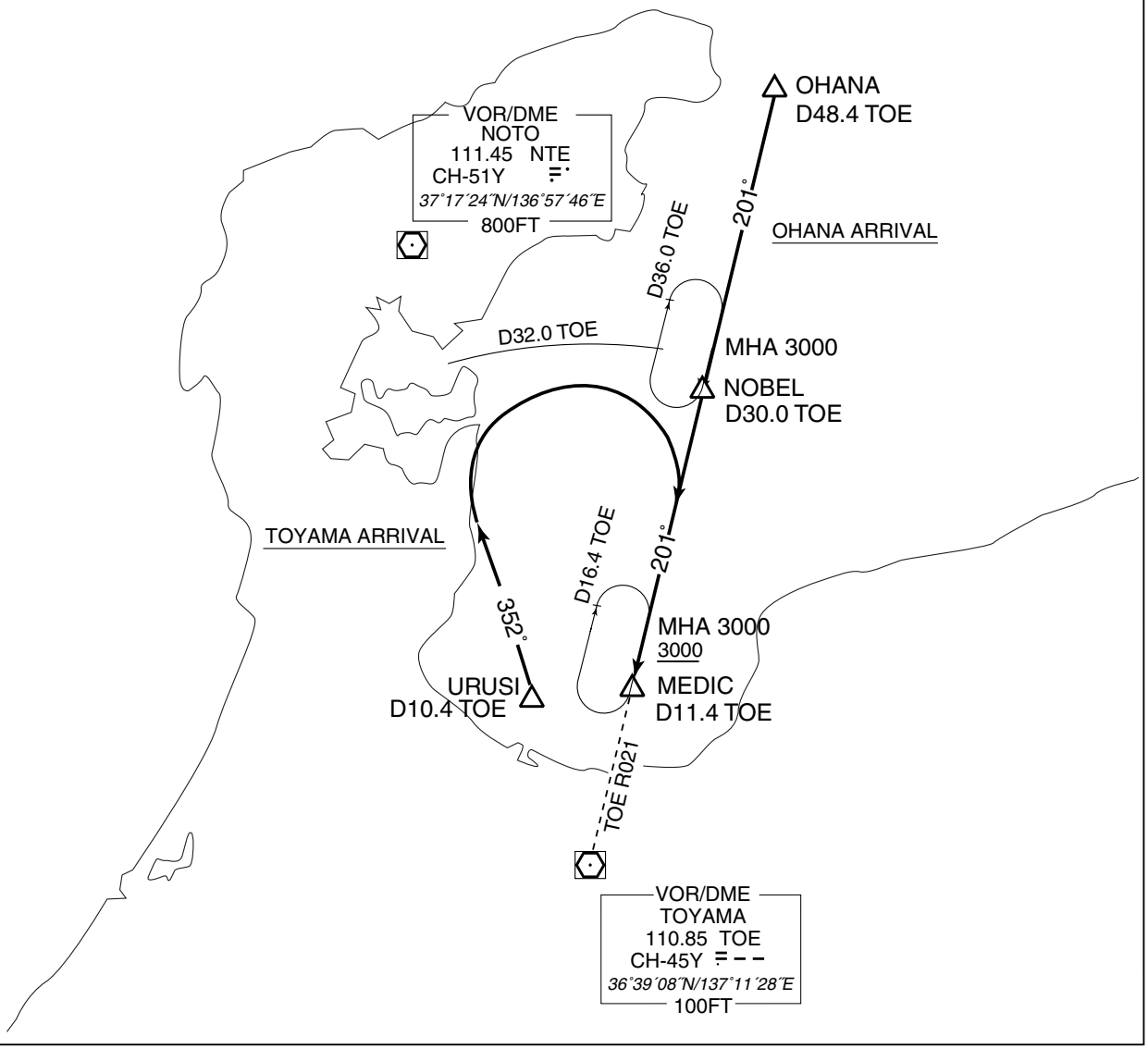
RJNT / TOYAMA STAR

OHANA ARRIVAL

From over OHANA, proceed via TOE R021 to MEDIC.
Cross MEDIC at or above 3000FT.

TOYAMA ARRIVAL

From over URUSI, proceed via TOE R352, turn right to intercept and proceed via TOE R021 to MEDIC within TOE 32.0DME.
Cross MEDIC at or above 3000FT.



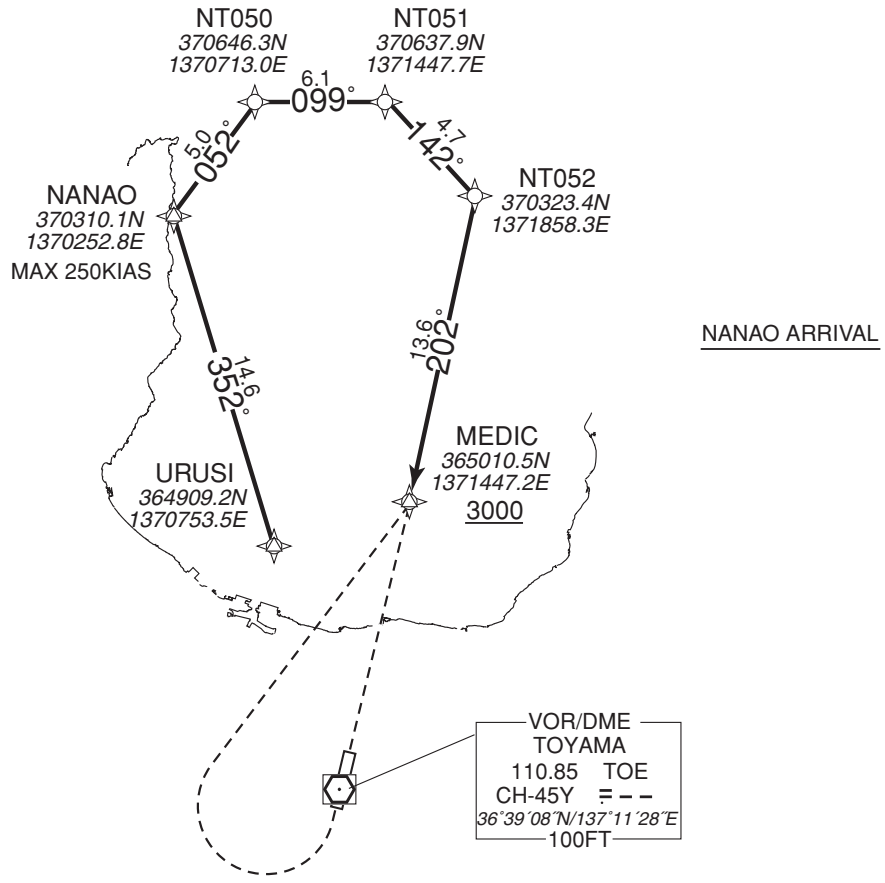
STANDARD ARRIVAL CHART -INSTRUMENT

RJNT / TOYAMA RNAV STAR

NANAO ARRIVAL	Basic RNP1

Note GNSS required.

