

**INSTRUMENT
APPROACH
CHART**

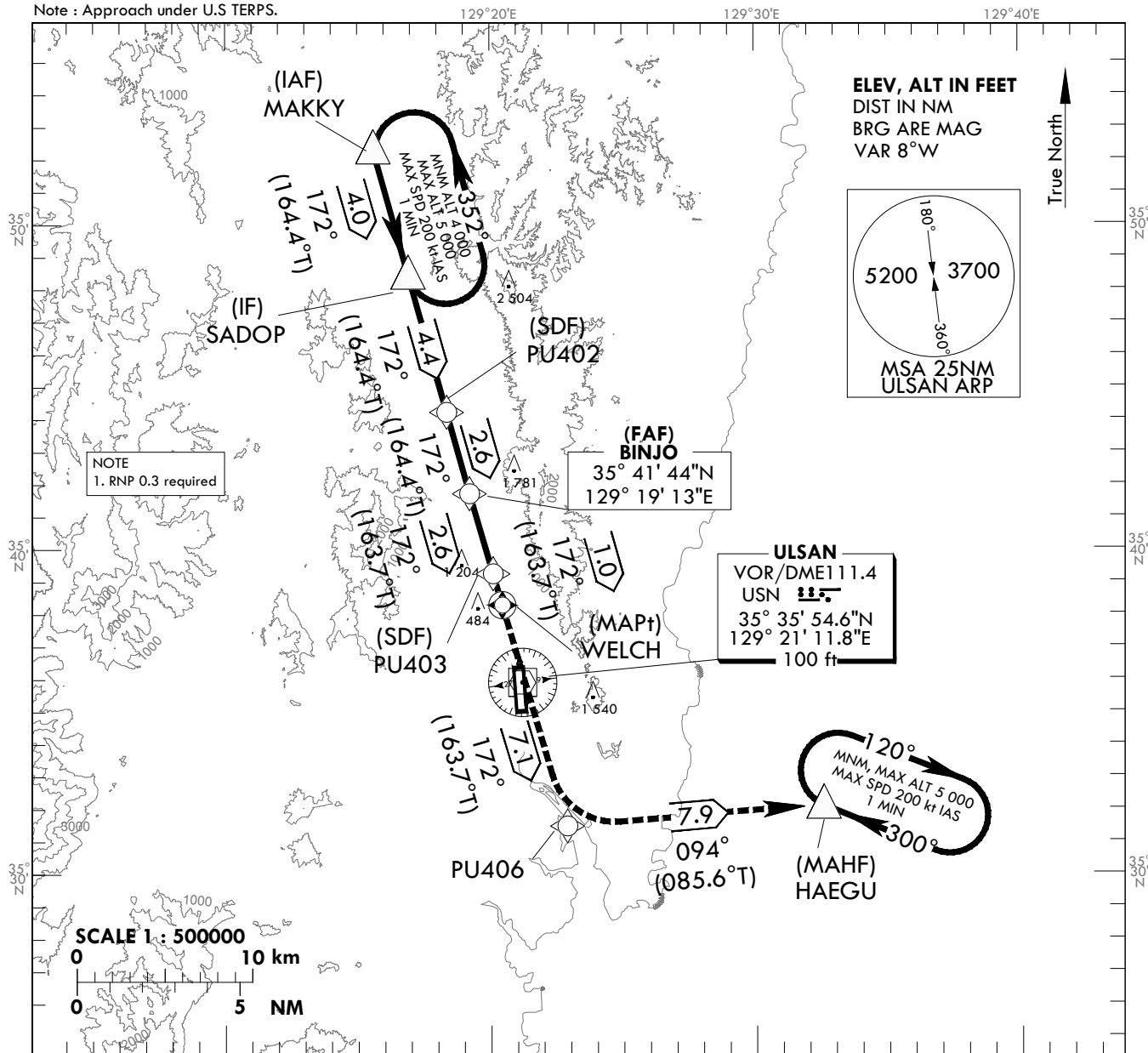
AERODROME ELEV 42 ft
HEIGHTS RELATED TO
THR RWY 18 - ELEV 42 ft

POHANG APP 124.25
120.2
ULSAN TWR 118.75

ULSAN/Ulsan(RKPU)

RNAV(GNSS) RWY 18

Note : Approach under U.S TERPS.

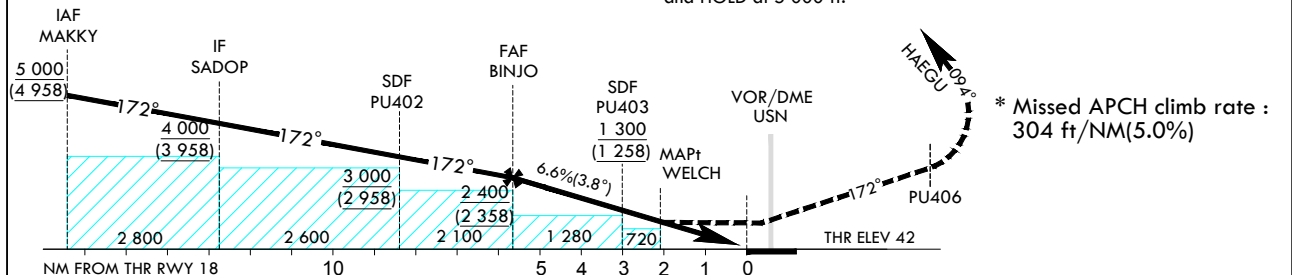


RECOMMENDED PROFILE(FAA)	THR RWY 18	5	4	3	2.2
Final Approach Gradient 6.58%, 400 ft/NM	ALT(HGT)	2 092 (2 050)	1 692 (1 650)	1 292 (1 250)	990 (948)

TRANSITION ALT 14 000
TRANSITION LVL FL 140

MISSED APPROACH

Climb on track of 172° to PU406 then LEFT turn on track of 094° to HAEGU and HOLD at 5 000 ft.



