

AD 2 AERODROMES

RJAH AD 2.1 AERODROME LOCATION INDICATOR AND NAME

RJAH - HYAKURI

RJAH AD 2.2 AERODROME GEOGRAPHICAL AND ADMINISTRATIVE DATA

1	ARP coordinates and site at AD	361054N / 1402453E
2	Direction and distance from (city)	12NM NE TSUCHIURA
3	Elevation/ Reference temperature	107ft / -
4	Geoid undulation at AD ELEV PSN	Nil
5	MAG VAR/ Annual change	7°W(2007)
6	AD Administration, address, telephone, telefax, telex, AFS, e-mail and/or Web-site addresses	JSDF-A
7	Types of traffic permitted (IFR/VFR)	IFR/VFR
8	Remarks	Hyakuri Airport Office(CAB) 1601-21, Yozawa, Omitama-City, Ibaraki Prefecture, 311-3416 JAPAN TEL:0299-54-0600, FAX:0299-54-0690

RJAH AD 2.3 OPERATIONAL HOURS

1	AD Administration	H24
2	Customs and immigration	Customs: 2330-0815 Immigration: INTL SKED FLT hours only
3	Health and sanitation	Quarantine(human): 2330-0815 Quarantine(animal, plant): INTL SKED FLT hours only
4	AIS Briefing Office	H24 (CAB:Nil)
5	ATS Reporting Office(ARO)	Nil
6	MET Briefing Office	H24(TOKYO)
7	ATS	H24
8	Fuelling	To be issued later
9	Handling	To be issued later
10	Security	Scheduled flight only
11	De-icing	Nil
12	Remarks	HR of service at CAB OPS section 2230-1200(Daily)

RJA AD 2.4 HANDLING SERVICES AND FACILITIES

1	Cargo-handling facilities	All the modern institutions that deal with the weight thing to Airbus A320 type.
2	Fuel/ oil types	JET A-1 JP-4 JP-4A for JSDF
3	Fuelling facilities/ capacity	To be issued later
4	De-icing facilities	Nil
5	Hangar space for visiting aircraft	Nil
6	Repair facilities for visiting aircraft	Nil
7	Remarks	Nil

RJA AD 2.5 PASSENGER FACILITIES

1	Hotels	At Tsuchiura City
2	Restaurants	At Tsuchiura City
3	Transportation	Bus and taxi
4	Medical facilities	At Omitama City
5	Bank and Post Office	At Omitama City
6	Tourist Office	Nil
7	Remarks	Nil

RJA AD 2.6 RESCUE AND FIRE FIGHTING SERVICES

1	AD category for fire fighting	To be issued later
2	Rescue equipment	(CAB) Emergency medical equipments conveyance truck x 1 Lighting power supply truck x 1
3	Capability for removal of disabled aircraft	Nil
4	Remarks	Nil

RJA AD 2.7 SEASONAL AVAILABILITY-CLEARING

1	Types of clearing equipment	Ask Hyakuri Airport Office(CAB)*
2	Clearance priorities	Nil
3	Remarks	*For Civil Apron and TWY W

RJAH AD 2.8 APRONS, TAXIWAYS AND CHECK LOCATIONS DATA

1	Apron surface and strength	CIVIL APRON Surface: cement-concrete Strength: PCN 54/R/B/X/T
2	Taxiway width, surface and strength	C1, C5 Width: 28.5m C2, C4 Width: 34m C3 Width: 23m W Width: 34m Surface: Asphalt-concrete Strength: PCN 61/F/C/X/T
3	ACL and elevation	Not available
4	VOR checkpoints	Nil
5	INS checkpoints	Spot NR 1: 361042.72N/1402431.73E 2: 361040.89N/1402430.91E 3: 361039.06N/1402430.10E 4: 361037.23N/1402429.28E
6	Remarks	Nil

RJAH AD 2.9 SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEM AND MARKINGS

1	Use of aircraft stand ID signs, TWY guide lines and Visual docking/ parking guidance system of aircraft stands	Nil
2	RWY and TWY markings and LGT	RWY:03L/21R (Marking) RWY designation, RWY CL, RWY THR, Aiming point, TDZ, RWY side stripe, RWY turn pad CL, RWY turn pad edge (LGT) RCLL, REDL, RTHL, RENL, RWY DIST marker LGT, TKOF aiming LGT, TPIL RWY:03R/21L (Marking) RWY designation, RWY CL, RWY THR, TDZ, RWY side stripe (LGT) REDL, RTHL, RENL, RWY DIST marker LGT, TKOF aiming LGT, WBAR TWY: C1, C2, C4, C5 (Marking) TWY CL, TWY side stripe (LGT) TWY edge LGT, TWY CL LGT C3 (Marking) TWY CL (LGT) TWY edge LGT W (Marking) TWY CL, TWY side stripe, Mandatory instruction (LGT) TWY edge LGT, TWY CL LGT, Taxiing guidance sign
3	Stop bars	Nil
4	Remarks	(Marking) Overrun area (LGT) Apron flood LGT

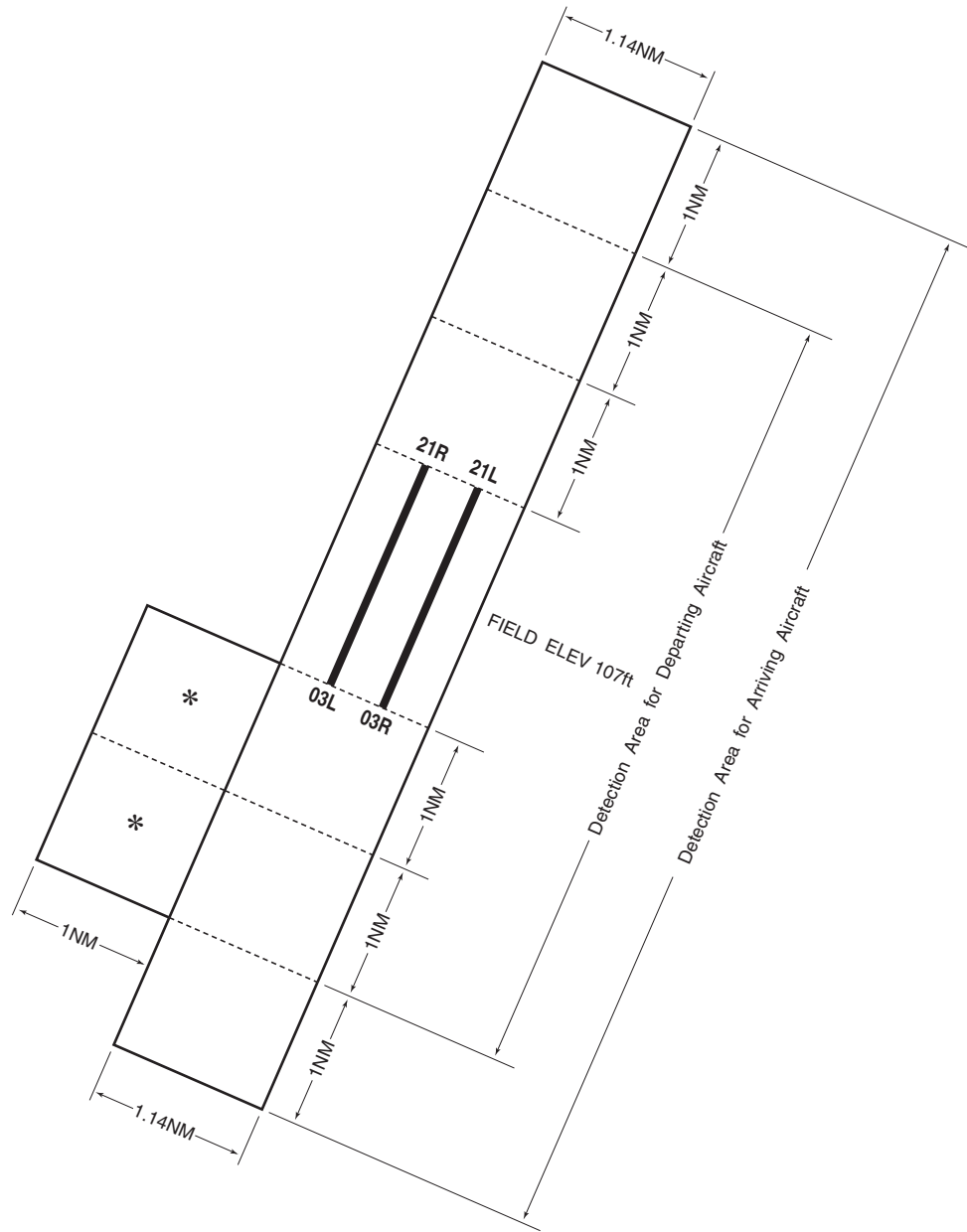
RJAH AD 2.10 AERODROME OBSTACLES

RWY/Area affected	Obstacle type	Coordinates	Elevation	Markings/ LGT	Remarks
Nil					

RJAH AD 2.11 METEOROLOGICAL INFORMATION PROVIDED

1	Associated MET Office	TOKYO
2	Hours of service MET Office outside hours	H24(TOKYO)
3	Office responsible for TAF preparation Periods of validity	TOKYO 30 Hours
4	Trend forecast Interval of issuance	Nil
5	Briefing/ consultation provided	Briefing is available upon inquiry at TOKYO
6	Flight documentation Language(s) used	C En
7	Charts and other information available for briefing or consultation	S ₆ , U ₈₅ , U ₇ , U ₅ , U ₃ , U ₂₅ , U ₂ /T _r , P _S , P ₅ , P ₃ , P ₂₅ , P _{SWE} , P _{SWF} , P _{SWG} , P _{SWI} , P _{SWM} , P _{SW} (domestic), E, C, W _E , W _F , W _G , W _I , W, N
8	Supplementary equipment available for providing information	Doppler Radar for Airport Weather(See below figure)
9	ATS units provided with information	TWR, APP
10	Additional information(limitation of service, etc.)	Observation is made by the Ministry of Defense.

Airspace for the advisory service concerning low level wind shear



UPPER LIMIT : 1600ft above FIELD ELEV LEVEL

LOWER LIMIT : FIELD ELEV LEVEL

* ONLY FOR DEPARTING AIRCRAFT FROM RWY 21L AND RWY 21R

RJAH AD 2.12 RUNWAY PHYSICAL CHARACTERISTICS

Designations RWY NR	TRUE BRG	Dimensions of RWY(M)	Strength(PCN) and surface of RWY	THR coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY
1	2	3	4	5	6
03L	019°	2700×45	PCN 50/F/A/X/T SW67000kg (147700lbs)	To be issued later	THR ELEV:107ft
21R	199°	2700×45	DW89000kg (196200lbs) DTW137000kg (302000lbs) Asphalt-concrete		THR ELEV:107ft
03R	019°	2700×45	PCN 45/R/A/X/T SW38000kg (83700lbs)	To be issued later	THR ELEV:106.9ft TDZ ELEV:107.1ft
21L	199°	2700×45	DW61000kg (134400lbs) DTW136000kg (299800lbs) Concrete		THR ELEV:106.8ft TDZ ELEV:107.7ft
Slope of RWY		Strip Dimensions(M)	Remarks		
7		10	12		
See below figure		2820×150 2820×150	RWY grooving: RWY 03L/21R 2700mx30m		
See below figure		3300×300 3300×300			
<p>RWY 03L RWY 21R</p> <p>107.0ft 107.0ft</p> <p style="text-align:center">0%</p> <p>0m 2700m</p> <hr/> <p>RWY 03R RWY 21L</p> <p>106.9ft 106.8ft</p> <p>107.1ft 106.9ft 107.8ft 107.7ft 107.6ft</p> <p>0.0074% -0.023% 0.048% -0.015% -0.0021% -0.035%</p> <p>0m 675m 860m 1410m 1650m 2025m 2700m</p>					

RJAH AD 2.13 DECLARED DISTANCES

RWY Designator	TORA (m)	TODA (m)	ASDA (m)	LDA (m)	Remarks
1	2	3	4	5	6
03L	2700	2700	2700	2700	Nil
21R	2700	2700	2700	2700	Nil
03R	2700	2700	2700	2700	Nil
21L	2700	2700	2700	2700	Nil

RJAH AD 2.14 APPROACH AND RUNWAY LIGHTING

RWY Designator	APCH LGT type LEN INTST	RTHL Color WBAR	PAPI (VASIS) Angle DIST FM THR MEHT	RTZL LEN	RCLL LEN Spacing Color INTST	REDL LEN Spacing Color INTST	RENL Color WBAR	STWL LEN Color
1	2	3	4	5	6	7	8	9
03L	SALS 420m LIH	Green -	PAPI 2.75°/LEFT 413.9m 61FT	Nil	2700m 30m Coded color (White/Red) LIH	2700m 60m Coded color (White/Yellow) LIH	Red	Nil
21R		Green -	PAPI 2.75°/LEFT 413.9m 61FT	Nil	2700m 30m Coded color (White/Red) LIH	2700m 60m Coded color (White/Yellow) LIH	Red	Nil
03R	PALS (CAT I) 840m LIH	Green Green	PAPI 2.75°/LEFT 420.9m 60.7FT	Nil	Nil	2700m 60m Coded color (White/Yellow) LIH	Red	Nil
21L	PALS (CAT I) 748m LIH	Green Green	PAPI 2.75°/LEFT 424.5m 60.7FT	Nil	Nil	2700m 60m Coded color (White/Yellow) LIH	Red	Nil
Remarks								
10								
RWY THR ID LGT for RWY21R THR(Color: White)								

RJAH AD 2.15 OTHER LIGHTING, SECONDARY POWER SUPPLY

1	ABN/IBN location, characteristics and hours of operation	ABN: 361104N1402533E, White/Green EV4sec, HO
2	LDI location and LGT Anemometer location and LGT	LDI : LGTD
3	TWY edge and center line lighting	TWY edge LGT : Blue TWY CL LGT (C1, C2, C4, C5 and W) : Green
4	Secondary power supply/ switch-over time	Within 15 SEC : TWY edge LGT(TWY W), TWY CL LGT (TWY W)
5	Remarks	WDI LGT, OBST LGT

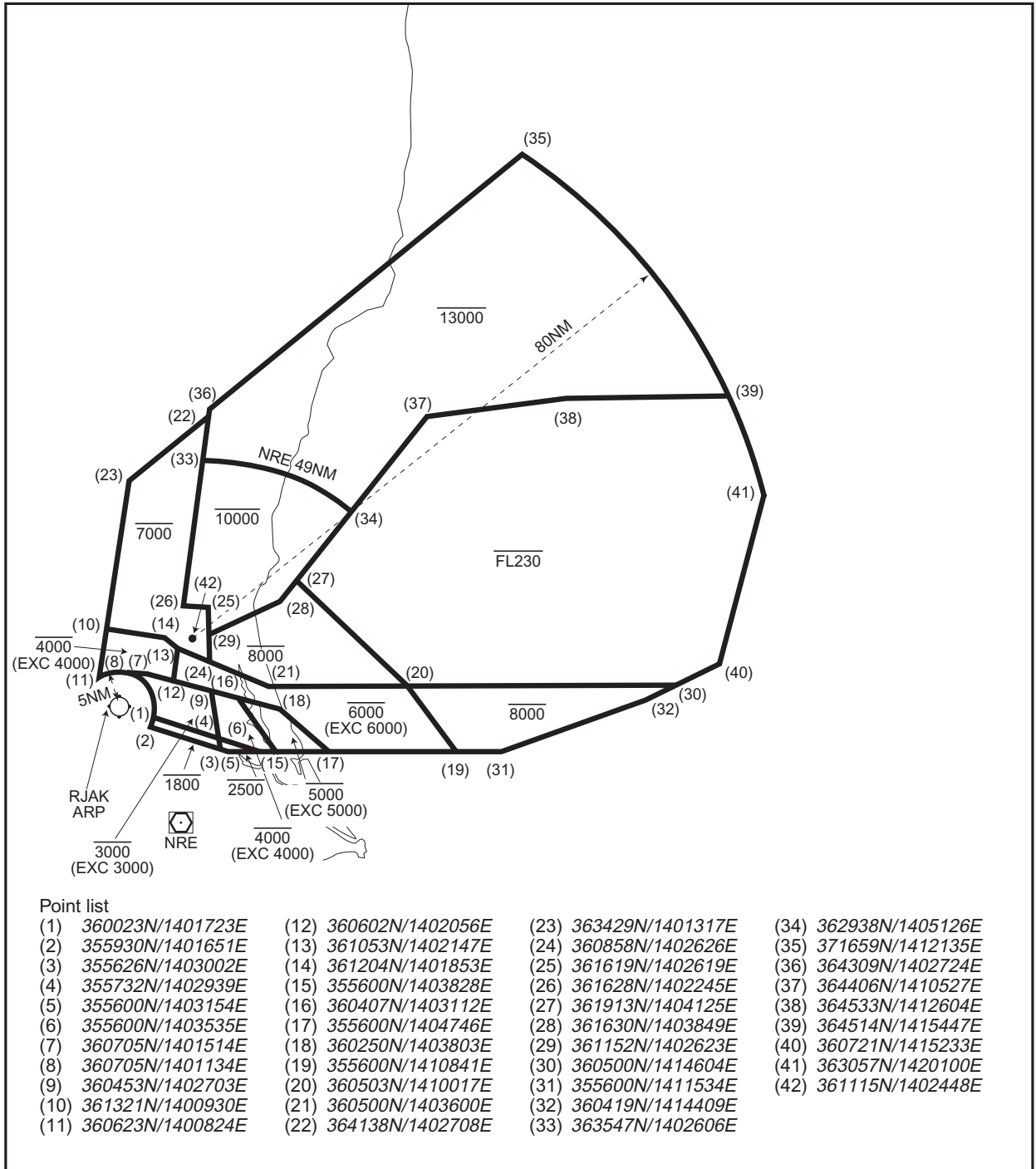
RJAH AD 2.16 HELICOPTER LANDING AREA

To be issued later

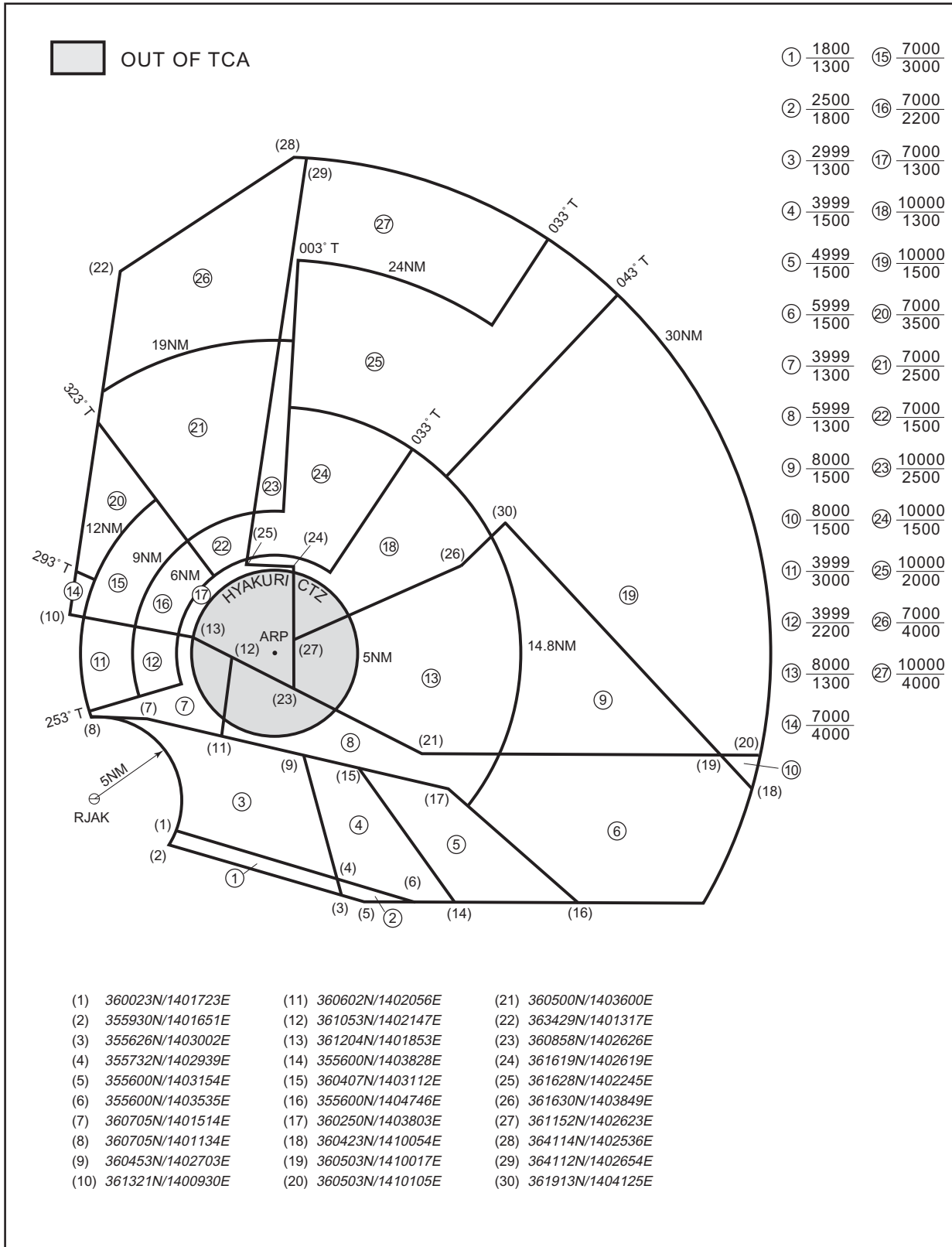
RJAH AD 2.17 ATS AIRSPACE

Designation and lateral limits		Vertical limits (ft)	Airspace classification	ATS unit call sign Language	Remarks
1	2	3	4	6	
HYAKURI CTR	(1)Area within a radius 5nm of HYAKURI ARP (3611N14025E), in the west side of a line connecting 361553N/1402433E and 360600N/1402339E (2)Area within a radius 5nm of HYAKURI ARP, in the east side of a line connecting 361553N/1402433E and 360600N/1402339E, and in the south side of a line connecting 360957N/1402401E and 360739N/1402935E (3)Area within a radius of 5nm HYAKURI ARP, in the east side of a line connecting 361553N/1402433E and 360600N/1402339E, and in the north side of a line connecting 360957N/1402401E and 360739N/1402935E	3,000 or below 6,000 or below (exc 6,000) 6,000 or below	D	Hyakuri Tower En	
HYAKURI ACA	SEE RJAH ATTACHED CHART		E	Hyakuri Approach Hyakuri Departure En	
HYAKURI TCA	SEE RJAH ATTACHED CHART		E	Hyakuri TCA En	

