

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 | Upper limits Lower limits or (MOCA) ft AMSL or FL | Direction of cruising levels | | Remarks Controlling unit Frequency |
|--|--|-------------------|------------------------|---|------------------------------------|------|--|
| | | | | Airspace classification | Odd | Even | |
| 1 | 2 | 3 | 4 | 5 | 6 | | 7 |
| L512 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] △ TENAS 373820N 1313427E △ SABET 373829N 1324019E ▲ ANDOL(FIR BDRY) 373958N 1330000E | N/A | <u>098</u> 279 | 52.3 | <u>UNL</u> FL 270(1 500) Class A, G | ↓ | | Daegu ACC FREQ : 122.250(125.925) MHz 263.350(263.85) MHz Airspace Classification refer to ENR 3.1-1 * L512 OPS HR between TENAS and ANDOL - EASTBOUND : H24 - WESTBOUND : H24 ** After ANDOL, MEA is FL 290, see AIP JAPAN. *** Extended DME DOC volume service is 220 NM. |
| | | <u>093</u> 274 | 15.7 | | | | |
| | | | | | | | |
| | INCHEON FIR | | | | | | |
| FUKUOKA FIR | | | | | | | |
| 1. Critical DME : KAE<TENAS/SABET>, KPO<TENAS/SABET> 2. DME GAP : SABET/ANDOL, GNSS required. | | | | | | | |
| Y233 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] △ BUSKO 374033N 1301610E △ SELPA 375515N 1304911E △ ONATA 382832N 1320602E ▲ KANSU(FIR BDRY) 383800N 1322830E | N/A | <u>069</u> 250 | 30.0 | <u>UNL</u> FL 200(1 500) Class A, D, G | ↓ | | Daegu ACC FREQ : 122.250(125.925) MHz 263.350(263.85) MHz Airspace Classification refer to ENR 3.1-1 |
| | | <u>070</u> 251 | 69.1 | | | | |
| | | <u>071</u> 251 | 20.0 | | | | |
| | | | | | | | |
| INCHEON FIR | | | | | | | |
| PYONGYANG FIR | | | | | | | |
| 1. Critical DME : KAE<BUSKO/SELPA>, KPO<BUSKO/SELPA>, KAE<SELPA/ONATA>, KPO<SELPA/ONATA> 2. DME GAP : ONATA/KANSU, 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 | Direction of cruising levels | | Remarks Controlling unit Frequency | | |
|--|--|-------------------|------------------------|---|---------------------------------|------|---|--|---|
| | | | | Lower limits (MOCA) ft AMSL or FL Airspace classification | Odd | Even | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | | 7 | | |
| Y253 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] △ DALSU 350731N 1264206E △ GWANGJU VOR(KWA) 350734N 1264844E △ SAMUL 350736N 1265154E ▲ TEDAN 350744N 1271852E △ ANUBA 350746N 1273523E ▲ SAPDI 350737N 1282952E ▲ SARAM 350736N 1283147E △ ANKUS 350730N 1284616E △ BUSAN VORTAC(PSN) 350721N 1285958E | N/A | | | | | | Incheon ACC FREQ : (at or below FL 255) 120.725(128.30) MHz 263.90(272.75) MHz FREQ : (above FL 255) 123.725(124.50) MHz 239.25(275.40) MHz Airspace Classification refer to ENR 3.1-1 | | |
| | | <u>097</u> 277 | 5.4 | <u>UNL</u> 8 000(2 400) Class A, D, G | ↓ | | | | |
| | | <u>097</u> 278 | 2.6 | <u>UNL</u> 8 000(2 000) Class A, D, G | | | FREQ : (above FL 255) 123.725(124.50) MHz 239.25(275.40) MHz Airspace Classification refer to ENR 3.1-1 | | |
| | | <u>097</u> 278 | 22.1 | <u>UNL</u> 8 000(5 200) Class A, D, G | | | | | |
| | | <u>098</u> 278 | 13.5 | <u>UNL</u> 8 000(5 400) Class A, D, G | | | Daegu ACC FREQ : 128.175(128.325) MHz 335.50(275.20) MHz Airspace Classification refer to ENR 3.1-1 | | |
| | | <u>098</u> 278 | 44.7 | | | | | | |
| | | <u>098</u> 278 | 1.6 | <u>UNL</u> 8 000(2 400) Class A, D, G | | | 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 | | |
| | | <u>098</u> 279 | 11.9 | <u>UNL</u> 8 000(4 000) Class A, D, G | | | | | |
| | | <u>099</u> 279 | 11.2 | <u>UNL</u> 8 000(3 500) Class A, D, G | | ↑ | | | |
| | | | | | | | | | 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>