CATEGORY				MDA(H)	A	B	C	D	Rate of descent V _v /V fpm	Knots	60	90	120	150	180
STA	LNAV	FULL	ALS INOP	990 (948)	3 600 m	3 900 m	3 900 m	NA							
					4 000 m	4 300 m	4 300 m	NA							

* Timing Not authorized for defining MAPt.
* Circling Not authorized.

Change : Information of radial, obstacle height and Missed approach.

ULSAN/Ulsan(RKPU)
RNAV(GNSS) RWY 18
HOLDING PROCEDURE

AERONAUTICAL DATA TABULATION

Instrument Approach Procedure Coding Tables

RNAV(GNSS) RWY 18

Serial Number	Path Descriptor	Waypoint Identifier	Fly-over	Course/Track °M(T)	Distance (NM)	Turn direction	Altitude (ft)	Speed (kt)	Coordinates	VPA/RDH	Navigation specification	Remarks
001	IF	MAKKY	-	-	-	-	+5 000	-	355218.8N 1291535.8E	-	RNP APCH	IAF
002	TF	SADOP	-	172(164.4)	4.0	-	+4 000	-	354827.1N 1291655.0E	-	RNP APCH	IF
003	TF	PU402	-	172(164.4)	4.4	-	+3 000	-	354414.2N 1291821.4E	-	RNP APCH	SDF
004	TF	BINJO	-	172(164.4)	2.6	-	+2 400	-	354143.5N 1291912.8E	-	RNP APCH	FAF
005	TF	PU403	-	172(163.7)	2.6	-	+1 300	-	353915.5N 1292005.6E	-	RNP APCH	SDF
006	TF	WELCH	Y	172(163.7)	1.0	-	+990	-	353817.7N 1292026.4E	-3.77/50	RNP APCH	MAPt
007	TF	PU406	-	172(163.7)	7.1	-	-	-	353129.1N 1292252.3E	-	RNP APCH	-
008	TF	HAEGU	Y	094(085.6)	7.9	-	-	-	353206.7N 1293232.3E	-	RNP APCH	-
009	HM	HAEGU	Y	300(292.1)	-	R	@5 000	-200	353206.7N 1293232.3E	-	RNP APCH	1 min (Outbound timing)

HOLDING PROCEDURE

Holding Identification	Path Descriptor	Waypoint Identifier	Fly-over	Course/Track °M(T)	Time (min)	Turn direction	Altitude (ft)	Speed (kt)	Coordinates	VPA/RDH	Navigation specification	Remarks
RNAV(GNSS) RWY 18	HM	SADOP	Y	172(164.4)	1.0	L	-5 000 +4 000	-200	354827.1N 1291655.0E	-	RNAV 1	-

Change : Information of Course/Track.

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AERODROME ELEV 42 ft
HEIGHTS RELATED TO
THR RWY 18 - ELEV 42 ft

POHANG APP 124.25
120.2
ULSAN TWR 118.75

ULSAN/Ulsan(RKPU)