VAR 8˚W (2014)



NANAO ARRIVAL

From URUSI, to NANAO, to NT050, to NT051, to NT052, to MEDIC 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	URUSI	–	–	-7.8	–	–	–	–	–	Basic RNP1
002	TF	NANAO	–	352 (344.1)	-7.8	14.6	–	–	-250	–	Basic RNP1
003	TF	NT050	–	052 (043.8)	-7.8	5.0	–	–	–	–	Basic RNP1
004	TF	NT051	–	099 (091.3)	-7.8	6.1	–	–	–	–	Basic RNP1
005	TF	NT052	–	142 (134.2)	-7.8	4.7	–	–	–	–	Basic RNP1
006	TF	MEDIC	–	202 (194.2)	-7.8	13.6	–	+3000	–	–	Basic RNP1

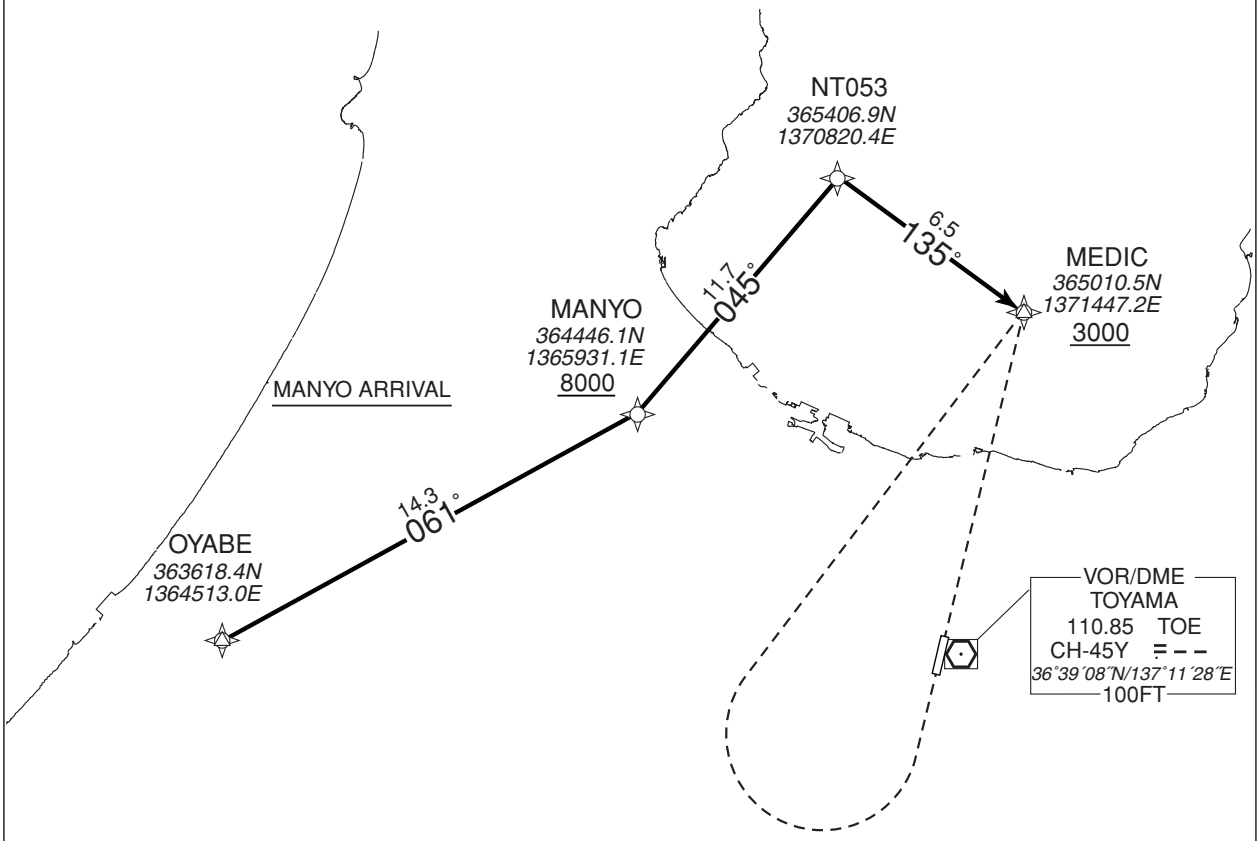
STANDARD ARRIVAL CHART -INSTRUMENT

RJNT / TOYAMA RNAV STAR

MANYO ARRIVAL | Basic RNP1

Note GNSS required.

VAR 8˚W (2014)



MANYO ARRIVAL

From OYABE, to MANYO at or above 8000FT, to NT053, to MEDIC 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	OYABE	–	–	-7.8	–	–	–	–	–	Basic RNP1
002	TF	MANYO	–	061 (053.5)	-7.8	14.3	–	+8000	–	–	Basic RNP1
003	TF	NT053	–	045 (037.0)	-7.8	11.7	–	–	–	–	Basic RNP1
004	TF	MEDIC	–	135 (127.4)	-7.8	6.5	–	+3000	–	–	Basic RNP1

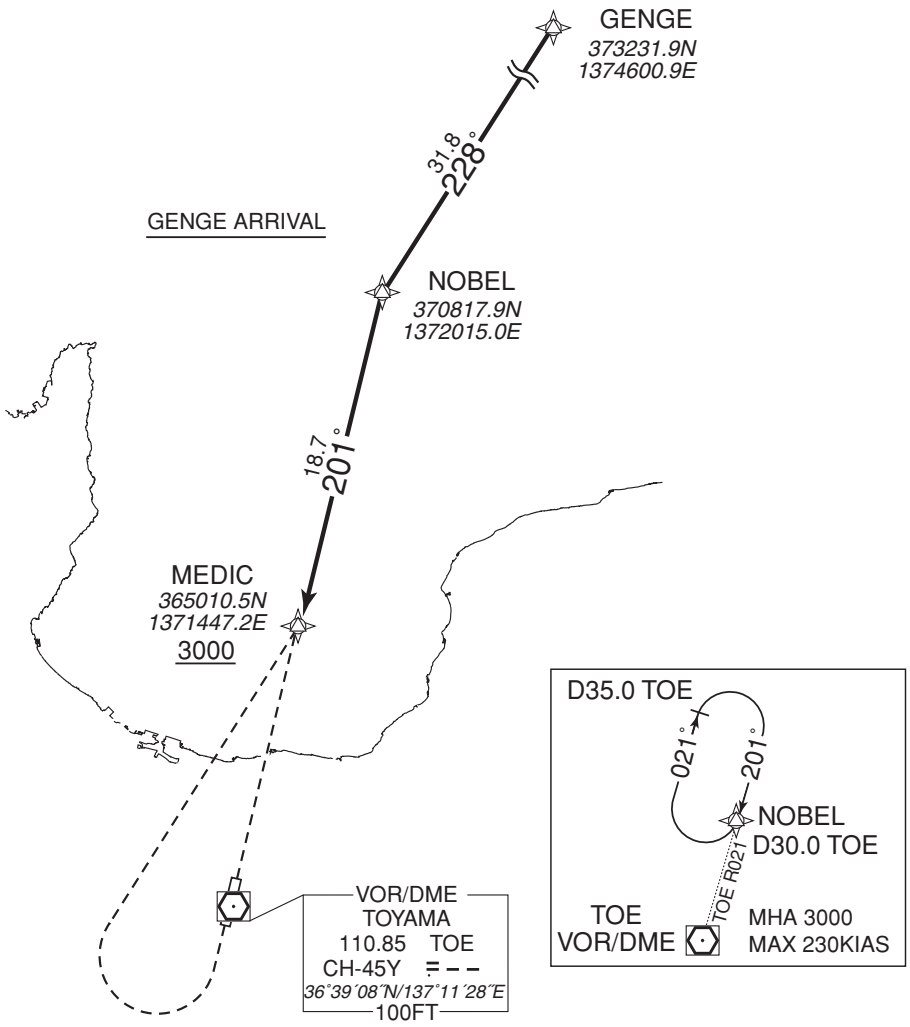
STANDARD ARRIVAL CHART -INSTRUMENT

RJNT / TOYAMA RNAV STAR

GENGE ARRIVAL	Basic RNP1

Note GNSS required.

