

INSTRUMENT
APPROACH
CHART

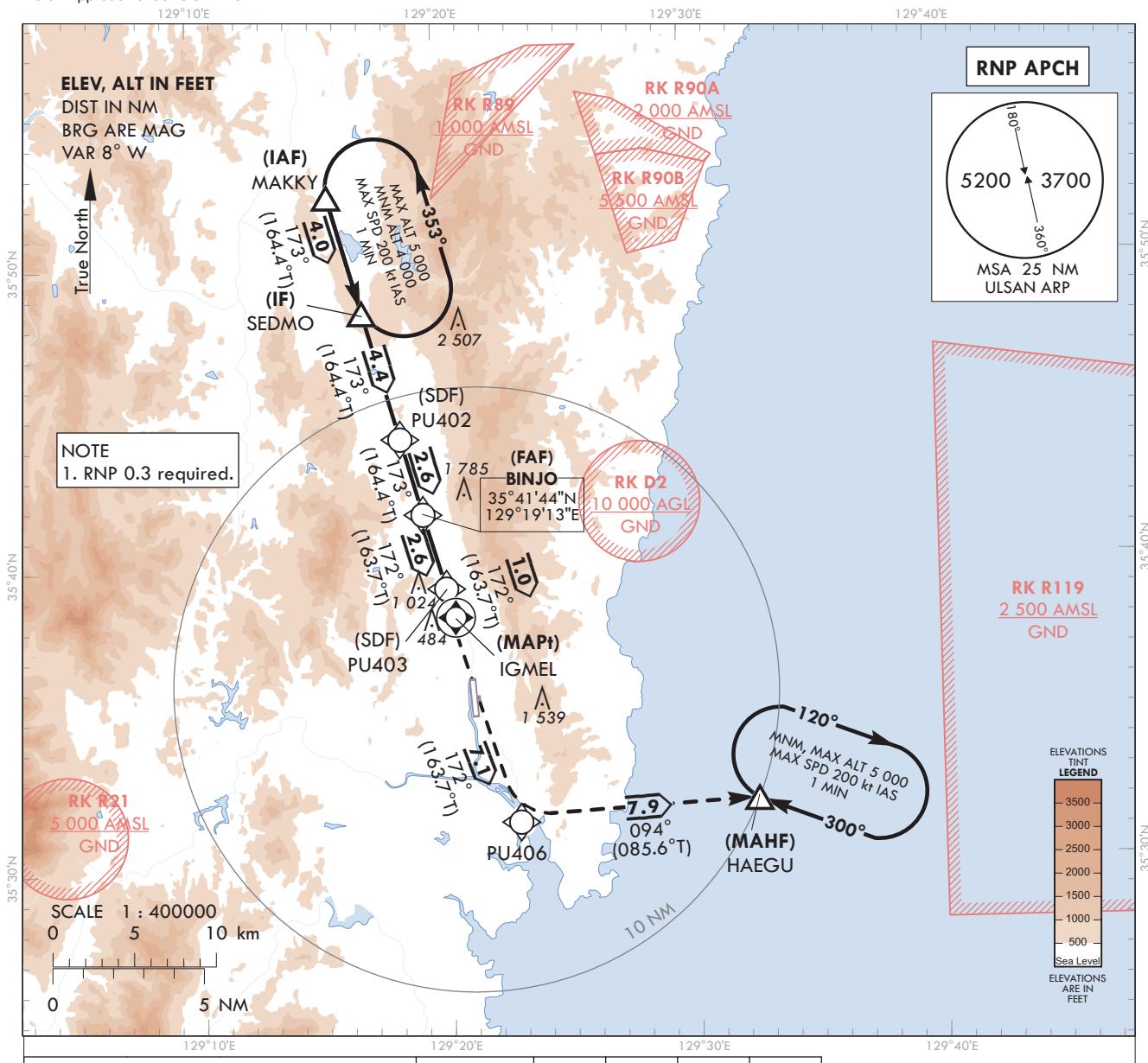
Note : Approach Under U.S.TERPS.

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

POHANG	APP	124.25
	TWR	120.2
ULSAN		118.75

ULSAN/Ulsan(RKPU)

RNP Y RWY 18

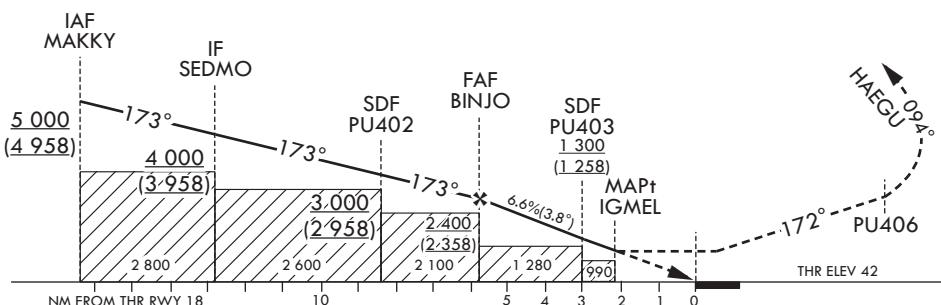


RECOMMENDED PROFILE(FAA)	THR RWY 18	5	4	3	2.2
Final Approach Gradient 6.58%, 400 ft/NM	ALT(HGT)	2 092 (2 050)	1 692 (1 650)	1 292 (1 250)	990 (948)

TRANSITION ALT 14 000
TRANSITION LVL FL 140

MISSSED APPROACH

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



* Missed APCH climb rate :
304 ft/NM(5.0%)

OCA (H)	A	B	C	D	Rate of descent	Knots	60	90	120	150	180
Straight-in Approach	LNAV	990 (948)		N/A	V/V fpm	400	600	800	1 000	1 200	

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

Change : Information of landing minima(OCA(H)).