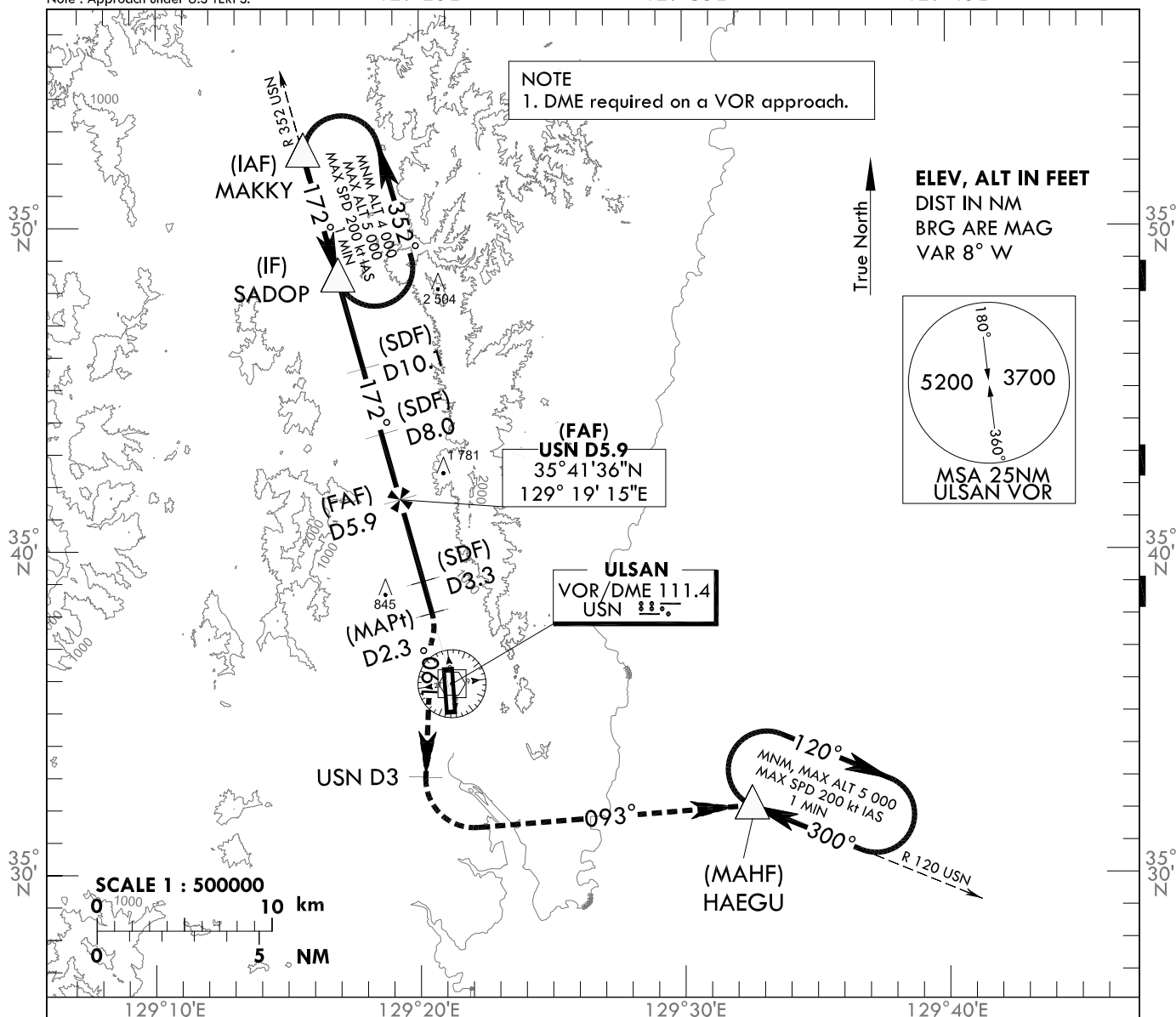
VOR RWY 18

Note : Approach under U.S TERPS.

129°20'E

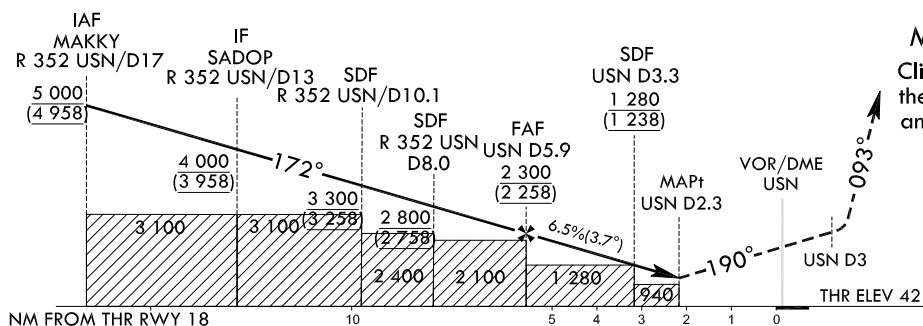
129°30'E

129°40'E



TRANSITION ALT 14 000
TRANSITION LVL FL 140

RECOMMENDED PROFILE(FAA)		DME USN	5	4	3	2.8
Final Approach Gradient 6.45%, 392 ft/NM		ALT(HGT)	1 947 (1 906)	1 556 (1 514)	1 164 (1 122)	1 080 (1 038)



MISSED APPROACH

Climb on HDG 190° to USN 3DME,
then LEFT turn direct to HAEGU
and Hold at 5 000 ft.

* Missed APCH climb rate :
200 ft/NM(3.3%)

CATEGORY		MDA(MDH)	A	B	C	D	Knots					
STA	FULL	1 090 (1 048)	3 600 m	4 400 m	NA	Rate of descent	V/V fpm	392	588	784	980	1 175
	ALS INOP		4 000 m	4 800 m	NA		* Timing Not authorized for defining MAPt. * Circling Not authorized.					

Change : Information of obstacle height.

OFFICE OF CIVIL AVIATION

AIRAC AIP AMDT 12/16
Effective : 1600UTC 7 DEC 2016

ULSAN/Ulsan(RKPU)
VOR RWY 18
AERONAUTICAL DATA TABULATION

VOR Approach to RWY 18 from MAKKY			
Fix/point		Coordinates	
MAKKY (IAF)	R 352 USN / 17.00 NM USN	35°52'18.8"N	129°15'35.8"E
SADOP (IF)	BRG 172.29° / 13.00 NM USN	35°48'27.1"N	129°16'55.0"E
D10.1 USN (SDF)	BRG 172.29° / 10.10 NM USN	35°45'39.1"N	129°17'51.8"E
D8.0 USN (SDF)	BRG 172.29° / 8.00 NM USN	35°43'37.6"N	129°18'33.5"E
D5.9 USN (FAF)	BRG 172.29° / 5.90 NM USN	35°41'36.0"N	129°19'15.1"E
D3.3 USN (SDF)	BRG 172.29° / 3.28 NM USN	35°39'04.4"N	129°20'07.0"E
D2.3 USN (MAPt)	BRG 172.29° / 2.26 NM USN	35°38'05.4"N	129°20'27.1"E
THR RWY18		35°36'08.89"N	129°21'03.54"E
USN VOR/DME		35°35'54.6"N	129°21'11.8"E
D3 USN	BRG 190.29° / 3.00 NM USN	35°33'01.3"N	129°20'11.6"E
HAEGU	BRG 93.43° / 10.00 NM USN	35°32'06.7"N	129°32'32.3"E

Change : Bearing information.

