ENR 3.2 AREA NAVIGATION ROUTES

Route designator (Navigation specification) Name of significant points Coordinates [Navigation Specification limitation]	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	MAG TRACK	Geodetic DIST NM 4	Upper limits Lower limits or (MOCA) ft AMSL or FL Airspace classification	crui lev Odd	ion of sing rels	Remarks Controlling unit Frequency 7
L512 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] TENAS	_	<u> </u>	·				Daegu ACC FREQ: 122.250(125.925) MHz
373820N 1313427E △ SABET 373829N 1324019E	N/A	<u>098</u> 279	52.3	UNL FL 270(1 500)	\		refer to ENR 3.1-1 * L512 OPS HR between TENAS and ANDOL
▲ ANDOL(FIR BDRY) 373958N 1330000E		<u>093</u> 274	15.7	Class A, G		<u></u>	- EASTBOUND: H24 - WESTBOUND: H24 ** After ANDOL, MEA is FL 290, see AIP JAPAN.
INCHEON FIR FUKUOKA FIR 1. Critical DME: KAE <tenas s<="" td=""><td>SABET>, KPO<</td><td>TENAS/S</td><td>SABET></td><td></td><td></td><td></td><td>*** Extended DME DOC volume service is 220 NM.</td></tenas>	SABET>, KPO<	TENAS/S	SABET>				*** Extended DME DOC volume service is 220 NM.
2. DME GAP : SABET/ANDOL, Y233 (RNAV2) [GNSS, DME/DME, DME/DME/IRU]	GNSS require	u.					Daegu ACC FREQ: 122.250(125.925) MHz 263.350(263.85) MHz
△ BUSKO 374033N 1301610E △ SELPA 375515N 1304911E		069 250	30.0	UNL	\		Airspace Classification refer to ENR 3.1-1
△ ONATA 382832N 1320602E	N/A	070 251 071 251	69.1	FL 200(1 500) Class A, D, G			
A KANSU(FIR BDRY) 383800N 1322830E INCHEON FIR PYONGYANG FIR						Î	
Critical DME: KAE <busko 3="" dme="" gap:="" kansu,<="" onata="" td=""><td></td><td></td><td>SELPA>, I</td><td>KAE<selpa on<="" td=""><td>ATA>,</td><td>KPO<</td><td>SELPA/ONATA></td></selpa></td></busko>			SELPA>, I	KAE <selpa on<="" td=""><td>ATA>,</td><td>KPO<</td><td>SELPA/ONATA></td></selpa>	ATA>,	KPO<	SELPA/ONATA>

^{*} RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

Change : Information of index number(ENR 3.3 \rightarrow 3.2).

Na	Route designator Navigation specification) ame of significant points Coordinates	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME	MAG TRACK	Geodetic DIST	Upper limits Lower limits (MOCA) ft AMSL or FL Airspace	cruisino	ion of glevels	Remarks Controlling unit
[Navig	ation Specification limitation]		•	NM	classification	Odd	Even	Frequency
	1	2	3	4	5	(6	7
	Y253 (RNAV2)							Incheon ACC
	[GNSS, DME/DME, DME/DME/IRU]							FREQ:(at or below FL255)
\triangle	DALSU							120.725(128.30) MHz
	350731N 1264206E					↓		263.90(272.75) MHz
	GWANGJU VOR(KWA)		<u>097</u> 277	5.4	UNL 8 000(2 400) Class A, D, G			FREQ: (above FL 255) 123.725(124.50) MHz 239.25(275.40) MHz
	350734N 1264844E SAMUL		<u>097</u> 278	2.6	UNL 8 000(2 000) Class A, D, G			Airspace Classification refer to ENR 3.1-1
	350736N 1265154E		<u>097</u> 278	22.1	UNL 8 000(5 200) Class A. D. G			
•	TEDAN 350744N 1271852E		098	13.5	, , -			Daegu ACC
	ANUBA		278		UNL			FREQ :
	350746N 1273523E SAPDI	N/A	<u>098</u> 278	44.7	8 000(5 400) Class A, D, G			128.175(128.325) MHz 335.50(275.20) MHz Airspace Classification refer to ENR 3.1-1
	350737N 1282952E		<u>098</u> 278	1.6	UNL 8 000(2 400) Class A, D, G			
	350736N 1283147E		098 279	11.9	UNL 8 000(4 000)			Daegu ACC FREQ :
	ANKUS				Class A, D, G			125.375(125.775,
	350730N 1284616E		<u>099</u> 279	11.2	UNL 8 000(3 500)			124.575) MHz 234.15(317.35, 335.50) MHz
\triangle	BUSAN VORTAC(PSN) 350721N 1285958E				Class A, D, G		<u> </u>	Airspace Classification refer to ENR 3.1-1

^{1.} Critical DME: PSN<SAPDI/SARAM>, CJU<SAPDI/SARAM>, PSN<SARAM/ANKUS>, CJU<SARAM/ANKUS>, PSN<ANKUS/PSN>, CJU<ANKUS/PSN>

 $^{^{\}star}$ RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

(I Na	Route designator Navigation specification) ame of significant points Coordinates	Waypoint IDENT of VOR/DME BRG & DIST	MAG	Geodetic	Upper limits Lower limits (MOCA) ft AMSL or FL		ion of levels	Remarks
1]	Navigation Specification limitation]	ELEV DME Antenna	TRACK	DIST	Airspace classification	Odd	Even	Controlling unit Frequency
	1	2	3	4	5	(3	7
Δ	Y437 (RNAV2) [GNSS,DME/DME, DME/DME/IRU] GANGWON VORTAC(KAE)			7				Daegu ACC FREQ: (at or below FL 295) 134.175(123.65) MHz 272.40(233.60) MHz
	374203N 1284514E LESBU		100 280	44.3	UNL 8 000(6 400) Class A, D, G	 		FREQ: (above FL 295) 122.250(125.925) MHz 263.350(263.85) MHz
•	374116N 1294104E UGOVI		100 280	7.8				Airspace Classification refer to ENR 3.1-1
	374105N 1295051E BUSKO	N/A	100 281	20.1	UNL 8 000(1 500) Class A. D. G			Daegu ACC
	374033N 1301610E TENAS		101 281	62.2	, ,			FREQ: 122.250(125.925) MHz 263.350(263.85) MHz
	373820N 1313427E MALSO		044 224	20.0	UNL			Airspace Classification refer to ENR 3.1-1
	375440N 1314904E KANSU(FIR BDRY)		<u>044</u> 225	53.3	FL 200(1 500) Class A, D, G		<u> </u>	
	383800N 1322830É							
	INCHEON FIR]
	PYONGYANG FIR							

1. Critical DME: KAE<KAE/LESBU>, KPO<KAE/LESBU>, KAE<LESBU/UGOVI>, KPO<LESBU/UGOVI>, KAE<UGOVI/BUSKO>, KPO<UGOVI/BUSKO>, KAE<BUSKO/TENAS>, KPO<BUSKO/TENAS>,

KAE<TENAS/MALSO>, KPO<TENAS/MALSO>

2. DME GAP: MALSO/KANSU GNSS required.

^{*} RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

Na	Route designator lavigation specification) lame of significant points Coordinates lavigation Specification limitation	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	MAG TRACK 3	Geodetic DIST NM 4	Upper limits Lower limits (MOCA) ft AMSL or FL Airspace classification	cruising Odd	ion of levels	Remarks Controlling unit Frequency
	Y571 (RNAV2) [GNSS, DME/DME, DME/DME/IRU]	2	3	4	5)	Incheon ACC FREQ: 124.525(132.425) MHz
▲	SOSDO 330012N 1262735E OMKIM		<u>048</u> 229	17.4	UNL 11 000(1 500) Class A, D, G	\		255.40(233.50, 348.10) MHz Airspace Classification refer to ENR 3.1-1
Δ	331320N 1264114E PAPLU		049 229	28.4	UNL 11 000(2 200) Class A, D, G			
•	333441N 1270337E		<u>056</u> 236	18.2	UNL 11 000(1 500) Class A, D, G			
_	334650N 1271953E	N/A	<u>056</u> 236	42.9	UNL 11 000(1 800) Class A, D, G			Daegu ACC
_	341519N 1275835E		056 237	34.4	UNL 11 000(2 100) Class A. D. G			128.175(128.325) MHz 335.50(275.20) MHz Airspace Classification
^	ANROD 343758N 1282952E		<u>057</u> 237	26.6	UNL 11 000(2 800) Class A, D, G			refer to ENR 3.1-1
	POVEM 345523N 1285416E BUSAN VORTAC(PSN)		<u>029</u> 209	12.8	UNL 11 000(3 000) Class A, D, G			
	350721N 1285958E ME GAP : SOSDO/OMKIM							