ULSAN/Ulsan(RKPU)
RNP Y RWY 18
HOLDING PROCEDURE

AERONAUTICAL DATA TABULATION

Instrument Approach Procedure Coding Tables

RNP Y RWY 18										
Serial Number	Path Descriptor	Waypoint Identifier	Fly-over	Course/Track °N(°T)	Distance (NM)	Turn direction	Altitude (ft)	Speed (kt)	Coordinates	
001	IF	MAKKY	-	-	-	+5 000	-	35°52'18.8"N 129°15'35.8"E	- RNP APCH IAF	
002	TF	SEDMO	-	173(164.4)	4.0	-	+4 000	-	35°48'27.1"N 129°16'55.0"E	- RNP APCH IF
003	TF	PU402	-	173(164.4)	4.4	-	+3 000	-	35°44'14.2"N 129°18'21.4"E	- RNP APCH SDF
004	TF	BINJO	-	173(164.4)	2.6	-	+2 400	-	35°41'43.5"N 129°19'12.8"E	- RNP APCH FAF
005	TF	PU403	-	172(163.7)	2.6	-	+1 300	-	35°39'15.5"N 129°20'05.6"E	- RNP APCH SDF
006	TF	IGWEL	Y	172(163.7)	1.0	-	+990	-	35°38'17.7"N 129°20'26.4"E	-3.77/30 RNP APCH MAPt
007	TF	PU406	-	172(163.7)	7.1	-	-	-	35°31'29.1"N 129°22'52.3"E	- RNP APCH -
008	TF	HAEGU	Y	094(085.6)	7.9	-	-	-	35°32'06.7"N 129°32'32.3"E	- RNP APCH -
009	HM	HAEGU	Y	300 (292.1)	-	R	@5 000	-200	35°32'06.7"N 129°32'32.3"E	- 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
RNP Y RWY 18	HM	SEDMO	Y	173(164.4)	1.0	L	-5 000	-200	35°48'27.1"N 129°16'55.0"E	- RNAV 1	-	

INSTRUMENT
APPROACH
CHART - ICAO

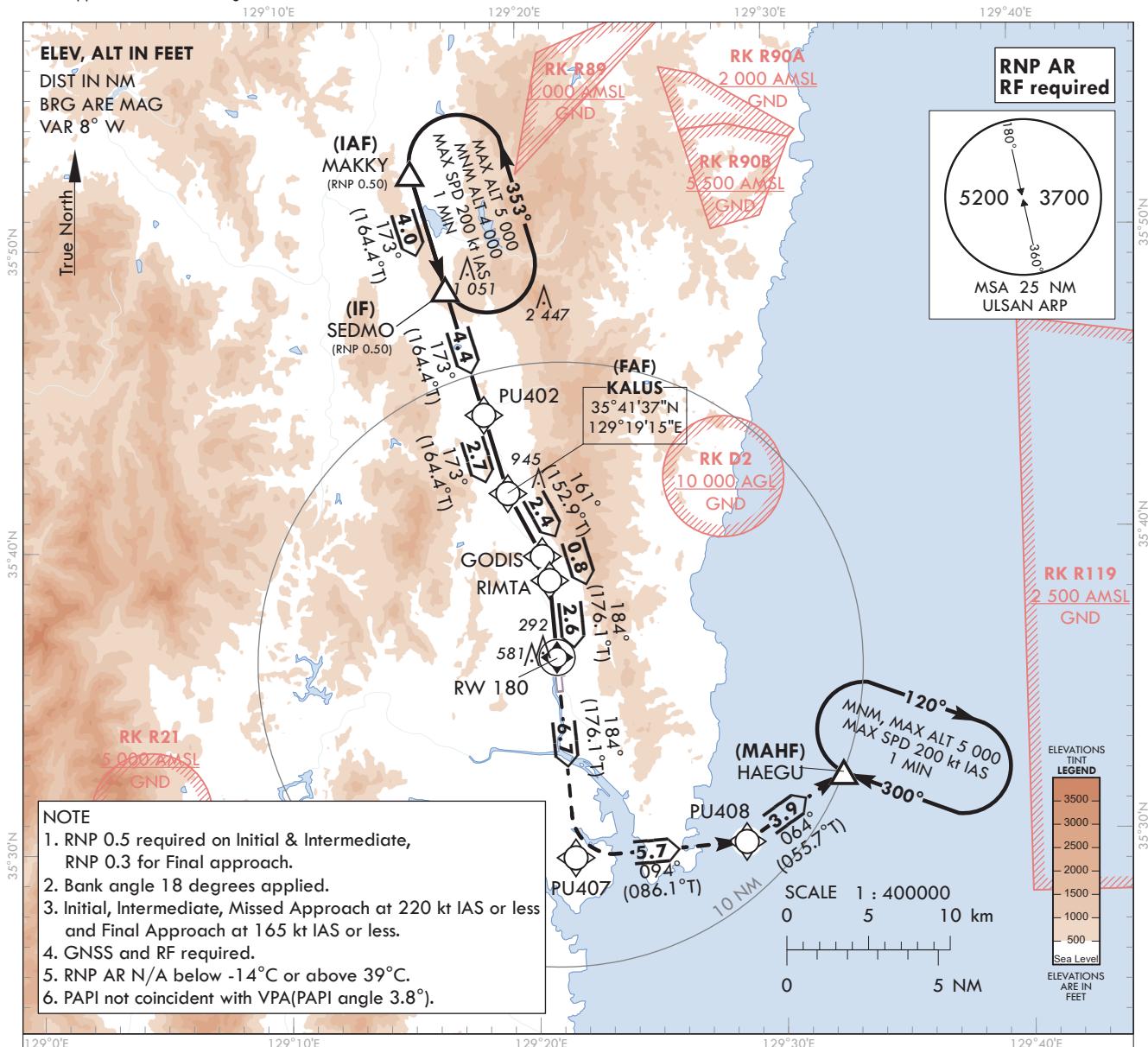
AERODROME ELEV 42 ft
HEIGHTS RELATED TO
THR RWY 18 - ELEV 42 ft

POHANG APP 124.25
ULSAN TWR 120.2
ULSAN TWR 118.75

ULSAN/Ulsan(RKPU)

RNP Z RWY 18(AR)

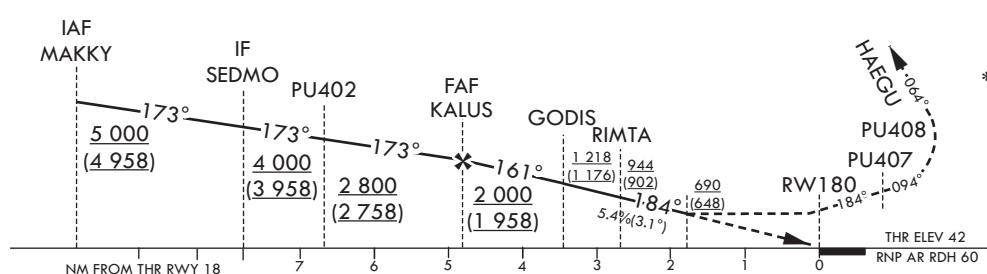
Note : Approach Under ICAO Flight Procedures.