百里進入管制区
Hyakuri Approach Control Area



百里ターミナルコントロールエリア
Hyakuri Terminal Control Area

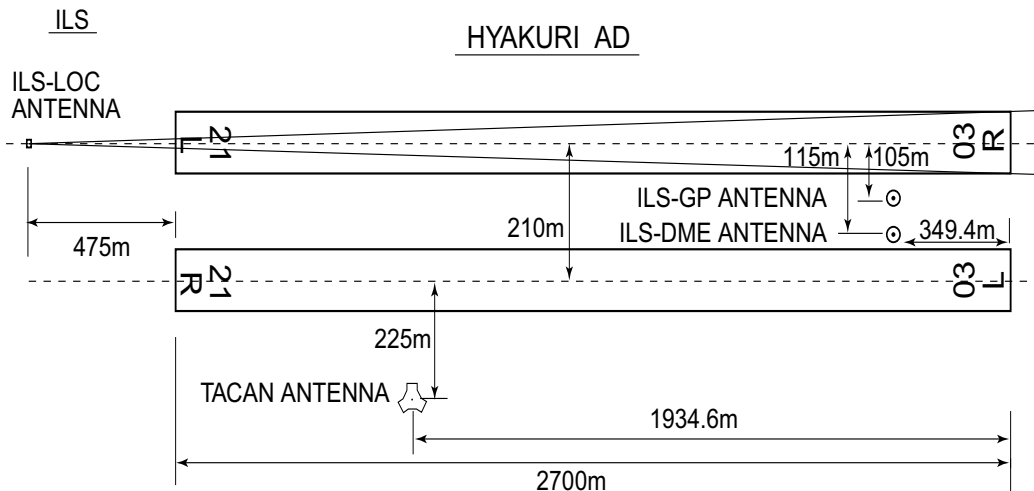


RJAH AD 2.18 ATS COMMUNICATION FACILITIES

Service designation	Call sign	Frequency	Hours of operation	Remarks
1	2	3	4	5
APP/ASR	Hyakuri Approach/ Hyakuri Radar	362.3MHz 305.7MHz(1) 261.2MHz 120.1MHz 123.875MHz 243.0MHz(E) 121.5MHz(E)	H24	(1) Primary (2) For rescue only *AVBL on request
DEP	Hyakuri Departure	362.3MHz 120.1MHz	H24	
TWR	Hyakuri Tower	323.8MHz(1) 236.8MHz 118.025MHz(1) 126.2MHz 138.05MHz(2) 247.0MHz(2)* 123.1MHz(2)* 243.0MHz(E) 121.5MHz(E)	H24	
GCA-ASR -PAR	Hyakuri Radar	270.8MHz 335.6MHz 289.9MHz 300.4MHz 306.2MHz 310.8MHz 321.2MHz 125.3MHz 127.975MHz 134.1MHz	H24	ASR RWY 03L/21R, 03R/21L PAR RWY 03R/21L Glide path RWY03R 2.75° Glide path RWY21L 2.75°
GND	Hyakuri Ground	275.8MHz(1) 247.8MHz 119.5MHz(1) 126.2MHz	H24	
TCA	Hyakuri TCA	124.8MHz	2300 - 1100 SUN - THU (EXC HOL)	

RJAH AD 2.19 RADIO NAVIGATION AND LANDING AIDS

Type of aid (VOR declination)	ID	Frequency	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Remarks
1	2	3	4	5	6	7
VOR (7°W/2009)	HUC	113.3MHz	H24	361113.22N/ 1402449.42E		VOR Unusable: R030-040 beyond 35NM BLW 2000ft. R070-080 beyond 35NM BLW 2000ft. R080-130 beyond 37NM BLW 2000ft. R130-140 beyond 32NM BLW 2000ft. R140-150 beyond 38NM BLW 2000ft. R270-280 beyond 38NM BLW 5000ft. R280-310 beyond 28NM BLW 5000ft. R310-320 beyond 30NM BLW 4000ft. R320-330 beyond 35NM BLW 4000ft.
TACAN	HUC	1167MHz (CH-80X)	H24	361114.81N/ 1402447.53E	162FT	TACAN Unusable: R100-110 beyond 37NM BLW 2000ft. R120-130 beyond 25NM BLW 2000ft. R130-140 beyond 38NM BLW 2000ft. R270-280 beyond 30NM BLW 5000ft. R280-290 beyond 25NM BLW 5000ft. R290-300 beyond 34NM BLW 5000ft. R300-310 beyond 27NM BLW 5000ft. R310-320 beyond 30NM BLW 5000ft.
ILS-LOC 03R	IHY	109.3MHz	H24	361147N/ 1402520E		LOC : 475m away FM RWY 21L THR, BRG (MAG) 027°
ILS-GP 03R	-	332.0MHz	H24	361022.8N/ 1402439.3E		GP : 349.4m inside FM RWY 03R THR, 105m W of RCL. Angle 2.75° HGT of ILS reference datum 16.5m(54FT)
ILS-DME 03R	IHY	991.0MHz (CH-30X)	H24	361022.9N/ 1402438.0E	128FT	DME : 349.4m inside of RWY03R THR, 115m W of RCL.
MSAS		1575.42MHz	H24			Transmitting antennas are satellite based.



REMARKS : 1 LOC Beam BRG(MAG) 027°
2 HGT of ILS REF datum 16.5m(54ft)
3 GP angle 2.75°

RJAH AD 2.20 LOCAL TRAFFIC REGULATIONS

1. Airport regulations

Civil transient aircraft: PPR to CAB Hyakuri Airport Office(0299-54-0600) for parking
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2. Taxiing to and from stands

Nil

3. Parking area for small aircraft(General aviation)

Nil

4. Parking area for helicopters

Nil

5. Apron - taxiing during winter conditions

Nil

6. Taxiing - limitations

Nil

7. School and training flights - technical test flights - use of runways

Nil

8. Helicopter traffic - limitation

Nil

9. Removal of disabled aircraft from runways

Nil

RJAH AD 2.21 NOISE ABATEMENT PROCEDURES

Nil

RJAH AD 2.22 FLIGHT PROCEDURES

1. WX MINIMA CONCERNING PAR/ASR APCH PROCEDURE

PAR RWY03R

MINIMA	THR elev. 107		AD elev. 107	
CAT			CIRCLING	
	DA(H)	RVR/ CMV	MDA(H)	VIS
A	307(200)	750	580(473)	1600
B				
C			660(553)	2400
D				3200

PAR RWY21L

MINIMA	THR elev. 107		AD elev. 107	
CAT			CIRCLING	
	DA(H)	RVR/ CMV	MDA(H)	VIS
A	307(200)	750	580(473)	1600
B				
C			660(553)	2400
D				3200

ASR RWY03R

MINIMA	THR elev. 107		AD elev. 107	
CAT			CIRCLING	
	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	520(413)	900	580 (473)	1600
B		1000		
C			660(553)	2400
D				1400

ASR RWY21L

MINIMA	THR elev. 107		AD elev. 107	
CAT			CIRCLING	
	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	500(393)	900	580(473)	1600
B		1000		
C			660(553)	2400
D				1400

ASR RWY03L

MINIMA	THR elev. 107		AD elev. 107	
CAT			CIRCLING	
	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	520(413)	1200	580(473)	1600
B		1300		
C		1400	660(553)	2400
D		1600		3200

ASR RWY21R

MINIMA	THR elev. 107		AD elev. 107	
CAT			CIRCLING	
	MDA(H)	RVR/ CMV	MDA(H)	VIS
A	500(393)	1500	580(473)	1600
B		1800		
C			660(553)	2400
D				2000

2. TKOF WX MINIMA					
	RWY	REDL AVBL		REDL OUT	
		CEIL-RVR	CEIL-VIS	CEIL-RVR	CEIL-VIS
TKOF ALTN AP FILED	03R	200 - 800m	200 - 800m	-	200 - 800m
	03L				
	21R				
	21L				
OTHER	03R	AVBL LDG MINIMA			
	03L				
	21R				
	21L				

NOTE: SIDs are designed in accordance with provisional standards for FLIGHT PROCEDURE DESIGN.

TKOF WX MINIMA for OGITU DEPARTURE and HITAKA DEPARTURE only								
	RWY	ACFT CAT	REDL & RCLL*		REDL or RCLL* or RCL Marking		NIL (DAYTIME ONLY)	
			RVR	VIS	RVR	VIS	RVR	VIS
Multi-Engine ACFT with TKOF ALTN AP FILED	03R	A,B,C,D	-	-	400	400	-	500
	03L		400	400	400	400	-	500
	21R		400	400	400	400	-	500
	21L		-	-	400	400	-	500
OTHER	03R	A,B,C,D	AVBL LDG MINIMA					
	03L							
	21R							
	21L							

Note : RWY03R/21L RCLL not installed.

3. Automated Radar Terminal System (ARTS)

百里進入管制区を航行する航空機は、管制機関の指示があった場合原則として自動高度通報機能を有する 4096 コードによる応答装置を作動させること。
上記指示を受けた当該応答装置を有しない航空機は、管制機関に対しその旨を通報すること。

When instructed by ATC, aircraft flying in and out of Hyakuri Approach control area in principle will reply on 4096 Code (Mode A/3) with automatic altitude reporting capability (Mode C); Aircraft not equipped with the said transponder shall report ATC to that effect.

4. Lost communication procedures for arrival aircraft under radar navigational guidance

If radio communications with HYAKURI Radar are lost for 1 minute in the pattern or 5 seconds (PAR)/15 seconds (ASR) on final approach, squawk Mode A/3 Code 7600 and;

- (I)
1. Contact HYAKURI Radar/Tower.
 2. If unable, proceed in accordance with visual flight rules.
 3. If unable, proceed to TACAN IAF or NAKAH IAF at last assigned altitude or 4,000 feet whichever is higher, and execute instrument approach.
- (II) Procedures other than above will be issued when situation required.

RJAH AD 2.23 ADDITIONAL INFORMATION

Nil

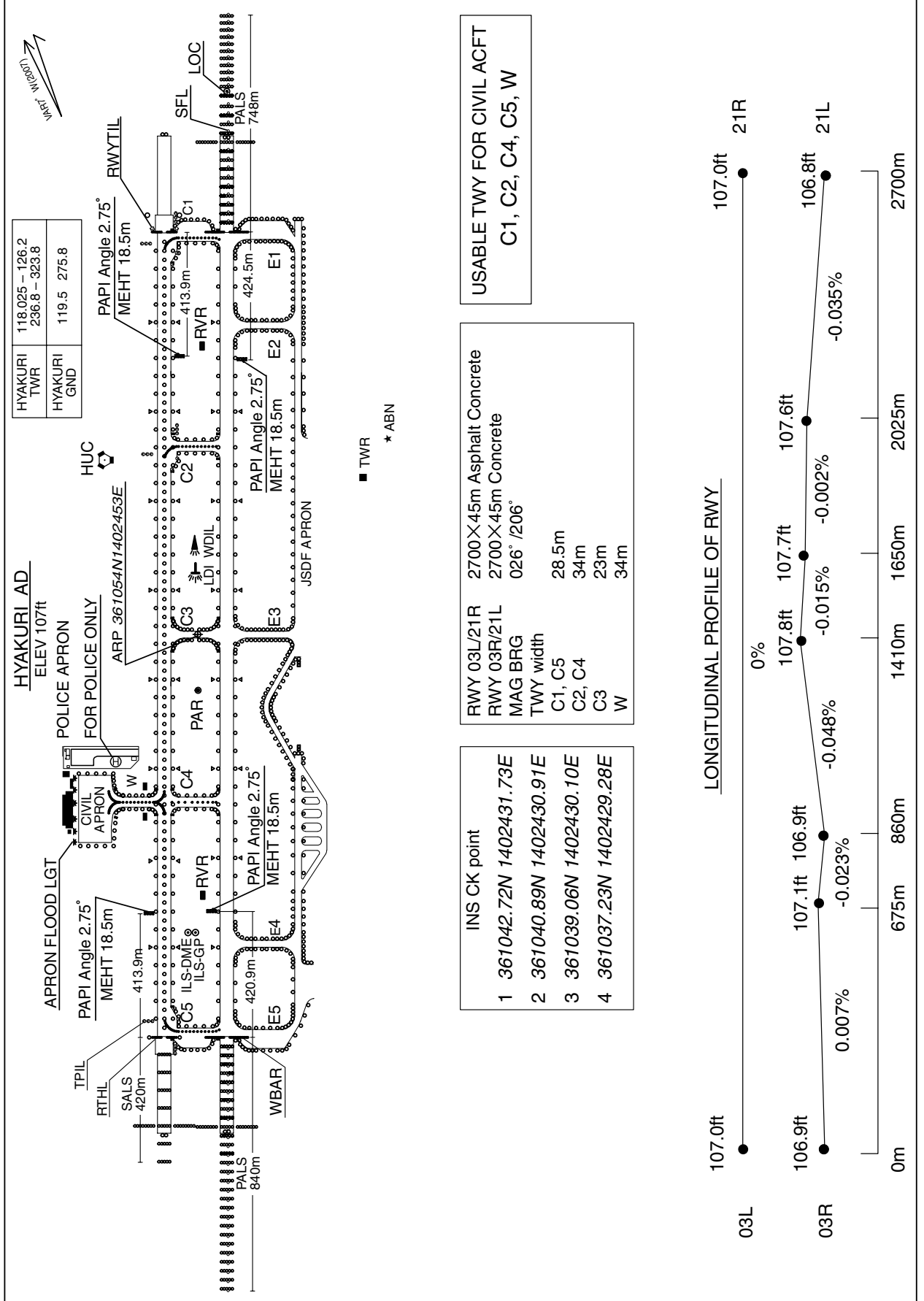
RJAH AD 2.24 CHARTS RELATED TO AN AERODROME

Aerodrome/Heliport Chart -1
Aerodrome/Heliport Chart -2
Standard Departure Chart - Instrument (OGITU)
Standard Departure Chart - Instrument (NAKAH)*
Standard Departure Chart - Instrument (HOKTA, HOKTA EAST)*
Standard Departure Chart - Instrument (DAPPE)*
Standard Departure Chart - Instrument (HITAKA-RNAV)
Standard Arrival Chart - Instrument (DAIGO)*
Standard Arrival Chart - Instrument (TATSU-RNAV)
Instrument Approach Chart (ILS Z or LOC Z RWY03R)*
Instrument Approach Chart (ILS Y or LOC Y RWY03R)*
Instrument Approach Chart (ILS X or LOC X RWY03R)
Instrument Approach Chart (ILS W or LOC W RWY03R)*
Instrument Approach Chart (VOR RWY03R)
Instrument Approach Chart (VOR RWY03L)
Instrument Approach Chart (VOR RWY21L)
Instrument Approach Chart (VOR RWY21R)
Instrument Approach Chart (VOR B)
Instrument Approach Chart (TACAN Z RWY03R)*
Instrument Approach Chart (TACAN Y RWY03R)*
Instrument Approach Chart (TACAN Z RWY03L)*
Instrument Approach Chart (TACAN Y RWY03L)*
Instrument Approach Chart (TACAN Z RWY21L)*
Instrument Approach Chart (TACAN Y RWY21L)*
Instrument Approach Chart (TACAN Z RWY21R)*
Instrument Approach Chart (TACAN Y RWY21R)*
Instrument Approach Chart (TACAN A)*
Instrument Approach Chart (RNP RWY03L)
Instrument Approach Chart (RNP RWY21R)
Other Chart (MVA CHART)

*: Designed in accordance with provisional standards for FLIGHT PROCEDURE DESIGN.

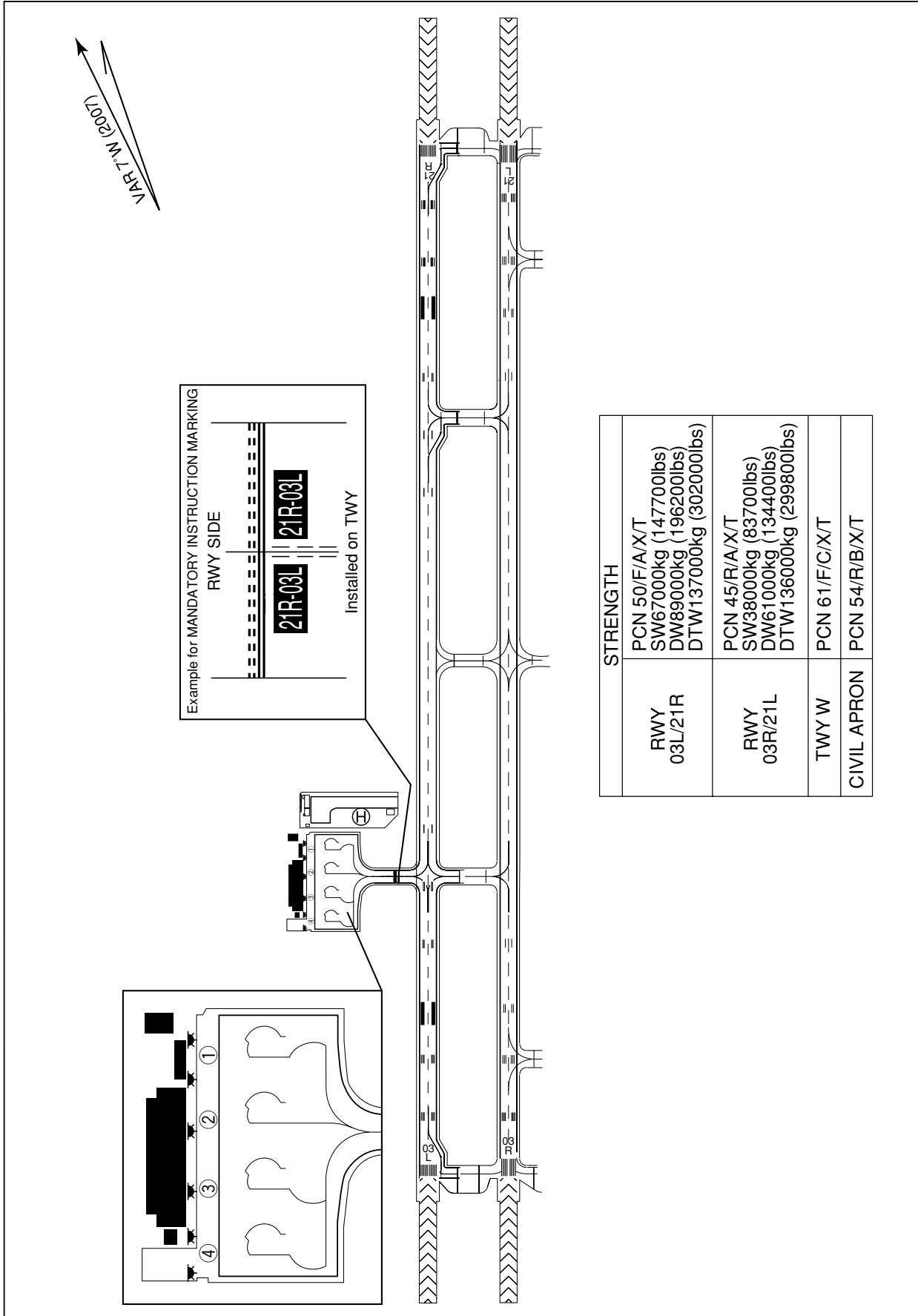
RJAH / HYAKURI

AD CHART



RJAH / HYAKURI

AD CHART



STANDARD DEPARTURE CHART - INSTRUMENT

RJAH / HYAKURI

SID and TRANSITION

OGITU TWO DEPARTURE

RWY 03R/03L : Climb RWY HDG to 600FT,...

RWY 21R/21L : Climb RWY HDG to 600FT, turn right HDG 062° to intercept and proceed...

...via HUC R032 to OGITU.

Cross HUC R032/5.5DME at or below 7000FT, cross OGITU at or below 10000FT.

Note This SID for VOR equipped aircraft only.

RWY03L : 4.1% climb gradient required up to 600FT.

OBST ALT 141FT located at 0.1NM 338° FM end of RWY03L.