^{*} RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

Na	Route designator lavigation specification) me of significant points Coordinates lavigation Specification limitation]	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	MAG TRACK 3	Geodetic DIST NM 4	Upper limits Lower limits (MOCA) ft AMSL or FL Airspace classification 5	cruising Odd	ion of levels	Remarks Controlling unit Frequency
	Y572 (RNAV2) [GNSS, DME/DME,	2	3	4	5			Daegu ACC
Δ	BUSAN VORTAC(PSN)							FREQ: 128.175(128.325) MHz 335.50(275.20) MHz
	350721N 1285958E OLMUD		<u>249</u> 069	10.1	UNL 11 000(3 000) Class A, D, G		\	Airspace Classification refer to ENR 3.1-1
	350225N 1284916E ENGOT		<u>237</u> 057	21.1	UNL 11 000(3 200) Class A, D, G			
_	344834N 1282952E POVOR		<u>237</u> 056	50.4	UNL 11 000(2 600) Class A, D, G			
	341520N 1274400E UPGOS		<u>236</u> 056	26.8	UNL 11 000(2 000) Class A, D, G			
	335733N 1271953E		236 056	17.0	UNL 11 000(1 500) Class A, D, G			Incheon ACC
	BILUM 334613N 1270439E	N/A	<u>236</u> 056	10.5	UNL 11 000(1 500) Class A, D, G			FREQ: 124.525(132.425) MHz 255.40(233.50, 348.10) MHz
	BEPKO 333910N 1265514E		<u>230</u> 050	21.9	UNL 11 000(5 600) Class A. D. G			Airspace Classification refer to ENR 3.1-1
Δ	JEJU VORTAC(CJU) 332305N 1263727E		<u>169</u> 349	10.2	UNL 11 000(8 700)		+	The cruising levels from CJU to RUGMA are even levels due to operational
Δ	OMKIM 331320N 1264114E		<u>169</u> 349	13.8	UNL 11 000(1 500)			reasons. * The cruising levels from RUGMA to CJU
•	TOSAN 330012N 1264619E		169 349	31.5	UNL 11 000(1 500)			are odd levels due to operational reasons.
•	RUGMA(FIR BDRY) 323012N 1265753E				Class A, D, G	 		
	INCHEON FIR FUKUOKA FIR							
1 0	ME GAP : UPGOS/BILUM,		DEDVO/	NII 0 II 10		OCAN 7		LICMA CNEO

^{*} RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

(Navigation Name of sig Coord [Navigation	lesignator specification) nificant points dinates Specification ation]	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	MAG TRACK	Geodetic DIST NM	Upper limits Lower limits (MOCA) ft AMSL or FL Airspace classification	Cruising	ion of levels Even	Remarks Controlling unit Frequency
	<u>1</u>	2	3	4	5	(3	7
Y579 (RNAV2) [GNSS, I DME/DM	DME/DME,							Daegu ACC FREQ: 122.250(125.925) MHz 263.350(263.85) MHz
373820N △ AGSUS	I 1313427E		<u>228</u> 047	68.1			↓ ↓	Airspace Classification refer to ENR 3.1-1
	1304044E		<u>229</u> 049	36.2	UNL FL 140(1 500) Class A. D. G			
	I 1301143E	N/A	<u>229</u> 048	28.1				Daegu ACC
355609N ▲ BEDOM	I 1294924E		<u>228</u> 048	40.2	UNL FL 140(2 700) Class A, D, G			FREQ: 120.575(119.375, 119.325, 134.375) MHz 254.70(335.75) MHz
352513N	1 1291754E VORTAC(PSN)		<u>228</u> 047	23.1	UNL FL 140(3 800) Class A, D, G	1		Airspace Classification refer to ENR 3.1-1
350721N	1285958E							

^{1.} TENAS-PSN CDR1 Operational hour(UTC) - Weekdays: 1400~2200 - SAT: 2200 on the preceding until 2400 on the Saturday - SUN: 0000~2200 - Holiday: 1400 on the preceding until 2200 on the holiday. Rest of Y579-PERM. See ENR 1.1-1.2.

^{*} RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

Route designator (Navigation specification) Name of significant points Coordinates [Navigation Specification limitation] 1 Y644 (RNAV2) [GNSS, DME/DME,	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	MAG TRACK °	Geodetic DIST NM 4	Upper limits Lower limits (MOCA) ft AMSL or FL Airspace classification 5	cruising Odd	ion of levels Even	Remarks Controlling unit Frequency 7 Daegu ACC
DME/DME/IRU] SANGHAI FIR							FREQ: (at or below FL 295) 128.70(118.925) MHz 270.50(263.60) MHz
INCHEON FIR							FREQ : (above FL 295)
▲ AGAVO(FIR BDRY)							132.80(120.525) MHz
371000N 1240000E		<u>095</u> 276	11.8		 		290.60(335.45) MHz
371033N 1241442E △ GONAV		<u>096</u> 276	8.1				Eastbound (AGAVO-EGOBA)
371048N 1242453E △ BODOL		<u>096</u> 277	20.0	UNL FL 150(1 500)			FL 410, FL 390, FL 370, FL 350, FL 330, FL 310, FL 290, FL 270, FL 250,
371122N 1244954E ▲ REBIT		<u>097</u> 277	31.4	Class A, D, G			FL 230 REF.
371203N 1252913E		<u>097</u> 278	15.0				ENR 3.1-10 for the detailed altitude conversion procedures.
371218N 1254759E	N/A	<u>098</u> 278	32.1	UNL 8 000(2 400)			Airspace Classification refer to ENR 3.1-1
△ BOGAN				Class A, D, G			
371241N 1262812E		<u>098</u> 278	17.6	UNL 8 000(3 200) Class A, D, G			
▲ MONSI							
371247N 1265015E		<u>098</u> 278	7.5	UNL 8 000(2 400)			
△ POLEG				Class A, D, G			
371249N 1265935E		<u>057</u> 237	24.7	UNL FL 140(3 300)			
△ EGOBA 372915N 1272246E				Class A, D, G			

^{1.} Critical DME: SEL<AGAVO/RILRO>, KUZ<AGAVO/RILRO>, SEL<RILRO/GONAV>, KUZ<RILRO/GONAV>, SEL<MONSI/POLEG>, SOT<MONSI/POLEG>, SEL<POLEG/EGOBA>, SOT<POLEG/EGOBA>