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| 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 | Direction of cruising levels | | Remarks Controlling unit Frequency |
|--|--|-------------------|------------------------|---|---------------------------------|------|--|
| | | | | | Odd | Even | |
| 1 | 2 | 3 | 4 | 5 | 6 | | 7 |
| Y571 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] ▲ SOSDO 330012N 1262735E △ OMKIM 331320N 1264114E △ PAPLU 333441N 1270337E ▲ AKPON 334650N 1271953E ▲ NISAV 341519N 1275835E ▲ ANROD 343758N 1282952E △ POVEM 345523N 1285416E △ BUSAN VORTAC(PSN) 350721N 1285958E | | | | | | | Incheon ACC FREQ : 124.525(132.425) MHz 255.40(233.50, 348.10) MHz Airspace Classification refer to ENR 3.1-1 |
| | N/A | <u>048</u> 229 | 17.4 | <u>UNL</u> 11 000(1 500) Class A, D, G | ↓ | | |
| | | <u>049</u> 229 | 28.4 | <u>UNL</u> 11 000(2 200) Class A, D, G | | | |
| | | <u>056</u> 236 | 18.2 | <u>UNL</u> 11 000(1 500) Class A, D, G | | | |
| | | <u>056</u> 236 | 42.9 | <u>UNL</u> 11 000(1 800) Class A, D, G | | | |
| | | <u>056</u> 237 | 34.4 | <u>UNL</u> 11 000(2 100) Class A, D, G | | | |
| | | <u>057</u> 237 | 26.6 | <u>UNL</u> 11 000(2 800) Class A, D, G | | | |
| | | <u>029</u> 209 | 12.8 | <u>UNL</u> 11 000(3 000) Class A, D, G | | | |
| | | | | | | | |
| | 1. DME GAP : SOSDO/OMKIM, OMKIM/PAPLU, PAPLU/AKPON, AKPON/NISAV 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 | Direction of cruising levels | | Remarks Controlling unit Frequency |
|--|--|-------------------|------------------------|---|---------------------------------|------|--|
| | | | | | Odd | Even | |
| 1 | 2 | 3 | 4 | 5 | 6 | | 7 |
| Y572 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] △ BUSAN VORTAC(PSN) 350721N 1285958E △ OLMUD 350225N 1284916E ▲ ENGOT 344834N 1282952E ▲ POVOR 341520N 1274400E ▲ UPGOS 335733N 1271953E △ BILUM 334613N 1270439E △ BEPKO 333910N 1265514E △ JEJU VORTAC(CJU) 332305N 1263727E △ OMKIM 331320N 1264114E ▲ TOSAN 330012N 1264619E ▲ RUGMA(FIR BDRY) 323012N 1265753E | N/A | | | | | | Daegu ACC FREQ : 128.175(128.325) MHz 335.50(275.20) MHz Airspace Classification refer to ENR 3.1-1 Incheon ACC FREQ : 124.525(132.425) MHz 255.40(233.50, 348.10) MHz Airspace Classification refer to ENR 3.1-1 ※ The cruising levels from CJU to RUGMA are even levels due to operational reasons. ※ The cruising levels from RUGMA to CJU are odd levels due to operational reasons. |
| | | 249 069 | 10.1 | UNL 11 000(3 000) Class A, D, G | | ↓ | |
| | | 237 057 | 21.1 | UNL 11 000(3 200) Class A, D, G | | | |
| | | 237 056 | 50.4 | UNL 11 000(2 600) Class A, D, G | | | |
| | | 236 056 | 26.8 | UNL 11 000(2 000) Class A, D, G | | | |
| | | 236 056 | 17.0 | UNL 11 000(1 500) Class A, D, G | | | |
| | | 236 056 | 10.5 | UNL 11 000(1 500) Class A, D, G | | | |
| | | 230 050 | 21.9 | UNL 11 000(5 600) Class A, D, G | | | |
| | | 169 349 | 10.2 | UNL 11 000(8 700) Class A, D, G | | ↓ | |
| | | 169 349 | 13.8 | UNL 11 000(1 500) Class A, D, G | | | |
| | | 169 349 | 31.5 | UNL 11 000(1 500) Class A, D, G | | | |
| | | | | | ↑ | | |
| INCHEON FIR | | | | | | | |
| FUKUOKA FIR | | | | | | | |

1. DME GAP : UPGOS/BILUM, BILUM/BEPKO, BEPKO/CJU, CJU/OMKIM, OMKIM/TOSAN, TOSAN/RUGMA 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 | Direction of cruising levels | | Remarks Controlling unit Frequency | | |
|--|--|--|------------------------|---|---------------------------------|------|--|--|--|
| | | | | Lower limits (MOCA) ft AMSL or FL Airspace classification | Odd | Even | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | | 7 | | |
| Y579 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] △ TENAS 373820N 1313427E △ AGSUS 364521N 1304044E ▲ DABIK 361743N 1301143E ▲ BULGA 355609N 1294924E ▲ BEDOM 352513N 1291754E △ BUSAN VORTAC(PSN) 350721N 1285958E | N/A | | | | | | Daegu ACC FREQ : 122.250(125.925) MHz 263.350(263.85) MHz Airspace Classification refer to ENR 3.1-1 | | |
| | | <u>228</u> 047 | 68.1 | <u>UNL</u> FL 140(1 500) Class A, D, G | | | | Daegu ACC FREQ : 120.575(119.375, 119.325, 134.375) MHz 254.70(335.75) MHz Airspace Classification refer to ENR 3.1-1 | |
| | | <u>229</u> 049 | 36.2 | | | | | | |
| | | <u>229</u> 048 | 28.1 | | | | | | |
| | | <u>228</u> 048 | 40.2 | <u>UNL</u> FL 140(2 700) Class A, D, G | | | | | |
| | | <u>228</u> 047 | 23.1 | <u>UNL</u> FL 140(3 800) Class A, D, G | | | | | |
| | | | | | | | | | |
| | | 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. | | | | | | | |