VAR 8˚W (2014)



GENGE ARRIVAL

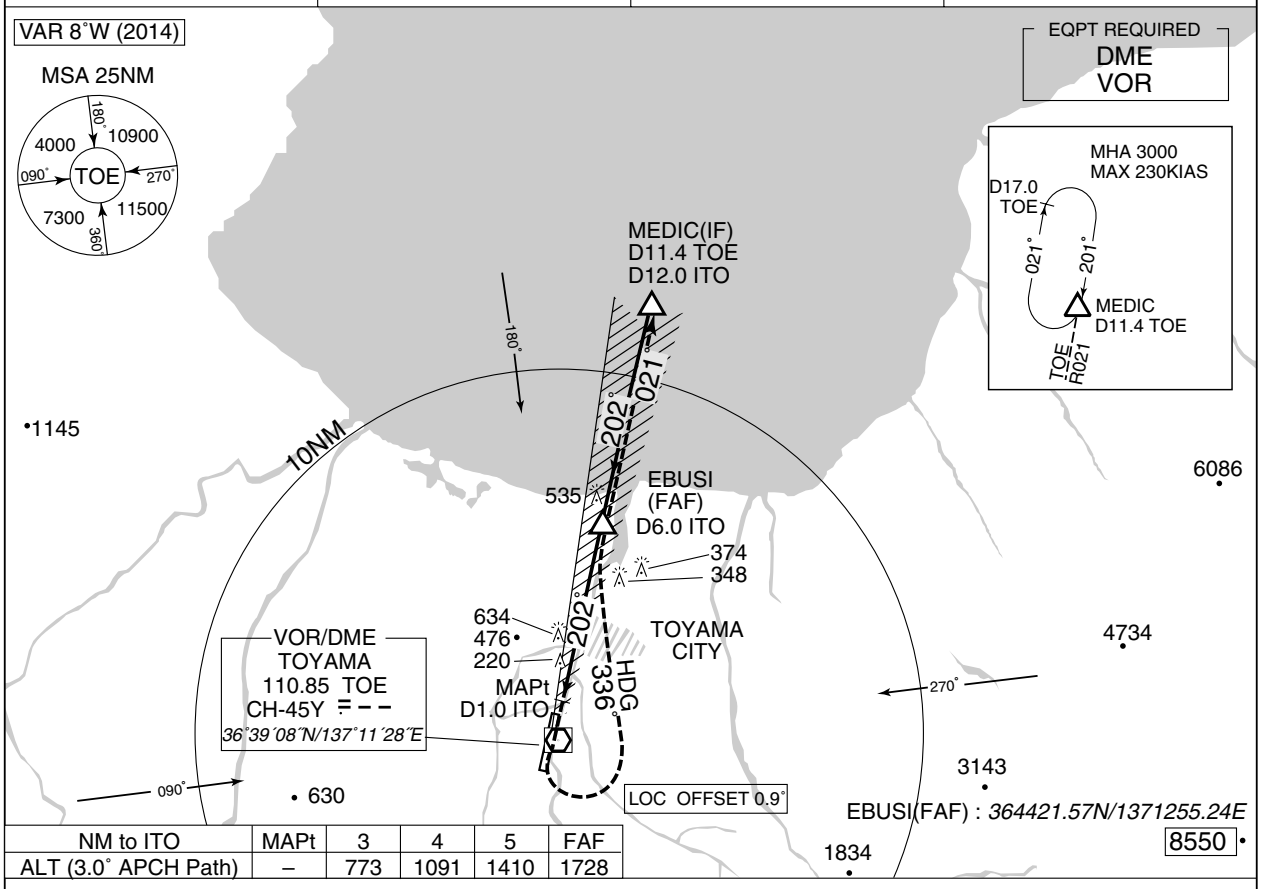
From GENGE, to NOBEL, to MEDIC at or above 3000FT.

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	GENGE	–	–	-7.8	–	–	–	–	–	Basic RNP1
002	TF	NOBEL	–	228 (220.3)	-7.8	31.8	–	–	–	–	Basic RNP1
003	TF	MEDIC	–	201 (193.6)	-7.8	18.7	–	+3000	–	–	Basic RNP1

INSTRUMENT APPROACH CHART

RJNT / TOYAMA LOC Z RWY20

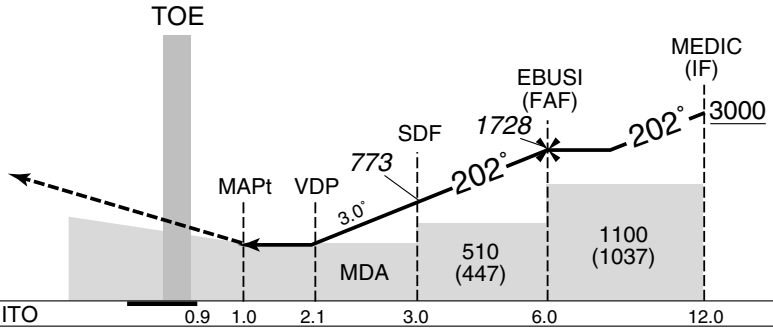
TOKYO CONTROL	LOC	TOYAMA TOWER	NO RADAR
132.45-125.6 304.4 -317.1	109.3 ITO LOC-DME CH-30X	124.3-126.2	



NM to ITO	MAPt	3	4	5	FAF
ALT (3.0˚ APCH Path)	–	773	1091	1410	1728

MISSED APPROACH
Turn left HDG336˚ to intercept
and proceed via TOE R021 to
MEDIC and hold at 3000FT.
Contact TOYAMA TOWER.

No turn before MAPt.
Timing not authorized for defining the MAPt.