 $^{^{\}star}$ RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

(Route designator Navigation specification) ame of significant points	Waypoint IDENT of VOR/DME BRG & DIST	MAG	Geodetic	Upper limits Lower limits (MOCA) ft AMSL or FL		ion of	Remarks
	coordinates pation Specification limitation	ELEV DME Antenna	TRẠCK	DIST NM	Airspace classification 5	Odd	Even	Controlling unit Frequency
	Y655 (RNAV2)	2		4	J			Daegu ACC
	[GNSS, DME/DME, DME/DME/IRU]							FREQ: (at or below FL 295) 128.70(118.925) MHz 270.50(263.60) MHz
	GONAV 371048N 1242453E		<u>188</u> 008	12.2		 		FREQ : (above FL 295) 132.80(120.525) MHz 290.60(335.45) MHz
	DALPO 365835N 1242453E		188 008	17.8				Airspace Classification refer to ENR 3.1-1
•	NONOS 364046N 1242453E		<u>188</u>	20.6				
•	BIDRI 362007N 1242453E		008 188	49.4				Incheon ACC
•	DANPA 353036N 1242453E		008		UNL FL 140(1 500)			FREQ: (below FL 255) 126.175(134.375) MHz 317.85(335.55) MHz
	PALSA		188 007	88.9	Class A, D, G			FREQ: (at or above FL 255) 132.15(123.55) MHz 263.15(272.60) MHz Airspace Classification refer to ENR 3.1-1
	340131N 1242453E	N/A	<u>187</u>	11.0				Incheon ACC FREQ: (below FL 255) 120.725(128.30) MHz 263.90(272.75) MHz
Δ	TOLIS		007	11.0				FREQ: (at or above FL 255) 123.725(124.50) MHz 239.25(275.40) MHz Airspace Classification refer to ENR 3.1-1
	335030N 1242453E		177 356	99.0	UNL FL 430(1 500)			Incheon ACC FREQ: 124.525(132.425) MHz 255.40(233.50, 348.10) MHz
•	ENSUM 321302N 1244635E		176		Class A, G FL 220			Airspace Classification refer to ENR 3.1-1
Δ	BONSO 302840N 1250851E		356 181	105.9	FL 150(1 500) Class A, D			FREQ : (below FL 335) 125.725(132.825, 128.375) MHz 232.95(233.15) MHz
•	ATOTI(FIR BDRY) 300013N 1251154E		001	28.5			<u> </u>	FREQ: (at or above FL 335) 133.425(132.425) MHz 234.35(234.65) MHz
	INCHEON FIR FUKUOKA FIR							Airspace Classification refer to ENR 3.1-1
	cal DME : SEL <gonav dalpo<br="">KUZ<nonos bidri=""> E GAP : DANPA/PALSA, PALSA</nonos></gonav>	, SEL <bidri d<="" td=""><td>ANPA>, KÚZ<</td><td>BIDRI/DANF</td><td>PA></td><td></td><td>- ,</td><td>EL<nonos bidri="">,</nonos></td></bidri>	ANPA>, KÚZ<	BIDRI/DANF	PA>		- ,	EL <nonos bidri="">,</nonos>
Z. DIVIL	Y657	VIOLIO, IOLI	S/LINOOIVI, LI	NOON/DONO	BONGO/ATOTI	CINOCI	equired.	Incheon ACC
	(RNAV2) [GNSS, DME/DME, DME/DME/IRU]							FREQ: (at or below FL 255) 120.725(128.30) MHz 263.90(272.75) MHz
Δ	GWANGJU VOR(KWA) 350734N 1264844E		072	EA 7	10 000 8 000(7 100)	1		FREQ: (above FL 255) 123.725(124.50) MHz 239.25(275.40) MHz
•	IGDOK	N/A	253	54.7	Class D			Airspace Classification refer to ENR 3.1-1
	353104N 1274907E		<u>073</u> 254	41.6	10 000 8 000(4 800)			Daegu ACC FREQ:
	DALSEONG VORTAC(TGU) 354835N 1283527E				Class D		<u> </u>	125.375(125.775, 124.575) MHz 234.15(317.35, 335.50) MHz
	V2 represents a pavigation ac							Airspace Classification refer to ENR 3.1-1

^{*} RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

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AIP		
Republic	of	Korea

Name Name Name Name Name Name	vigation specification) e of significant points Coordinates on Specification limitation] 1 159 NAV2) NSS, DME/DME, ME/DME/IRU] JNSAN VORTAC(KUZ) 5437N 1263641E POS 5410N 1264707E NBO 5352N 1265349E ELES 5251N 1271542E PEDA 5149N 1273652E ALSEONG VORTAC(TGU) 4835N 1283527E	DIST ELEV DME Antenna 2	MAG TRACK 3 3 101 281 101 282 102 282	8.5 5.5	ft AMSL or FL Airspace classification 5 10 000 7 000(1 700) Class D 10 000 7 000(3 700) Class D 10 000	Odd	Even 6	Remarks Controlling unit Frequency 7 Incheon ACC FREQ: (at or below FL 256 126.175(134.375) MHz 317.85(335.55) MHz FREQ: (above FL 255 132.15(123.55) MHz 263.15(272.60) MHz Airspace Classification
(RN. GN: GN: GN: GN: S554 △	NAV2) NSS, DME/DME, ME/DME/IRU] JINSAN VORTAC(KUZ) 5437N 1263641E POS 5410N 1264707E NBO 5352N 1265349E ELES 5251N 1271542E PEDA 5149N 1273652E ALSEONG VORTAC(TGU)	N/A	281 101 281 101 282 102	5.5	7 000(1 700) Class D 10 000 7 000(3 700) Class D	↓		FREQ: (at or below FL 25 126.175(134.375) MHz 317.85(335.55) MHz FREQ: (above FL 255 132.15(123.55) MHz 263.15(272.60) MHz Airspace Classification
 △ GUN 3554 △ ELP 3554 △ MEL 3552 △ OPE 3554 △ DAL 3548 ▲ LAP 3554 △ POH 3558 ✓ Y677 (RN. [GN: DME △ TOL 3350 ▲ LIMI 	JNSAN VORTAC(KUZ) 5437N 1263641E POS 5410N 1264707E NBO 5352N 1265349E ELES 5251N 1271542E PEDA 5149N 1273652E	N/A	281 101 281 101 282 102	5.5	7 000(1 700) Class D 10 000 7 000(3 700) Class D	↓		126.175(134.375) MHz 317.85(335.55) MHz FREQ: (above FL 258 132.15(123.55) MHz 263.15(272.60) MHz Airspace Classification
 △ ELP 3554 △ RINII 3553 △ MEL 3555 △ OPE 3554 △ DAL 3548 ▲ LAP 3554 △ POH 3558 ✓ Y677 (RN. [GN: DME DME DME DME DME DME DME DME DME DME	POS 5410N 1264707E NBO 5352N 1265349E ELES 5251N 1271542E PEDA 5149N 1273652E	N/A	281 101 281 101 282 102	5.5	7 000(1 700) Class D 10 000 7 000(3 700) Class D	•		132.15(123.55) MHz 263.15(272.60) MHz Airspace Classification
A MEL 3552 A OPE 3552 A DAL 3548 ▲ LAP 3554 A POH 3558 Y677 (RN. [GN: DME A TOL 3350 ▲ LIMI	5352N 1265349E ELES 5251N 1271542E PEDA 5149N 1273652E ALSEONG VORTAC(TGU)	N/A	281 101 282 102	17.8	10 000 7 000(3 700) Class D			Airspace Classification
3552 △ OPE 3554 △ DAL 3548 ▲ LAP 3554 △ POH 3558 ✓ Y677 (RNA) [GN: DME	5251N 1271542E PEDA 5149N 1273652E ALSEONG VORTAC(TGU)	N/A	282 102		Class D			
△ OPE 355. △ DAL 3548 ▲ LAP 355. △ POH 355. ✓ Y67' (RN. [GN: DME △ TOL 335. ▲ LIMI	PEDA 5149N 1273652E ALSEONG VORTAC(TGU)	N/A		47.0	10 000			refer to ENR 3.1-1
355° △ DAL 3548 ▲ LAP 3554 △ POH 3558 Y67° (RN. [GN: DME △ TOL 3350 ▲ LIMI	5149N 1273652E ALSEONG VORTAC(TGU)	IV/A		17.2	7 000(5 000)			
3548 ▲ LAP 3554 △ POH 3558 Y67 (RN. [GN: DME			<u>102</u>	47.7	Class D 10 000 7 000(6 600)			Daegu ACC
3554 △ POH 3558 Y67' (RN, [GN: DME △ TOL 3350			282		Class D UNL			FREQ: 125.375(125.775,
△ POH 3558 Y67 (RN, [GN: DME	NPAL 5413N 1290452E		265	24.6	6 000(4 200) Class A, D, G UNL			124.575) MHz 234.15(317.35, 335.50) MHz
Y67' (RN. [GN: DME	DHANG VORTAC(KPO)		<u>085</u> 265	19.7	6 000(3 300) Class A, D, G		<u> </u>	Airspace Classification Trefer to ENR 3.1-1
(RN. [GN: DME △ TOL 3350	5838N 1292828E							
3350 ▲ LIMI	577 NAV2) NSS, DME/DME, ME/DME/IRU]							Incheon ACC
	DLIS 5030N 1242453E		<u>111</u>	73.0	UNL 9 000(1 500)	\		124.525(132.425) MH - 255.40(233.50, 348.10) MHz
	MDI 3313N 1254953E		291	73.0	Class A, D, G UNL			Airspace Classification refer to ENR 3.1-1
	EMOS		<u>111</u> 292	29.0	9 000(4 100) Class A, D, G			
	2605N 1262329E :JU VORTAC(CJU)	N/A	<u>112</u> 292	12.1	9 000(8 700)			
	` ,		<u>089</u> 269	35.9	Class A, D, G UNL 9 000(6 300)			
	2305N 1263727E		089	46.6	Class A, D, G UNL 0.000(4.500)			
	2305N 1263727E MMNA 2815N 1271953E		270	49.8	9 000(1 500) Class A, D, G		<u> </u>	_
INCI FUK	MNA							