**INSTRUMENT
APPROACH
CHART - ICAO**

AERODROME ELEV 42 ft
HEIGHTS RELATED TO
THR RWY 36 - ELEV 28 ft

POHANG APP 124.25
120.2
ULSAN TWR 118.75

ULSAN/Ulsan(RKPU)

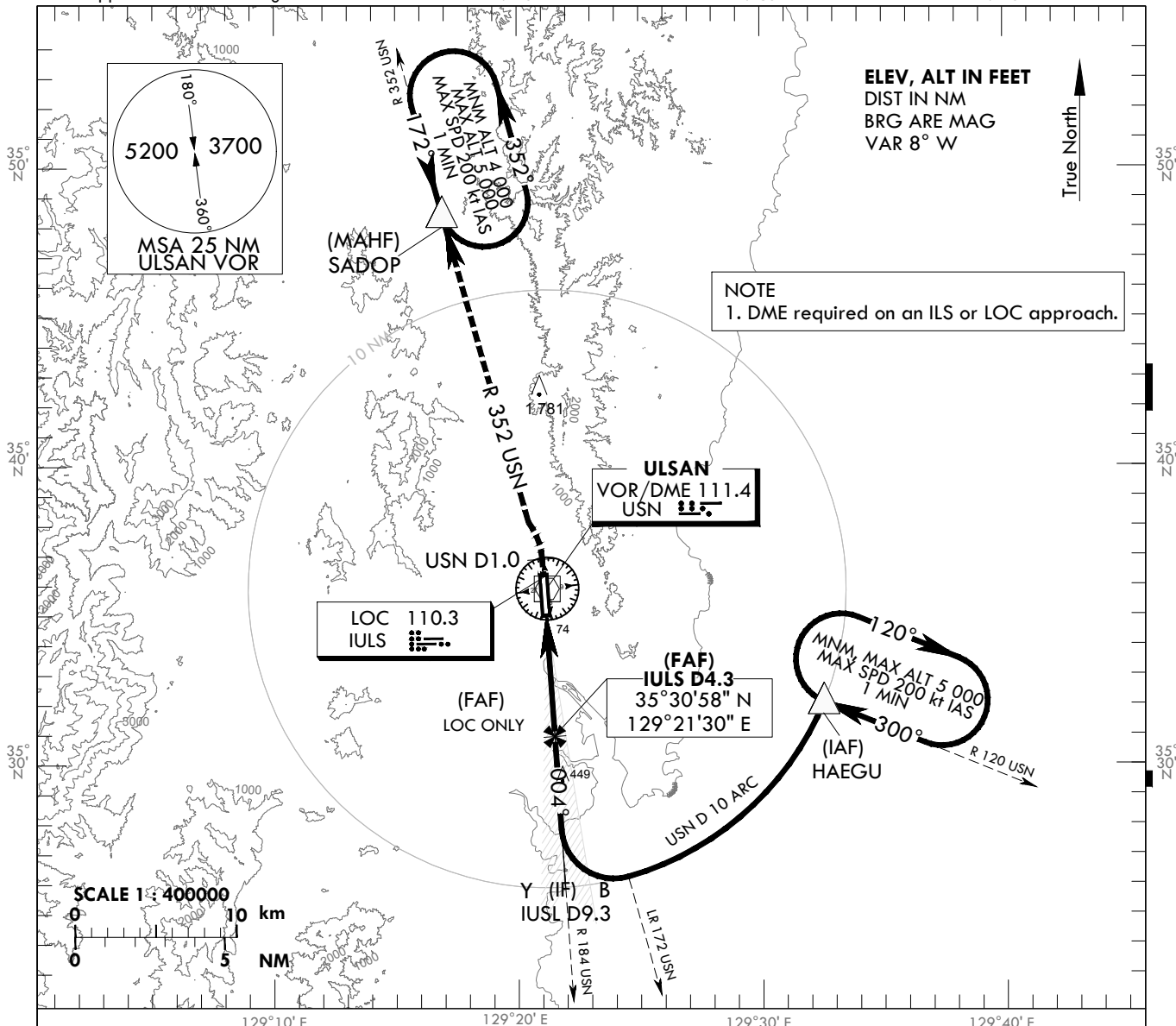
ILS or LOC Y RWY 36

Note : Approach under ICAO Flight Procedures.

129°20' E

129°30' E

129°40' E



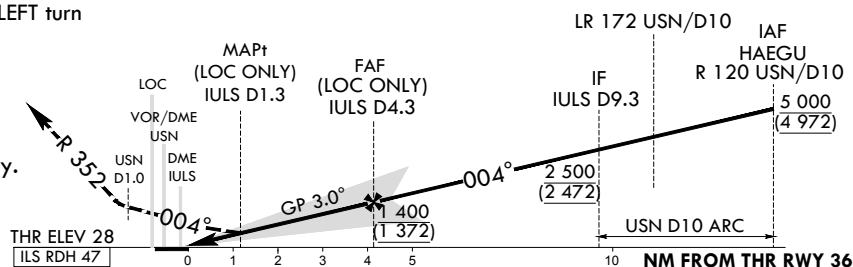
RECOMMENDED PROFILE(LOC ONLY)	DME IULS	6	5	4	3	2.3
Final Approach Gradient 5.28%, 321 ft/NM	ALT(HGT)	1 950 (1 922)	1 620 (1 592)	1 300 (1 272)	980 (952)	750 (722)

TRANSITION ALT 14 000
TRANSITION LVL FL 140

MISSED APPROACH

Climb on HDG 004° to USN 1 DME, then LEFT turn to intercept R 352 USN to SADOP
Hold at SADOP at 4 000 ft.

* Missed APCH turn limited to
MAX 200 kt IAS when 2.5% CG apply.



CATEGORY			DA(DH)/MDA(MDH)	A	B	C	D
STA	CAT-I (CG 2.5%)	FULL	710 (682)		3 000 m		
		ALS INOP			3 700 m		
	CAT-I (CG 5.0%)	FULL	246 (218)		800 m		
		ALS INOP			1 200 m		
	LOC	FULL	750 (722)		2 700 m		
		ALS INOP			3 400 m		

		Knots	60	90	120	150	180
Rate of descent	V/V fpm	318	478	637	796	955	

* Timing Not authorized for defining MAPt.
* Circling Not authorized.