DME to ITO	0.9	1.0	2.1	3.0	6.0	12.0
NM to THR	0	0.1	1.1	2.1	5.1	11.1

Missed APCH climb gradient MNM 3.0%

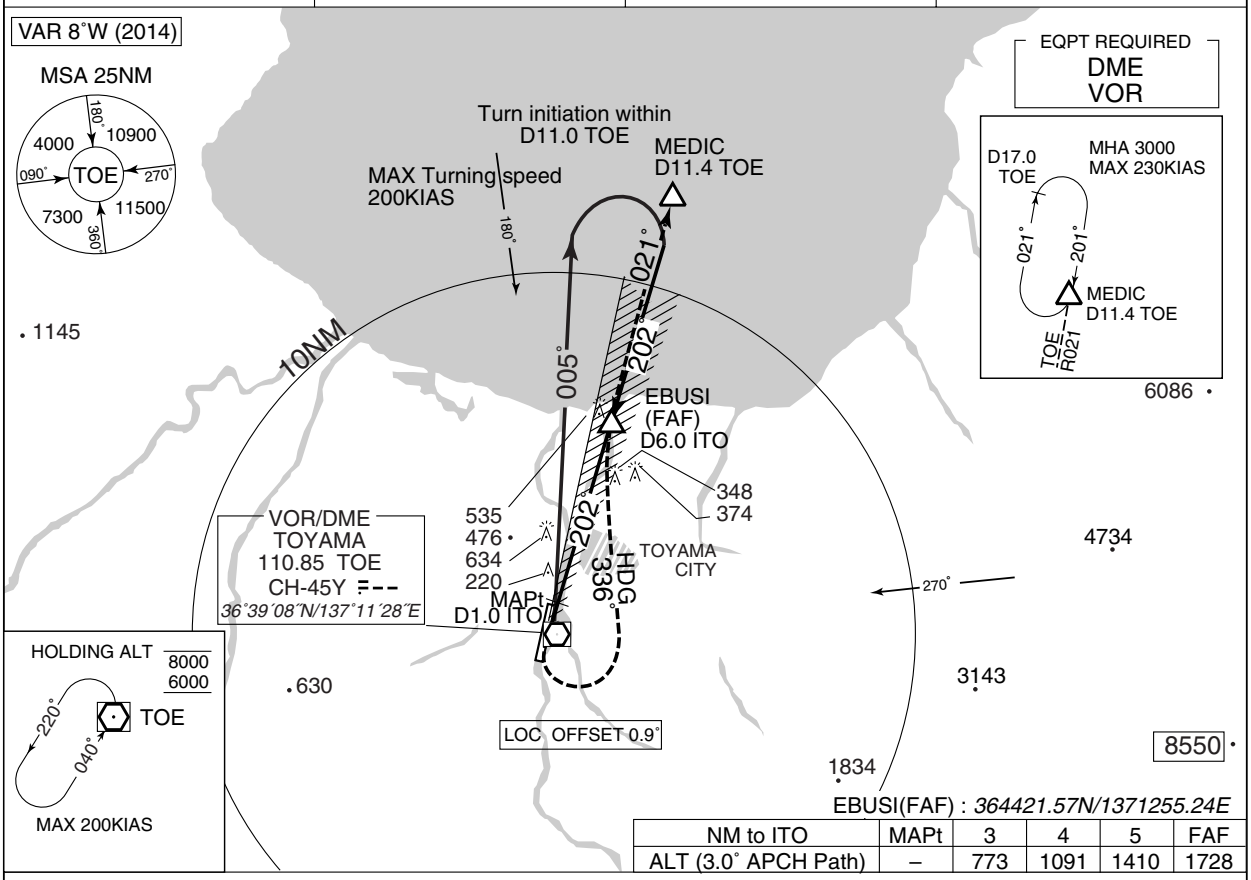
MINIMA	THR elev. 63		AD elev. 77	
CAT			CIRCLING	
	MDA(H)	CMV	MDA(H)	VIS
A	470 (407)	900	590 (513)	1600
B		1000		
C			630 (553)	2400
D		1400		3200

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

INSTRUMENT APPROACH CHART

RJNT / TOYAMA LOC Y RWY20

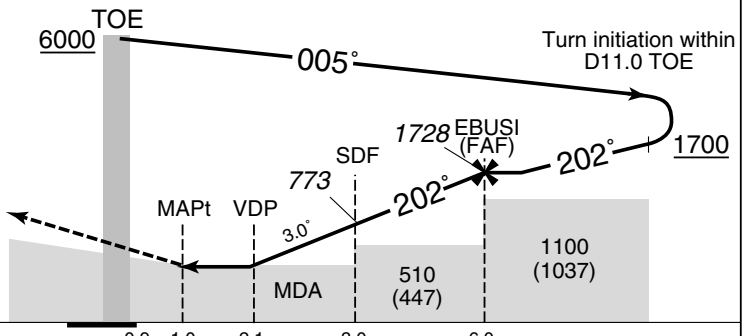
TOKYO CONTROL	LOC	TOYAMA TOWER	NO RADAR
132.45 - 125.6 304.4 - 317.1	109.3 ITO LOC-DME CH-30X	124.3 - 126.2	



NM to ITO	MAPt	3	4	5	FAF
ALT (3.0° APCH Path)	–	773	1091	1410	1728

MISSED APPROACH
Turn left HDG336° to intercept and proceed via TOE R021 to MEDIC and hold at 3000FT.
Contact TOYAMA TOWER.

No turn before MAPt.
Timing not authorized for defining the MAPt.



DME to ITO	0.9	1.0	2.1	3.0	6.0
NM to THR	0	0.1	1.1	2.1	5.1

Missed APCH climb gradient MNM 3.0%

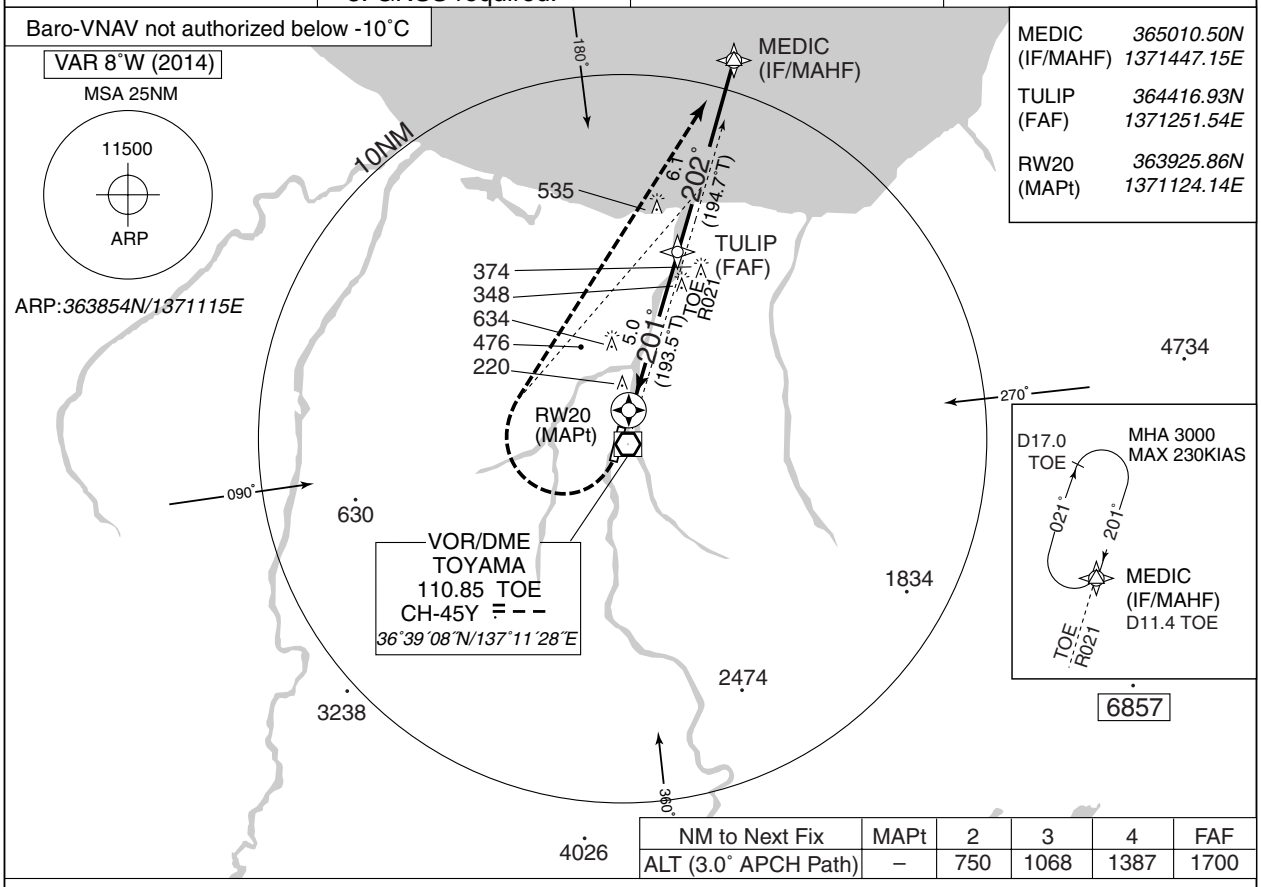
MINIMA	THR elev. 63		AD elev. 77	
CAT			CIRCLING	
	MDA(H)	CMV	MDA(H)	VIS
A	470 (407)	900	590 (513)	1600
B		1000		
C			630 (553)	2400
D		1400		3200