IWAKI TRANSITION

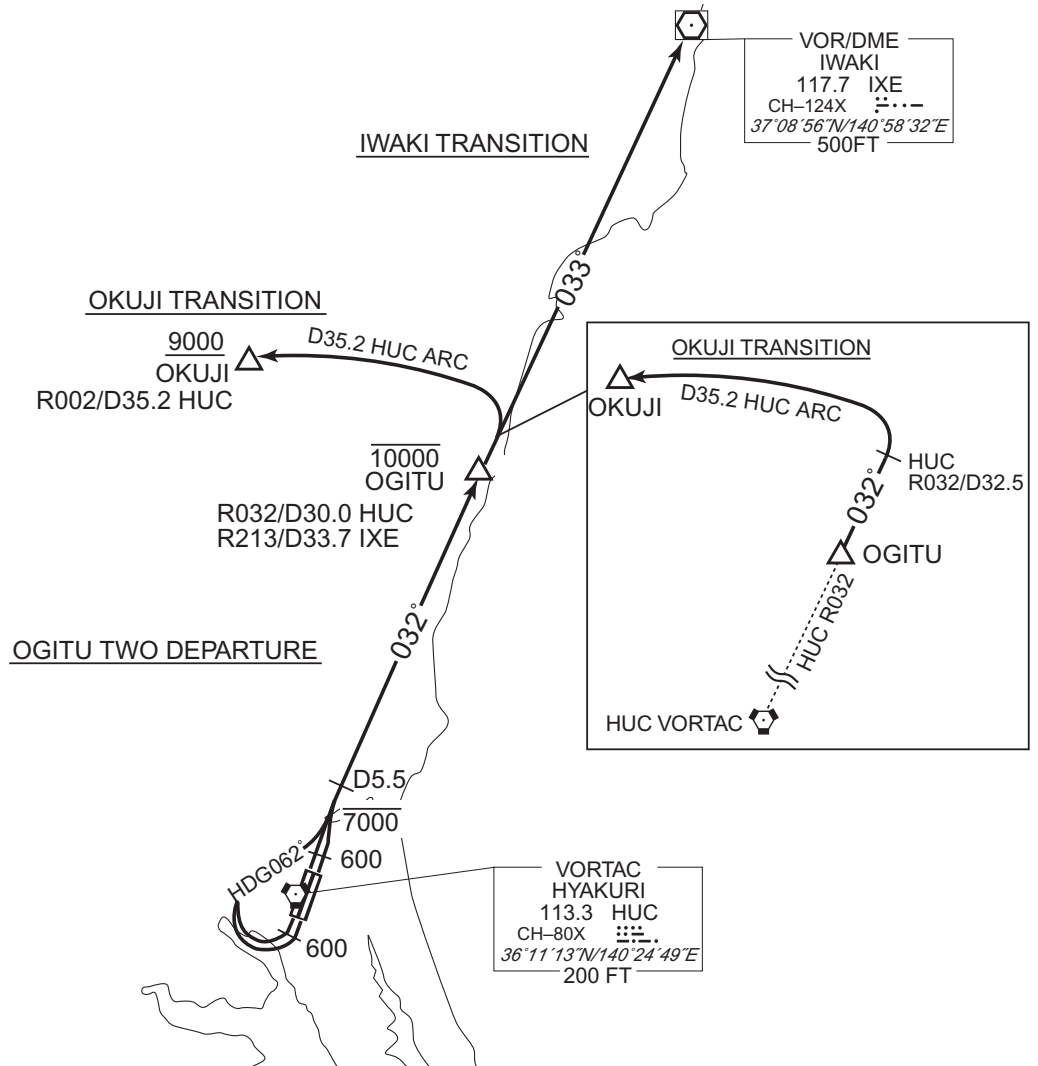
From over OGITU, proceed via IXE R213 to IXE VOR/DME.

OKUJI TRANSITION

From over OGITU, via HUC R032 to 32.5DME, turn left to intercept and proceed via HUC 35.2DME counterclockwise ARC to OKUJI.

Cross OKUJI at or above 9000FT.

CHANGE : Editorial(DIST FM HUC to OGITU).



STANDARD DEPARTURE CHART - INSTRUMENT

RJAH / HYAKURI

SID

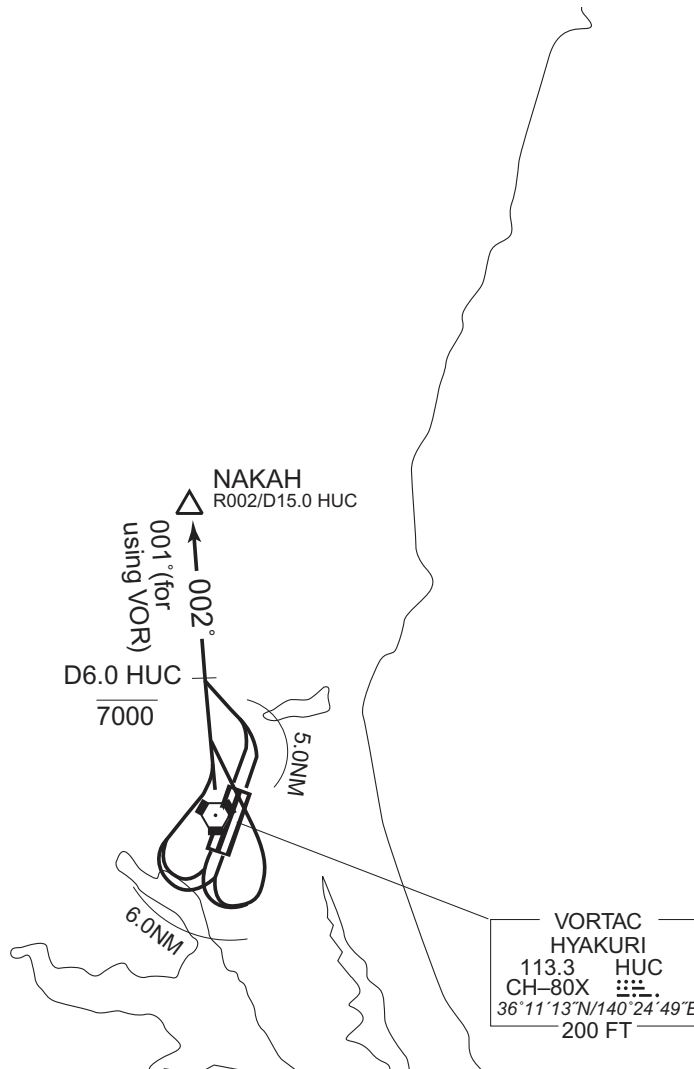
NAKAH FOUR DEPARTURE

RWY 03R/03L : Turn left within 5.0NM....

RWY 21R/21L : Turn right or left within 6.0NM....

....climb via HUC R002(R001 for using VOR) to NAKAH.

Cross HUC R002(R001 for using VOR) /6.0DME at or below 7000FT.



CHANGE : NIKKO TRANSITION abolished. NIKKO NDB(JD) abolished.

STANDARD DEPARTURE CHART - INSTRUMENT

RJAH / HYAKURI

SID and TRANSITION

HOKTA FIVE DEPARTURE

RWY 03R/03L : Climb via RWY HDG until 1.0NM from RWY end/HUC 1.4DME,
turn right within 5.0NM....

RWY 21R/21L : Turn left within 6.0NM....

....climb via HUC R071 to HOKTA.

Cross HUC R071/19.3DME at or below 8000FT, cross HOKTA at or
above 11000FT.

Note1 : Take off RWY 21R/21L, cross HUC R130 at or below 5000FT.

Note2 : This SID for TACAN equipped aircraft only.

HOKTA EAST FIVE DEPARTURE

RWY 03R/03L : Climb via RWY HDG until 1.0NM from RWY end/HUC 1.4DME,
turn right within 5.0NM....

RWY 21R/21L : Turn left within 6.0NM....

....climb via HUC R091 to HUC 27.0DME, turn left via HUC 27.0DME
counterclockwise ARC to HOKTA.

Cross HUC R091/23.0DME at or below 8000FT, cross HOKTA at or
above 11000FT.

Note1 : Take off RWY 21R/21L, cross HUC R130 at or below 5000FT.

Note2 : This SID for TACAN equipped aircraft only.

MATSUSHIMA TRANSITION

From over HOKTA, via CVT R015 to CVT 59.0DME, MXT R195 to MXT TACAN.
Cross CVT R015/59.0DME (MXT R195/103.0DME) at assigned altitude.

Note CVT R015/59.0DME (MXT R195/103.0DME) : MXT MRA 12000FT.

DAIGO TRANSITION

From over HOKTA, via CVT R015 to DAPPE, via GOT R117 to GOT TACAN.

CHANGE : Course FM DAPPE to GOT.

STANDARD DEPARTURE CHART - INSTRUMENT

RJAH / HYAKURI

SID and TRANSITION

TACAN	MATSUSHIMA
1177	MXT
CH-90X	≡≡-
38°24'14"N/141°13'32"E	

※For TACAN equipped ACFT only.
HOKTA FIVE DEPARTURE
HOKTA EAST FIVE DEPARTURE

TACAN	DAIGO
1187	GOT
CH-100X	≡≡-
36°44'41"N/140°20'58"E	
1500FT	

Assigned ALT

DAIGO TRANSITION
297°

MATSUSHIMA TRANSITION

MXT R195

D59.0 CVT
D103.0 MXT
(MRA 12000FT)

CVT R015

DAPPE
R117/D30.2 GOT
R015/D51.6 CVT

HOKTA
11000

HOKTA FIVE DEPARTURE
8000
D19.3 HUC

1.0NM FM RWY end/
D1.4 HUC

5.0NM

071°

091°

D23.0 HUC
8000

HOKTA EAST FIVE DEPARTURE

CVT R015

VORTAC	HYAKURI
113.3	HUC
CH-80X	≡≡.
36°11'13"N/140°24'49"E	
200 FT	

5000

6.0NM

R130

TACAN	CHOSHI
1170	CVT
CH-83X	≡≡-
35°43'36"N/140°48'00"E	
200FT	

CHANGE : Course FM DAPPE to GOT.

STANDARD DEPARTURE CHART - INSTRUMENT

RJAH / HYAKURI

SID and TRANSITION

DAPPE ONE DEPARTURE

RWY 03R/03L : Climb via RWY HDG until 1.0NM from RWY end/HUC 1.4DME,
turn right within 5.0NM....

RWY 21R/21L : Turn left within 6.0NM....
....climb via HUC R055 to DAPPE.

Cross HUC R055/31.0DME at or below 10000FT.

Note1 : Take off RWY 21R/21L, cross HUC R130 at or below 5000FT.

Note2 : This SID for TACAN equipped aircraft only.

CHOSHI TRANSITION

From over DAPPE, via CVT R015 to CVT TACAN via ANKOH.

Cross ANKOH at or above FL170.

HYAKURI TRANSITION

From over DAPPE, via CVT R015 to ANKOH, via HUC R089 to HUC VORTAC.

Cross ANKOH at or above FL170.

CHANGE: ANKOH established

STANDARD DEPARTURE CHART - INSTRUMENT

RJAH / HYAKURI

SID and TRANSITION

※For TACAN equipped ACFT only.
DAPPE ONE DEPARTURE

1.0NM FM RWY end/
D1.4 HUC

VORTAC
HYAKURI
113.3 HUC
CH-80X
36°11'13"N/140°24'49"E
200 FT

TACAN
CHOSHI
1170 CVT
CH-83X
35°43'36"N/140°48'00"E
200FT

DAPPE ONE DEPARTURE

10000
D31.0 HUC

DAPPE
R055/D34.7 HUC
R015/D51.6 CVT

5.0NM

269°

5000

HYAKURI TRANSITION

ANKOH
FL170
R015/D31.3 CVT
R089/D23.2 HUC

6.0NM

R130

CHOSHI TRANSITION

195°

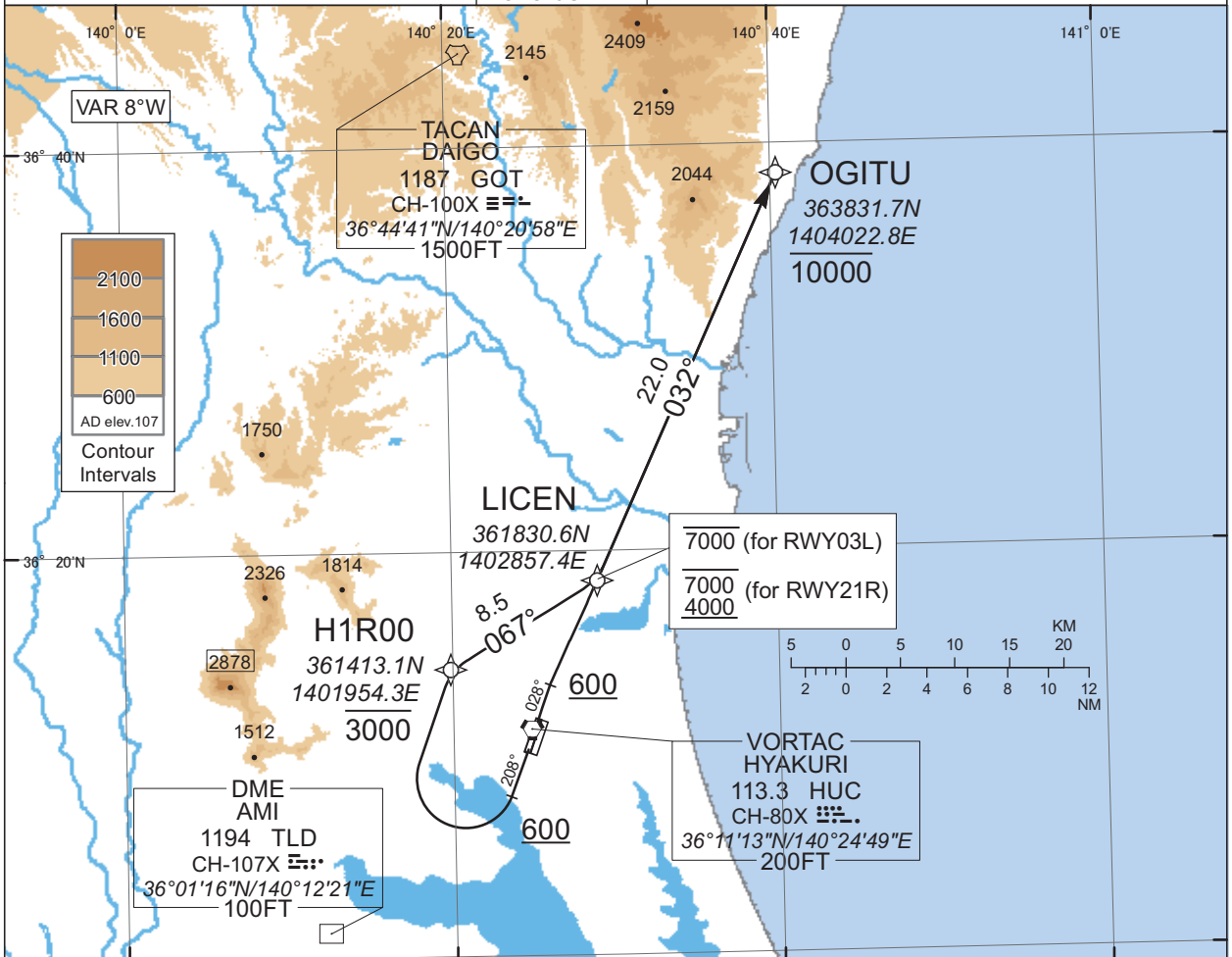
CHANGE: ANKOH established

STANDARD DEPARTURE CHART - INSTRUMENT

RJAH / HYAKURI

RNAV SID

HITAKA ONE DEPARTURE		RNAV1
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	-
	DME GAP	-
	Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1



CHANGE : Description of VAR and PROC name.

- RWY03R : (Not established)
- RWY03L : Climb on HDG028° at or above 600FT, direct to LICEN at or below 7000FT, to OGITU at or below 10000FT.
- RWY21L : (Not established)
- RWY21R : Climb on HDG208° at or above 600FT, turn right direct to H1R00 at or below 3000FT, to LICEN at 4000FT minimum, 7000FT maximum, to OGITU at or below 10000FT.

Note RWY03L : 4.1% climb gradient required up to 600FT.
 OBST ALT 141FT located at 0.1NM 338° FM end of RWY03L.

STANDARD DEPARTURE CHART - INSTRUMENT

RJAH / HYAKURI

RNAV SID

HITAKA ONE DEPARTURE

RWY03L

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	-	-	028 (019.8)	-7.8	-	-	+600	-	-	RNAV1
002	DF	LICEN	-	-	-7.8	-	-	-7000	-	-	RNAV1
003	TF	OGITU	-	032 (024.6)	-7.8	22.0	-	-10000	-	-	RNAV1

RWY21R

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	-	-	208 (199.8)	-7.8	-	-	+600	-	-	RNAV1
002	DF	H1R00	-	-	-7.8	-	R	-3000	-	-	RNAV1
003	TF	LICEN	-	067 (059.5)	-7.8	8.5	-	-7000 +4000	-	-	RNAV1
004	TF	OGITU	-	032 (024.6)	-7.8	22.0	-	-10000	-	-	RNAV1

CHANGE : New PROC.

STANDARD ARRIVAL CHART -INSTRUMENT

RJAH / HYAKURI

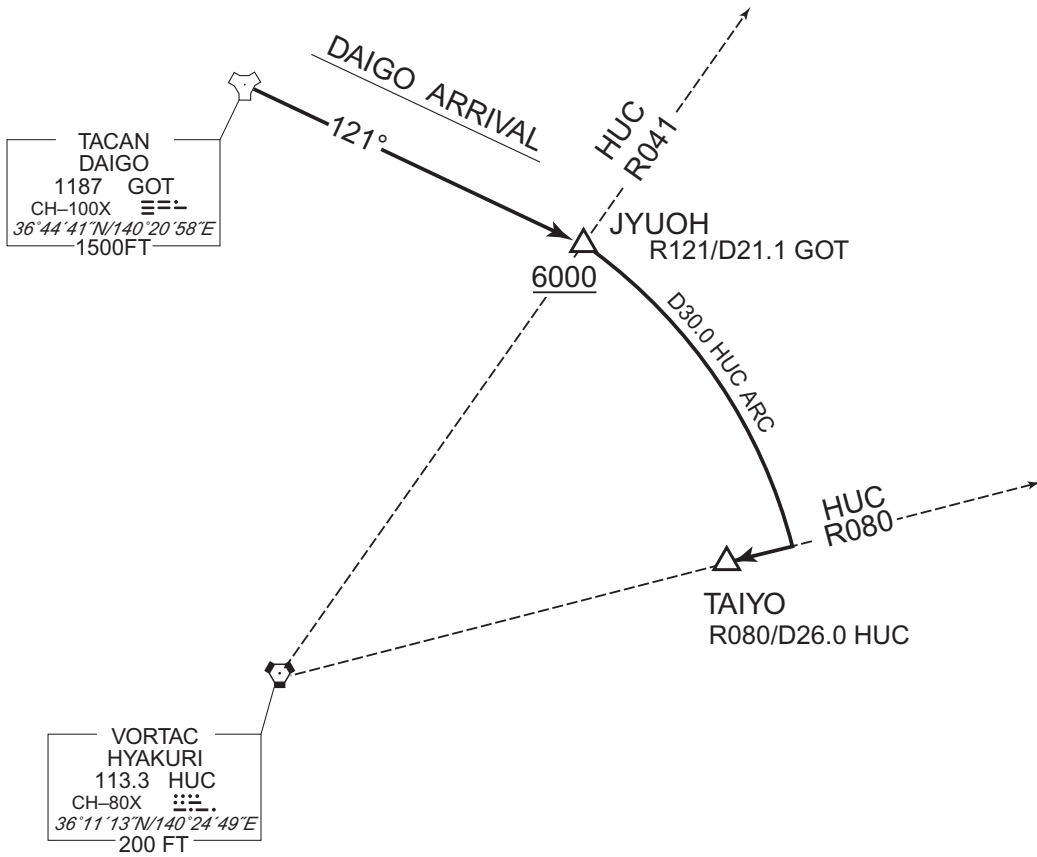
STAR

DAIGO ARRIVAL

From over GOT TACAN, proceed via GOT R121 to JYUOH,
turn right via HUC 30.0DME clockwise ARC to intercept and
proceed via HUC R080 to TAIYO.

Cross JYUOH at or above 6000FT.

CHANGE : Course, DIST FM GOT to JYUOH.



STANDARD ARRIVAL CHART -INSTRUMENT

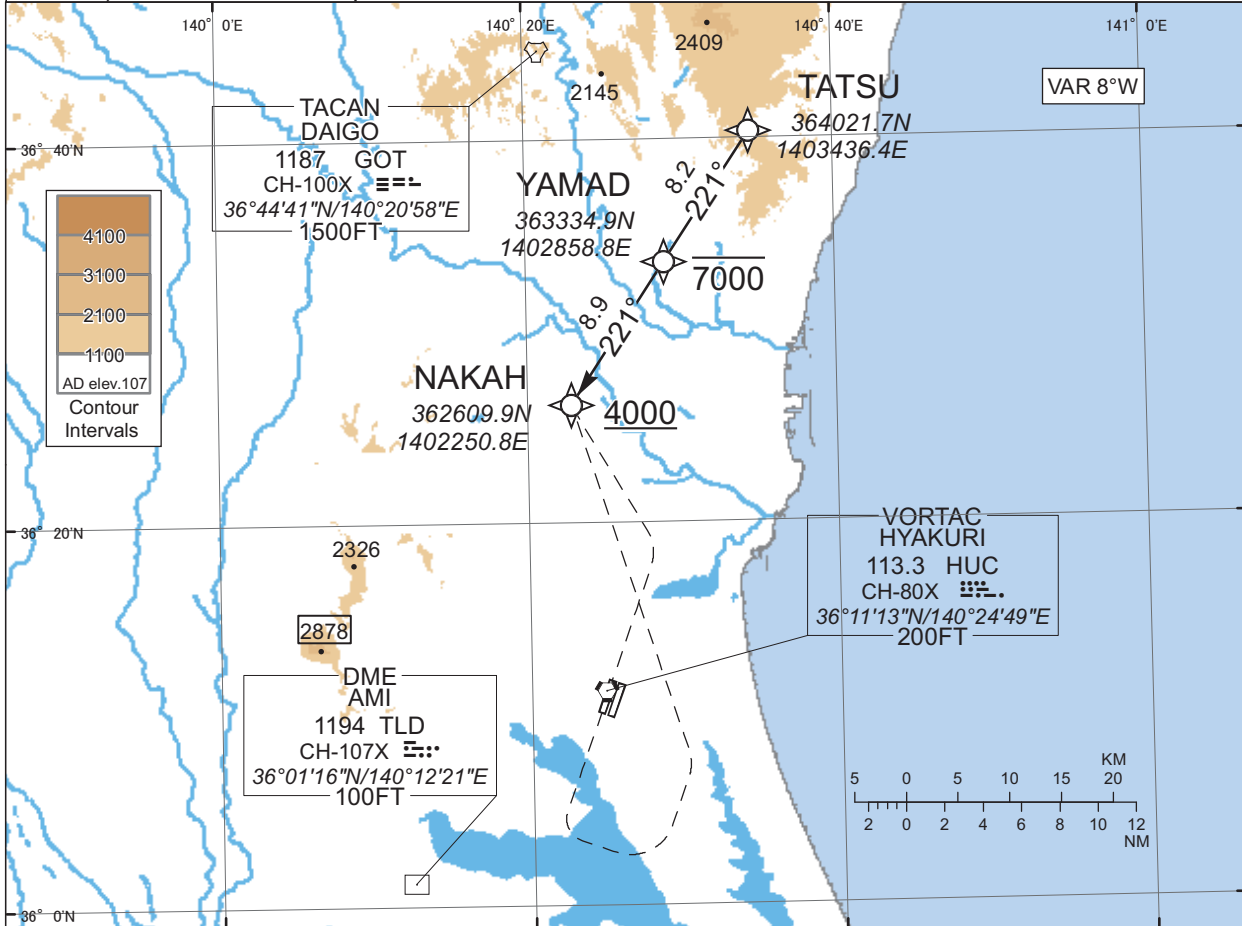
RJAH / HYAKURI

RNAV STAR

TATSU ARRIVAL

RNAV1

Note 1) DME/DME/IRU or GNSS required.
2) RADAR service required.