Change : Information of obstacle height.

OFFICE OF CIVIL AVIATION

AIRAC AIP AMDT 12/16
Effective : 1600UTC 7 DEC 2016

ULSAN/Ulsan(RKPU)
ILS or LOC Y RWY 36
AERONAUTICAL DATA TABULATION

ILS or LOC Approach to RWY 36 from HAEGU			
Fix/point		Coordinates	
HAEGU(IAF)	R 120 USN / 10.00 NM USN	35°32'06.7" N	129°32'32.3" E
D9.3 IULS (IF)	BRG 3.97° / 9.30 NM IULS	35°25'54.7" N	129°21'54.8" E
D4.3 IULS (FAP)	BRG 3.97° / 4.30 NM IULS	35°30'57.6" N	129°21'29.5" E
D1.3 IULS (MAPt LOC ONLY)	BRG 3.97° / 1.30 NM IULS	35°33'55.7" N	129°21'14.7" E
THR RWY36		35°35'04.15" N	129°21'08.95" E
IULS DME		35°35'13.8" N	129°21'12.2" E
USN VOR/DME		35°35'54.6" N	129°21'11.8" E
IULS LOC		35°36'16.3" N	129°21'02.9" E
D1.0 USN	BRG 3.97° / 1.00 NM USN	35°36'53.8" N	129°20'59.8" E
SADOP	BRG 352.34° / 13.00 NM USN	35°48'27.1" N	129°16'55.0" E

Change : Bearing information.

**INSTRUMENT
APPROACH
CHART - ICAO**

AERODROME ELEV 42 ft
HEIGHTS RELATED TO
THR RWY 36 - ELEV 28 ft

POHANG APP 124.25
120.2
ULSAN TWR 118.75

ULSAN/Ulsan(RKPU)

ILS or LOC Z RWY 36

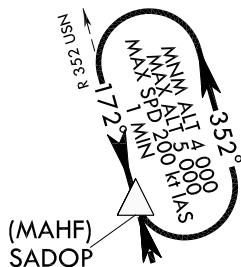
Note : Approach under ICAO Flight Procedures.

129°20' E

129°30' E

129°40' E

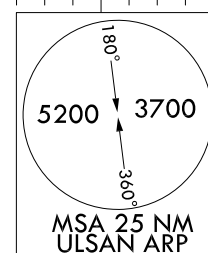
ELEV, ALT IN FEET
DIST IN NM
BRG ARE MAG
VAR 8° W



(MAHF)
SADOP

NOTE

1. RNAV 1 operation.
2. GNSS required.
3. ATS surveillance required.
4. DME required on an ILS or LOC approach.



ULSAN
VOR/DME 111.4
USN 118.5

USN D1.0

LOC 110.3
IULS 118.5

(FAF)
IULS D4.3
35°30'58" N
129°21'30" E

(FAF)
LOC ONLY

(IAF)
HAEGU



SCALE 1 : 400000
0 10 km
0 5 NM

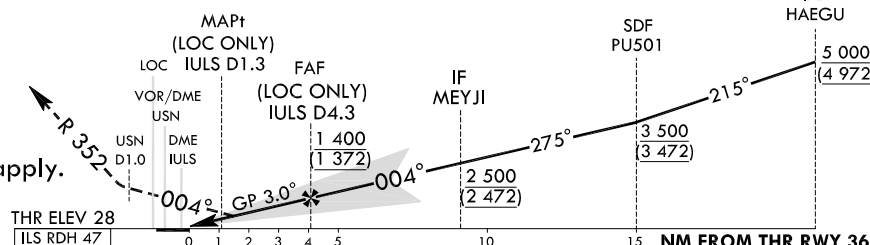
RECOMMENDED PROFILE(LOC ONLY)	DME IULS	6	5	4	3	2.3
Final Approach Gradient 5.28%, 321 ft/NM	ALT(HGT)	1 950 (1 922)	1 620 (1 592)	1 300 (1 272)	980 (952)	750 (722)

TRANSITION ALT 14 000
TRANSITION LVL FL 140

MISSED APPROACH

Climb on HDG 004° to USN 1 DME, then LEFT turn to intercept R 352° USN to SADOP
Hold at SADOP at 4 000 ft.

* Missed APCH turn limited to
MAX 200 kt IAS when 2.5% CG apply.



CATEGORY			DA(DH)/ MDA(MDH)	A	B	C	D														
STA	CAT-I (CG 2.5%)	FULL	710	3 000 m				Rate of descent	Knots	60	90	120	150	180							
		ALS INOP	(682)	3 700 m																	
	CAT-I (CG 5.0%)	FULL	246	800 m																	
		ALS INOP	(218)	1 200 m																	
	LOC	FULL	750	2 700 m											* Timing Not authorized for defining MAPt						
		ALS INOP	(722)	3 400 m											* Circling Not authorized.						

* Timing Not authorized for defining MAPt.
* Circling Not authorized.

Change : Information of Radial and Obstacle height.