MISSED APPROACH

Climb on track of 184° to PU407 then LEFT turn on track of 094° to PU408 then LEFT turn on track of 064° to HAEGU and Hold at 5 000 ft.
* DA to RW180 1.8 NM.

TRANSITION ALT 14 000
TRANSITION LVL FL 140



OCA (H)	A	B	C	D	Rate of descent	Knots	60	90	120	150	180
Straight-in Approach	RNP 0.3	690 (648)			V/V fpm	329	494	658	823	987	
			* Timing Not authorized for defining MAPt. * Circling Not authorized.								

Change : Information of landing minima(OCA(H)).

ULSAN/Ulsan(RKPU)
RNP Z RWY 18 (AR)

AERONAUTICAL DATA TABULATION

Instrument Approach Procedure Coding Tables

RNP Z RWY 18 (AR)									
Serial Number	Path Descriptor	Waypoint Identifier	Fly-over	Course/Track °N(°T)	Distance (NM)	Turn direction	Altitude (ft)	Speed (kt)	Coordinates
001	IF	MAKKY	-	-	-	+5 000	-220	35°52'18.8"N 129°15'35.8"E	-
002	TF	SEDMO	-	173(164.4)	4.0	-	+4 000	-220	35°48'27.1"N 129°16'55.0"E
003	TF	PU402	-	173(164.4)	4.4	-	+2 800	-220	35°44'14.2"N 129°18'21.4"E
004	TF	KALUS	-	173(164.4)	2.7	-	+2 000	-165	35°41'37.4"N 129°19'14.9"E
005	TF	GODIS	-	161(152.9)	2.4	L	+1 218	-165	35°39'30.7"N 129°20'34.3"E
006	RF Center : ARCO1 r=2.08 NM	RIMTA	-	0.8	R	+944	-165	35°38'42.4"N 129°20'50.7"E	-3.10
007	TF	RW180	Y	184(176.1)	2.6	-	-165	35°36'08.9"N 129°21'03.5"E	-3.10/60
008	TF	PU407	-	184(176.1)	6.7	-	-220	35°29'30.2"N 129°21'36.8"E	-
009	TF	PU408	-	094(086.1)	5.7	L	-220	35°29'53.2"N 129°28'33.2"E	-
010	TF	HAEGU	Y	064(055.7)	3.9	L	+5 000	-220	35°32'06.7"N 129°32'33.3"E
011	HM	HAEGU	Y	300 (292.1)	-	R	@5 000	-200	35°32'06.7"N 129°32'33.3"E

RF arc center Identifier	Coordinates
ARCO1	35°38'33.8"N 129°18.0"E

INSTRUMENT
APPROACH
CHART

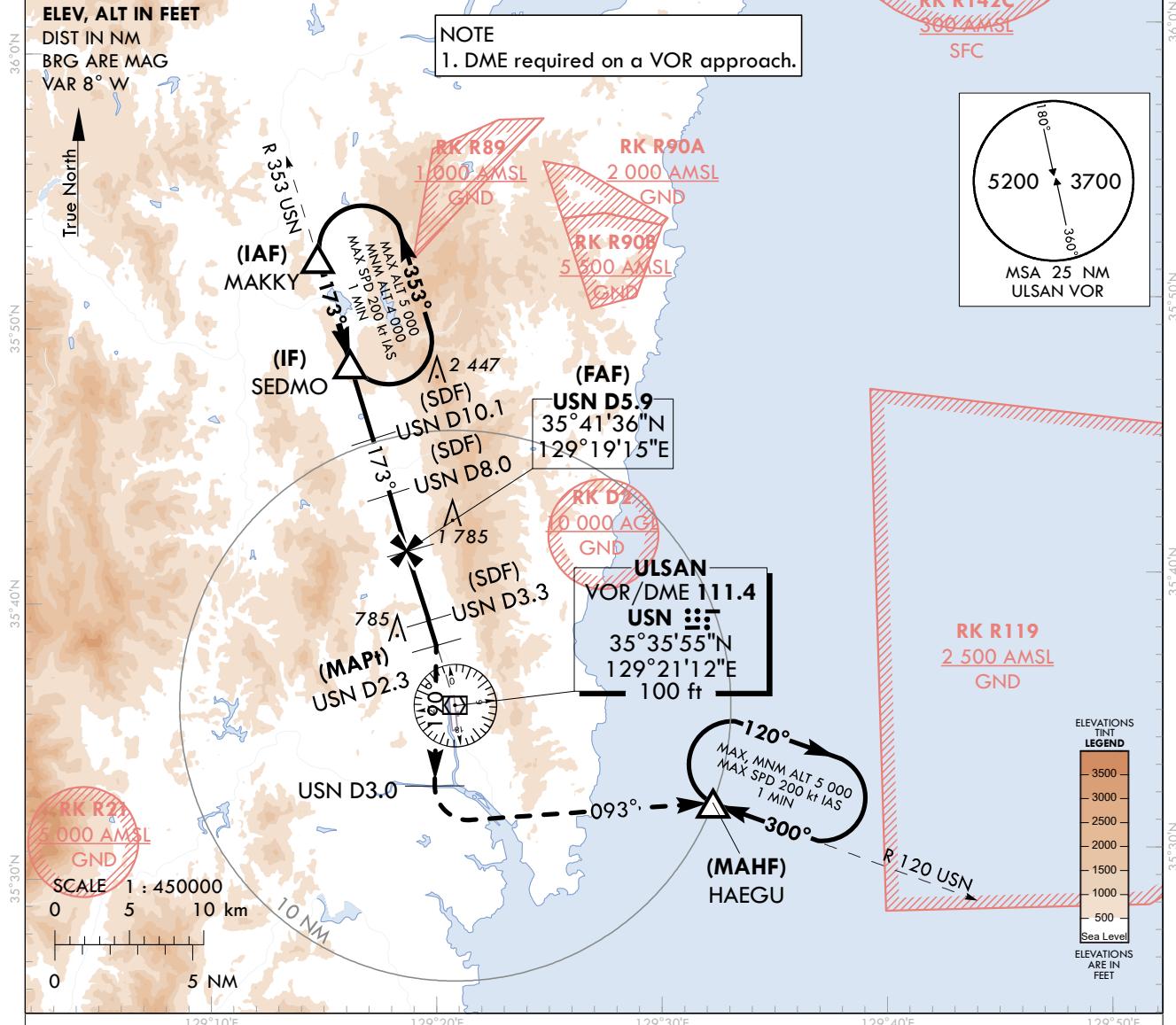
Note : Approach Under U.S.TERPS.