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|--|--|--|------------------------|---|---------------------------------|------|---|--|--|--|--|
| | | | | Airspace classification | Odd | Even | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | | 7 | | | | |
| Y644 (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 | | | | |
| SANGHAI FIR | | | | | | | FREQ : (above FL 295) 132.80(120.525) MHz 290.60(335.45) MHz Eastbound (AGAVO-EGOBA) FL 410, FL 390, FL 370, FL 350, FL 330, FL 310, FL 290, FL 270, FL 250, FL 230 REF. ENR 3.1-10 for the detailed altitude conversion procedures. Airspace Classification refer to ENR 3.1-1 | | | | |
| INCHEON FIR | | | | | | | | | | | |
| ▲ AGAVO(FIR BDRY) 371000N 1240000E △ RILRO 371033N 1241442E △ GONAV 371048N 1242453E △ BODOL 371122N 1244954E ▲ REBIT 371203N 1252913E △ BELTU 371218N 1254759E △ BOGAN 371241N 1262812E ▲ MONSI 371247N 1265015E △ POLEG 371249N 1265935E △ EGOBA 372915N 1272246E | N/A | <u>095</u> 276 | 11.8 | UNL FL 150(1 500) Class A, D, G | ↓ | | | | | | |
| | | <u>096</u> 276 | 8.1 | | | | | | | | |
| | | <u>096</u> 277 | 20.0 | | | | | | | | |
| | | <u>097</u> 277 | 31.4 | | | | | | | | |
| | | <u>097</u> 278 | 15.0 | | | | | | | | |
| | | <u>098</u> 278 | 32.1 | UNL 8 000(2 400) Class A, D, G | | | | | | | |
| | | <u>098</u> 278 | 17.6 | UNL 8 000(3 200) Class A, D, G | | | | | | | |
| | | <u>098</u> 278 | 7.5 | UNL 8 000(2 400) Class A, D, G | | | | | | | |
| | | <u>057</u> 237 | 24.7 | UNL FL 140(3 300) 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> | | | | | | | | | |

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| 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 | Direction of cruising levels | | Remarks Controlling unit Frequency | | |
|--|---|--|------------------------|---|---|---|---|--|---|
| | | | | | Odd | Even | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | | 7 | | |
| Y655 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] △ GONAV 371048N 1242453E △ DALPO 365835N 1242453E ▲ NONOS 364046N 1242453E ▲ BIDRI 362007N 1242453E ▲ DANPA 353036N 1242453E ▲ PALSA 340131N 1242453E △ TOLIS 335030N 1242453E ▲ ENSUM 321302N 1244635E △ BONSO 302840N 1250851E ▲ ATOTI(FIR BDRY) 300013N 1251154E | N/A | | | | | | Daegu ACC FREQ : (at or below FL 295) 128.70(118.925) MHz 270.50(263.60) MHz | | |
| | | | 188 008 | 12.2 | UNL FL 140(1 500) Class A, D, G | ↓ | | FREQ : (above FL 295) 132.80(120.525) MHz 290.60(335.45) MHz | |
| | | | 188 008 | 17.8 | | | | Airspace Classification refer to ENR 3.1-1 | |
| | | | 188 008 | 20.6 | | | | | |
| | | | 188 008 | 49.4 | | | | | |
| | | | 188 007 | 88.9 | | | | Incheon ACC FREQ : (below FL 255) 126.175(134.375) MHz 317.85(335.55) MHz FREQ : (at or above FL 255) 132.15(123.55) MHz 263.15(272.60) MHz Airspace Classification refer to ENR 3.1-1 | |
| | | | | 187 007 | 11.0 | | | Incheon ACC FREQ : (below FL 255) 120.725(128.30) MHz 263.90(272.75) MHz FREQ : (at or above FL 255) 123.725(124.50) MHz 239.25(275.40) MHz Airspace Classification refer to ENR 3.1-1 | |
| | | | | 177 356 | 99.0 | UNL FL 430(1 500) Class A, G | | Incheon ACC FREQ : 124.525(132.425) MHz 255.40(233.50, 348.10) MHz Airspace Classification refer to ENR 3.1-1 | |
| | | | | 176 356 | 105.9 | FL 220 FL 150(1 500) Class A, D | | Incheon ACC FREQ : (below FL 335) 125.725(132.825, 128.375) MHz 232.95(233.15) MHz | |
| | | | | 181 001 | 28.5 | | | FREQ : (at or above FL 335) 133.425(132.425) MHz 234.35(234.65) MHz Airspace Classification refer to ENR 3.1-1 | |
| | | | | | | | | | |
| | | INCHEON FIR | | Airspace Classification refer to ENR 3.1-1 | | | | | |
| | | FUKUOKA FIR | | | | | | | |
| | | 1. Critical DME : SEL<GONAV/DALPO>, KUZ<GONAV/DALPO>, SEL<DALPO/NONOS>, KUZ<DALPO/NONOS>, SEL<NONOS/BIDRI>, KUZ<NONOS/BIDRI>, SEL<BIDRI/DANPA>, KUZ<BIDRI/DANPA> 2. DME GAP : DANPA/PALSA, PALSA/TOLIS, TOLIS/ENSUM, ENSUM/BONSO, BONSO/ATOTI GNSS required. | | | | | | | |
| | | Y657 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] △ GWANGJU VOR(KWA) 350734N 1264844E ▲ IGDOK 353104N 1274907E △ DALSEONG VORTAC(TGU) 354835N 1283527E | N/A | | | | | | Incheon ACC FREQ : (at or below FL 255) 120.725(128.30) MHz 263.90(272.75) MHz |
| | | | | 072 253 | 54.7 | 10 000 8 000(7 100) Class D | ↓ | | FREQ : (above FL 255) 123.725(124.50) MHz 239.25(275.40) MHz |
| 073 254 | 41.6 | | | 10 000 8 000(4 800) Class D | Airspace Classification refer to ENR 3.1-1 | | | | |
| | | | | | | | | ▲ 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 | |