OFFICE OF CIVIL AVIATION

AIRAC AIP AMDT 12/16
Effective : 1600UTC 7 DEC 2016

ULSAN/Ulsan(RKPU)
ILS or LOC RWY 36
AERONAUTICAL DATA TABULATION

ILS or LOC Approach to RWY 36 from HAEGU			
Fix/point		Coordinates	
HAEGU(IAF)		35°32'06.7" N	129°32'32.3" E
PU501(SDF)		35°26'18.1" N	129°29'02.9" E
MEYJI (IF)	BRG 3.97° / 9.30 NM IULS	35°25'54.4" N	129°21'54.8" E
D4.3 IULS (FAP)	BRG 3.97° / 4.30 NM IULS	35°30'57.6" N	129°21'29.5" E
D1.3 IULS (MAPt LOC ONLY)	BRG 3.97° / 1.30 NM IULS	35°33'55.7" N	129°21'14.7" E
THR RWY36		35°35'04.15" N	129°21'08.95" E
IULS DME		35°35'13.8" N	129°21'12.2" E
USN VOR/DME		35°35'54.6" N	129°21'11.8" E
IULS LOC		35°36'16.3" N	129°21'02.9" E
D1.0 USN	BRG 3.97° / 1.00 NM USN	35°36'53.8" N	129°20'59.8" E
SADOP	BRG 352.34° / 13.00 NM USN	35°48'27.1" N	129°16'55.0" E

**INSTRUMENT
APPROACH
CHART - ICAO**

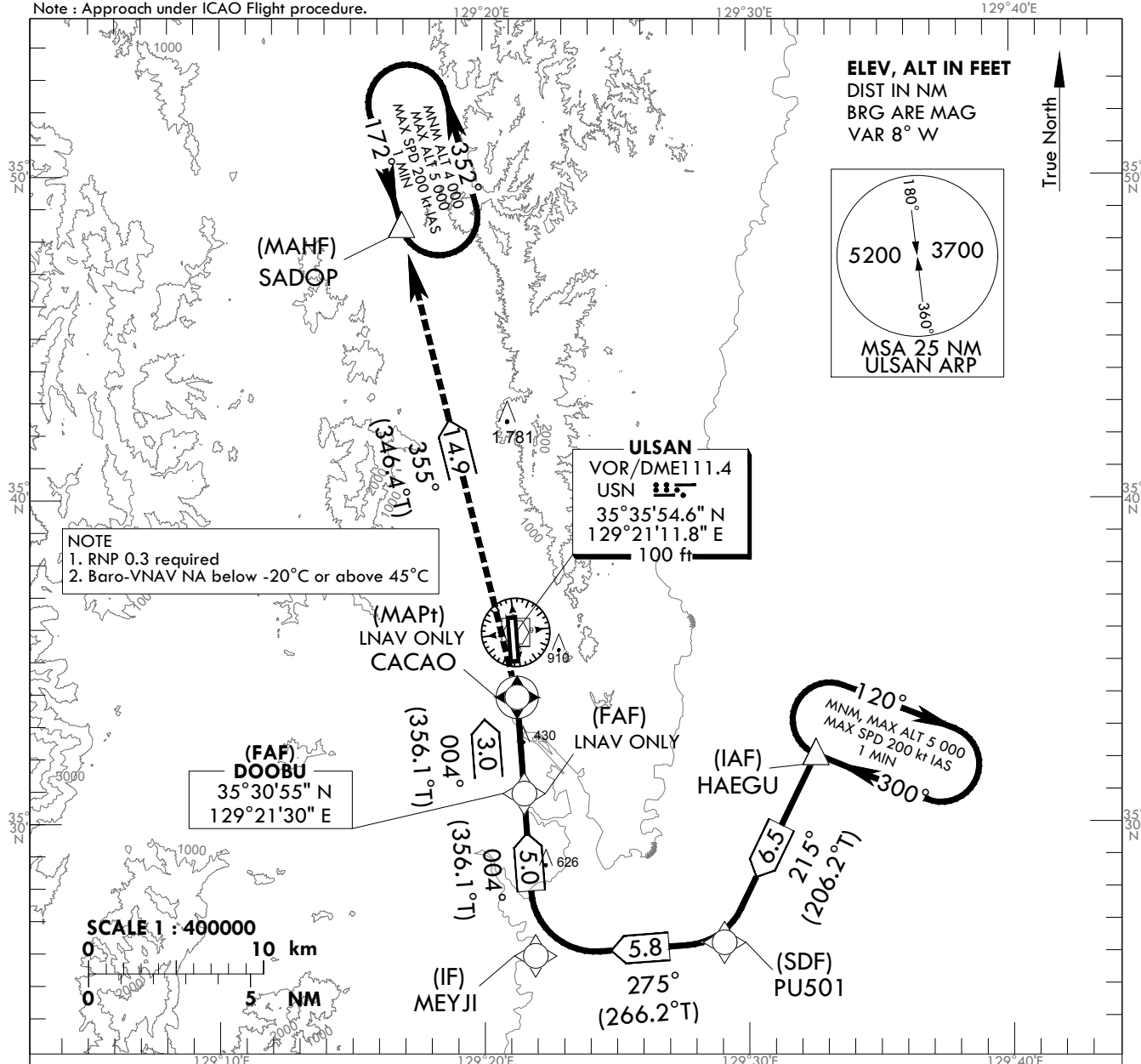
AERODROME ELEV 42 ft
HEIGHTS RELATED TO
THR RWY 36 - ELEV 28 ft

POHANG APP 124.25
120.2
ULSAN TWR 118.75

ULSAN/Ulsan(RKPU)