AERODROME ELEV 42 ft
HEIGHTS RELATED TO AD ELEV

POHANG	APP	124.25
		120.2
ULSAN	TWR	118.75

ULSAN/Ulsan(RKPU)

VOR RWY 18



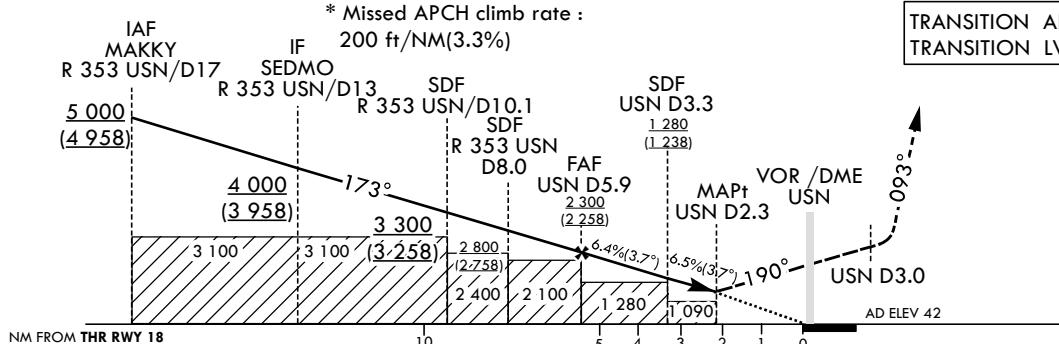
MISSSED APPROACH

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

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

TRANSITION ALT 14 000
TRANSITION LVL FL 140



OCA (H)	A	B	C	D	Knots	60	90	120	150	180	
Straight-in Approach	1 090 (1 048)			N/A	Rate of descent	V/V fpm	392	588	784	980	1 175
* Timing Not authorized for defining MAPt.											
* Circling Not authorized.											

Change : Information of landing minima(OCA(H)).

ULSAN/Ulsan(RKPU)
VOR RWY 18

AERONAUTICAL DATA TABULATION

VOR Approach to RWY 18 from MAKKY			
Fix/point	Coordinates		
MAKKY(IAF)	R 353 USN / 17.00 NM USN	35°52'18.8"N	129°15'35.8"E
SEDMO(IF)	BRG 172.64° / 13.00 NM USN	35°48'27.1"N	129°16'55.0"E
D10.1 USN(SDF)	BRG 172.64° / 10.10 NM USN	35°45'39.1"N	129°17'51.8"E
D8.0 USN(SDF)	BRG 172.64° / 8.00 NM USN	35°43'37.6"N	129°18'33.5"E
D5.9 USN(FAF)	BRG 172.64° / 5.90 NM USN	35°41'36.0"N	129°19'15.1"E
D3.3 USN(SDF)	BRG 172.64° / 3.28 NM USN	35°39'04.4"N	129°20'07.0"E
D2.3 USN(MAPt)	BRG 172.64° / 2.26 NM USN	35°38'05.4"N	129°20'27.1"E
THR RWY 18	Final approach descent angle 3.67°(FAF-SDF) / 3.71°(SDF-THR)	35°36'08.89"N	129°21'03.54"E
USN VOR/DME		35°35'54.6"N	129°21'11.8"E
D3.0 USN	BRG 190.62° / 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

INSTRUMENT
APPROACH
CHART - ICAO

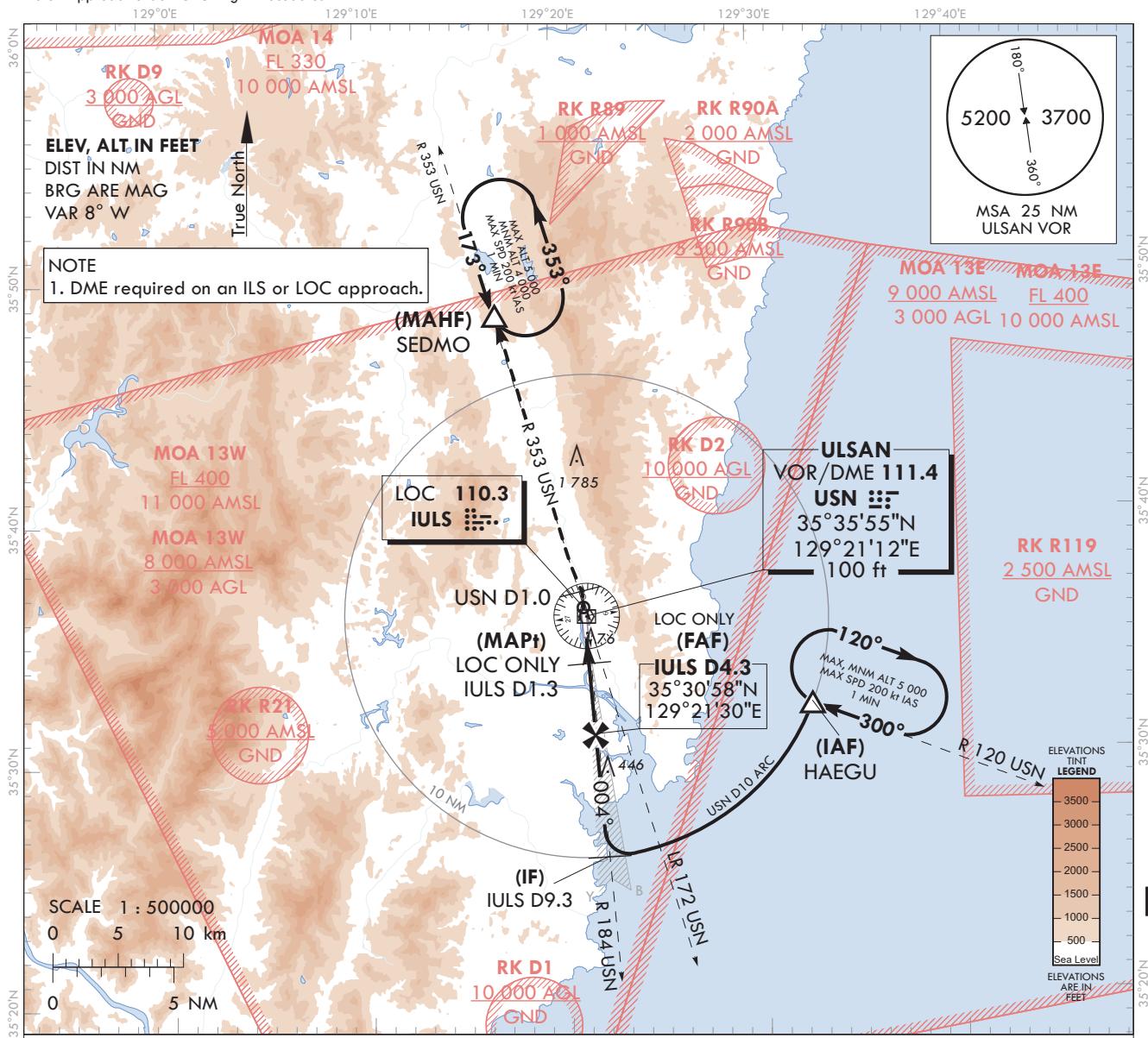
Note : Approach under ICAO Flight Procedures.