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

INSTRUMENT APPROACH CHART

RJNT / TOYAMA — RNAV(GNSS) Z RWY20

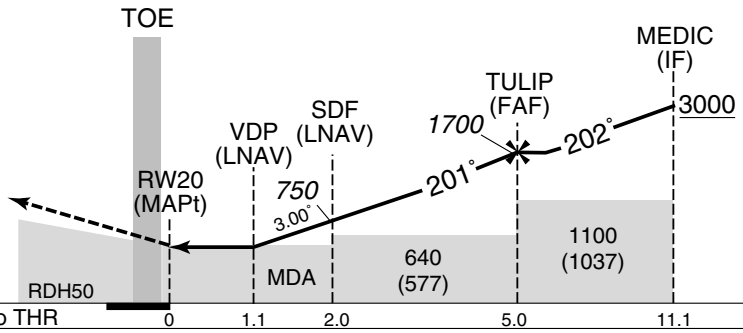
TOKYO CONTROL 132.45-125.6 304.4 -317.1	1. DME/DME RNP0.3 not authorized. 2. RNP0.3 required. 3. GNSS required.	TOYAMA TOWER 124.3 - 126.2	NO RADAR



NM to Next Fix	MAPt	2	3	4	FAF
ALT (3.0˚ APCH Path)	–	750	1068	1387	1700

MISSED APPROACH
Turn right, climb to 3000FT, direct to MEDIC and hold.
Contact TOYAMA TWR.

(For using VOR/DME)
Turn right to intercept and proceed via TOE R021 to MEDIC and hold at 3000FT.
Contact TOYAMA TWR.



Missed APCH climb gradient MNM 3.0%

MINIMA THR elev. 63 AD elev. 77

CAT	LNAV/VNAV		LNAV		CIRCLING	
	DA(H)	CMV	MDA(H)	CMV	MDA(H)	VIS
A	470 (407)	900	470 (407)	900	590 (513)	1600
B		1000		1000		
C					630 (553)	2400
D		1400		1400		3200

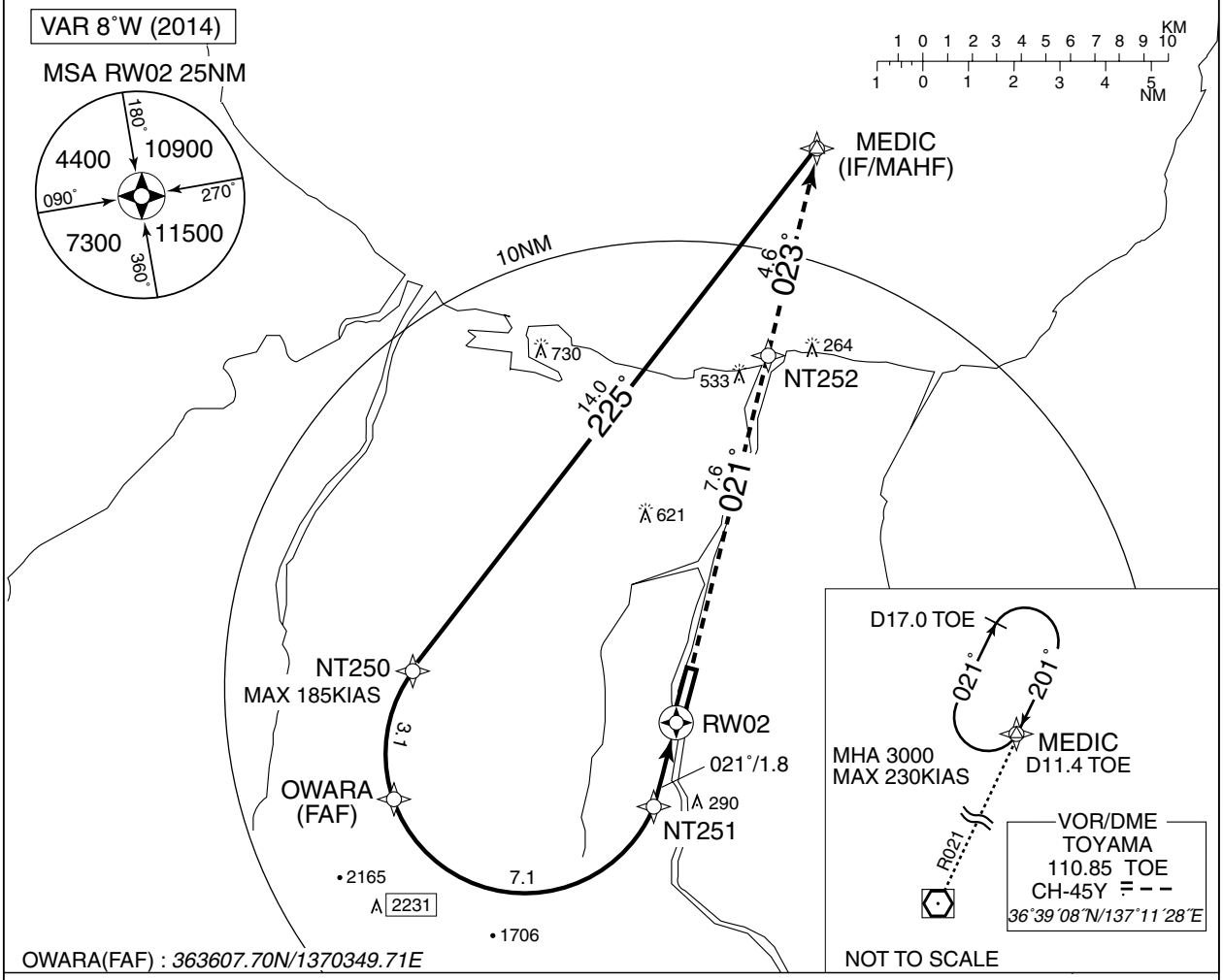
MINIMA with Missed APCH climb gradient of 2.5% are not established.

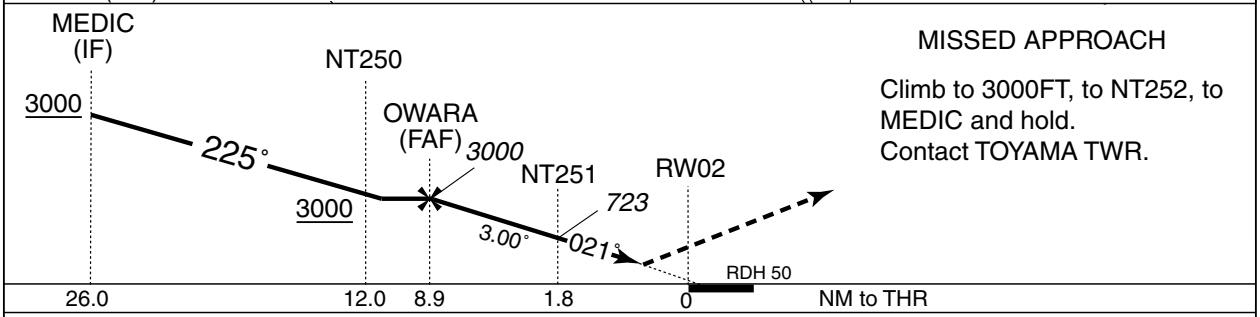
INSTRUMENT APPROACH CHART

RJNT / TOYAMA RNAV(RNP) RWY02

TOKYO CONTROL 132.45-125.6 304.4 -317.1	GNSS and RF required	TOYAMA TOWER 124.3-126.2	NO RADAR

For uncompensated Baro-VNAV systems, procedure not authorized below -10℃/ above 50℃





MISSED APPROACH

Climb to 3000FT, to NT252, to MEDIC and hold.
Contact TOYAMA TWR.