Critical DME: KWA<LIMDI/REMOS>, CJU<LIMDI/REMOS>, PSN<CJU/TAMNA>, CJU<CJU/TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA/SAMDO>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, CJU<TAMNA>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, CJU<TAMNA>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, CJU<TAMNA>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, CJU<TAMNA>, CJU<TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA>, CJU<TAMNA

Change: Page control.

(Na	Route designator vigation specification)	Waypoint IDENT of			Upper limits Lower limits (MOCA)		ion of	
	e of significant points Coordinates vigation Specification limitation]	VOR/DME BRG & DIST ELEV DME Antenna	MAG TRACK	Geodetic DIST NM 4	ft AMSL or FL Airspace classification 5	Odd	Even	Remarks Controlling unit Frequency
	Y685 (RNAV2)	_						Daegu ACC
	[GNSS, DME/DME, DME/DME/IRU]							FREQ: (at or below FL 295) 128.70(118.925) MHz 270.50(263.60) MHz
	ANYANG VORTAC(SEL) 372449N 1265542E				UNL	↓		FREQ : (above FL 295) 132.80(120.525) MHz 290.60(335.45) MHz
	KALMA		133 313	10.7	8 000(3 200) Class A, D, G			Only flying westbound from KPO to SEL on Y685 is authorized
	371845N 1270645E				UNL			except ACFT departing from RKTY or RKTI.
	KAKSO		<u>133</u> 313	19.3	8 000(2 900) Class A, D, G			Aircraft flying eastbound from SEL to KPO at or above 11 000 ft on Y685
:	370745N 1272637E				UNL			shall get PPR 24 hours before from Incheon/Daegu ACC.
			133 313	11.5	8 000(3 600) Class A, D, G			No PPR is needed at or below 10 000 ft.
•	GUKDO				Glass 7, B, G			Airspace Classification refer to ENR 3.1-1
:	370111N 1273823E		<u>133</u> 314	9.2	UNL 8 000(3 700)			Daegu ACC
Δ	ENSAL		314	5.2	Class A, D, G			FREQ:
	365554N 1274747E	N/A	<u>134</u> 314	9.2	UNL 8 000(4 000)			120.575(119.375, 119.325, 134.375) MHz 254.70(335.75) MHz
l l	BASEM 365037N 1275710E		134 314	12.5	Class A, D, G UNL 8 000(5 000)			Only flying westbound from KPO to SEL on Y685 is authorized except ACFT departing
	BIGOB 364325N 1280952E				Class A, D, G UNL			except ACFT departing from RKTY or RKTI.
, ,	VEOLIEON VORVOUNI)		134 314	9.5	8 000(4 900)			Aircraft flying eastbound from SEL to KPO at or above 11 000 ft on
	YECHEON VOR(CUN) 363755N 1281931E		400		Class A, D, G UNL			Y685 shall get PPR 24 hours before from
	ELAPI		133 314	30.8	8 000(3 800) Class A, D, G			Incheon/Daegu ACC.
	362014N 1285051E		134	05.5	UNL	-		No PPR is needed at or below 10 000 ft.
	POHANG VORTAC(KPO)		<u>134</u> 314	37.3	8 000(4 700) Class A, D, G			Airspace Classification
:	355838N 1292828E		107 287	17.2	UNL 8 000(2 100) Class A, D, G			refer to ENR 3.1-1
l l	355609N 1294924E		107	44.4	UNL			
	SAPRA(FIR BDRY) 354926N 1304325E		287	44.4	8 000(1 500) Class A, D, G		<u></u>	
	INCHEON FIR FUKUOKA FIR							

^{*} RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

				<u> </u>				
	Route designator lavigation specification) me of significant points	Waypoint IDENT of VOR/DME			Upper limits Lower limits (MOCA) ft AMSL or FL		ion of levels	
	Coordinates ' lavigation Specification	BRG & DIST ELEV DME Antenna	MAG TRACK 3	Geodetic DIST NM 4	Airspace classification	Odd	Even	Remarks Controlling unit Frequency
	Y697 (RNAV2)		<u> </u>	7				Daegu ACC
	[GNSS, DME/DME, DME/DME/IRU]							FREQ: (at or below FL 295)
	SANGHAI FIR				1			- 128.70(118.925) MHz 270.50(263.60) MHz
_	INCHEON FIR AGAVO(FIR BDRY)							FREQ: (above FL 295)
•	371000N 1240000E OLBIM		<u>064</u> 244	7.5				132.80(120.525) MHz ² 290.60(335.45) MHz
	371411N 1240751E		<u>066</u> 246	16.2	-			Westbound(SEL-AGAVO) FL 400, FL 380, FL 360, FL 340, FL 320, FL 300,
Δ	NOGON 372250N 1242505E		097	20.0	UNL FL 150(1 500)			FL 280, FL 260, FL 240, FL 220, FL 200
\triangle	ANSIM 372323N 1245009E		277 097		Class A, D, G			REF. ENR 3.1-9 for the detailed altitude conversion procedures.
•	BINIL 372349N 1251359E		277	19.0	_			Only flying westbound from SEL to AGAVO on
•	NOPIK		<u>097</u> 277	20.0	1159			Y697 is authorized.
\triangle	372412N 1253905E GOGET		<u>097</u> 278	41.0	UNL 8 000(2 100) Class A, D, G			
^	372442N 1263036E		<u>098</u> 278	20.0	UNL			
Δ	ANYANG VORTAC(SEL) 372449N 1265542E		087	22.0	7 500(3 400) Class A, D, G	\		
\triangle	EGOBA 372915N 1272246E		267		UNL			
•	KARBU	N/A	<u>087</u> 267	13.9	7 500(5 100) Class A, D, G			
	373159N 1273952E		<u>087</u> 268	22.9	7 500(4 500)			Daegu ACC
•	TORUS 373625N 1280807E		088	21.8	Class A, D, G UNL 7 500(7 500)			FREQ: (at or below FL 295) 134.175(123.65) MHz 272.40(233.60) MHz
•	BIKSI 374032N 1283504E		268	21.0	Class A, D, G			FREQ : (above FL 295) 122.250(125.925) MHz
Δ	GANGWON VORTAC(KAE)		088 268	8.2	7 500(7 100) Class A, D, G			263.350(263.85) MHz Airspace Classification
•	374203N 1284514E		<u>130</u> 310	30.0	UNL 8 000(7 100)			refer to ENR 3.1-1
	PILIT 372631N 1291731E		130 310	31.2	Class A, D, G			
•	ESNEG 371014N 1295051E				_			Daegu ACC
Δ	AGSUS		<u>130</u> 310	47.1	UNL 9 000(1 500) Class A. D. G			FREQ: 122.250(125.925) MHz 263.350(263.85) MHz
•	364521N 1304044E LANAT(FIR BDRY)		<u>130</u> 311	42.9	Gass A, D, G		1	Only flying westbound from LANAT to KAE on Y697 shall get 24HR PPR from Daegu ACC.
	362224N 1312542E INCHEON FIR							Airspace Classification
	FUKUOKA FIR							refer to ENR 3.1-1
1 0-1	tical DME + SEL < ACAMO/OL	DIMS KLIZZAC	AVO/OLDIM	> CEL 201 E	NA/NOCONS IZLI	Z-OLDIM	/NIOCONIS	CEL «NOCON/ANCIM»