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| 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 | Direction of cruising levels | | Remarks Controlling unit Frequency | |
|---|---|-------------------|------------------------|---|---------------------------------|------|---|--|
| | | | | Lower limits (MOCA) ft AMSL or FL Airspace classification | Odd | Even | | |
| 1 | 2 | 3 | 4 | 5 | 6 | | 7 | |
| Y659 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] △ GUNSAN VORTAC(KUZ) 355437N 1263641E △ ELPOS 355410N 1264707E △ RINBO 355352N 1265349E △ MELES 355251N 1271542E △ OPEDA 355149N 1273652E △ DALSEONG VORTAC(TGU) 354835N 1283527E ▲ LAPAL 355413N 1290452E △ POHANG VORTAC(KPO) 355838N 1292828E | N/A | | | | ↓ | | Incheon ACC FREQ: (at or below FL255) 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 refer to ENR 3.1-1 | |
| | | <u>101</u> 281 | 8.5 | <u>10 000</u> 7 000(1 700) | | | | |
| | | <u>101</u> 281 | 5.5 | Class D | | | | |
| | | <u>101</u> 282 | 17.8 | <u>10 000</u> 7 000(3 700) | | | | |
| | | | | Class D | | | | |
| | | <u>102</u> 282 | 17.2 | <u>10 000</u> 7 000(5 000) | | | | |
| | | | | Class D | | | | |
| | | <u>102</u> 282 | 47.7 | <u>10 000</u> 7 000(6 600) | | | | |
| | | | | Class D | | | | |
| | | <u>085</u> 265 | 24.6 | <u>UNL</u> 6 000(4 200) | | | | |
| | | | | Class A, D, G | | | | |
| | | <u>085</u> 265 | 19.7 | <u>UNL</u> 6 000(3 300) | | | | |
| | | | Class A, D, G | | | | | |
| | | | | | ↑ | | 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 | |
| | | | | | | | | |
| Y677 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] △ TOLIS 335030N 1242453E ▲ LIMDI 333313N 1254953E △ REMOS 332605N 1262329E △ JEJU VORTAC(CJU) 332305N 1263727E ▲ TAMNA 332815N 1271953E ▲ SAMDO(FIR BDRY) 333503N 1281857E | N/A | | | | ↓ | | Incheon ACC FREQ : 124.525(132.425) MHz 255.40(233.50, 348.10) MHz Airspace Classification refer to ENR 3.1-1 | |
| | | <u>111</u> 291 | 73.0 | <u>UNL</u> 9 000(1 500) | | | | |
| | | | | Class A, D, G | | | | |
| | | <u>111</u> 292 | 29.0 | <u>UNL</u> 9 000(4 100) | | | | |
| | | | | Class A, D, G | | | | |
| | | <u>112</u> 292 | 12.1 | <u>UNL</u> 9 000(8 700) | | | | |
| | | | | Class A, D, G | | | | |
| | | <u>089</u> 269 | 35.9 | <u>UNL</u> 9 000(6 300) | | | | |
| | | | | Class A, D, G | | | | |
| | | <u>089</u> 270 | 49.8 | <u>UNL</u> 9 000(1 500) | | | | |
| | | | | Class A, D, G | | | | |
| | | | | | | | | |
| | | | | | | | | |
| INCHEON FIR | | | | | | | | |
| FUKUOKA FIR | | | | | | | | |
| 1. Critical DME : KWA<LIMDI/REMOS>, CJU<LIMDI/REMOS>, PSN<CJU/TAMNA>, CJU<CJU/TAMNA>, PSN<TAMNA/SAMDO>, CJU<TAMNA/SAMDO> 2. DME GAP : TOLIS/LIMDI, REMOS/CJU GNSS required. | | | | | | | | |