From TATSU, to YAMAD at or below 7000FT, to NAKAH at or above 4000FT.

Critical DME	-
DME GAP	-
Inappropriate Navaids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1

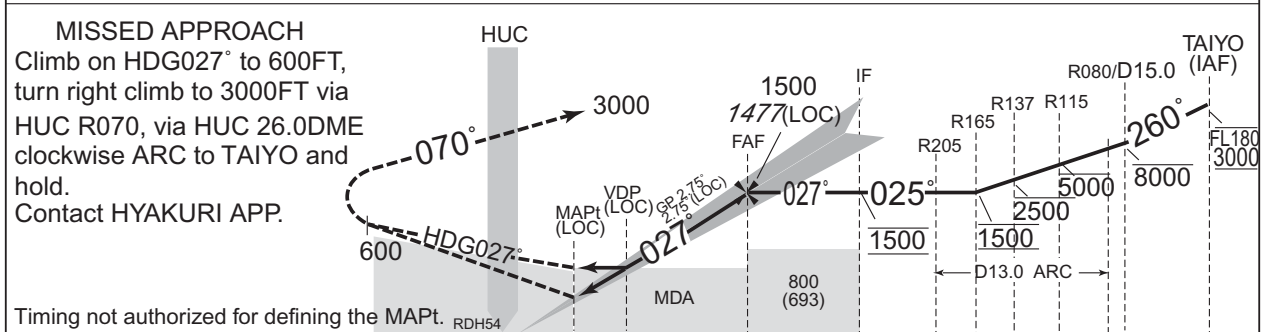
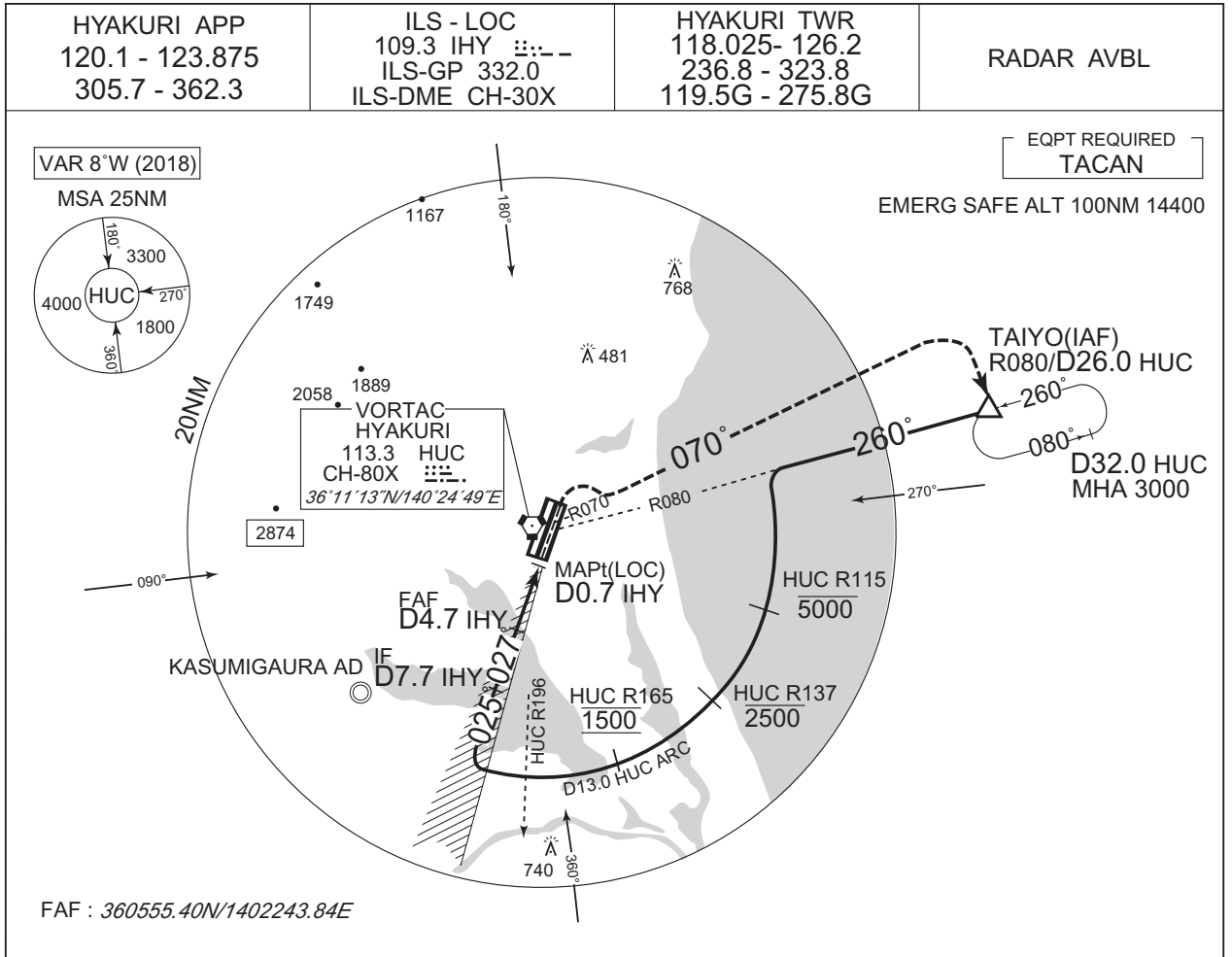
CHANGE : Description of VAR and PROC name.

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	TATSU	-	-	-7.8	-	-	-	-	-	RNAV1
002	TF	YAMAD	-	221 (213.7)	-7.8	8.2	-	-7000	-	-	RNAV1
003	TF	NAKAH	-	221 (213.6)	-7.8	8.9	-	+4000	-	-	RNAV1

INSTRUMENT APPROACH CHART

RJAH / HYAKURI

ILS Z or LOC Z RWY03R



DME to IHY	0.7	1.4	4.7	7.7	
NM to THR	0	0.5	1.2	4.5	7.5

CHANGE : MDA(H) for LOC.

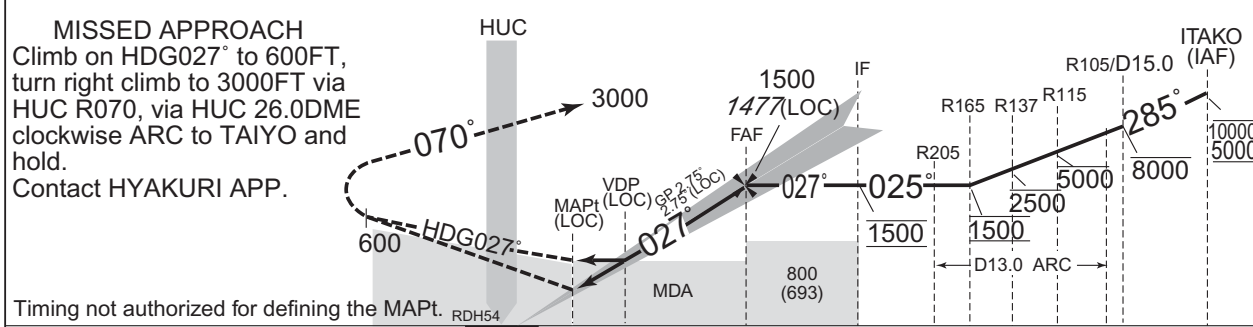
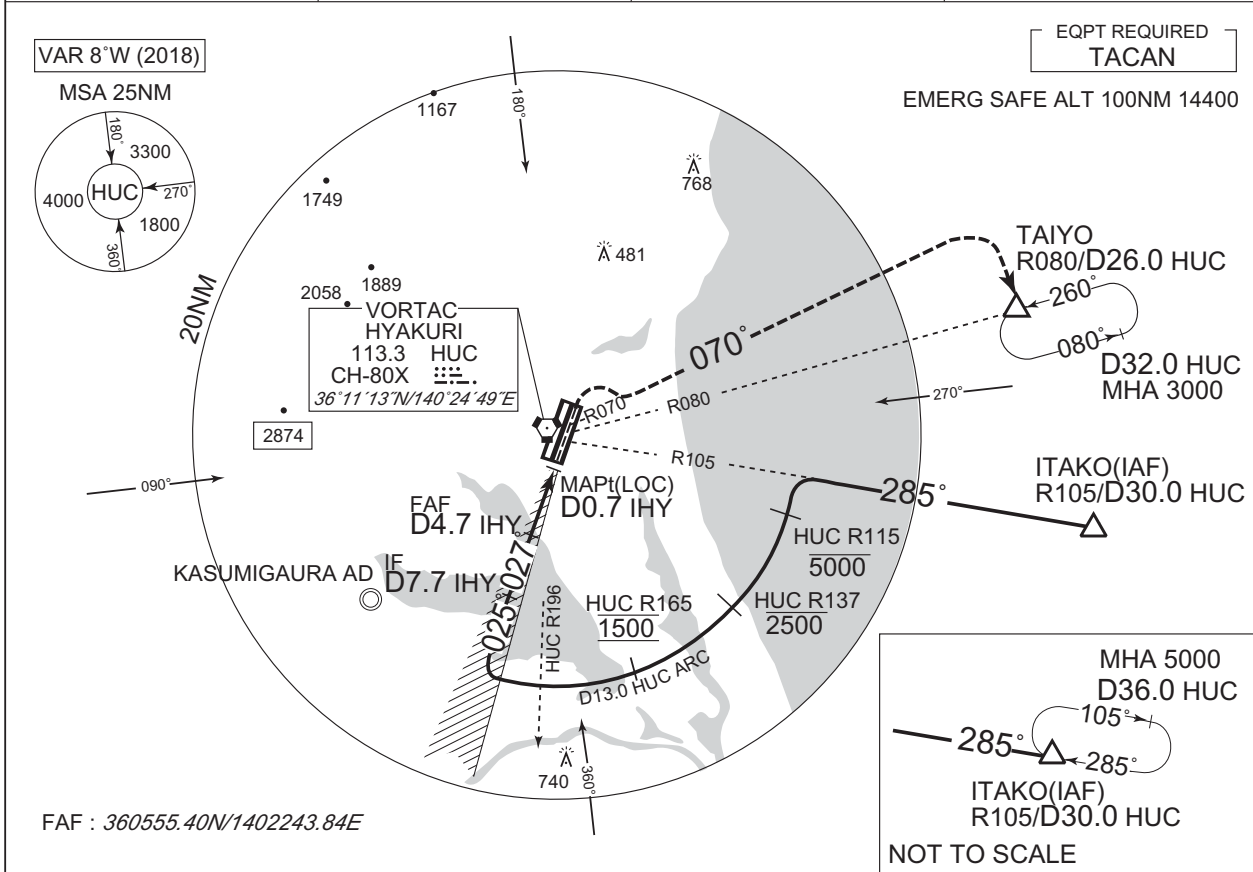
MINIMA		THR elev. 107		AD elev. 107		
CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	307 (200)	750	520 (413)	900	580 (473)	1600
B				1000		
C				1400	660 (553)	3200
D						

INSTRUMENT APPROACH CHART

RJAH / HYAKURI

ILS Y or LOC Y RWY03R

HYAKURI APP 120.1 - 123.875 305.7 - 362.3	ILS - LOC 109.3 IHY --- -- ILS-GP 332.0 ILS-DME CH-30X	HYAKURI TWR 118.025- 126.2 236.8 - 323.8 119.5G - 275.8G	RADAR AVBL
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DME to IHY	0.7	1.4	4.7	7.7	
NM to THR	0	0.5	1.2	4.5	7.5

CHANGE : MDA(H) for LOC.

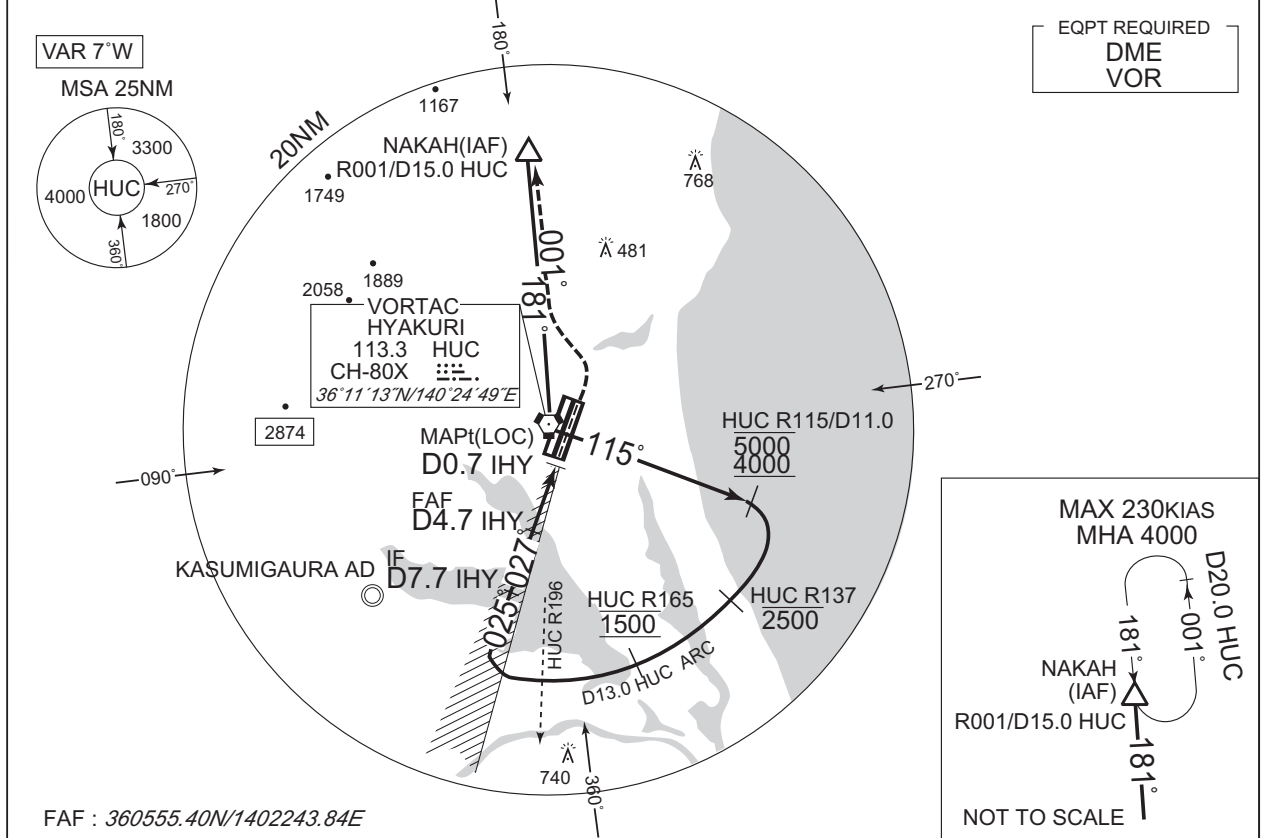
MINIMA		THR elev. 107		AD elev. 107		
CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	307 (200)	750	520 (413)	900	580 (473)	1600
B				1000		
C				1400	660 (553)	2400
D						3200

INSTRUMENT APPROACH CHART

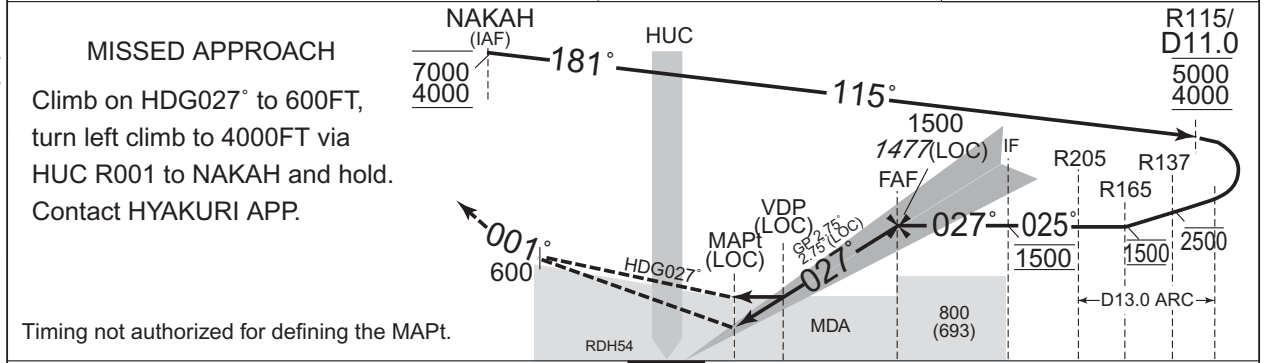
RJAH / HYAKURI

ILS X or LOC X RWY03R

HYAKURI APP 120.1 - 123.875 305.7 - 362.3	ILS - LOC 109.3 IHY ILS-GP 332.0 ILS-DME CH-30X	HYAKURI TWR 118.025- 126.2 236.8 - 323.8 119.5G - 275.8G	RADAR AVBL
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CHANGE : DME to IHY at VDP. NM to THR at VDP. MDA(H) for LOC.



DME to IHY	0.7	1.5	4.7	7.7	
NM to THR	0	0.5	1.3	4.5	7.5

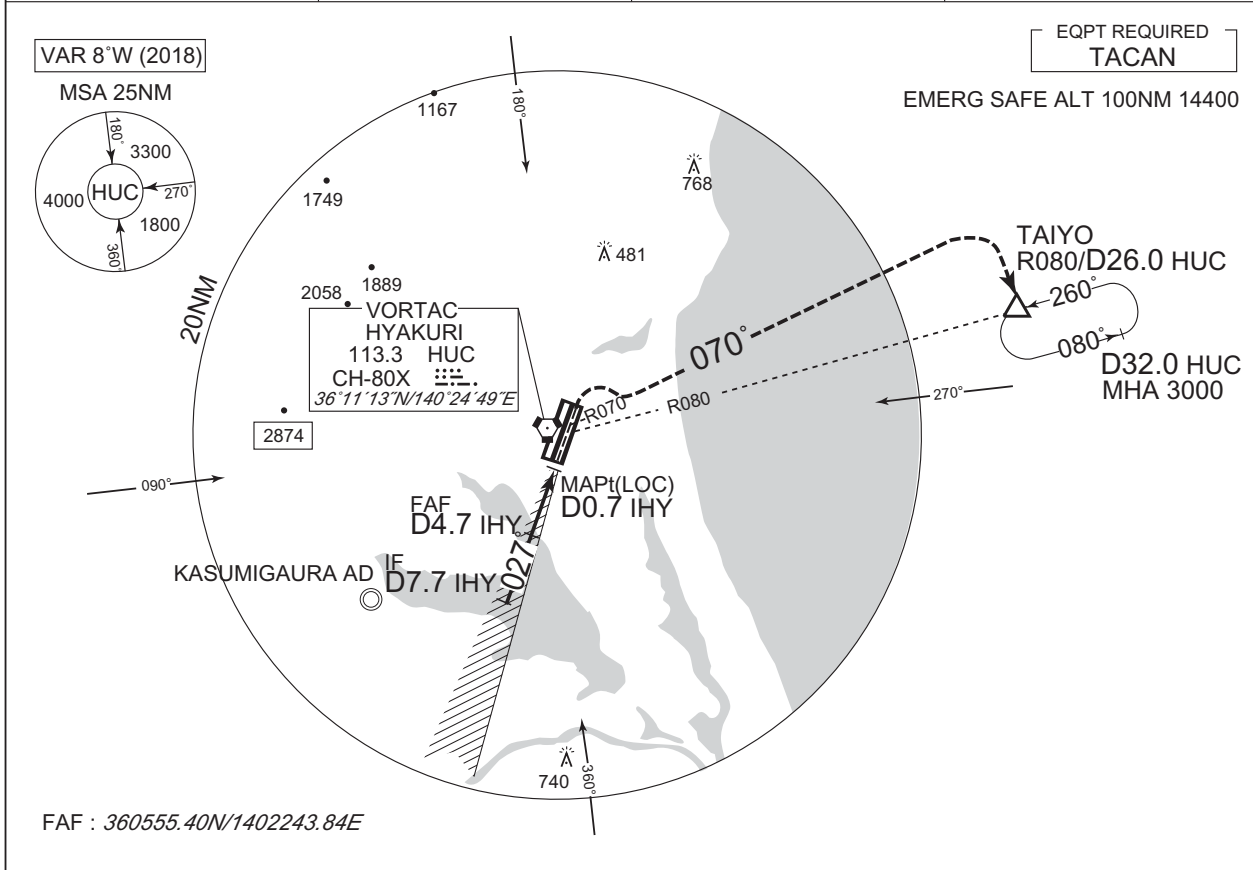
MINIMA		THR elev. 107		AD elev. 107		
CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	307 (200)	750	510 (403)	900	580 (473)	1600
B				1000		
C				1400		
D				660 (553)		

INSTRUMENT APPROACH CHART

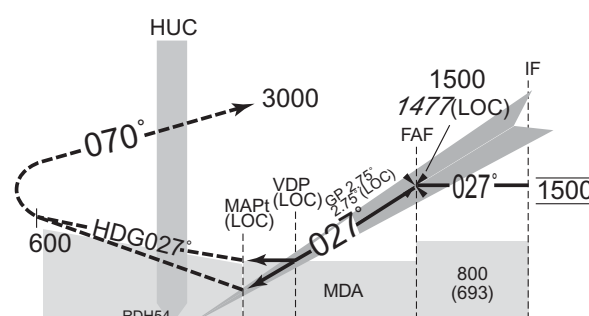
RJAH / HYAKURI

ILS W or LOC W RWY03R

HYAKURI APP 120.1 - 123.875 305.7 - 362.3	ILS - LOC 109.3 IHY $\dashv\vdash\vdash\vdash$ - ILS-GP 332.0 ILS-DME CH-30X	HYAKURI TWR 118.025- 126.2 236.8 - 323.8 119.5G - 275.8G	RADAR AVBL
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MISSED APPROACH
 Climb on HDG027° to 600FT,
 turn right climb to 3000FT
 via HUC R070, via HUC 26.0DME
 clockwise ARC to TAIYO and hold.
 Contact HYAKURI APP.