^{1.} Critical DME: SEL<AGAVO/OLBIM>, KUZ<AGAVO/OLBIM>, SEL<OLBIM/NOGON>, KUZ<OLBIM/NOGON>, SEL<NOGON/ANSIM>, KUZ<NOGON/ANSIM>, SEL<KARBU/TORUS>, KAE<KARBU/TORUS>, SEL<TORUS/BIKSI>, KAE<TORUS/BIKSI>, SEL<BIKSI/KAE>, KAE<BIKSI/KAE>, KAE<KAE/PILIT>, KPO<KAE/PILIT>, KAE<PILIT/ESNEG>, KPO<PILIT/ESNEG>, KAE<ESNEG/AGSUS>, KPO<ESNEG/AGSUS>, KAE<AGSUS/LANAT>, KPO<AGSUS/LANAT>

* RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

Change : Information of remarks(G597 \rightarrow Y697).

Route designator	Waypoint			Upper limits Lower limits	Direct cruising	ion of levels	
(Navigation specification) Name of significant points Coordinates [Navigation Specification limitation]	IDENT of VOR/DME BRG & DIST ELEV DME Antenna	MAG TRACK 3	Geodetic DIST NM	(MOCA) ft AMSL or FL Airspace classification	Odd	Even	Remarks Controlling unit Frequency
Y711 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] MONSI	2	3	4	3			Daegu ACC FREQ: (at or below FL 295) 128.70(118.925) MHz 270.50(263.60) MHz FREQ: (above FL 295)
371247N 1265015E		<u>190</u> 010	29.4	UNL FL 140(2 900)		↓	132.80(120.525) MHz 290.60(335.45) MHz Airspace Classification refer to ENR 3.1-1
364322N 1264930E		187 007	10.0	Class A, D, G			Incheon ACC
363322N 1264953E		<u>187</u> 006	10.2	UNL			FREQ: (at or below FL 255) 126.175(134.375) MHz 317.85(335.55) MHz
△ GONAX 362311N 1265016E △ BEDES		<u>193</u> 013	14.1	FL 140(3 200) Class A, D, G			FREQ: (above FL 255) 132.15(123.55) MHz 263.15(272.60) MHz
△ BEDES 360905N 1264844E △ ELPOS		<u>193</u> 013	14.9	UNL FL 140(2 200) Class A, D, G			Airspace Classification refer to ENR 3.1-1
355410N 1264707E		<u>193</u> 013	24.0	UNL FL 140(2 800)			
353011N 1264432E		<u>193</u> 013	22.7	Class A, D, G UNL FL 140(3 800)			Incheon ACC FREQ: (at or below FL 255)
350731N 1264206E		<u>193</u> 013	42.4	Class A, D, G UNL FL 140(4 000)			120.725(128.30) MHz 263.90(272.75) MHz FREQ: (above FL 255)
342514N 1263739E	N/A	<u>193</u> 013	10.0	Class A, D, G UNL FL 140(3 300)			123.725(124.50) MHz 239.25(275.40) MHz Airspace Classification
▲ DOTOL 341515N 1263637E		1 <u>93</u> 012	24.8	Class A, D, G UNL FL 140(2 700)			refer to ENR 3.1-1 Incheon ACC
△ KIDOS 335028N 1263402E △ REMOS		<u>207</u> 027	25.9	Class A, D, G <u>UNL</u> FL 140(6 000)			FREQ: 124.525(132.425) MHz 255.40(233.50, 348.10) MHz
332605N 1262329E		<u>207</u> 027	27.4	Class A, D, G UNL FL 140(6 300) Class A, D, G			Airspace Classification refer to ENR 3.1-1
330014N 1261225E		<u>207</u> 027	33.4	Glass A, D, G			
322848N 1255859E		<u>207</u> 027	30.1				Incheon ACC FREQ: (At or above FL 335)
320021N 1254659E		207 026	18.2	UNL			133.425(132.425) MHz 234.35(234.65) MHz
314314N 1253948E		<u>207</u> 026	12.0	FL 140(1 500) Class A, D, G			FREQ: (below FL 335) 125.725(132.825, 128.375) MHz 232.95(233.15) MHz
313155N 1253504E		<u>207</u> 026	67.0				* Note Any aircraft planning to operate below FL 320
302840N 1250851E MUGUS(FIR BDRY)		206 026	30.2				after MUGUS must use Z86 between BONSO and ATOTI, then use
300006N 1245712E							B576. Airspace Classification refer to ENR 3.1-1
FUKUOKA FIR							TOIGH TO LINK J. I-I

FUKUOKA FIR

1. Critical DME: KWA<DOTOL/KIDOS>, CJU<DOTOL/KIDOS>
2. DME GAP: KIDOS/REMOS, REMOS/PANSI, PANSI/DOMKO, DOMKO/PONIK, PONIK/KANKA, KANKA/BONSO, BONSO/MUGUS GNSS required.

^{*} RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

Route designator (Navigation specification) Name of significant points Coordinates [Navigation Specification limitation]	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	MAG TRACK	Geodetic DIST NM	Upper limits Lower limits (MOCA) ft AMSL or FL Airspace classification		ion of levels Even	Remarks Controlling unit Frequency
1 Y722 (RNAV2) [GNSS, DME/DME, DME/DME/IRU]	2	3	4	5		7	Incheon ACC FREQ: (at or below FL 255) 126.175(134.375) MHz
△ SONGTAN VORTAC(SOT) 370540N 1270154E		194	21.5	UNL FL 140(3 100)			317.85(335.55) MHz FREQ: (above FL 255)
▲ OLMEN 364413N 1265928E		014 <u>187</u>	10.0	Class A, D, G UNL FL 140(3 600)			132.15(123.55) MHz 263.15(272.60) MHz
△ GUNKU 363414N 1265949E		007 <u>187</u>	11.0	Class A, D, G UNL FL 140(3 300)			Airspace Classification refer to ENR 3.1-1
▲ PEBRI 362311N 1270013E		007 193	29.5	Class A, D, G UNL FL 140(2 300)			
△ ATASO 355344N 1265657E		013 		Class A, D, G UNL FL 140(3 800)			Incheon ACC
▲ MAKSA 353011N 1265422E		013 193	23.6	Class A, D, G UNL			FREQ: (at or below FL 255) 120.725(128.30) MHz 263.90(272.75) MHz
△ SAMUL 350736N 1265154E		013	22.1	FL 140(4 000) Class A, D, G UNL			FREQ: (above FL 255) 123.725(124.50) MHz 239.25(275.40) MHz
▲ KAMIT		<u>193</u> 013	52.5	FL 140(3 400) Class A, D, G UNL			Airspace Classification refer to ENR 3.1-1
341514N 1264618E △ GUKSU	N/A	<u>193</u> 013	22.4	FL 140(2 100) Class A, D, G			Incheon ACC
335251N 1264357E △ LOSNI		<u>193</u> 012	19.6	UNL FL 140(1 700) Class A, D, G			124.525(132.425) MHz 255.40(233.50, 348.10) MHz
333315N 1264153E △ JEJU VORTAC(CJU)		<u>207</u> 027	10.8	UNL FL 140(7 600) Class A, D, G			Airspace Classification refer to ENR 3.1-1
332305N 1263727E ▲ SOSDO		<u>207</u> 027	24.3	UNL FL 140(8 700) Class A, D, G			
330012N 1262735E △ SAMLO 323223N 1261536E		<u>207</u> 027	29.5	-			
△ NIRAT 320354N 1260329E		<u>207</u> 027	30.2	UNL			Incheon ACC FREQ: (At or above FL 335) 133.425(132.425) MHz
△ ELGEP 314653N 1255617E		207 027 207	18.1	FL 140(1 500) Class A, D, G			133.425(132.425) MHz 234.35(234.65) MHz FREQ : (below FL 335)
▲ TESIM 313526N 1255128E		207 207	12.1				125.725(132.825, 128.375) MHz 232.95(233.15) MHz
▲ ATOTI(FIR BDRY) 300013N 1251154E		026	100.9		<u> </u>		Airspace Classification refer to ENR 3.1-1
INCHEON FIR SANGHAI FIR				1			TOTAL ENTRY O. 1-1