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 Y or LOC Y RWY 36



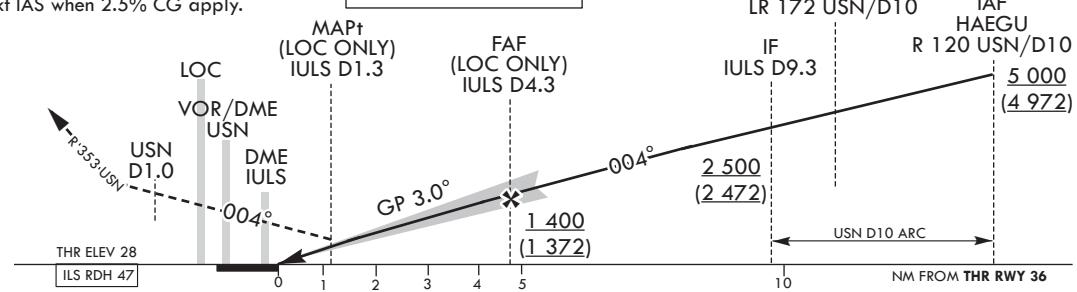
MISSED APPROACH

Climb on HDG 004° to USN 1 DME, then LEFT turn to intercept R 353 USN to SEDMO. Hold at SEDMO at 4 000 ft.

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

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



OCA (H)		A	B	C	D	Knots	60	90	120	150	180	
Straight-in Approach	CAT-I (CG 2.5%)		710 (682)			Rate of descent	V/V fpm	318	478	637	796	955
	CAT-I (CG 5.0%)		246 (218)									
	LOC		750 (722)									

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

Change : Amended phrase(IUSL → IULS).

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

AERONAUTICAL DATA TABULATION

ILS Y / LOC Y 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 4.31° / 9.30 NM IULS	35°25'54.7"N 129°21'54.8"E
D4.3 IULS(FAF LOC ONLY)	BRG 4.31° / 4.30 NM IULS	35°30'57.6"N 129°21'29.5"E
D1.3 IULS(MAPt LOC ONLY)	BRG 4.31° / 1.30 NM IULS	35°33'55.7"N 129°21'14.7"E
THR RWY 36	Final approach descent angle 2.90° (LOC ONLY)	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 4.31° / 1.00 NM USN	35°36'53.8"N 129°20'59.8"E
SEDMO	BRG 352.68° / 13.00 NM USN	35°48'27.1"N 129°16'55.0"E

INSTRUMENT
APPROACH
CHART - ICAO

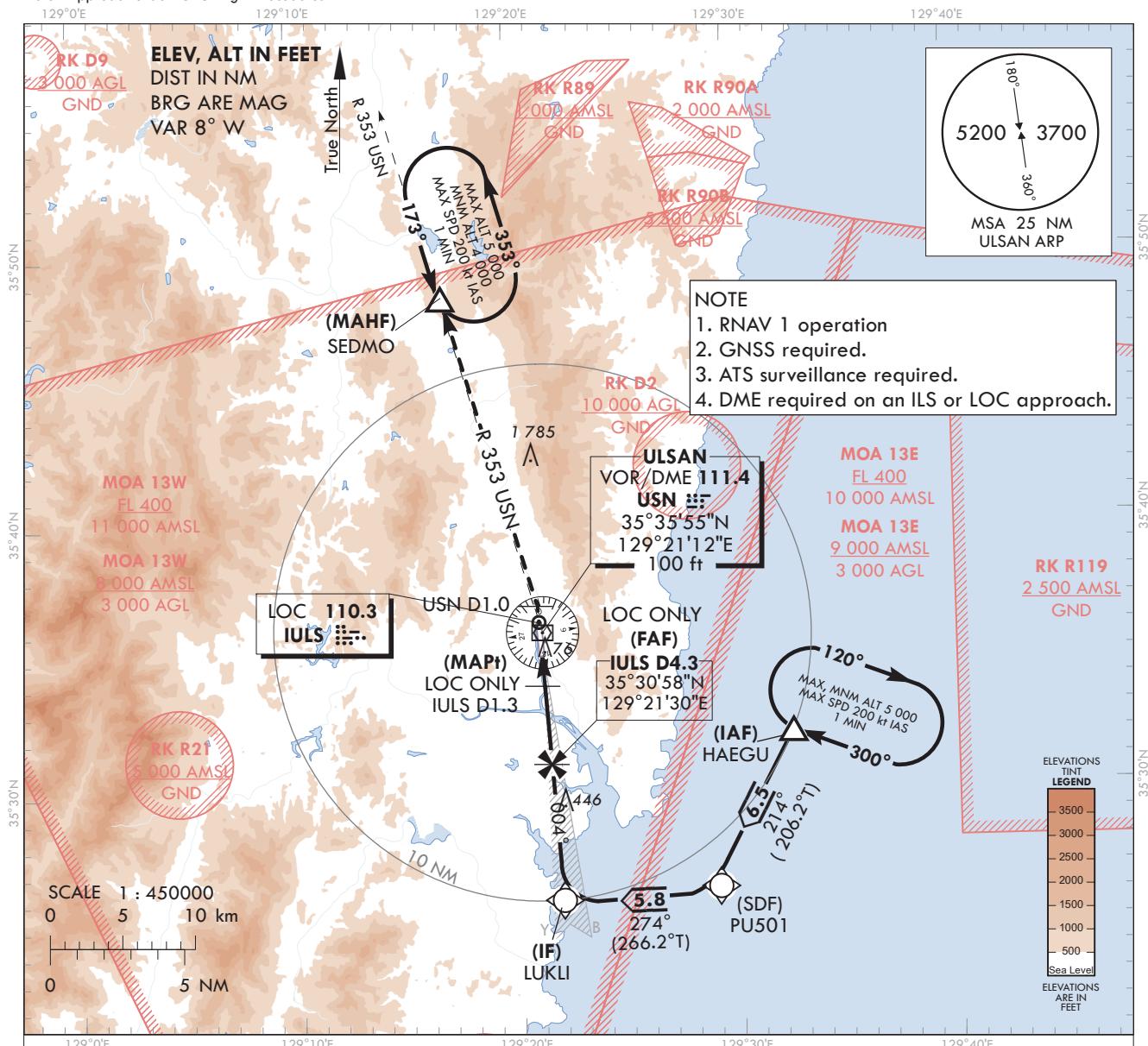
Note : Approach under ICAO Flight Procedures.