Timing not authorized for defining the MAPt.

DME to IHY	0.7	1.4	4.7	7.7
NM to THR	0	0.5	1.2	4.5

CHANGE : MDA(H) for LOC.

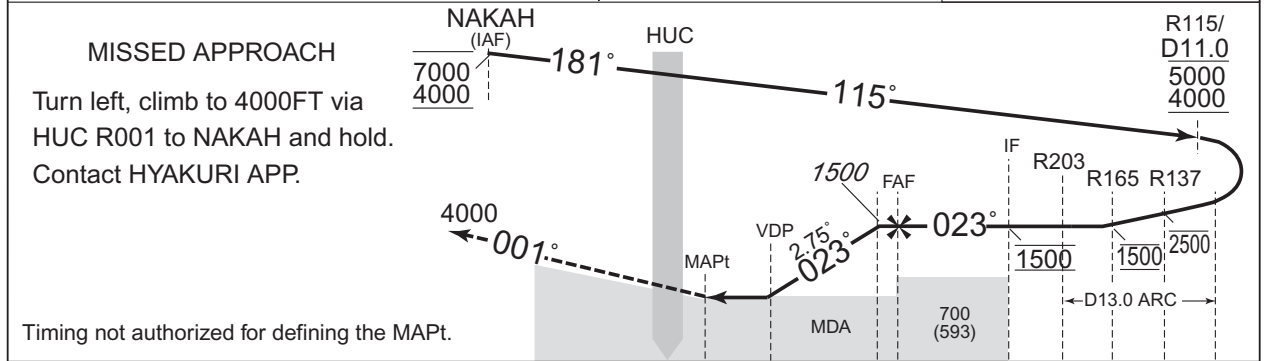
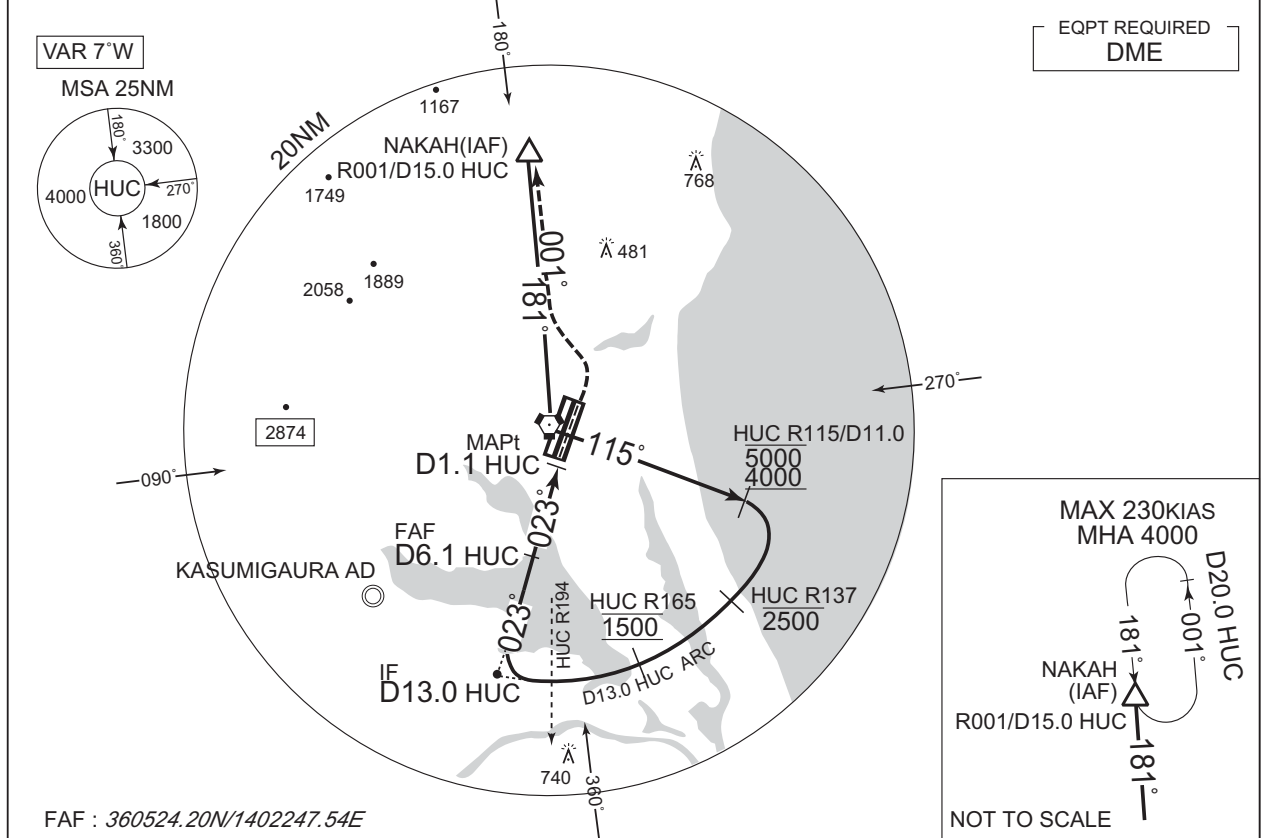
MINIMA		THR elev. 107		AD elev. 107		
CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	307 (200)	750	520 (413)	900	580 (473)	1600
B				1000		
C				1400	660 (553)	2400
D						3200

INSTRUMENT APPROACH CHART

RJAH / HYAKURI

VOR RWY03R

HYAKURI APP 120.1 - 123.875 305.7 - 362.3	HYAKURI VORTAC 113.3 HUC CH-80X 36°11'13"N/140°24'49"E	HYAKURI TWR 118.025- 126.2 236.8 - 323.8 119.5G - 275.8G	RADAR AVBL
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DME to HUC	1.1	2.4	5.7	6.1	13.0
NM to THR	0	1.3	4.6	5.0	11.9

CHANGE : Description of VAR.

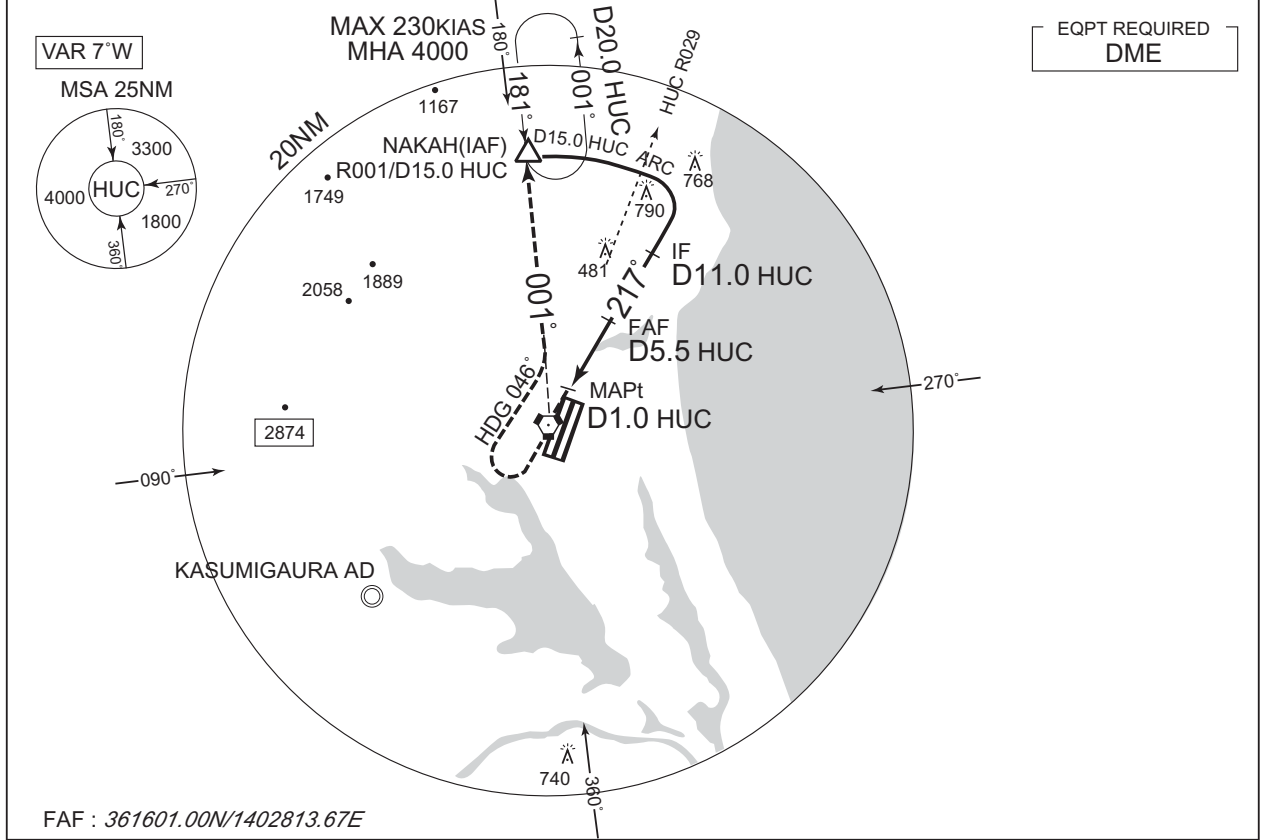
MINIMA		THR elev. 107		AD elev. 107	
CAT			CIRCLING		VIS
	MDA(H)	RVR/CMV	MDA(H)		
A	520 (413)	900	580 (473)	1600	
B		1000		660 (553)	2400
C			1400		3200
D					

INSTRUMENT APPROACH CHART

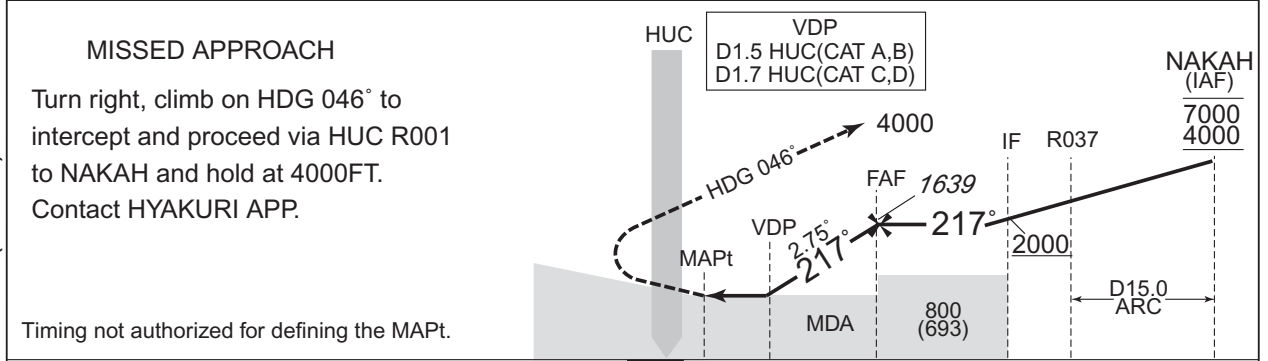
RJAH / HYAKURI

VOR RWY21L

HYAKURI APP 120.1 - 123.875 305.7 - 362.3	HYAKURI VORTAC 113.3 HUC CH-80X 36°11'13"N/140°24'49"E	HYAKURI TWR 118.025- 126.2 236.8 - 323.8 119.5G - 275.8G	RADAR AVBL
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CHANGE : Description of VAR. OBST added(790FT).



DME to HUC	1.0	5.5	11.0
NM to THR	0 0.6	5.1	10.6

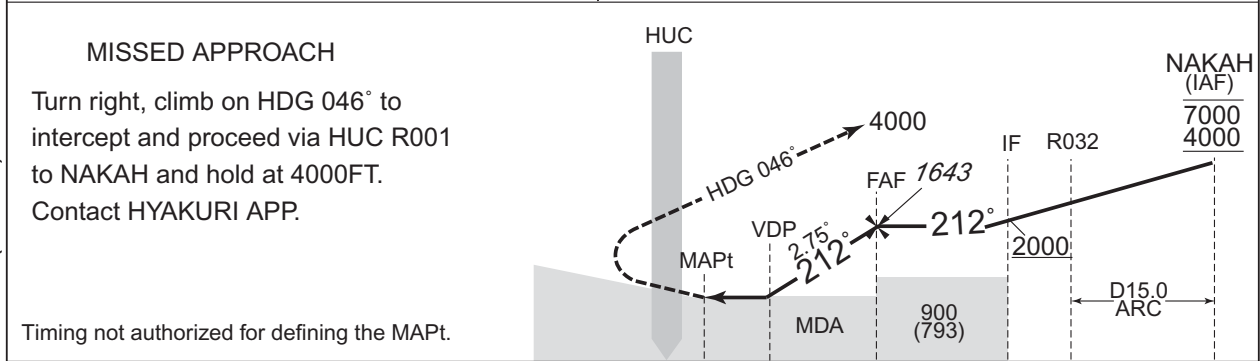
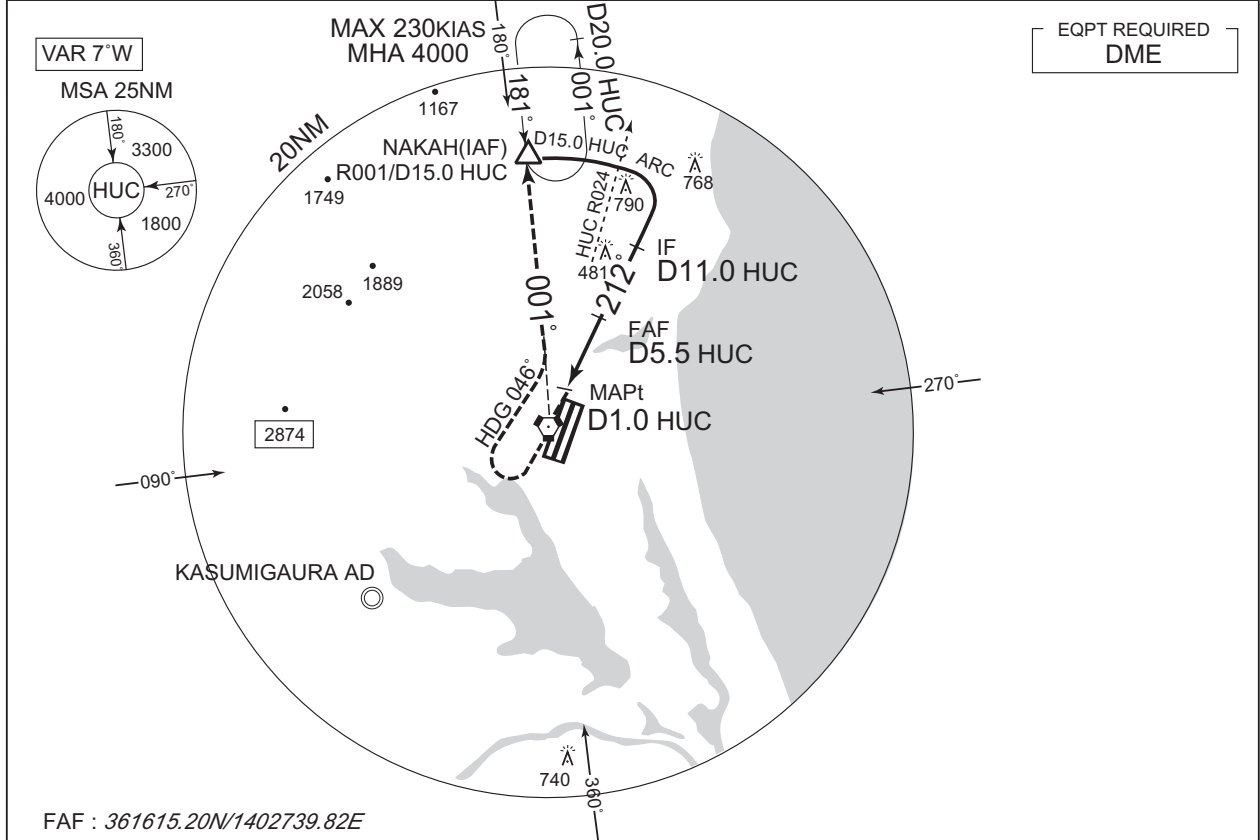
MINIMA		THR elev. 107	AD elev. 107	
CAT	MDA(H)	RVR/CMV	CIRCLING	
			MDA(H)	VIS
A	480 (373)	900	580 (473)	1600
B	490 (383)			2400
C	520 (413)	1000	660 (553)	3200
D	540 (433)			

INSTRUMENT APPROACH CHART

RJAH / HYAKURI

VOR RWY21R

HYAKURI APP 120.1 - 123.875 305.7 - 362.3	HYAKURI VORTAC 113.3 HUC CH-80X 36°11'13"N/140°24'49"E	HYAKURI TWR 118.025- 126.2 236.8 - 323.8 119.5G - 275.8G	RADAR AVBL
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DME to HUC	1.0	1.5	5.5	11.0
NM to THR	0.6	1.1	5.1	10.6

MINIMA		THR elev. 107	AD elev. 107	
CAT	MDA(H)		CIRCLING	
	470 (363)	RVR/CMV	MDA(H)	VIS
		1500	580 (473)	1600
		1800		2400
2000		660 (553)	3200	

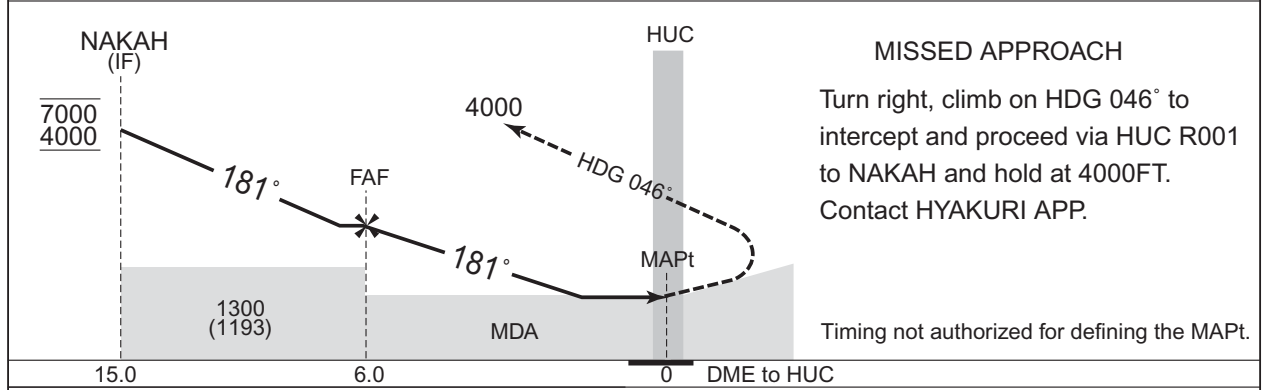
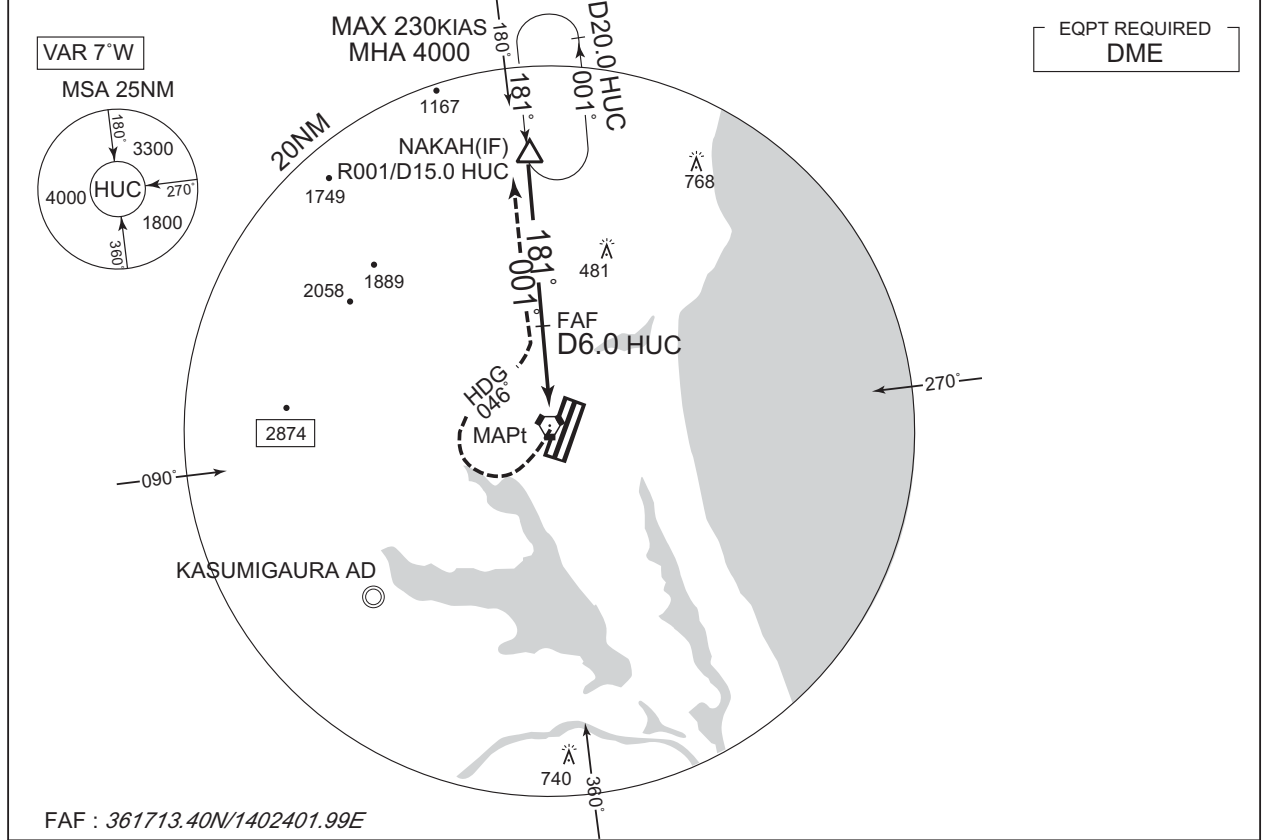
CHANGE : Description of VAR. OBST added(790FT).