MINIMA	THR elev. 95	AD elev. 77
CAT	RNP 0.30	
	DA(H)	CMV
A	–	–
B		
C	451 (356)	1800
D		2000

RNP AR

Special Authorization Required

INSTRUMENT APPROACH CHART

RJNT / TOYAMA RNAV(RNP) RWY02

RNAV(RNP) RWY02

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	MEDIC	–	–	-7.8	–	–	+3000	–	–	–
002	TF	NT250	–	225 (217.2)	-7.8	14.0	–	+3000	-185	–	1.0
003	RF Center: NTRF1 r=2.87NM	OWARA	–	–	-7.8	3.1	L	3000	–	–	1.0
004	RF Center: NTRF1 r=2.87NM	NT251	–	–	-7.8	7.1	L	723	–	-3.00	0.3
005	TF	RW02	Y	021 (013.5)	-7.8	1.8	–	145	–	-3.00/50	0.3
006	TF	NT252	–	021 (013.5)	-7.8	7.6	–	–	–	–	1.0
007	TF	MEDIC	–	023 (015.0)	-7.8	4.6	–	3000	–	–	1.0

Waypoint Coordinates

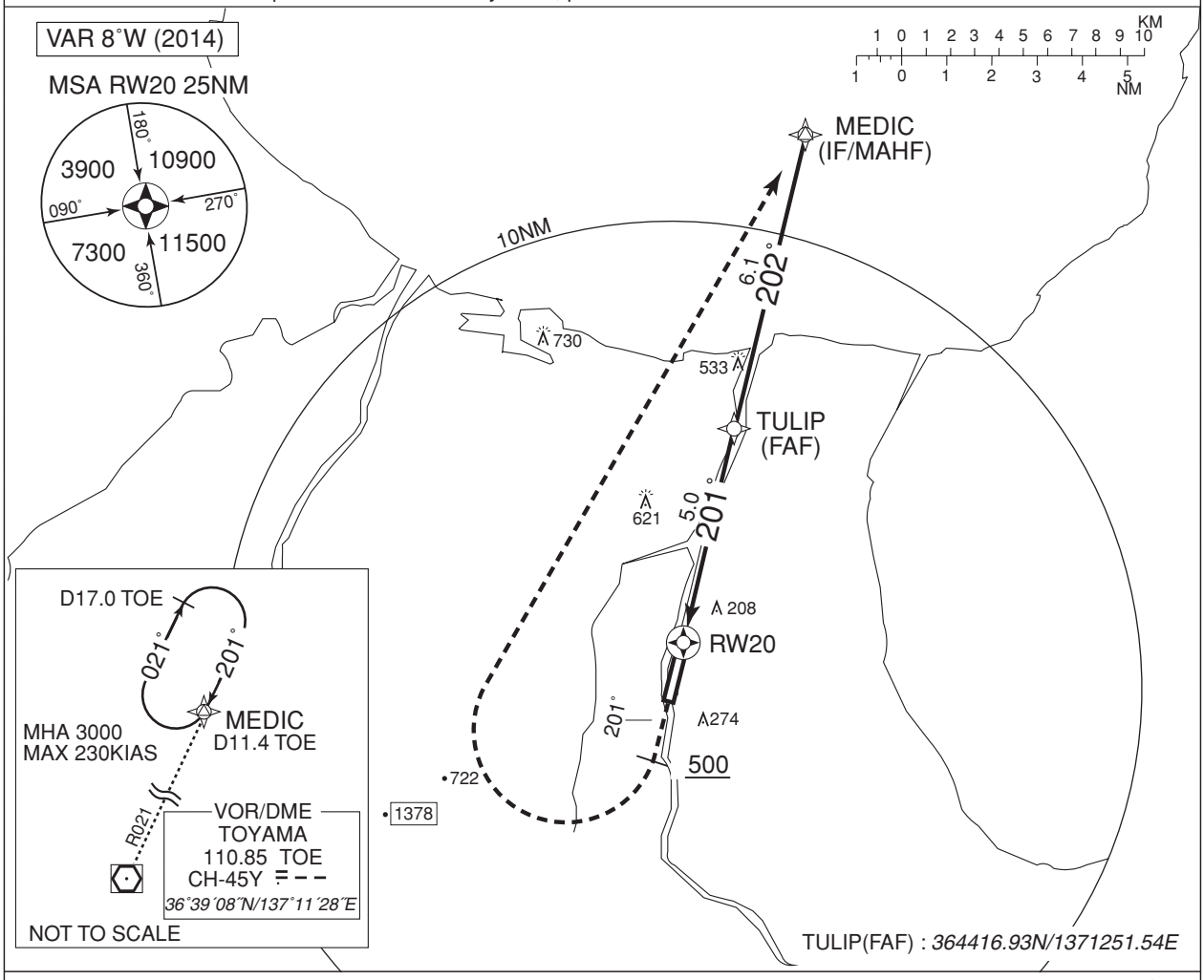
Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
MEDIC	*365010.50N/1371447.15E*	NTRF1	*363717.08N/1370705.51E*
NT250	*363901.33N/1370415.09E*		
OWARA	*363607.70N/1370349.71E*		
NT251	*363636.65N/1371033.43E*		
RW02	*363822.79N/1371105.23E*		
NT252	*364543.55N/1371317.58E*		

INSTRUMENT APPROACH CHART

RJNT / TOYAMA RNAV(RNP) Y RWY20

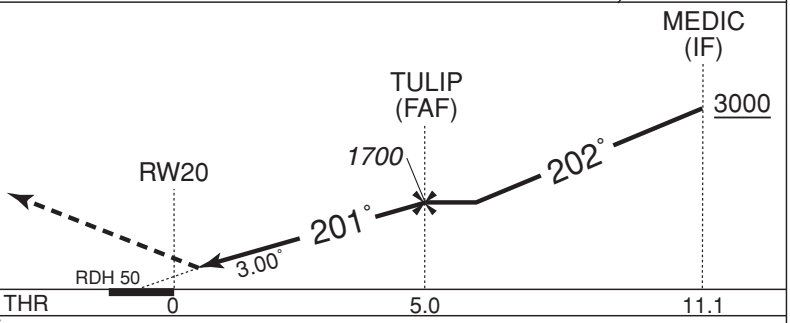
TOKYO CONTROL 132.45-125.6 304.4 -317.1	GNSS required	TOYAMA TOWER 124.3-126.2	NO RADAR

For uncompensated Baro-VNAV systems, procedure not authorized below -10˚C/ above 50˚C



MISSED APPROACH

From RW20 on track 201˚, at or above 500FT turn right, direct to MEDIC and hold at 3000FT.
Contact TOYAMA TWR.