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| 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 | Direction of cruising levels | | Remarks Controlling unit Frequency | | | |
|---|--|-------------------|------------------------|---|---------------------------------|------|---|--|--|--|
| | | | | Airspace classification | Odd | Even | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | | 7 | | | |
| Y685 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] △ ANYANG VORTAC(SEL) 372449N 1265542E △ KALMA 371845N 1270645E △ KAKSO 370745N 1272637E ▲ GUKDO 370111N 1273823E △ ENSAL 365554N 1274747E △ BASEM 365037N 1275710E ▲ BIGOB 364325N 1280952E △ YECHEON VOR(CUN) 363755N 1281931E △ ELAPI 362014N 1285051E △ POHANG VORTAC(KPO) 355838N 1292828E ▲ BULGA 355609N 1294924E ▲ SAPRA(FIR BDRY) 354926N 1304325E | N/A | | | | ↓ | | Daegu ACC FREQ: (at or below FL 295) 128.70(118.925) MHz 270.50(263.60) MHz FREQ: (above FL 295) 132.80(120.525) MHz 290.60(335.45) MHz Only flying westbound from KPO to SEL on Y685 is authorized except ACFT departing from RKTY or RKTl. Aircraft flying eastbound from SEL to KPO at or above 11 000 ft on Y685 shall get PPR 24 hours before from Incheon/Daegu ACC. No PPR is needed at or below 10 000 ft. Airspace Classification refer to ENR 3.1-1 | | | |
| | | 133 313 | 10.7 | UNL 8 000(3 200) Class A, D, G | | | | | | |
| | | 133 313 | 19.3 | UNL 8 000(2 900) Class A, D, G | | | | | | |
| | | 133 313 | 11.5 | UNL 8 000(3 600) Class A, D, G | | | | | | |
| | | 133 314 | 9.2 | UNL 8 000(3 700) Class A, D, G | | | | | | |
| | | 134 314 | 9.2 | UNL 8 000(4 000) Class A, D, G | | | | | | |
| | | 134 314 | 12.5 | UNL 8 000(5 000) Class A, D, G | | | | | | |
| | | 134 314 | 9.5 | UNL 8 000(4 900) Class A, D, G | | | | | | |
| | | 133 314 | 30.8 | UNL 8 000(3 800) Class A, D, G | | | | | | |
| | | 134 314 | 37.3 | UNL 8 000(4 700) Class A, D, G | | | | | | |
| | | 107 287 | 17.2 | UNL 8 000(2 100) Class A, D, G | | | | | | |
| | | 107 287 | 44.4 | UNL 8 000(1 500) Class A, D, G | | | | | | |
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| | | | | | | | | | | |
| | | INCHEON FIR | | | | | | | | |
| | FUKUOKA FIR | | | | | | | | | |

* 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 | Direction of cruising levels | | Remarks Controlling unit Frequency | | |
|---|--|-------------------|------------------------|---|---------------------------------|------|---|---|---|
| | | | | | Odd | Even | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | | 7 | | |
| Y697 (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 | | |
| SANGHAI FIR | | | | | | | | | |
| INCHEON FIR | | | | | | | | | |
| ▲ AGAVO(FIR BDRY) 371000N 1240000E | N/A | 064 244 | 7.5 | UNL FL 150(1 500) Class A, D, G | ↓ | ↑ | FREQ: (above FL 295) 132.80(120.525) MHz 290.60(335.45) MHz | | |
| ▲ OLBIM 371411N 1240751E | | 066 246 | 16.2 | | | | | Westbound(SEL-AGAVO) FL 400, FL 380, FL 360, FL 340, FL 320, FL 300, FL 280, FL 260, FL 240, FL 220, FL 200 | |
| △ NOGON 372250N 1242505E | | 097 277 | 20.0 | | | | | REF. ENR 3.1-9 for the detailed altitude conversion procedures. | |
| △ ANSIM 372323N 1245009E | | 097 277 | 19.0 | | | | | Only flying westbound from SEL to AGAVO on Y697 is authorized. | |
| ▲ BINIL 372349N 1251359E | | 097 277 | 20.0 | | | | | | |
| ▲ NOPIK 372412N 1253905E | | 097 278 | 41.0 | UNL 8 000(2 100) Class A, D, G | | | | | |
| △ GOGET 372442N 1263036E | | 098 278 | 20.0 | UNL 7 500(3 400) Class A, D, G | | | | | |
| △ ANYANG VORTAC(SEL) 372449N 1265542E | | 087 267 | 22.0 | UNL 7 500(5 100) Class A, D, G | | | | | |
| △ EGOBA 372915N 1272246E | | 087 267 | 13.9 | UNL 7 500(4 500) Class A, D, G | | | | | |
| ▲ KARBU 373159N 1273952E | | 087 268 | 22.9 | UNL 7 500(7 500) Class A, D, G | | | | | |
| ▲ TORUS 373625N 1280807E | | 088 268 | 21.8 | UNL 7 500(7 100) Class A, D, G | | | | | |
| ▲ BIKSI 374032N 1283504E | | 088 268 | 8.2 | UNL 8 000(7 100) Class A, D, G | | | | | |
| △ GANGWON VORTAC(KAE) 374203N 1284514E | | 130 310 | 30.0 | UNL 9 000(1 500) Class A, D, G | | | | | |
| ▲ PILIT 372631N 1291731E | | 130 310 | 31.2 | | | | | | |
| ▲ ESNEG 371014N 1295051E | | 130 310 | 47.1 | | | | | | |
| △ AGSUS 364521N 1304044E | | | 42.9 | | | | | | Daegu ACC FREQ : 122.250(125.925) MHz 263.350(263.85) MHz Only flying westbound from LANAT to KAE on G597 shall get 24HR PPR from Daegu ACC. |
| ▲ LANAT(FIR BDRY) 362224N 1312542E | | | | | | | | | Airspace Classification refer to ENR 3.1-1 |
| INCHEON FIR | | | | | | | | | |
| FUKUOKA FIR | | | | | | | | | |
| 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> KAF<AGSUS/I ANAT> KPO<AGSUS/I ANAT> | | | | | | | | | |