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 Z or LOC Z RWY 36



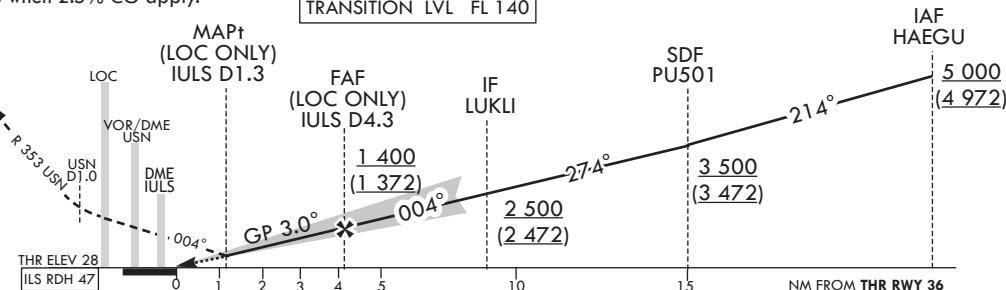
MISSSED APPROACH

Climb on HDG 004° to USN 1 DME, then LEFT turn to intercept R 353 USN to SEDMO.
Hold at SEDMO at 4 000 ft.

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

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



OCA (H)		A	B	C	D	Knots	60	90	120	150	180	
Straight-in Approach	CAT-I (CG 2.5%)		710 (682)			Rate of descent	V/V fpm	318	478	637	796	955
	CAT-I (CG 5.0%)		246 (218)									
	LOC		750 (722)									

*Timing Not authorized for defining MAPt.

*Circling Not authorized.

Change : Information of landing minima(OCA(H)).

ULSAN/Ulsan(RKPU)
ILS Z or LOC Z RWY 36

AERONAUTICAL DATA TABULATION

ILS Z / LOC Z 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
LUKLI(IF)	BRG 4.31° / 9.30 NM IULS	35°25'54.4"N	129°21'54.8"E
D4.3 IULS(FAF LOC ONLY)	BRG 4.31° / 4.30 NM IULS	35°30'57.6"N	129°21'29.5"E
D1.3 IULS(MAPt LOC ONLY)	BRG 4.31° / 1.30 NM IULS	35°33'55.7"N	129°21'14.7"E
THR RWY 36	Final approach descent angle 2.90° (LOC ONLY)	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 4.31° / 1.00 NM USN	35°36'53.8"N	129°20'59.8"E
SEDMO	BRG 352.68° / 13.00 NM USN	35°48'27.1"N	129°16'55.0"E

INSTRUMENT
APPROACH
CHART - ICAO

Note : Approach under ICAO Flight Procedures.

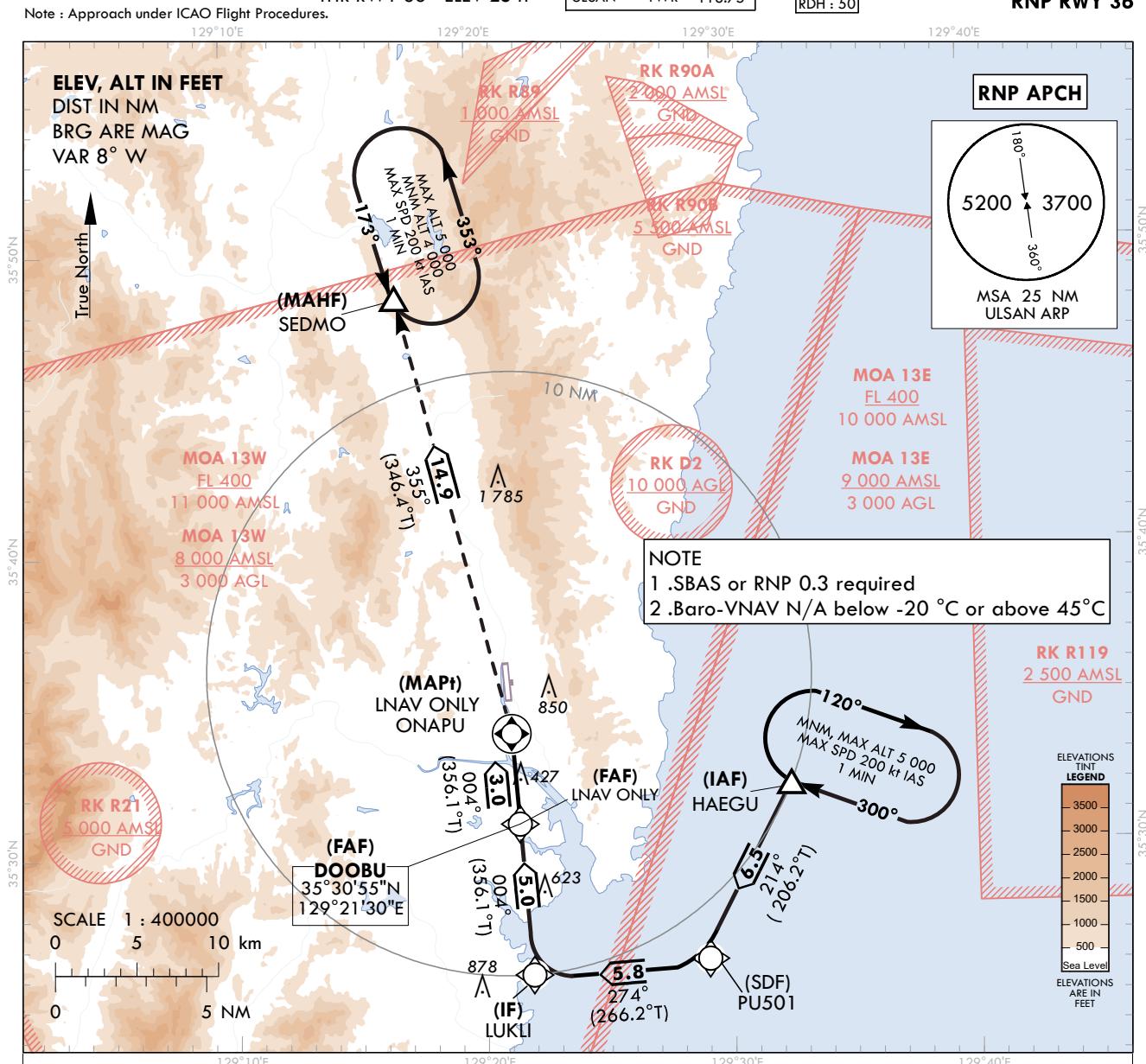
AERODROME ELEV 42 ft
HEIGHTS RELATED TO
THR RWY 36 - ELEV 28 ft