Missed APCH climb gradient MNM 5.0%

MINIMA THR elev. 63 AD elev. 77

CAT	RNP 0.30	
	DA(H)	CMV
A	–	–
B		
C	370 (307)	1000
D		1400

RNP AR

Special Authorization Required

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

INSTRUMENT APPROACH CHART

RJNT / TOYAMA RNAV(RNP) Y RWY20

RNAV(RNP) Y RWY20

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	MEDIC	–	–	-7.8	–	–	+3000	–	–	–
002	TF	TULIP	–	202 (194.7)	-7.8	6.1	–	1700	–	–	1.0
003	TF	RW20	Y	201 (193.5)	-7.8	5.0	–	113	–	-3.00/50	0.3
004	FA	–	–	201 (193.5)	-7.8	–	–	+500	–	–	1.0
005	DF	MEDIC	–	–	-7.8	–	R	3000	–	–	1.0

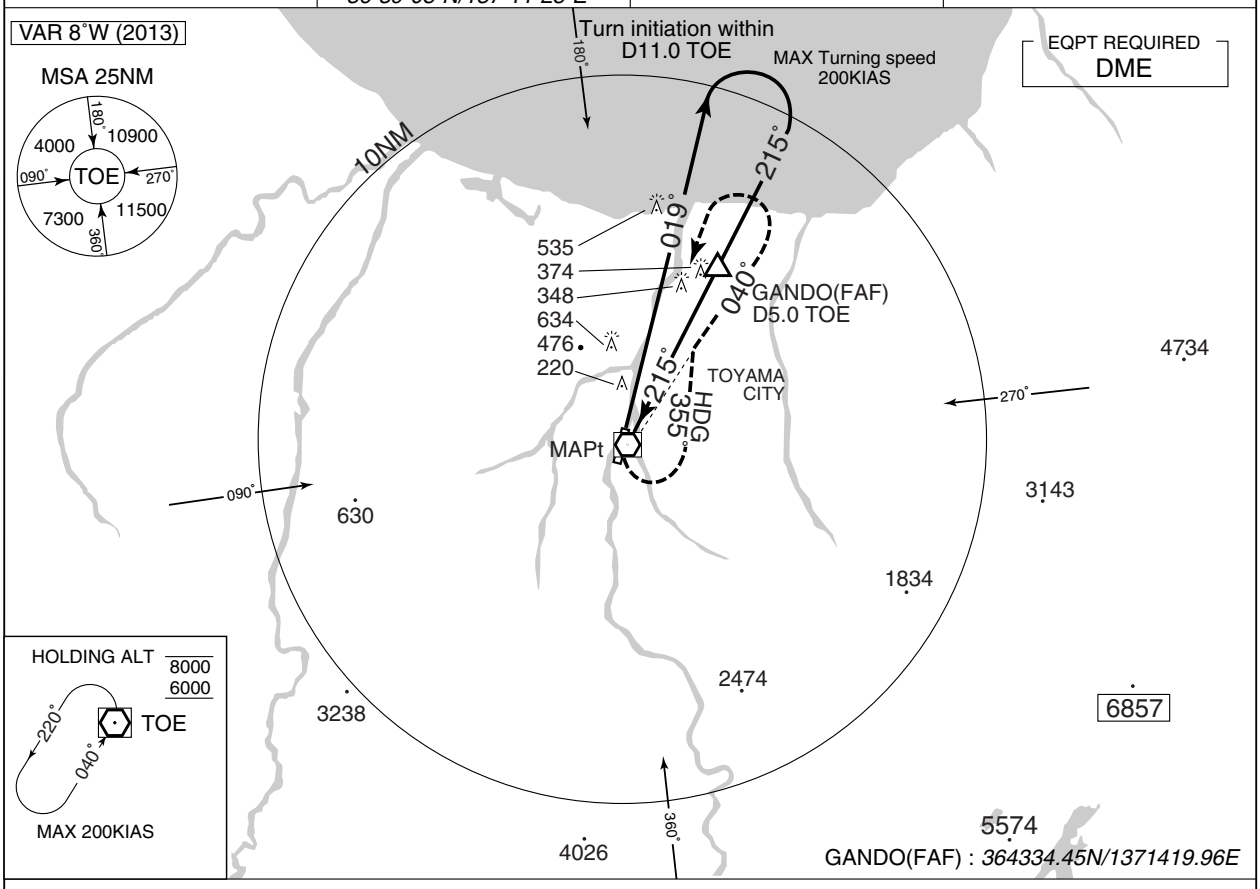
Waypoint Coordinates

Waypoint Identifier	Coordinates
MEDIC	*365010.50N/1371447.15E*
TULIP	*364416.93N/1371251.54E*
RW20	*363925.86N/1371124.14E*

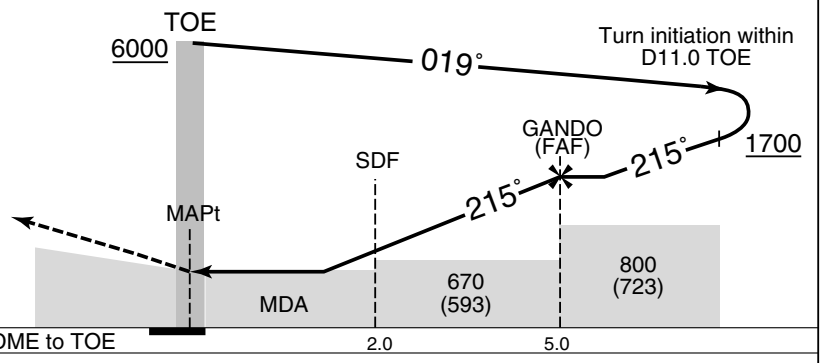
INSTRUMENT APPROACH CHART

RJNT / TOYAMA VOR A

TOKYO CONTROL	TOYAMA VOR/DME	TOYAMA TOWER	NO RADAR
132.45-125.6	110.85 TOE	124.3 - 126.2	
304.4 -317.1	CH-45Y		
	36°39´08˝N/137°11´28˝E		



MISSED APPROACH
Turn left, climb to 3000FT on HDG355˚ to intercept and proceed via TOE R040, turn left direct to TOE VOR/DME and hold at 6000FT.
Contact TOYAMA TOWER.