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 : 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 | Direction of cruising levels | | Remarks Controlling unit Frequency |
|--|--|-------------------|------------------------|---|---------------------------------|------|---|
| | | | | | Odd | Even | |
| 1 | 2 | 3 | 4 | 5 | 7 | | 10 |
| Y711 (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 |
| ▲ MONSI 371247N 1265015E | N/A | 190 010 | 29.4 | UNL FL 140(2 900) Class A, D, G | | ↓ | FREQ: (above FL 295) 132.80(120.525) MHz 290.60(335.45) MHz Airspace Classification refer to ENR 3.1-1 |
| ▲ BULTI 364322N 1264930E | | 187 007 | 10.0 | | | | Incheon ACC FREQ: (at or below FL 255) 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 refer to ENR 3.1-1 |
| ▲ MEKIL 363322N 1264953E | | 187 006 | 10.2 | UNL FL 140(3 200) Class A, D, G | | | |
| △ GONAX 362311N 1265016E | | 193 013 | 14.1 | | | | Incheon ACC FREQ: (at or below FL 255) 120.725(128.30) MHz 263.90(272.75) MHz FREQ: (above FL 255) 123.725(124.50) MHz 239.25(275.40) MHz Airspace Classification refer to ENR 3.1-1 |
| △ BEDES 360905N 1264844E | | 193 013 | 14.9 | UNL FL 140(2 200) Class A, D, G | | | |
| △ ELPOS 355410N 1264707E | | 193 013 | 24.0 | UNL FL 140(2 800) Class A, D, G | | | Incheon ACC FREQ : 124.525(132.425) MHz 255.40(233.50, 348.10) MHz Airspace Classification refer to ENR 3.1-1 |
| ▲ MANGI 353011N 1264432E | | 193 013 | 22.7 | UNL FL 140(3 800) Class A, D, G | | | |
| △ DALSU 350731N 1264206E | | 193 013 | 42.4 | UNL FL 140(4 000) Class A, D, G | | | Incheon ACC FREQ: (At or above FL 335) 133.425(132.425) MHz 234.35(234.65) MHz FREQ: (below FL 335) 125.725(132.825, 128.375) MHz 232.95(233.15) MHz * Note Any aircraft planning to operate below FL 320 after MUGUS must use Z86 between BONSO and ATOTI, then use B576. |
| △ NULDI 342514N 1263739E | | 193 013 | 10.0 | UNL FL 140(3 300) Class A, D, G | | | |
| ▲ DOTOL 341515N 1263637E | | 193 012 | 24.8 | UNL FL 140(2 700) Class A, D, G | | | Incheon ACC FREQ: (At or above FL 335) 133.425(132.425) MHz 234.35(234.65) MHz FREQ: (below FL 335) 125.725(132.825, 128.375) MHz 232.95(233.15) MHz * Note Any aircraft planning to operate below FL 320 after MUGUS must use Z86 between BONSO and ATOTI, then use B576. |
| △ KIDOS 335028N 1263402E | | 207 027 | 25.9 | UNL FL 140(6 000) Class A, D, G | | | |
| △ REMOS 332605N 1262329E | | 207 027 | 27.4 | UNL FL 140(6 300) Class A, D, G | | | Airspace Classification refer to ENR 3.1-1 |
| ▲ PANSI 330014N 1261225E | | 207 027 | 33.4 | | | | |
| △ DOMKO 322848N 1255859E | | 207 027 | 30.1 | | | | Incheon ACC FREQ: (At or above FL 335) 133.425(132.425) MHz 234.35(234.65) MHz FREQ: (below FL 335) 125.725(132.825, 128.375) MHz 232.95(233.15) MHz * Note Any aircraft planning to operate below FL 320 after MUGUS must use Z86 between BONSO and ATOTI, then use B576. |
| △ PONIK 320021N 1254659E | | 207 026 | 18.2 | UNL FL 140(1 500) Class A, D, G | | | |