SANGHAI FIR

1. Critical DME: KWA<KAMIT/GUKSU>, CJU<KAMIT/GUKSU>
2. DME GAP: GUKSU/LOSNI, LOSNI/CJU, CJU/SOSDO, SOSDO/SAMLO, SAMLO/NIRAT, NIRAT/TESIM, TESIM/ATOTI, GNSS required.

* RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

Route designator	Waypoint IDENT of VOR/DME			Upper limits Lower limits	crui	ion of sing els	
(Navigation specification) Name of significant points Coordinates [Navigation Specification limitation]	BRG & DIST ELEV DME Antenna	MAG TRACK	Geodetic DIST NM	(MOCA) ft AMSL or FL Airspace classification		Even	Remarks Controlling unit Frequency
1 Y744	2	3	4	5	(3 	7
(RNAV2) [GNSS, DME/DME, DME/DME/IRU]							Daegu ACC FREQ: (at or below FL 295) 134.175(123.65) MHz 272.40(233.60) MHz
▲ PILIT 372631N 1291731E		192		UNL		\	FREQ: (above FL 295) 122.250(125.925) MHz 263.350(263.85) MHz
		183 003	19.3	9 000(4 900) Class A, D, G			1. 11 000 ft to FL 240, at or above FL 280 will be blocked.
▲ NOBUT 370715N 1291957E		183 003	28.6	UNL 9 000(5 600)			At or above 11 000 ft, required 15 days PPR from Air Traffic Management Office.
▲ OSVOM		003		Class A, D, G			Airspace Classification refer to ENR 3.1-1
363844N 1292331E	N/A	183 003	18.5	UNL 9 000(4 000)			Daegu ACC
▲ LOSTO 362016N 1292548E		183 003	21.7	UNL 9 000(2 100)			FREQ: 120.575(119.375, 119.325, 134.375) MHz 254.70(335.75) MHz
△ POHANG VORTAC(KPO) 355838N 1292828E		<u>213</u> 033	37.2	Class A, D, G UNL 9 000(4 400)			1. 11 000 ft to FL 240, at or above FL 280 will be blocked.
▲ APARU 352442N 1290932E		<u>213</u> 032	19.0	UNL 9 000(4 400)			At or above 11 000 ft, required 15 days PPR from Air Traffic Management Office.
△ BUSAN VORTAC(PSN) 350721N 1285958E				Class A, D, G	1		Airspace Classification refer to ENR 3.1-1
1. Critical DME : KAE <pilit nobl<="" td=""><td>IT>, KPO<pil< td=""><td>IT/NOBUT:</td><td>></td><td></td><td></td><td></td><td></td></pil<></td></pilit>	IT>, KPO <pil< td=""><td>IT/NOBUT:</td><td>></td><td></td><td></td><td></td><td></td></pil<>	IT/NOBUT:	>				
Y781 (RNAV2) [GNSS, DME/DME, DME/DME/IRU]							Daegu ACC
△ DALSEONG VORTAC(TGU) 354835N 1283527E				UNL			125.375(125.775, 124.575) MHz
▲ MASTA		<u>192</u> 012	19.8	7 000(4 900) Class A, D, G			234.15(317.35, 335.50) MHz
352847N 1283340E △ ANKUS	N/A	<u>162</u> 342	23.6	UNL 7 000(4 000) Class A, D, G			Airspace Classification refer to ENR 3.1-1
350730N 1284616E	N/A	<u>162</u> 342	7.7	UNL 7 000(3 500) Class A, D, G			
350033N 1285022E ▲ BESNA(FIR BDRY)		<u>156</u> 336	27.3	UNL 7 000(2 800) Class A, D, G			
343718N 1290751E				, , -			
INCHEON FIR FUKUOKA FIR							
1. Critical DME : PSN <omotu be<="" td=""><td>SNA> CJU<</td><td>OMOTU/BE</td><td>-SNA></td><td></td><td></td><td></td><td>ı</td></omotu>	SNA> CJU<	OMOTU/BE	-SNA>				ı

Critical DME: PSN<OMOTU/BESNA>, CJU<OMOTU/BESNA>
 DME GAP: ANKUS/OMOTU, GNSS required.

* RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

Change: Page control.

Route designator (Navigation specification) Name of significant points Coordinates [Navigation Specification limitation]	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	MAG TRACK	Geodetic DIST NM	Upper limits Lower limits (MOCA) ft AMSL or FL Airspace classification	cruising Odd	ion of levels	Remarks Controlling unit Frequency
Y782	2	3	4	5	(3	7
(RNAV2) [GNSS, DME/DME, DME/DME/IRU] ANYANG VORTAC(SEL)							Daegu ACC FREQ: (at or below FL 295) 128.70(118.925) MHz 270.50(263.60) MHz
372449N 1265542E				UNL	l l		270.30(203.00) WII IZ
△ POLEG 371249N 1265935E		174 354	12.4	4 500(3 000) Class A, D, G UNL			FREQ: (above FL 295) 132.80(120.525) MHz 290.60(335.45) MHz
△ SONGTAN VORTAC(SOT)		<u>174</u> 354	7.4	4 500(2 000) Class A, D, G			290.60(335.45) MHZ Airspace Classification
370540N 1270154E ▲ OSPOT		144 324	21.6	UNL 8 000(3 300)			refer to ENR 3.1-1
365018N 1272055E		<u>144</u> 324	10.4	Class A, D, G			Daegu ACC
364252N 1273003E		<u>144</u> 324	21.9	UNL			FREQ: 125.375(125.775,
362712N 1274909E	N/A	144 324	14.6	8 000(4 200) Class A, D, G		124.575) MHz 234.15(317.35, 335.50) MHz	
▲ BITUX 361645N 1280148E	•	144	39.2	UNL 10 000(4 500)			Airspace Classification
△ DALSEONG VORTAC(TGU) 354835N 1283527E		324	00.2	Class A, D, G UNL			refer to ENR 3.1-1
▲ KALOD		<u>162</u> 342	20.4	8 000(4 400) Class A, D, G			
353012N 1284626E		<u>162</u> 342	25.4	UNL 5 000(3 600)			
△ BUSAN VORTAC(PSN) 350721N 1285958E		<u>162</u>	26.6	Class A, D, G <u>UNL</u> 4 000(3 000)			
▲ APELA(FIR BDRY) 344323N 1291400E		342	2.2	Class A, D, G			
INCHEON FIR FUKUOKA FIR							
Critical DME : SEL <sel pol<="" td=""><td>EG>, SOT<se< td=""><td>L/POLEG>,</td><td>SEL<pol< td=""><td>EG/SOT>, SOT</td><td><poleg< td=""><td>/SOT></td><td></td></poleg<></td></pol<></td></se<></td></sel>	EG>, SOT <se< td=""><td>L/POLEG>,</td><td>SEL<pol< td=""><td>EG/SOT>, SOT</td><td><poleg< td=""><td>/SOT></td><td></td></poleg<></td></pol<></td></se<>	L/POLEG>,	SEL <pol< td=""><td>EG/SOT>, SOT</td><td><poleg< td=""><td>/SOT></td><td></td></poleg<></td></pol<>	EG/SOT>, SOT	<poleg< td=""><td>/SOT></td><td></td></poleg<>	/SOT>	