INSTRUMENT APPROACH CHART

RJAH / HYAKURI

VOR B

HYAKURI APP 120.1 - 123.875 305.7 - 362.3	HYAKURI VORTAC 113.3 HUC CH-80X 36°11'13"N/140°24'49"E	HYAKURI TWR 118.025- 126.2 236.8 - 323.8 119.5G - 275.8G	RADAR AVBL
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CHANGE : Description of VAR.

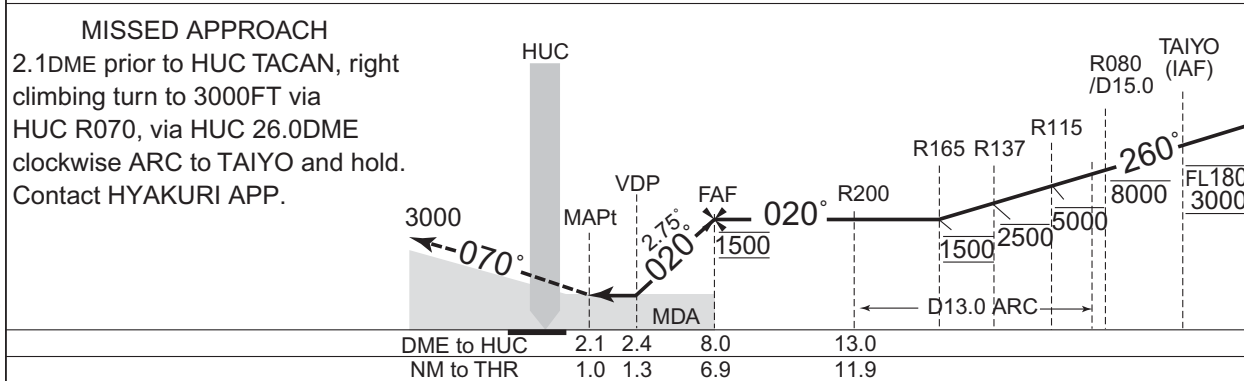
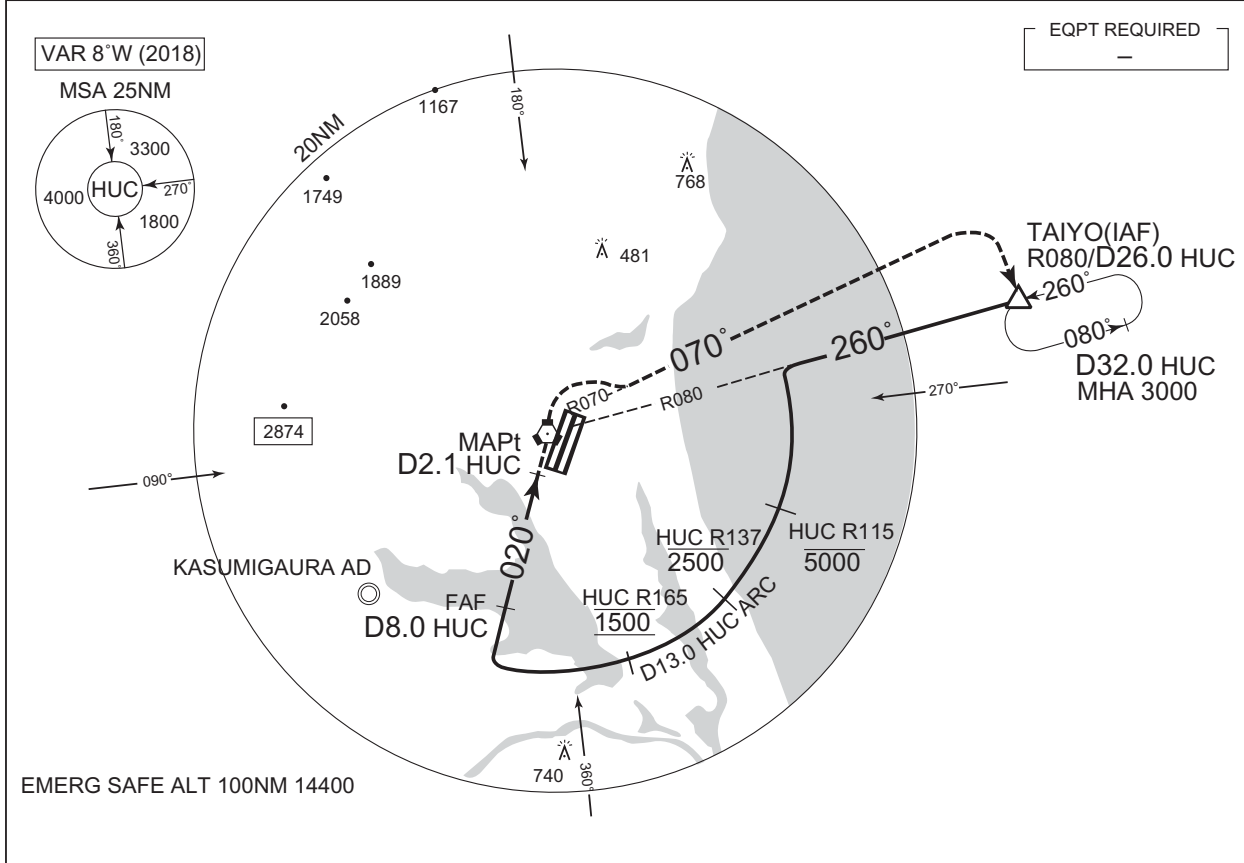
MINIMA		AD elev. 107
CAT	CIRCLING	
	MDA(H)	VIS
A	580 (473)	1600
B		2400
C	660 (553)	3200
D		

INSTRUMENT APPROACH CHART

RJAH / HYAKURI

TACAN Z RWY03R

HYAKURI APP 120.1 - 123.875 305.7 - 362.3	HYAKURI VORTAC 113.3 HUC --- CH-80X 36°11'13"N/140°24'49"E	HYAKURI TWR 118.025- 126.2 236.8 - 323.8 119.5G - 275.8G	RADAR AVBL
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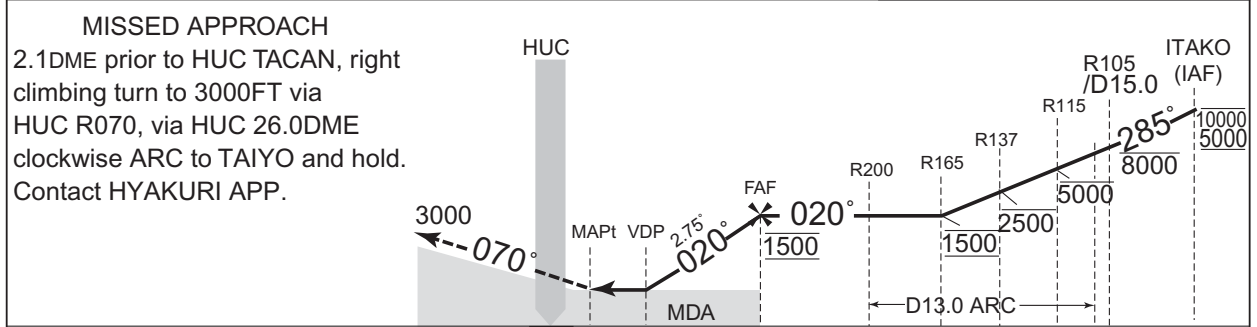
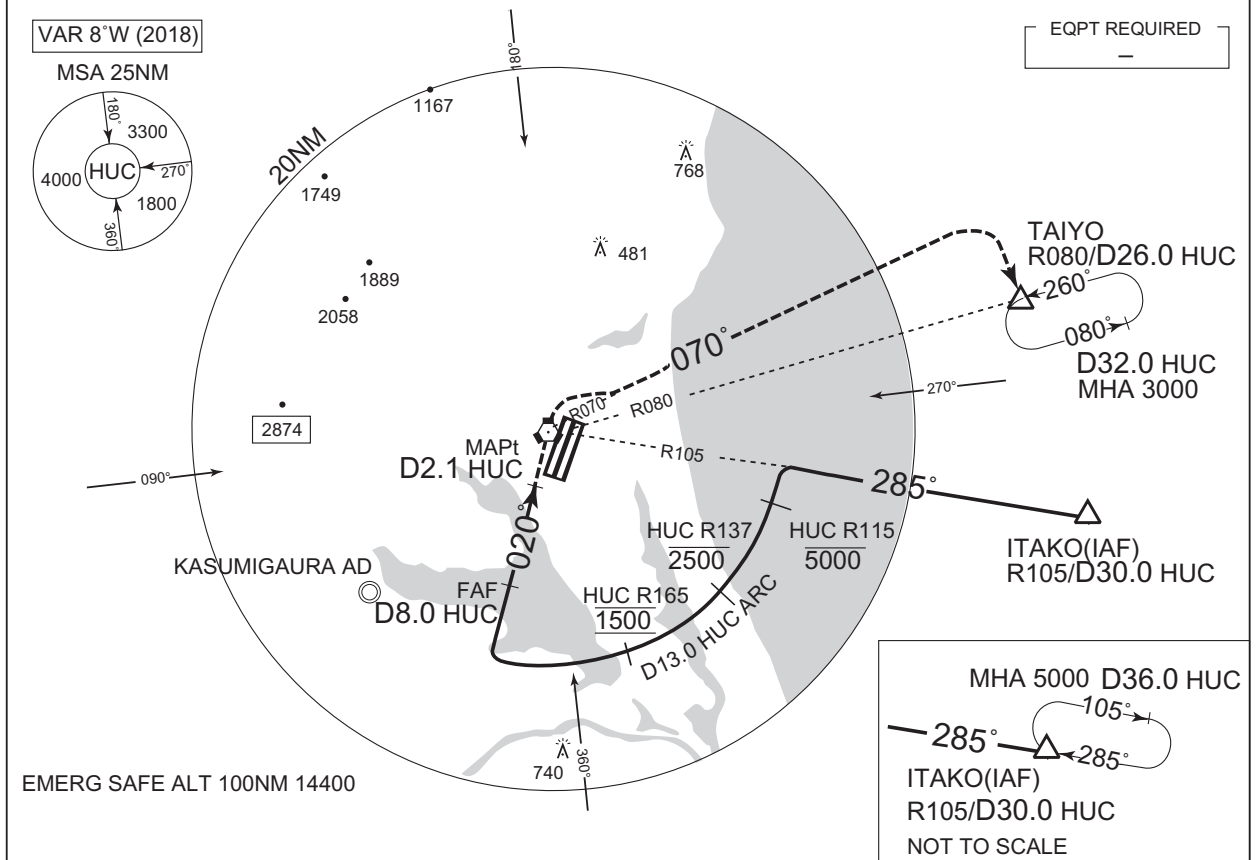
MINIMA		THR elev. 107	AD elev. 107
CAT	CIRCLING		
	MDA(H)	RVR/CMV	MDA(H) VIS
A	540 (433)	1000	580 (473) 1600
B		1200	2400
C		1600	660 (553) 3200
D			

INSTRUMENT APPROACH CHART

RJAH / HYAKURI

TACAN Y RWY03R

HYAKURI APP 120.1 - 123.875 305.7 - 362.3	HYAKURI VORTAC 113.3 HUC $\text{---}\cdot\text{---}$ CH-80X 36°11'13"N/140°24'49"E	HYAKURI TWR 118.025- 126.2 236.8 - 323.8 119.5G - 275.8G	RADAR AVBL
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DME to HUC	2.1	2.4	8.0	13.0
NM to THR	1.0	1.3	6.9	11.9

MINIMA		THR elev. 107	AD elev. 107	
CAT			CIRCLING	
	MDA(H)	RVR/CMV	MDA(H)	VIS
A	540 (433)	1000	580 (473)	1600
B		1200		
C		1600	660 (553)	2400
D				3200

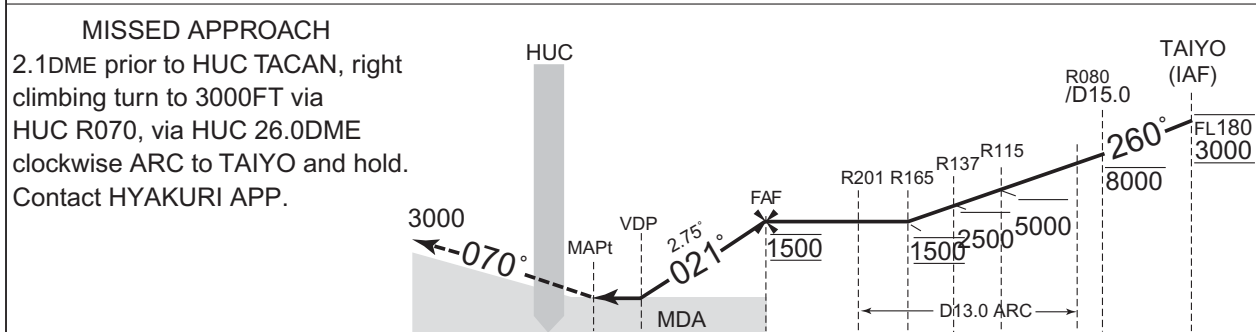
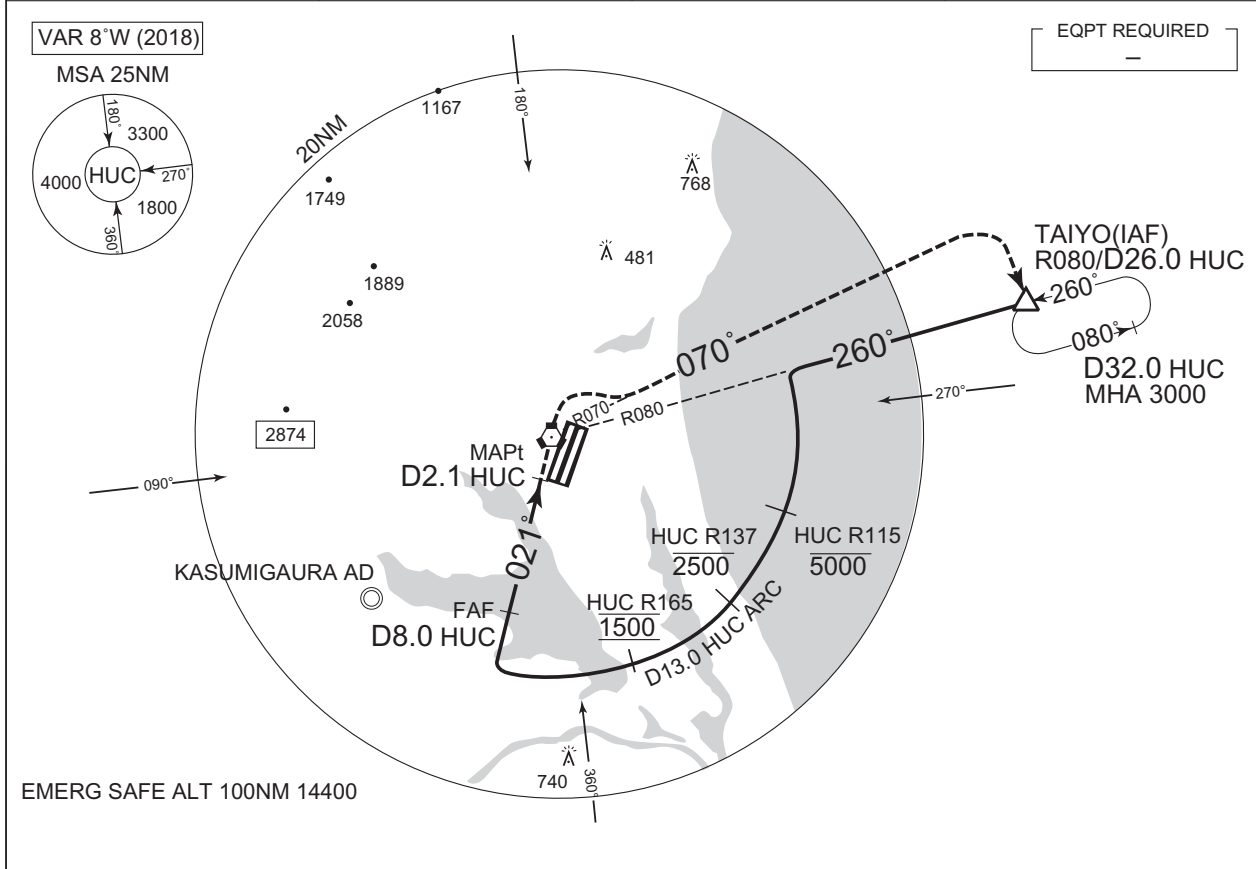
CHANGE : DME to HUC at VDP. NM to THR at VDP.