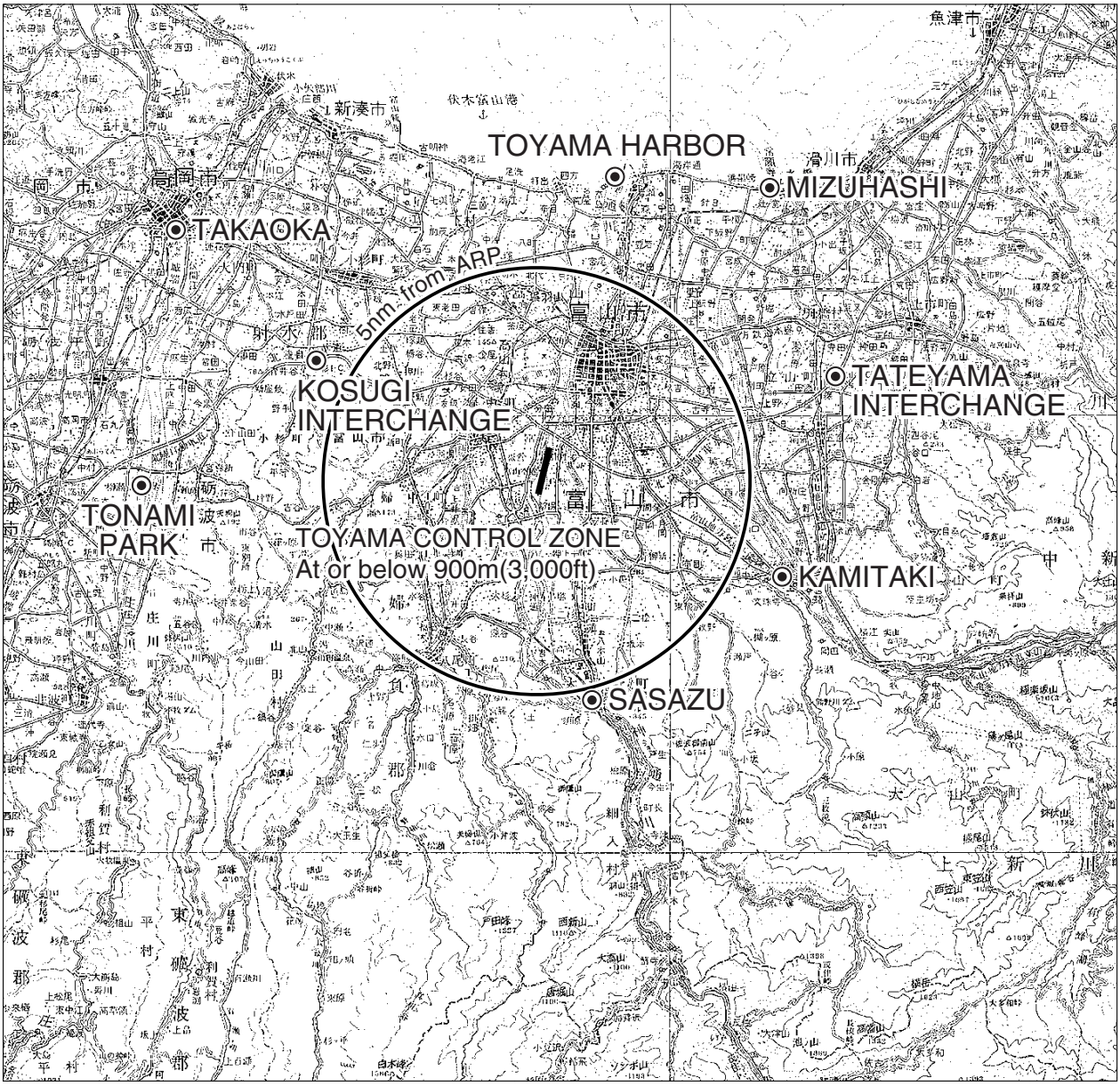
Missed APCH climb gradient MNM 3.5%

MINIMA		AD elev. 77
CAT	CIRCLING	
	MDA(H)	VIS
A	590 (513)	1600
B		
C	630 (553)	2400
D		3200

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

RJNT / TOYAMA

Visual REP



Call sign	BRG / DIST from ARP	Remarks
富山ハーバー Toyama harbor	022˚/7.1NM	港 Harbor
高　　岡 Takaoka	312˚/10.0NM	JR駅 JR Station
小杉インターチェンジ Kosugi Interchange	304˚/5.7NM	北陸自動車道インターチェンジ Interchange
立山インターチェンジ Tateyama Interchange	080˚/7.0NM	北陸自動車道インターチェンジ Interchange
水　　橋 Mizuhashi	046˚/8.6NM	(常願寺川) 河口 River-mouth
上　　滝 Kamitaki	121˚/5.7NM	駅 Station
笹　　津 Sasazu	175˚/5.3NM	JR駅 JR Station
砺波パーク Tonami Park	275˚/9.0NM	砺波総合運動公園 Park

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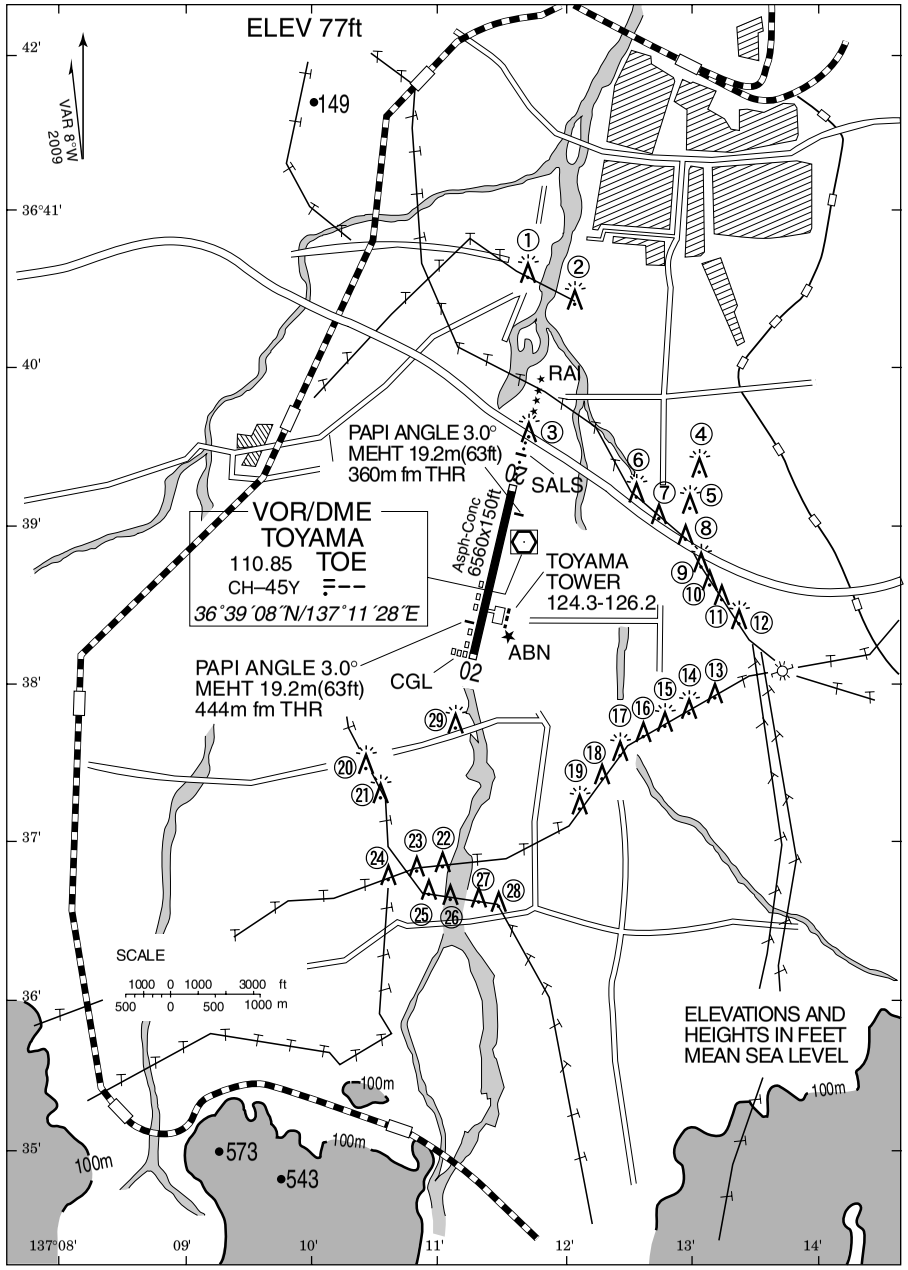

LDG CHART

OBSTRCTION NR	AGL (FT)	MSL (FT)	AERONAUTICAL OBSTRUCTIONS LIGHTS	DAY MARKINGS
1	185	220	○	○
2	176	213	○	○
3	45	97	○	○
4	187	256	○	○
5	159	233	○	○
6	178	246	○	○
7	173	249	—	○
8	192	262	—	○
9	189	259	○	○
10	189	263	—	○
11	189	282	—	○
12	189	299	○	○
13	120	212	—	○
14	135	261	○	○
15	167	273	○	○
16	125	236	—	○
17	125	238	○	○
18	110	228	—	○
19	125	249	○	○
20	120	231	○	○
21	103	222	○	○
22	132	270	—	○
23	132	279	—	○
24	135	286	—	—
25	51	223	—	—
26	71	243	—	—
27	135	283	—	—
28	120	266	—	—
29	47	149	○	○

RJNT / TOYAMA Minimum Vectoring Altitude CHART