POHANG APP 124.25
120.2
ULSAN TWR 118.75

KASS
CH1318
K36A
RDH: 50

ULSAN/Ulsan(RKPU)

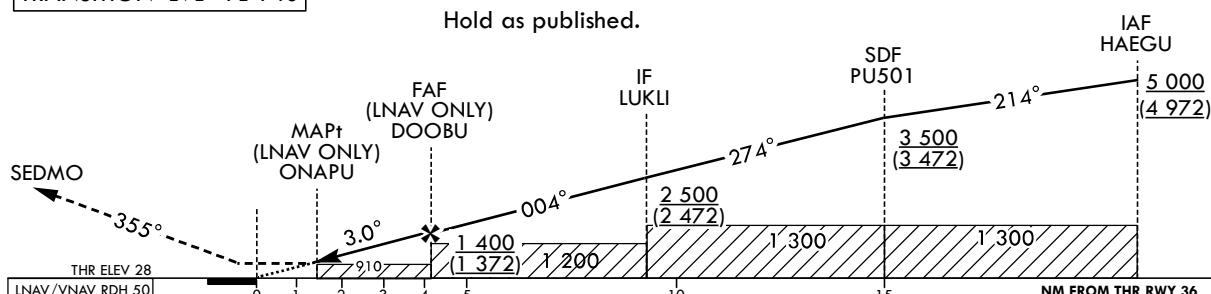
RNP RWY 36



TRANSITION ALT 14 000
TRANSITION LVL FL 140

MISSSED APPROACH

Climb to 4 000 ft on track of 355° to SEDMO.
Hold as published.



	OCA (H)	A	B	C	D				
Straight-in Approach	LPV (CG 2.5%)	740 (712)				Knots	60	90	120
	LPV (CG 5.0%)	340 (312)				Rate of descent	V/V fpm	319	478
	LNAV/VNAV	810 (782)						637	796
	LNAV	910 (882)							956

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

Change : Information of landing minima(OCA(H)).

ULSAN/Ulsan(RKPU)
RNP RWY 36
HOLDING PROCEDURE

AERONAUTICAL DATA TABULATION

Instrument Approach Procedure Coding Tables

RNP RWY 36

Serial Number	Path Descriptor	Waypoint Identifier	Fly-over	Course/Track °N(°T)	Distance (NM)	Turn direction	Altitude (ft)	Speed (kt)	Coordinates	VPA/RDH	Navigation specification	Remarks	
001	IF	HAEGU	-	-	-	+5 000	-	35°32'06.7"N 129°32'32.3"E	-	RNP APCH	IAF		
002	TF	PUS01	-	214(206.2)	6.5	-	+3 500	-	35°26'18.1"N 129°29'02.9"E	-	RNP APCH	SDF	
003	TF	LUKLI	-	274(266.2)	5.8	-	+2 500	-	35°25'54.4"N 129°21'54.8"E	-	RNP APCH	IF	
004	TF	DOOBU	-	004(356.1)	5.0	-	+1 400	-	35°30'55.3"N 129°21'29.7"E	-	RNP APCH	FAF	
005	TF	ONAPU	Y	004(356.1)	3.0	-	+910	-	35°33'54.4"N 129°21'14.8"E	-3.00/50	RNP APCH	MAP†	
006	HM	SEDMO	Y	355(346.4)	14.9	-	-	-	35°48'27.1"N 129°16'55.0"E	-	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
RNP RWY 36	HM	HAEGU	Y	300 (292.1)	1.0	R	@5 000	-200	35°32'06.7"N 129°32'32.3"E	-	RNAV 1	-
	HM	SEDMO	Y	173 (164.4)	1.0	L	-5 000 +4 000	-200	35°48'27.1"N 129°16'55.0"E	-	RNAV 1	-

ULSAN/Ulsan(RKPU)
RNP RWY 36

FAS DATA BLOCK INFORMATION

INPUT DATA

Parameters	Values
Operation Type	0
SBAS Provider	6 (KASS)
Airport Identifier	RKPU
Runway	36
Runway Letter	0 (None)
Approach Performance Designator	0
Route Indicator	
Reference Path Data Selector	0
Reference Path Identifier	K36A
LTP/FTP Latitude	353504.1470N
LTP/FTP Longitude	1292108.9500E
LTP/FTP Ellipsoidal Height (meters)	+00383(+38.3m)
FPAP Latitude	353608.8905N
Delta FPAP Latitude (seconds)	64.7435
FPAP Longitude	1292103.5405E
Delta FPAP Longitude (seconds)	-5.4095
Threshold Crossing Height (TCH)	50.0(feet) / 15.2(m)
TCH Units Selector (Feet)	0
Glidepath Angle (GPA, degrees)	3.00
Course Width (metres)	105.00
Length Offset (metres)	0
Horizontal Alert Limit (HAL, meters)	40.0
Vertical Alert Limit (VAL, meters)	50.0

OUTPUT DATA

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Calculated CRC Value	103807E6

INTENTIONALLY

LEFT

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INSTRUMENT
APPROACH
CHART - ICAO