INSTRUMENT APPROACH CHART

RJAH / HYAKURI

TACAN Z RWY03L

HYAKURI APP 120.1 - 123.875 305.7 - 362.3	HYAKURI VORTAC 113.3 HUC CH-80X 36°11'13"N/140°24'49"E	HYAKURI TWR 118.025- 126.2 236.8 - 323.8 119.5G - 275.8G	RADAR AVBL
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DME to HUC	2.1	2.4	8.0	13.0
NM to THR	1.0	1.3	6.9	11.9

MINIMA		THR elev. 107	AD elev. 107	
CAT	MDA(H)	RVR/CMV	CIRCLING	
			MDA(H)	VIS
A	540 (433)	1400	580 (473)	1600
B		1500		
C		1600	660 (553)	2400
D		1800		

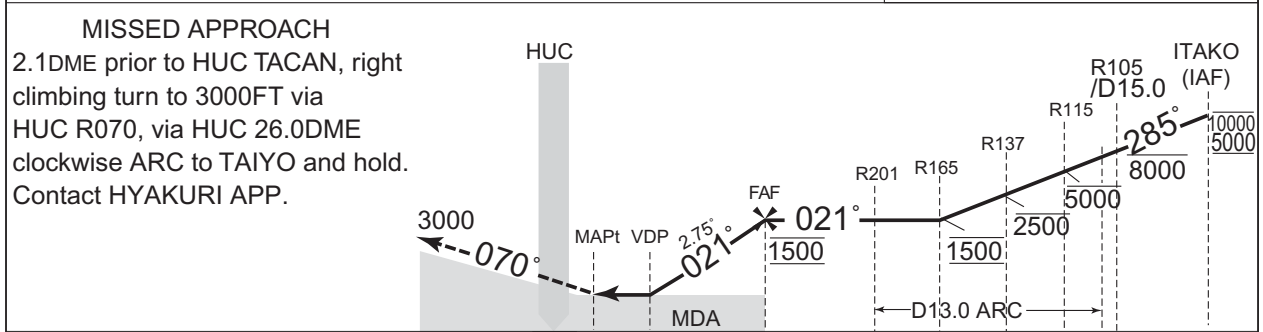
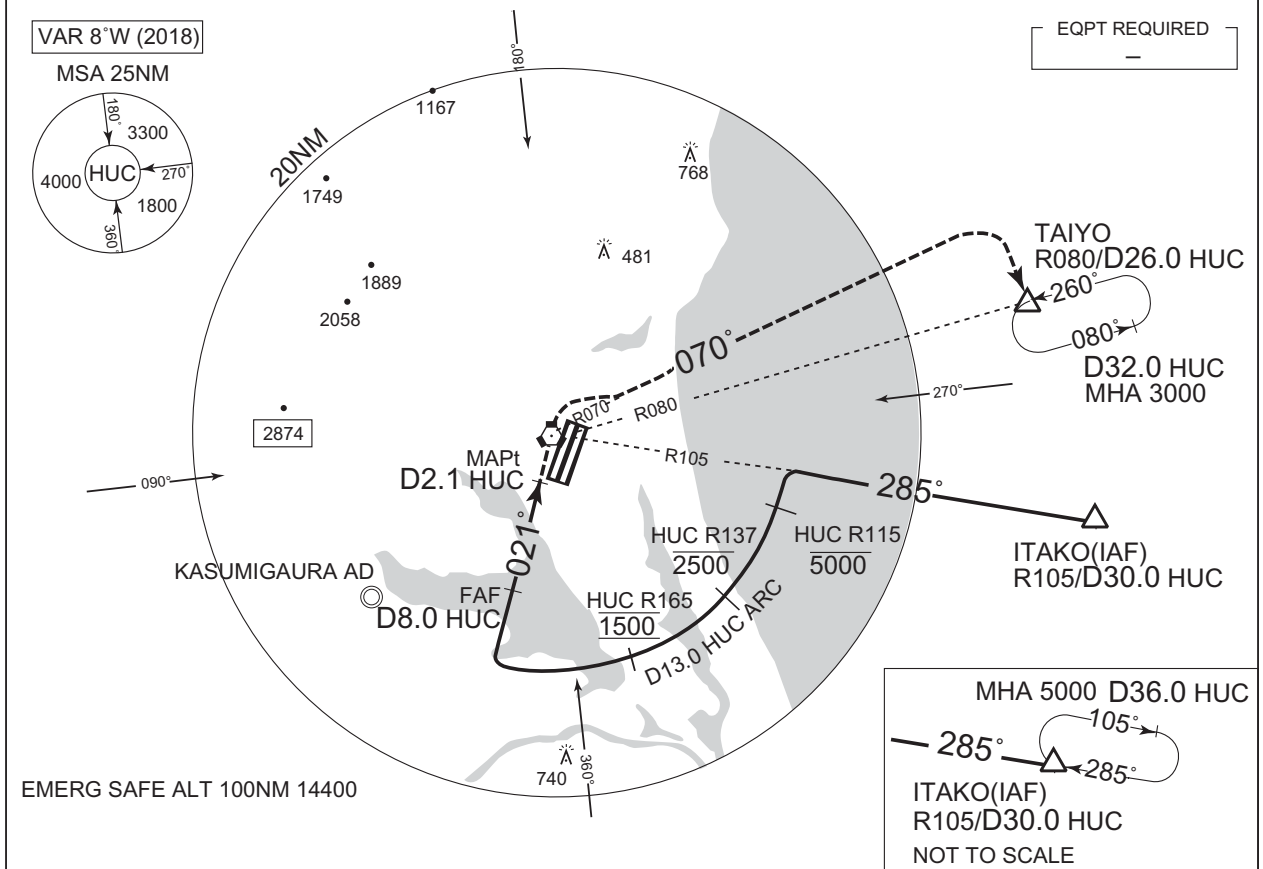
CHANGE : DME to HUC at VDP. NM to THR at VDP.

INSTRUMENT APPROACH CHART

RJAH / HYAKURI

TACAN Y RWY03L

HYAKURI APP 120.1 - 123.875 305.7 - 362.3	HYAKURI VORTAC 113.3 HUC $\ddot{\text{H}}$ CH-80X 36°11'13"N/140°24'49"E	HYAKURI TWR 118.025- 126.2 236.8 - 323.8 119.5G - 275.8G	RADAR AVBL
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DME to HUC	2.1	2.4	8.0	13.0
NM to THR	1.0	1.3	6.9	11.9

MINIMA		THR elev. 107	AD elev. 107	
CAT			CIRCLING	
	MDA(H)	RVR/CMV	MDA(H)	VIS
A	540 (433)	1400	580 (473)	1600
B		1500		
C		1600	660 (553)	2400
D		1800		

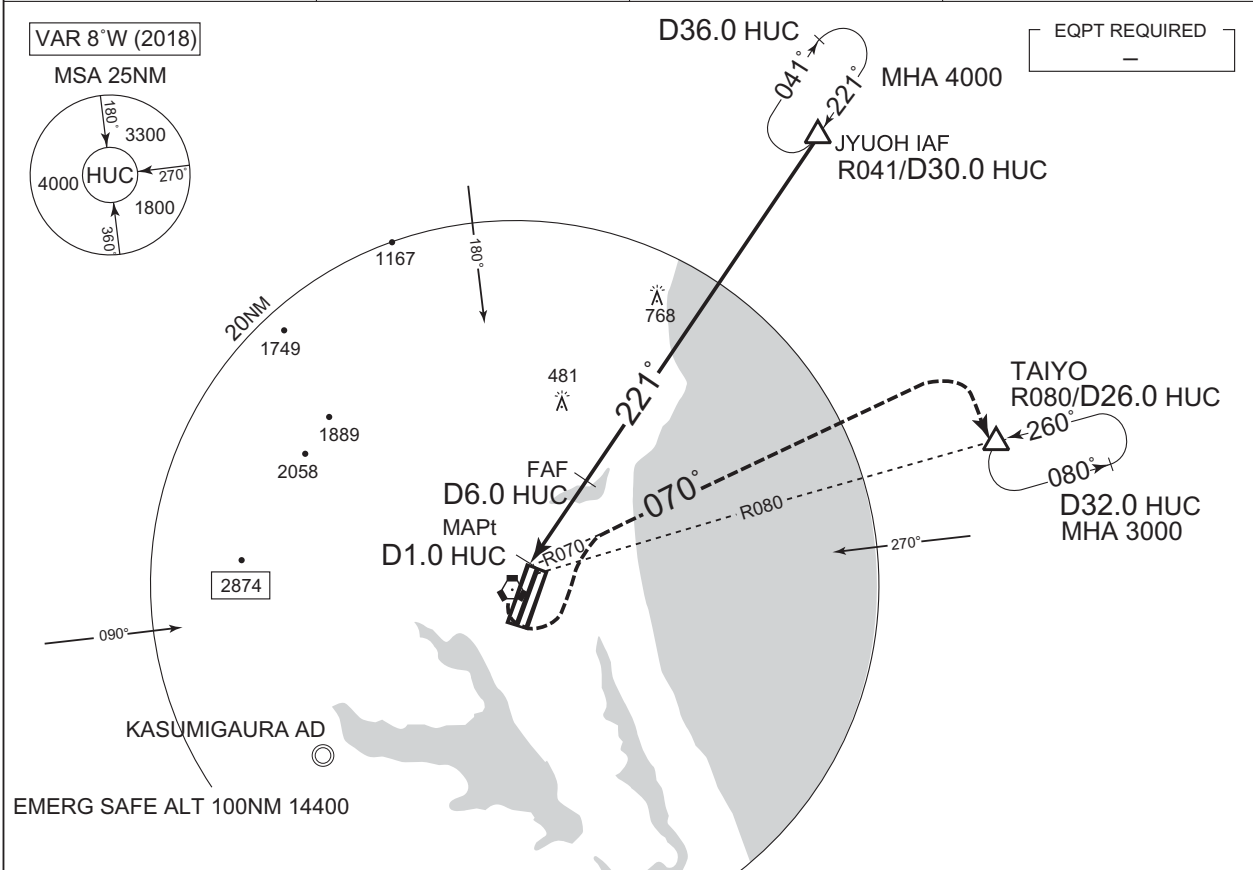
CHANGE : DME to HUC at VDP. NM to THR at VDP.

INSTRUMENT APPROACH CHART

RJAH / HYAKURI

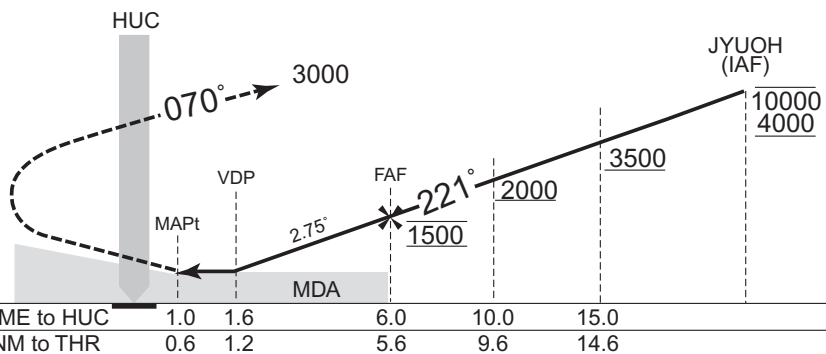
TACAN Z RWY21L

HYAKURI APP 120.1 - 123.875 305.7 - 362.3	HYAKURI VORTAC 113.3 HUC $\ddot{\text{H}}$ CH-80X 36°11'13"N/140°24'49"E	HYAKURI TWR 118.025- 126.2 236.8 - 323.8 119.5G - 275.8G	RADAR AVBL
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MISSED APPROACH

1.0DME prior to HUC TACAN, left climbing turn to 3000FT via HUC R070, via HUC 26.0DME clockwise ARC to TAIYO and hold.
Contact HYAKURI APP.

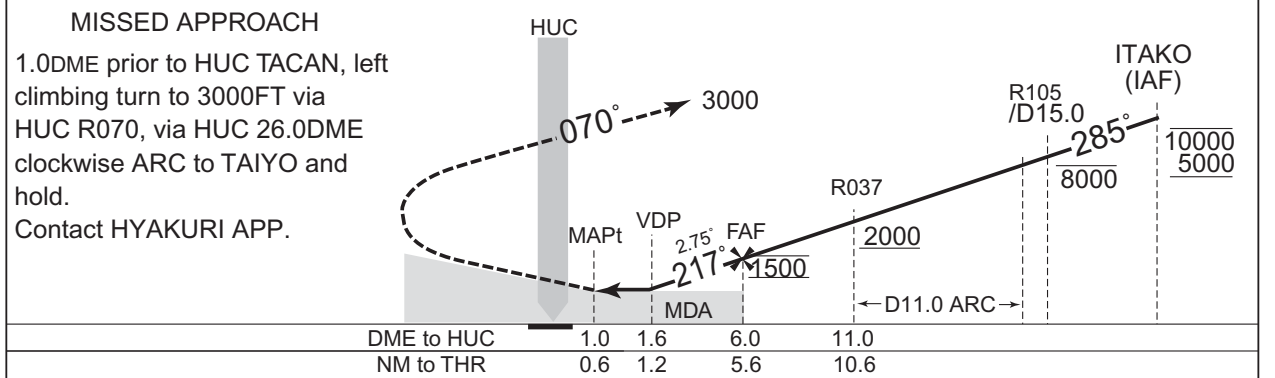
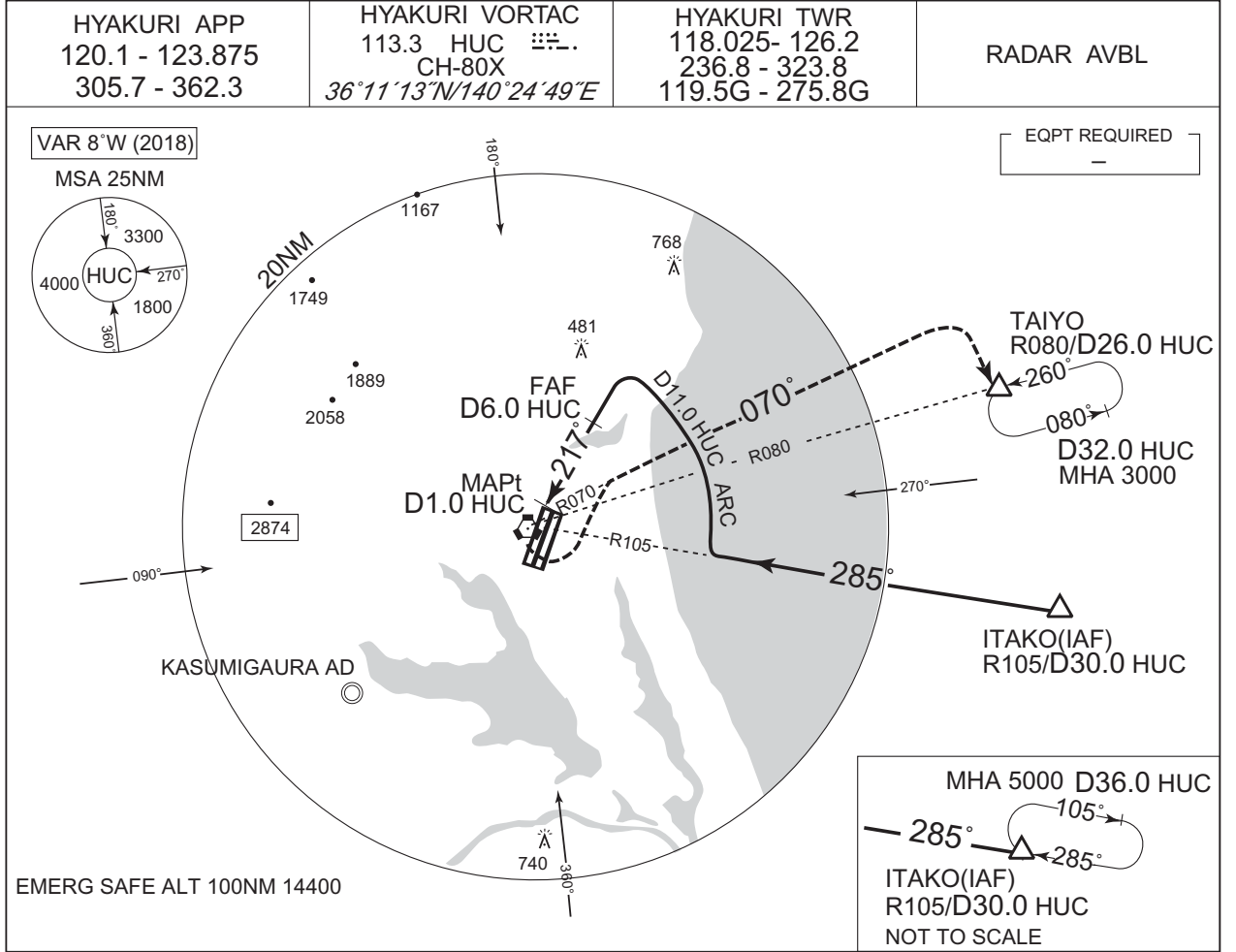


CHANGE : DME to HUC at VDP. NM to THR at VDP.

MINIMA		THR elev. 107	AD elev. 107	
CAT	MDA(H)		CIRCLING	
	RVR/CMV	MDA(H)	VIS	
A	500 (393)	900	580 (473)	1600
B		1000		
C		1400	660 (553)	2400
D				3200

INSTRUMENT APPROACH CHART

RJAH / HYAKURI TACAN Y RWY21L



CHANGE : DME to HUC at VDP. NM to THR at VDP.

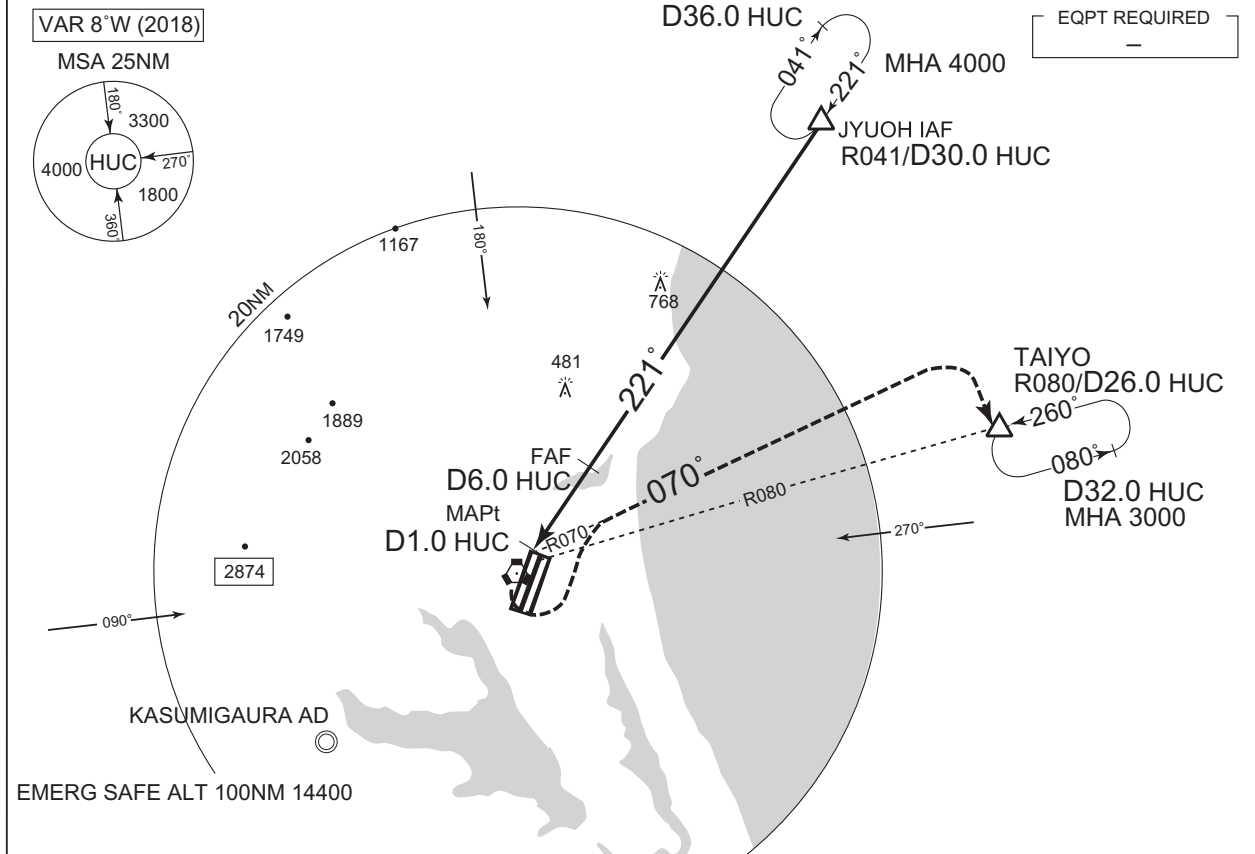
MINIMA		THR elev. 107	AD elev. 107	
CAT			CIRCLING	
	MDA(H)	RVR/CMV	MDA(H)	VIS
A	500 (393)	900	580 (473)	1600
B		1000		
C			660 (553)	2400
D		1400	3200	

INSTRUMENT APPROACH CHART

RJAH / HYAKURI

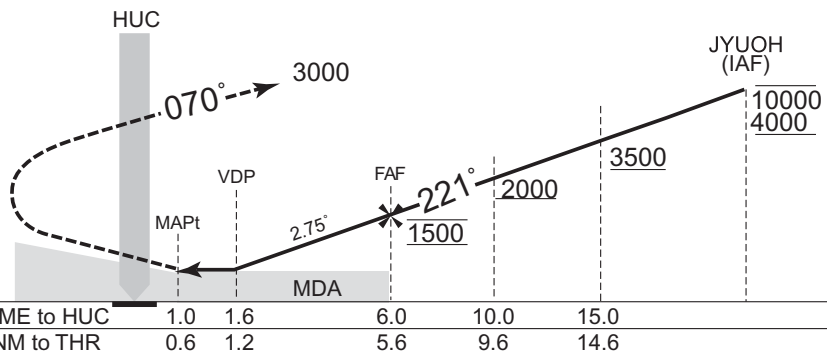
TACAN Z RWY21R

HYAKURI APP 120.1 - 123.875 305.7 - 362.3	HYAKURI VORTAC 113.3 HUC $\equiv \equiv \dots$ CH-80X 36°11'13"N/140°24'49"E	HYAKURI TWR 118.025- 126.2 236.8 - 323.8 119.5G - 275.8G	RADAR AVBL
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MISSED APPROACH

1.0DME prior to HUC TACAN, left climbing turn to 3000FT via HUC R070, via HUC 26.0DME clockwise ARC to TAIYO and hold. Contact HYAKURI APP.



CHANGE : DME to HUC at VDP. NM to THR at VDP.