RNAV(GNSS) RWY 36

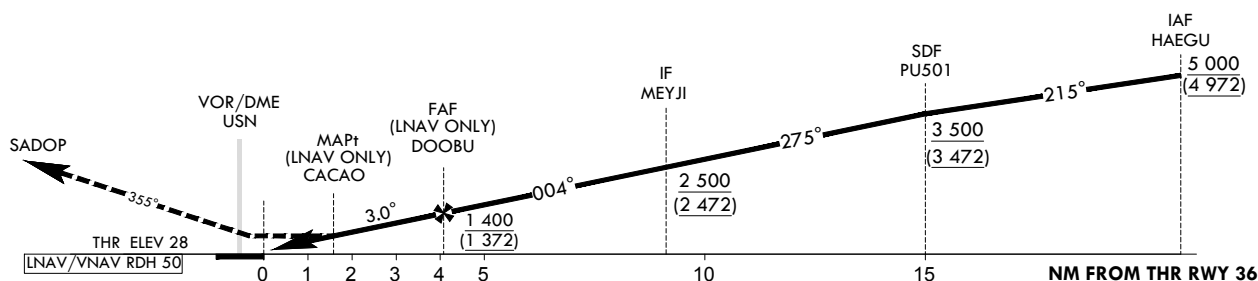
Note : Approach under ICAO Flight procedure.



TRANSITION ALT 14 000
TRANSITION LVL FL 140

MISSED APPROACH

Climb to 4 000 ft on track of 355° to SADOP.



									Knots	60	90	120	150	180
CATEGORY			DA(H)/MDA(H)	A	B	C	D	Rate of descent	V/V fpm					
STA	LNAV/VNAV	FULL	760	2 700 m				* Timing Not authorized for defining MAPt. * Circling Not authorized.		319	478	637	796	956
		ALS INOP	(732)	3 400 m										
	LNAV	FULL	910	3 300 m										
		ALS INOP	(882)	4 000 m										

* Timing Not authorized for defining MAPt.
* Circling Not authorized.

Change : Information of obstacle height and radial.

ULSAN/Ulsan(RKPU)
RNAV(GNSS) RWY 36
HOLDING PROCEDURE

AERONAUTICAL DATA TABULATION

Instrument Approach Procedure Coding Tables

RNAV(GNSS) RWY 36

Serial Number	Path Descriptor	Waypoint Identifier	Fly-over	Course/Track °M(T)	Distance (NM)	Turn direction	Altitude (ft)	Speed (kt)	Coordinates	VPA/RDH	Navigation specification	Remarks
001	IF	HAEGU	-	-	-	-	+5 000	-	353206.7N 1293232.3E	-	RNP APCH	IAF
002	TF	PU501	-	215(206.2)	6.5	-	+3 500	-	352618.1N 1292902.9E	-	RNP APCH	SDF
003	TF	MEYJI	-	275(266.2)	5.8	-	+2 500	-	352554.4N 1292154.8E	-	RNP APCH	IF
004	TF	DOOBU	-	004(356.1)	5.0	-	+1 400	-	353055.3N 1292129.7E	-	RNP APCH	FAF
005	TF	CACAO	Y	004(356.1)	3.0	-	+910	-	353354.4N 1292114.8E	-3.00/50	RNP APCH	MAPt
006	TF	SADOP	Y	355(346.4)	14.9	-	-	-	354827.1N 1291655.0E	-	RNP APCH	-
007	HM	SADOP	Y	172 (164.4)	-	-	-5 000 +4 000	-	354827.1N 1291655.0E	-	RNP APCH	1 min (Outbound timing)

HOLDING PROCEDURE

Holding Identification	Path Descriptor	Waypoint Identifier	Fly-over	Course/Track °M(T)	Time (min)	Turn direction	Altitude (ft)	Speed (kt)	Coordinates	VPA/RDH	Navigation specification	Remarks
RNAV(GNSS) RWY 36	HM	HAEGU	Y	300 (292.1)	1.0	R	@5 000	-200	353206.7N 1293232.3E	-	RNAV 1	-

Change : Information of Course/Track.

**INSTRUMENT
APPROACH
CHART - ICAO**

AERODROME ELEV 42 ft
HEIGHTS RELATED TO
THR RWY 36 - ELEV 28 ft

POHANG APP 124.25
120.2
ULSAN TWR 118.75

ULSAN/Ulsan(RKPUI)