| △ IKEDO 314314N 1253948E | | 207 026 | 12.0 | | | | Airspace Classification refer to ENR 3.1-1 |
| ▲ KANKA 313155N 1253504E | | 207 026 | 67.0 | | | | |
| △ BONSO 302840N 1250851E | | 206 026 | 30.2 | | | | Airspace Classification refer to ENR 3.1-1 |
| ▲ MUGUS(FIR BDRY) 300006N 1245712E | | | | | | | |
| INCHEON FIR | | | | | | | |
| 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 | Direction of cruising levels | | Remarks Controlling unit Frequency |
|---|--|-------------------|------------------------|---|---------------------------------|------|--|
| | | | | | Odd | Even | |
| 1 | 2 | 3 | 4 | 5 | 7 | | 10 |
| Y722 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] | | | | | | | Incheon ACC |
| △ SONGTAN VORTAC(SOT) 370540N 1270154E | N/A | | | | | | FREQ: (at or below FL 255) 126.175(134.375) MHz 317.85(335.55) MHz |
| ▲ OLMEN 364413N 1265928E | | <u>194</u> 014 | 21.5 | UNL FL 140(3 100) Class A, D, G | | | FREQ: (above FL 255) 132.15(123.55) MHz 263.15(272.60) MHz |
| △ GUNKU 363414N 1265949E | | <u>187</u> 007 | 10.0 | UNL FL 140(3 600) Class A, D, G | | | Airspace Classification refer to ENR 3.1-1 |
| ▲ PEBRI 362311N 1270013E | | <u>187</u> 007 | 11.0 | UNL FL 140(3 300) Class A, D, G | | | |
| △ ATASO 355344N 1265657E | | <u>193</u> 013 | 29.5 | UNL FL 140(2 300) Class A, D, G | | | |
| ▲ MAKSA 353011N 1265422E | | <u>193</u> 013 | 23.6 | UNL FL 140(3 800) Class A, D, G | | | Incheon ACC |
| △ SAMUL 350736N 1265154E | | <u>193</u> 013 | 22.7 | UNL FL 140(4 000) Class A, D, G | | | FREQ: (at or below FL 255) 120.725(128.30) MHz 263.90(272.75) MHz |
| ▲ KAMIT 341514N 1264618E | | <u>193</u> 013 | 52.5 | UNL FL 140(3 400) Class A, D, G | | | FREQ: (above FL 255) 123.725(124.50) MHz 239.25(275.40) MHz |
| △ GUKSU 335251N 1264357E | | <u>193</u> 013 | 22.4 | UNL FL 140(2 100) Class A, D, G | | | Airspace Classification refer to ENR 3.1-1 |
| △ LOSNI 333315N 1264153E | | <u>193</u> 012 | 19.6 | UNL FL 140(1 700) Class A, D, G | | | Incheon ACC |
| △ JEJU VORTAC(CJU) 332305N 1263727E | | <u>207</u> 027 | 10.8 | UNL FL 140(7 600) Class A, D, G | | | FREQ: 124.525(132.425) MHz 255.40(233.50, 348.10) MHz |
| ▲ SOSDO 330012N 1262735E | | <u>207</u> 027 | 24.3 | UNL FL 140(8 700) Class A, D, G | | | Airspace Classification refer to ENR 3.1-1 |
| △ SAMLO 323223N 1261536E | | <u>207</u> 027 | 29.5 | UNL FL 140(1 500) Class A, D, G | | | |
| △ NIRAT 320354N 1260329E | | <u>207</u> 027 | 30.2 | | | | Incheon ACC |
| △ ELGEP 314653N 1255617E | | <u>207</u> 027 | 18.1 | | | | FREQ: (At or above FL 335) 133.425(132.425) MHz 234.35(234.65) MHz |
| ▲ TESIM 313526N 1255128E | | <u>207</u> 027 | 12.1 | | | | FREQ: (below FL 335) 125.725(132.825, 128.375) MHz 232.95(233.15) MHz |
| ▲ ATOTI(FIR BDRY) 300013N 1251154E | | <u>207</u> 026 | 100.9 | | | | Airspace Classification refer to ENR 3.1-1 |
| INCHEON FIR | | | | | | | |
| 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.