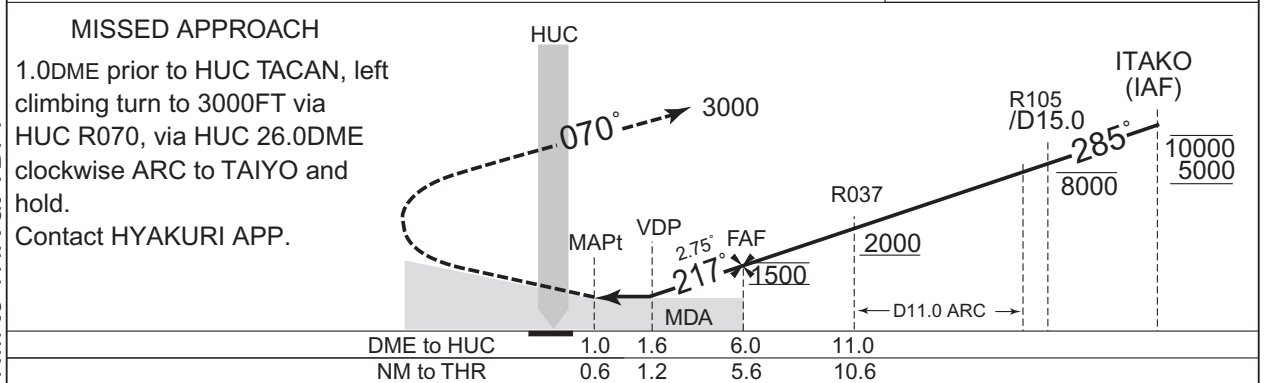
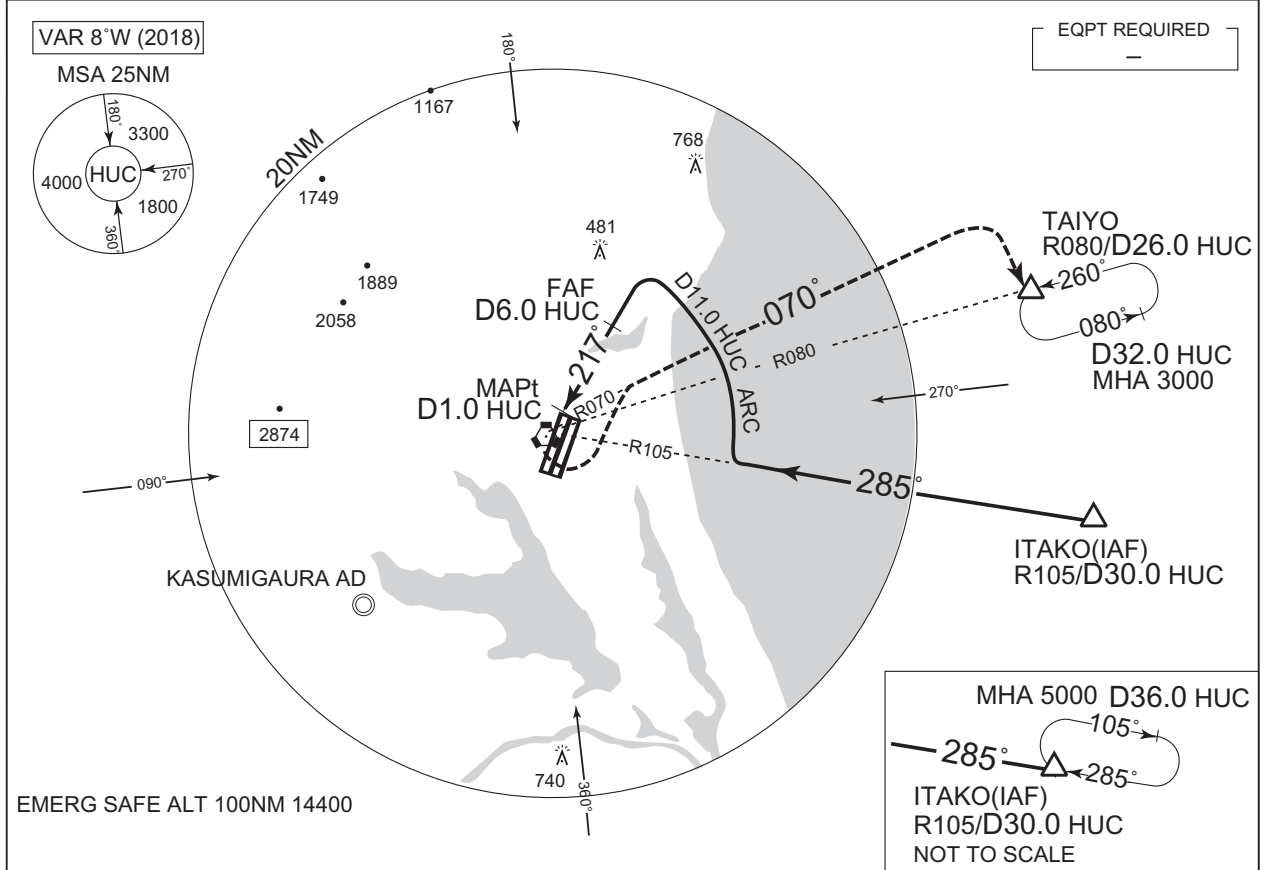
MINIMA		THR elev. 107	AD elev. 107			
CAT			CIRCLING			
	MDA(H)	RVR/CMV	MDA(H)	VIS		
A	500 (393)	1500	580 (473)	1600		
B						
C					1800	2400
D					2000	3200

INSTRUMENT APPROACH CHART

RJAH / HYAKURI

TACAN Y RWY21R

HYAKURI APP 120.1 - 123.875 305.7 - 362.3	HYAKURI VORTAC 113.3 HUC $\text{---}\cdot\text{---}$ CH-80X 36°11'13"N/140°24'49"E	HYAKURI TWR 118.025- 126.2 236.8 - 323.8 119.5G - 275.8G	RADAR AVBL
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CHANGE : DME to HUC at VDP. NM to THR at VDP.

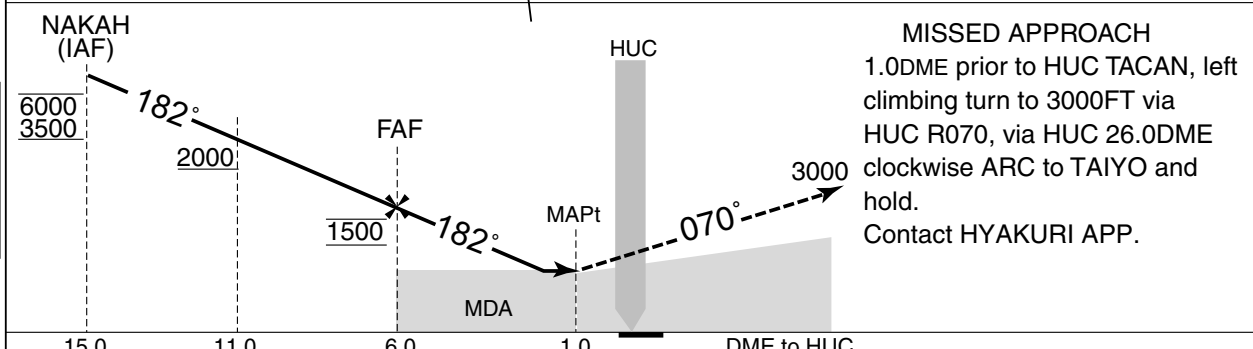
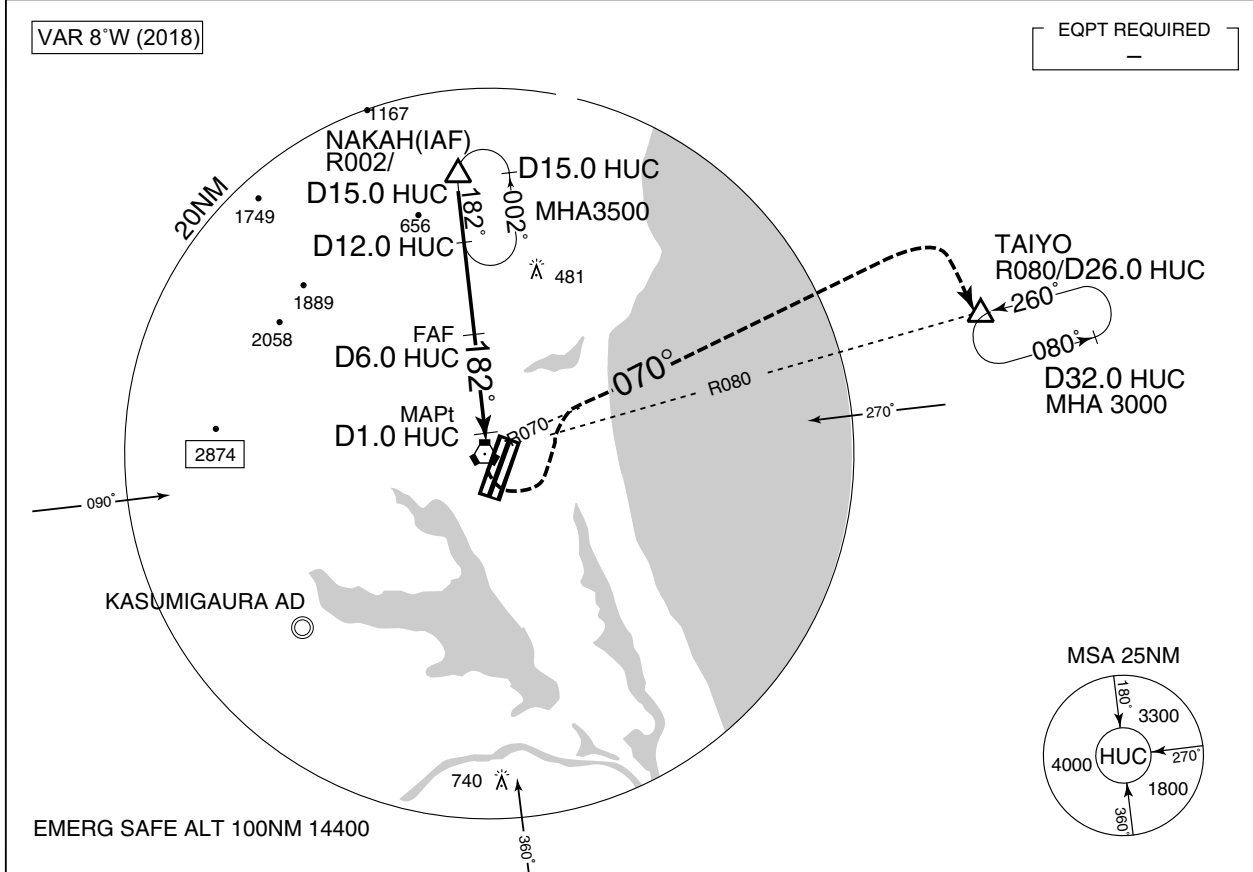
MINIMA		THR elev. 107	AD elev. 107		
CAT			CIRCLING		
	MDA(H)	RVR/CMV	MDA(H)	VIS	
A	500 (393)	1500	580 (473)	1600	
B		1800	660 (553)	2400	
C					2000
D					

INSTRUMENT APPROACH CHART

RJAH / HYAKURI

TACAN A

HYAKURI APP 120.1 - 123.875 305.7 - 362.3	HYAKURI VORTAC 113.3 HUC \equiv CH-80X 36°11'13"N/140°24'49"E	HYAKURI TWR 118.025- 126.2 236.8 - 323.8 119.5G - 275.8G	RADAR AVBL
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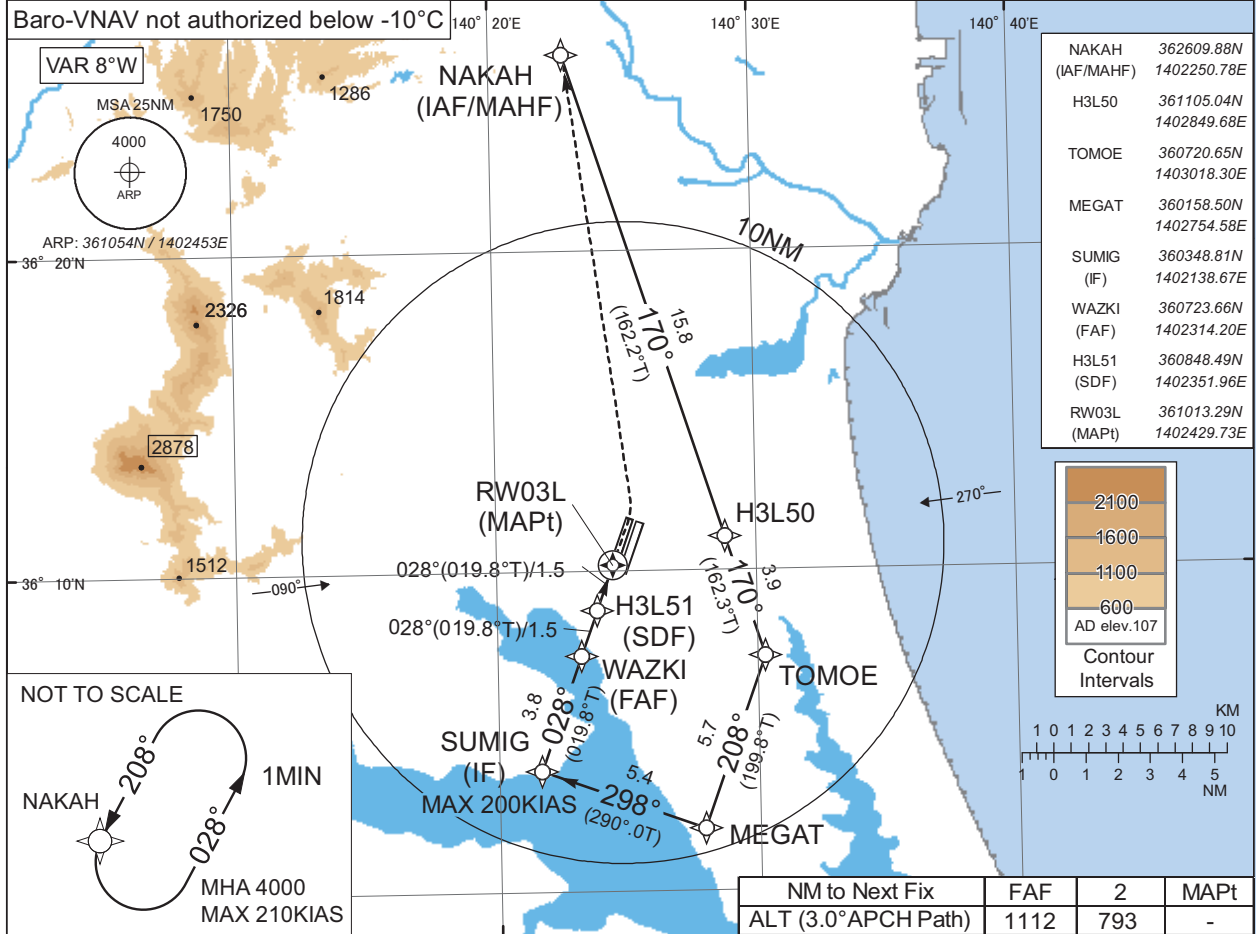
MINIMA		AD elev. 107	
CAT	CIRCLING		
	MDA(H)	VIS	
A	580 (473)	1600	
B		2400	
C	660 (553)	3200	
D			

INSTRUMENT APPROACH CHART

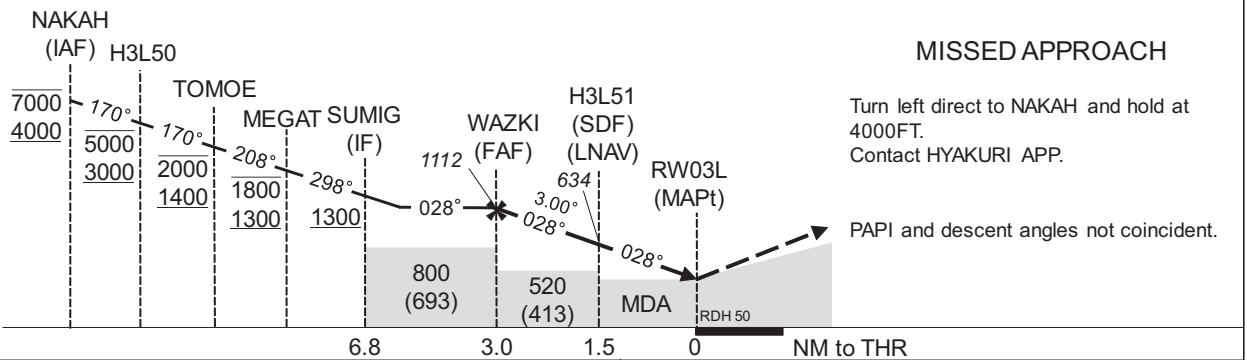
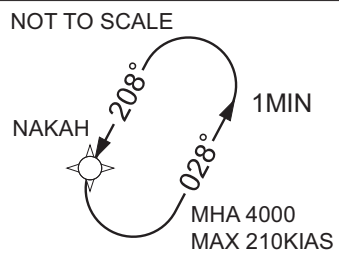
RJAH / HYAKURI

RNP RWY03L

HYAKURI APP 120.1 - 123.875 305.7 - 362.3	RNP APCH	HYAKURI TWR 118.025 - 126.2 236.8 - 323.8 119.5G - 275.8G	RADAR AVBL
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CHANGE : Missed APCH PROC for using VORTAC abolished. RNAV HLDG established. HLDG for using NAVAID abolished.



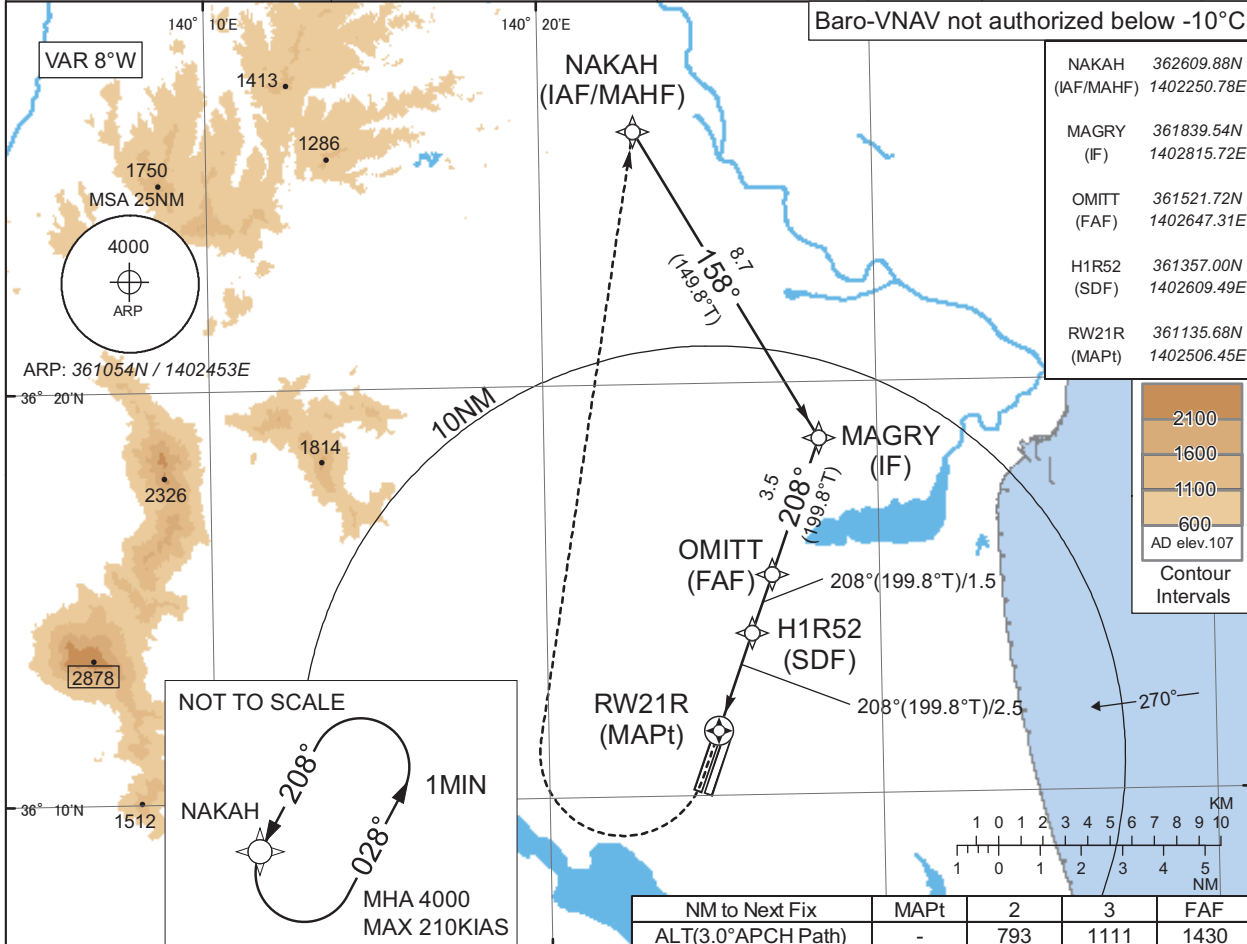
CAT	LNAV/VNAV		LNAV		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	490(383)	1200	490(383)	1200	580(473)	1600
B		1300		1300		
C		1400		1400		
D		1600		1600		

INSTRUMENT APPROACH CHART

RJAH / HYAKURI

RNP RWY21R

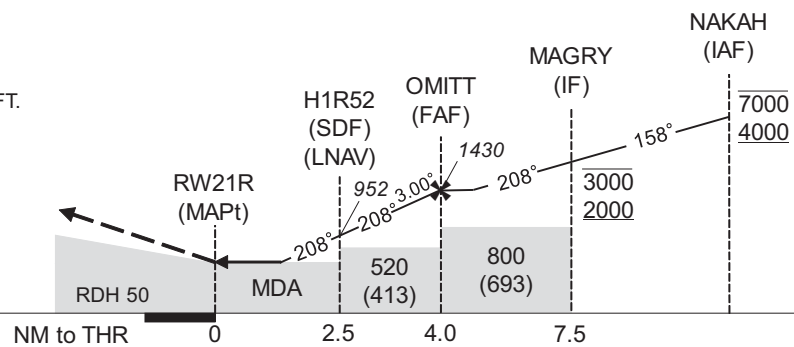
HYAKURI APP 120.1 - 123.875 305.7 - 362.3	RNP APCH	HYAKURI TWR 118.025 - 126.2 236.8 - 323.8 119.5G - 275.8G	RADAR AVBL
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MISSED APPROACH

Turn right direct to NAKAH and hold at 4000FT.
Contact HYAKURI APP.

PAPI and descent angles not coincident.



CAT	THR elev. 107		AD elev. 107			
	LNAV/VNAV		LNAV		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A						
B	500(393)	1500	500(393)	1500	580(473)	1600
C		1800		1800		2400
D	520(413)	2000	520(413)	2000	660(553)	3200

CHANGE : Missed APCH PROC for using VORTAC abolished. RNAV HLDG established. HLDG for using NAVAID abolished.

RJAH / HYAKURI

Minimum Vectoring Altitude CHART