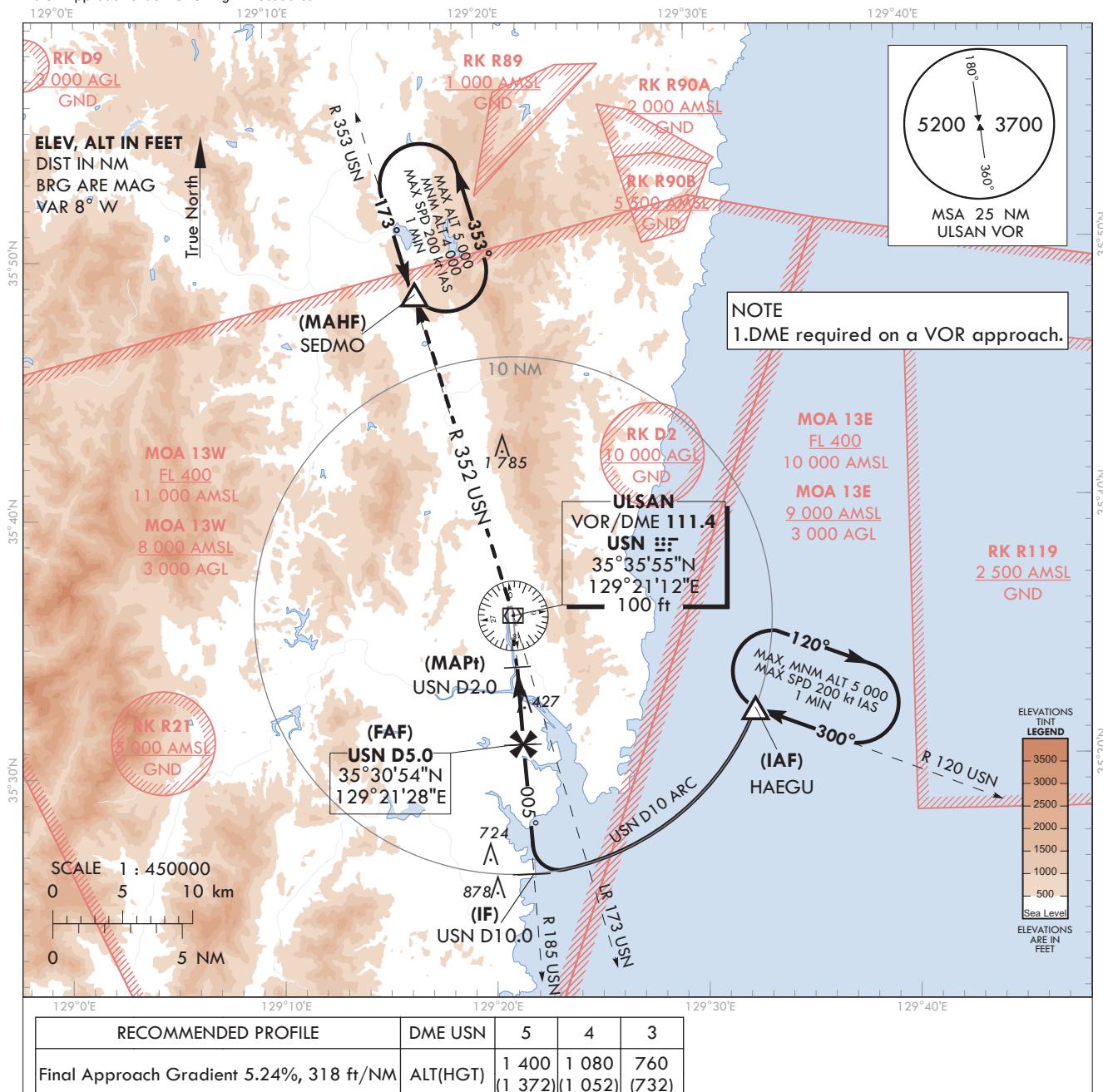
Note : Approach under ICAO Flight Procedures.

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)

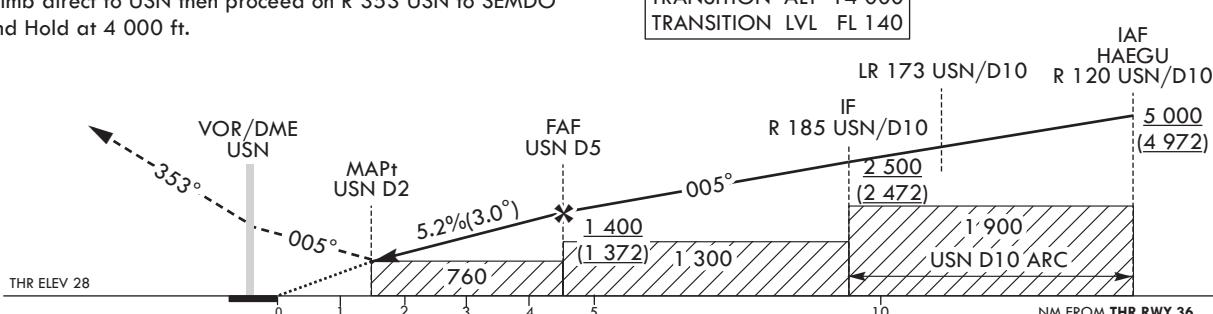
VOR RWY 36



MISSED APPROACH

Climb direct to USN then proceed on R 353 USN to SEMDO and Hold at 4 000 ft.

TRANSITION ALT 14 000
TRANSITION LVL FL 140



OCA (H)	A	B	C	D	Knots	60	90	120	150	180	
Straight-in Approach		760 (732)			Rate of descent	V/V fpm	318	477	636	795	954

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

Change : Information of landing minima(OCA(H)).

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
D10.0 USN(IF)	BRG 5.63° / 10.00 NM USN	35°25'54.3"N 129°21'44.9"E
D5.0 USN(FAF)	BRG 5.63° / 5.00 NM USN	35°30'54.4"N 129°21'28.4"E
D2.0 USN(MAPt)	BRG 5.63° / 2.00 NM USN	35°33'54.5"N 129°21'18.5"E
THR RWY 36	Final approach descent angle 2.99°	35°35'04.15"N 129°21'08.95"E
USN VOR/DME		35°35'54.6"N 129°21'11.8"E
SEDMO	BRG 352.68° / 13.00 NM USN	35°48'27.1"N 129°16'55.0"E