^{*} RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

Na	Route designator Navigation specification) Ime of significant points Coordinates Navigation Specification Iimitation]	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	MAG TRACK	Geodetic DIST NM	Upper limits Lower limits (MOCA) ft AMSL or FL Airspace classification	Direct cruising Odd	ion of levels	Remarks Controlling unit Frequency
	1	2	3	4	5	6	3	7
	Z50 (RNAV2) [GNSS, DME/DME, DME/DME/IRU]							Daegu ACC FREQ: (at or below FL 295) 128.70(118.925) MHz 270.50(263.60) MHz
	372915N 1272246E SONGTAN VORTAC(SOT)		<u>224</u> 044	28.8	UNL FL 140(3 300) Class A, D, G		\downarrow	FREQ : (above FL295) 132.80(120.525) MHz 290.60(335.45) MHz
	370540N 1270154E BULTI	N/A	213 032	24.4	UNL FL 140(2 900) Class A, D, G	↑		Airspace Classification refer to ENR 3.1-1
	364322N 1264930E							
•	Z51 (RNAV2) [GNSS, DME/DME, DME/DME/IRU]							Incheon ACC FREQ: (at or below FL 255) 126.175(134.375) MHz
Δ	364406N 1263658E MOXID	N/A	173 353	21.6	UNL FL 150(3 900) Class A, D, G		\	FREQ: (above FL 255) 132.15(123.55) MHz
Δ	362311N 1264359E BEDES 360905N 1264844E		173 353	14.6	UNL FL 150(3 600) Class A, D, G			263.15(272.60) MHz Airspace Classification refer to ENR 3.1-1
•	Z52 (RNAV2) [GNSS, DME/DME, DME/DME/IRU]							Incheon ACC FREQ: (at or below FL 255) 126.175(134.375) MHz 317.85(335.55) MHz
Δ.	364413N 1265928E POSAN 365615N 1271316E	N/A	<u>051</u> 231	16.4	UNL 8 000(3 400) Class A, D, G	*		FREQ : (above FL 255) 132.15(123.55) MHz 263.15(272.60) MHz
Δ	KAKSO 370745N 1272637E		051 232	15.7	UNL 8 000(3 000) Class A, D, G		<u> </u>	Airspace Classification refer to ENR 3.1-1
	1.0 12.20072							
•	Z53 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] BITUX							Daegu ACC FREQ: (at or below FL 295) 128.70(118.925) MHz 270.50(263.60) MHz
Δ	361645N 1280148E TEBEX 363341N 1275929E	N/A	002 182	17.0	UNL FL 160(4 000) Class A, D, G UNL	-	\	FREQ: (above FL 295) 132.80(120.525) MHz 290.60(335.45) MHz
	BASEM 365037N 1275710E		<u>002</u> 182	17.0	FL 160(4 600) Class A, D, G	<u> </u>		Airspace Classification refer to ENR 3.1-1
	AV/2 represents a pavigation							

^{*} RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

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	Route designator /igation specification)	Waypoint IDENT of VOR/DME BRG &			Upper limits Lower limits (MOCA)		tion of g levels				
Name	e of significant points Coordinates on Specification limitation]	DIST ELEV DME Antenna	MAG TRACK	Geodetic DIST NM	ft AMSL or FL Airspace classification	Odd	Even	Remarks Controlling unit Frequency			
Z5	1 3 4	2	3	4	5	(6	7			
(R	NAV2) NSS, DME/DME,							Daegu ACC			
	ME/DME/IRU]							FREQ: (at or below FL 295) 128.70(118.925) MHz			
	ONGTAN VORTAC(SOT) 0540N 1270154E		316		UNL		\	270.50(263.60) MHz FREQ: (above FL 295)			
	ONSI	N/A	136	11.7	8 000(2 400) Class A, D, G			132.80(120.525) MHz 290.60(335.45) MHz			
	1247N 1265015E		316 136	19.7	UNL 8 000(2 300)			Airspace Classification refer to ENR 3.1-1			
	DGET				Class A, D, G	1		TOTAL TO LIVIN 3.1-1			
37	2442N 1263036E										
[GI	5 NAV2) NSS, DME/DME, ME/DME/IRU]							Daegu ACC FREQ: (at or below FL295)			
CA	NOUAL FID							128.70(118.925) MHz			
	NGHAI FIR CHEON FIR							270.50(263.60) MHz			
	···= •·· · · · · ·							FDEO : /-k FL 005)			
	GAVO(FIR BDRY)							FREQ : (above FL 295) 132.80(120.525) MHz			
37′	1000N 1240000E		454		UNL			290.60(335.45) MHz			
		N/A	<u>154</u> 334	35.4	FL 140(1 500)						
	DNOS 4046N 1242453E				Class A, D, G		1	Airspace Classification refer to ENR 3.1-1			
1. Critical	DME: SEL <agavo nonos<="" td=""><td>>, KUZ<agav(< td=""><td>O/NONOS></td><td></td><td></td><td></td><td></td><td></td></agav(<></td></agavo>	>, KUZ <agav(< td=""><td>O/NONOS></td><td></td><td></td><td></td><td></td><td></td></agav(<>	O/NONOS>								
	NAV2)							Daegu ACC			
	NSS, DME/DME, ME/DME/IRU]							FREQ :			
	ONGYANG FIR CHEON FIR							122.250(125.925) MHz 263.350(263.85) MHz			
▲ KA	ANSU(FIR BDRY)							Airspace Classification			
	3800N 1322830E		180	40.2		↓ ·		refer to ENR 3.1-1			
	ALDU 5813N 1323625E		360 180		UNL						
△ SA	ABET	N/A	360	19.9	FL 200(1 500)						
	3829N 1324019E		180 360	19.9	Class A, G						
	RAS(FIR BDRY) 1846N 1324411E		300				<u> </u>				
	CHEON FIR JKUOKA FIR		<u> </u>			<u> </u>					
1. Critical	DME: KAE <paldu sabet="">, AP: KANSU/PALDU, GNSS</paldu>		/SABET>, k	(AE <sabet <="" td=""><td>IGRAS>, KPO<sab< td=""><td>ET/IGRA</td><td>S></td><td>I</td></sab<></td></sabet>	IGRAS>, KPO <sab< td=""><td>ET/IGRA</td><td>S></td><td>I</td></sab<>	ET/IGRA	S>	I			