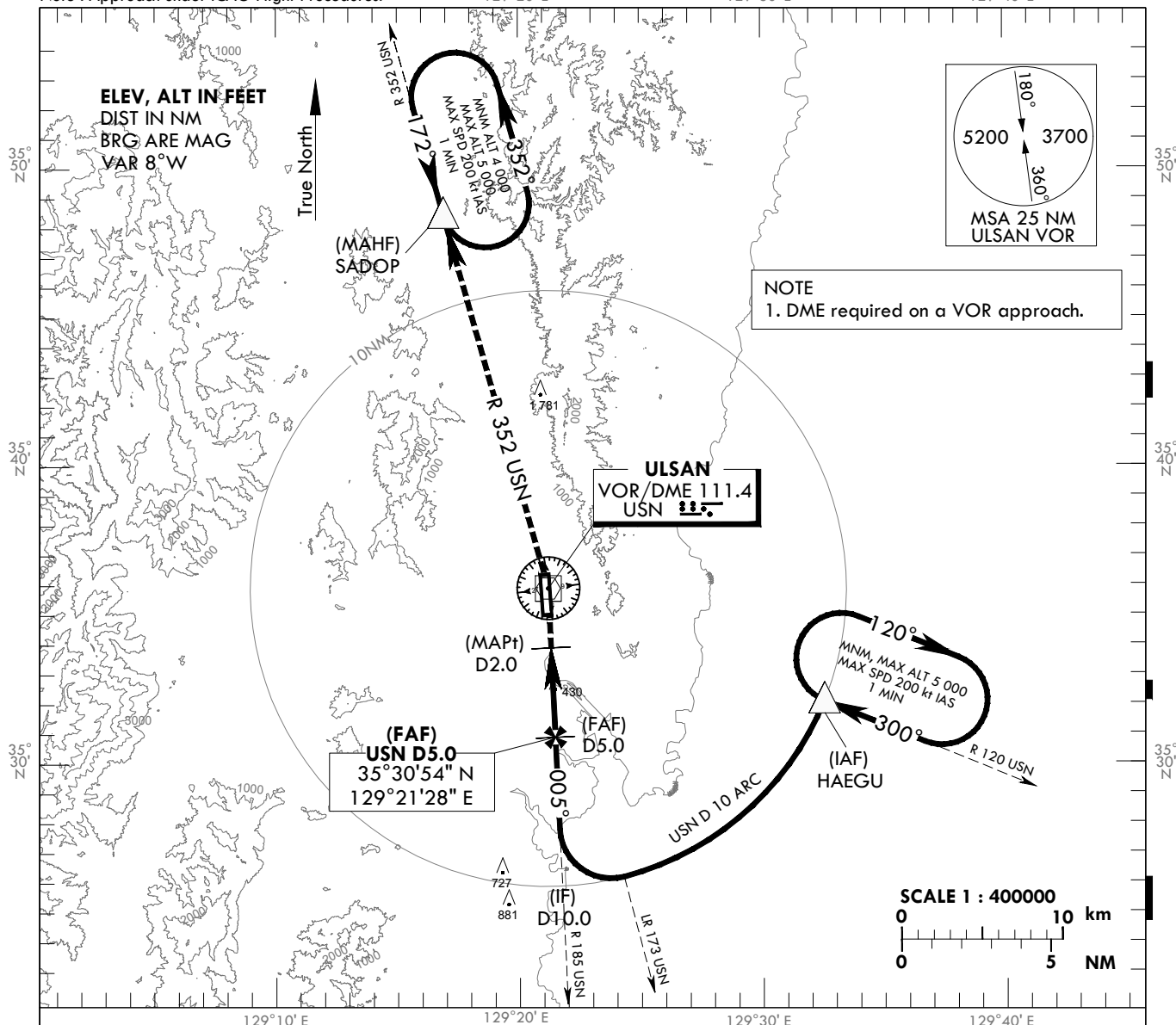
VOR RWY 36

Note : Approach under ICAO Flight Procedures.

129°20' E

129°30' E

129°40' E

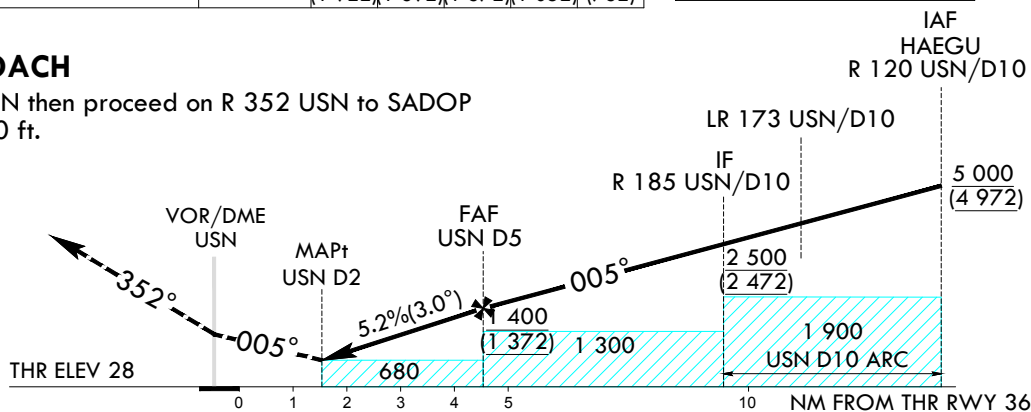


RECOMMENDED PROFILE	DME USN	6	5	4	3	2.2
Final Approach Gradient 5.24%, 318 ft/NM	ALT(HGT)	2 340 (1 922)	1 720 (1 692)	1 400 (1 372)	1 080 (1 052)	760 (732)

TRANSITION ALT 14 000
TRANSITION LVL FL 140

MISSED APPROACH

Climb direct to USN then proceed on R 352 USN to SADOP
and Hold at 4 000 ft.



CATEGORY		MDA(MDH)	A	B	C	D		Knots	60	90	120	150	180
STA	FULL	760 (732)	2 700 m				Rate of descent	V/V fpm	304	455	607	759	911
	ALS INOP		3 400 m				* Timing Not authorized for defining MAPt. * Circling Not authorized.						

* Timing Not authorized for defining MAPt.
* Circling Not authorized.

Change : Information of obstacle height.

ULSAN/Ulsan(RKPU)
VOR RWY 36

AERONAUTICAL DATA TABULATION

VOR Approach to RWY 36 from HAEGU			
Fix/point		Coordinates	
HAEGU (IAF)	R 120 USN / 10.00 NM USN	35°32'06.7" N	129°32'32.3" E
D10 USN (IF)	BRG 5.29° / 10.00 NM USN	35°25'54.3" N	129°21'44.9" E
D5 USN (FAF)	BRG 5.29° / 5.00 NM USN	35°30'54.4" N	129°21'28.4" E
D2 USN (MAPt)	BRG 5.29° / 2.00 NM USN	35°33'54.5" N	129°21'18.5" E
THR RWY36		35°35'04.15" N	129°21'08.95" E
USN VOR/DME		35°35'54.6" N	129°21'11.8" E
SADOP	BRG 352.34° / 13.00 NM USN	35°48'27.1" N	129°16'55.0" E

Change : Bearing information.