^{*} RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

	Route designator	Waypoint IDENT of VOR/DME			Upper limits Lower limits (MOCA)	cru	tion of ising rels	
	me of significant points Coordinates lavigation Specification limitation]	BRG & DIST ELEV DME Antenna	MAG TRACK	Geodetic DIST NM	ft AMSL or FL Airspace classification		Even	Remarks Controlling unit Frequency
	Z 57	2	3	4	5		6	/
	(RNAV2) [GNSS, DME/DME, DME/DME/IRU]							Daegu ACC FREQ: (at or below FL 295) 128.70(118.925) MHz 270.50(263.60) MHz
	RILRO 371033N 1241442E	N/A	<u>154</u> 334	14.5	UNL FL 150(1 500)	\		FREQ: (above FL 295) 132.80(120.525) MHz 290.60(335.45) MHz
	DALPO 365835N 1242453E				Class A, D, G			Airspace Classification refer to ENR 3.1-1
1. Crit	ical DME : SEL <rilro da<="" td=""><td>LPO>, KUZ<</td><td>RILRO/DA</td><td>LPO></td><td></td><td></td><td></td><td></td></rilro>	LPO>, KUZ<	RILRO/DA	LPO>				
	Z63 (RNAV2) [GNSS, DME/DME, DME/DME/IRU]							Daegu ACC FREQ: (at or below FL 295)
•	PILIT							134.175(123.65) MHz 272.40(233.60) MHz
	372631N 1291731E LESBU	N/A	<u>060</u> 241	23.8	UNL FL 250(1 500) Class A, G	\	↑	FREQ: (above FL 295) 122.250(125.925) MHz 263.350(263.85) MHz
	374116N 1294104E							Airspace Classification refer to ENR 3.1-1
1. Crit	cal DME : KAE <pilit les<="" td=""><td>BU>, KPO<p< td=""><td>ILIT/LESBI</td><td>J></td><td></td><td></td><td></td><td></td></p<></td></pilit>	BU>, KPO <p< td=""><td>ILIT/LESBI</td><td>J></td><td></td><td></td><td></td><td></td></p<>	ILIT/LESBI	J>				
	Z81 (RNAV2) [GNSS, DME/DME, DME/DME/IRU]							Incheon ACC FREQ: 124.525(132.425) MHz
Δ	KIDOS							255.40(233.50, 348.10) MHz
	335028N 1263402E JEJU VORTAC(CJU)	N/A	<u>182</u> 001	27.5	UNL FL 140(8 700) Class A, D, G		↓	Airspace Classification refer to ENR 3.1-1
	332305N 1263727E							
	Z82 (RNAV2) [GNSS, DME/DME/IRU]							Incheon ACC
	JEJU VORTAC(CJU)							FREQ: 124.525(132.425) MHz 255.40(233.50, 348.10) MHz
•	332305N 1263727E PANSI	N/A	230 050	31.0	UNL FL 140(8 700) Class A, D, G		\	Airspace Classification refer to ENR 3.1-1
	330014N 1261225E							
1. DM	E GAP : CJU/PANSI, GNS	SS required.						

^{*} RNAV2 represents a navigation accuracy of \pm 2 NM on a 95% containment basis.

Route designator (Navigation specification) Name of significant points Coordinates [Navigation Specification limitation]	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	MAG TRACK	Geodetic DIST NM 4	Upper limits Lower limits (MOCA) ft AMSL or FL Airspace classification	<u>cruising</u>	ion of g levels Even	Remarks Controlling unit Frequency
Z83 (RNAV2)			-	J			Daegu ACC
[GNSS, DME/DME, DME/DME/IRU]							FREQ: 125.375(125.775,
△ DALSEONG VORTAC(TGU) 354835N 1283527E		<u>192</u> 012	19.8	UNL 5 000(4 900)		 	125.375(125.775) 124.575) MHz 234.15(317.35, 335.50) MHz
▲ MASTA 352847N 1283340E		<u>192</u>	21.2	Class A, D, G <u>UNL</u> 5 000(3 800)	_		Airspace Classification refer to ENR 3.1-1
▲ SARAM 350736N 1283147E	N/A	012	21.2	Class A, D, G UNL			reier to ENR 3.1-1
▲ ENGOT		1 <u>93</u> 013	19.1	5 000(3 000) Class A, D, G			
344834N 1282952E		<u>188</u> 008	10.6	UNL 5 000(2 300)			
343758N 1282952E				Class A, D, G	<u> </u>		
Critical DME: PSN <tgu anrod,="" c="" dme="" en="" engot="" gap:="" mast="" psn<saram="" td="" z84<=""><td>IGOT>, TGU<</td><td>SARAM/E</td><td></td><td>ASTA/SARAWIZ,</td><td> GU< VIA</td><td>J I A/SAN</td><td>JAIVI-,</td></tgu>	IGOT>, TGU<	SARAM/E		ASTA/SARAWIZ,	GU< VIA	J I A/SAN	JAIVI-,
(RNAV2) [GNSS, DME/DME, DME/DME/IRU]							Daegu ACC FREQ:
△ BUSAN VORTAC(PSN) 350721N 1285958E				UNL			125.375(125.775, 124.575) MHz 234.15(317.35,
▲ KALEK(FIR BDRY)	N/A	<u>091</u> 272	43.8	8 000(3 100)	¥		335.50) MHz
351232N 1295305E				Class A, D, G			Airspace Classification refer to ENR 3.1-1
INCHEON FIR FUKUOKA FIR							-
Z85 (RNAV2)							Incheon ACC
[GNSS, DME/DME/IRU]							FREQ: 124.525(132.425) MHz
△ BILUM 334613N 1270439E		<u>192</u> 012	11.5	UNL		\	255.40(233.50, 348.10) MHz
△ PAPLU 333441N 1270337E	N/A	<u>192</u> 011	64.5	FL 170(1 500) Class A, D, G			Airspace Classification refer to ENR 3.1-1
▲ RUGMA(FIR BDRY) 323012N 1265753E							
INCHEON FIR FUKUOKA FIR			ı			I	
1. DME GAP : BILUM/PAPLU, PA	PLU/RUGMA,	GNSS re	quired.				

^{*} RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.



Nam	Route designator avigation specification) ne of significant points Coordinates avigation Specification limitation]	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna	MAG TRACK	Geodetic DIST NM	Upper limits Lower limits (MOCA) ft AMSL or FL Airspace classification	Direct cruising Odd	levels Even	Remarks Controlling unit Frequency
	700	2	3	4	5	6	<u> </u>	/
	Z86 (RNAV2) [GNSS, DME/DME/IRU] BONSO							Incheon ACC FREQ: 124.525(132.425) MHz
•	302840N 1250851E ATOTI(FIR BDRY)	N/A	<u>181</u> 001	28.5	UNL FL 140(1 500) Class A, D, G		\	255.40(233.50, 348.10) MHz
	300013N 1251154E							Any aircraft planning to operate below FL 320 afte MUGUS must use Z86 between BONSO and ATOTI, then use B576.
	INCHEON FIR							Ainanaaa Olaaaisiaasian
	FUKUOKA FIR							Airspace Classification refer to ENR 3.1-1
	E GAP : BONSO/ATOTI,	GNSS require	d.	T				
Δ	Z91 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] BUSAN VORTAC(PSN)							Daegu ACC FREQ: 125.375(125.775, 124.575) MHz 234.15(317.35, 335.50) MHz Airspace Classification refer to ENR 3.1-1
•	350721N 1285958E INVOK(FIR BDRY) 344719N 1291923E	N/A	149 329	25.6	UNL 10 000(3 000) Class A, D, G	→	<u></u>	
<u> </u>	INCUEON FID							-
	INCHEON FIR							
1	FUKUOKA FIR							

^{*} RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

[Navigation Specification limitation]	Waypoint IDENT of VOR/DME BRG & DIST ELEV DME Antenna 2	MAG TRACK 3	Geodetic DIST NM 4	Upper limits Lower limits (MOCA) ft AMSL or FL Airspace classification 5	Direct cruising Odd	ion of plevels Even	Remarks Controlling unit Frequency 10
Y590 (RNAV2) [GNSS, DME/DME/IRU]							Incheon ACC
FUKUOKA FIR INCHEON FIR							FREQ: (at or above FL 335) 133.425(132.425) MHz
▲ BEDAR(FIR BDRY)							234.35(234.65) MHz
315401N 1262910E △ ELGEP		<u>263</u> 082	28.9	UNL			FREQ: (below FL 335) 125.725(132.825, 128.375) MHz
314653N 1255617E △ IKEDO	N/A	<u>262</u> 082	14.5	FL 240(1 500) Class A, G			232.95(233.15) MHz Airspace Classification
314314N 1253948E ▲ SADLI		<u>288</u> 108	34.5		↑		refer to ENR 3.1-1
314948N 1250000E							

DME GAP : BEDAR/SADLI, GNSS required.
 Flight Level Allocation Scheme (FLAS)
 For the eastbound over BEDAR : FL 250, FL 290, FL 310, FL 390

^{*} RNAV2 represents a navigation accuracy of ± 2 NM on a 95% containment basis.

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