Change : Page control.

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AIP AMDT 9/24

| 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 | Direction of cruising levels | | Remarks Controlling unit Frequency | |
|---|---|-------------------|------------------------|---|------------------------------------|------|--|---|
| | | | | | Odd | Even | | |
| 1 | 2 | 3 | 4 | 5 | 6 | | 7 | |
| Y744 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] ▲ PILIT 372631N 1291731E ▲ NOBUT 370715N 1291957E ▲ OSVOM 363844N 1292331E ▲ LOSTO 362016N 1292548E △ POHANG VORTAC(KPO) 355838N 1292828E ▲ APARU 352442N 1290932E △ BUSAN VORTAC(PSN) 350721N 1285958E | N/A | | | | | | Daegu ACC FREQ : (at or below FL 295) 134.175(123.65) MHz 272.40(233.60) MHz FREQ : (above FL 295) 122.250(125.925) MHz 263.350(263.85) MHz 1. 11 000 ft to FL 240, at or above FL 280 will be blocked. 2. At or above 11 000 ft, required 15 days PPR from Air Traffic Management Office. 3. Airspace Classification refer to ENR 3.1-1 | |
| | | <u>183</u> 003 | 19.3 | <u>UNL</u> 9 000(4 900) Class A, D, G | | | | ↓ |
| | | <u>183</u> 003 | 28.6 | <u>UNL</u> 9 000(5 600) Class A, D, G | | | | |
| | | <u>183</u> 003 | 18.5 | <u>UNL</u> 9 000(4 000) Class A, D, G | | | | |
| | | <u>183</u> 003 | 21.7 | <u>UNL</u> 9 000(2 100) Class A, D, G | | | | |
| | | <u>213</u> 033 | 37.2 | <u>UNL</u> 9 000(4 400) Class A, D, G | | | | |
| | | <u>213</u> 032 | 19.0 | <u>UNL</u> 9 000(4 400) Class A, D, G | | | | |
| | | | | | | | ↑ | |
| | | | | | | | | Daegu ACC FREQ : 120.575(119.375, 119.325, 134.375) MHz 254.70(335.75) MHz 1. 11 000 ft to FL 240, at or above FL 280 will be blocked. 2. At or above 11 000 ft, required 15 days PPR from Air Traffic Management Office. 3. Airspace Classification refer to ENR 3.1-1 |
| | | | | | | | | |
| 1. Critical DME : KAE<PILIT/NOBUT>, KPO<PILIT/NOBUT> | | | | | | | | |
| Y781 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] △ DALSEONG VORTAC(TGU) 354835N 1283527E ▲ MASTA 352847N 1283340E △ ANKUS 350730N 1284616E △ OMOTU 350033N 1285022E ▲ BESNA(FIR BDRY) 343718N 1290751E | N/A | | | | | | 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 | |
| | | <u>192</u> 012 | 19.8 | <u>UNL</u> 7 000(4 900) Class A, D, G | | | | ↓ |
| | | <u>162</u> 342 | 23.6 | <u>UNL</u> 7 000(4 000) Class A, D, G | | | | |
| | | <u>162</u> 342 | 7.7 | <u>UNL</u> 7 000(3 500) Class A, D, G | | | | |
| | | <u>156</u> 336 | 27.3 | <u>UNL</u> 7 000(2 800) Class A, D, G | | | | |
| | | | | | | | | |
| INCHEON FIR | | | | | | | | |
| FUKUOKA FIR | | | | | | | | |
| 1. Critical DME : PSN<OMOTU/BESNA>, CJU<OMOTU/BESNA> 2. DME GAP : ANKUS/OMOTU. GNSS required. | | | | | | | | |

| 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 | Direction of cruising levels | | Remarks Controlling unit Frequency |
|---|--|-------------------|------------------------|---|---------------------------------|------|--|
| | | | | | Odd | Even | |
| Y782 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] | | | | | | | Daegu ACC |
| △ ANYANG VORTAC(SEL) 372449N 1265542E | N/A | 174 354 | 12.4 | UNL 4 500(3 000) Class A, D, G | ↓ | | FREQ : (at or below FL 295) 128.70(118.925) MHz 270.50(263.60) MHz |
| △ POLEG 371249N 1265935E | | 174 354 | 7.4 | UNL 4 500(2 000) Class A, D, G | | | FREQ : (above FL 295) 132.80(120.525) MHz 290.60(335.45) MHz |
| △ SONGTAN VORTAC(SOT) 370540N 1270154E | | 144 324 | 21.6 | UNL 8 000(3 300) Class A, D, G | | | Airspace Classification refer to ENR 3.1-1 |
| ▲ OSPOT 365018N 1272055E | | 144 324 | 10.4 | UNL 8 000(4 200) Class A, D, G | | | 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 |
| ▲ VASLI 364252N 1273003E | | 144 324 | 21.9 | UNL 8 000(4 200) Class A, D, G | | | |
| ▲ MAKDU 362712N 1274909E | | 144 324 | 14.6 | UNL 10 000(4 500) Class A, D, G | | | |
| ▲ BITUX 361645N 1280148E | | 162 342 | 20.4 | UNL 8 000(4 400) Class A, D, G | | | |
| △ DALSEONG VORTAC(TGU) 354835N 1283527E | | 162 342 | 25.4 | UNL 5 000(3 600) Class A, D, G | | | |
| ▲ KALOD 353012N 1284626E | | 162 342 | 26.6 | UNL 4 000(3 000) Class A, D, G | | | |
| △ BUSAN VORTAC(PSN) 350721N 1285958E | | | | | | | |
| ▲ APELA(FIR BDRY) 344323N 1291400E | | | | | | ↑ | |
| INCHEON FIR | | | | | | | |
| FUKUOKA FIR | | | | | | | |

1. Critical DME : SEL<SEL/POLEG>, SOT<SEL/POLEG>, SEL<POLEG/SOT>, SOT<POLEG/SOT>

* 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 | Direction of cruising levels | | Remarks Controlling unit Frequency |
|--|--|-------------------|------------------------|---|---------------------------------|------|---|
| | | | | | Odd | Even | |
| 1 | 2 | 3 | 4 | 5 | 6 | | 7 |
| Z50 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] △ EGOBA 372915N 1272246E △ SONGTAN VORTAC(SOT) 370540N 1270154E ▲ BULTI 364322N 1264930E | N/A | | | | | | Daegu ACC FREQ: (at or below FL295) 128.70(118.925) MHz 270.50(263.60) MHz FREQ: (above FL295) 132.80(120.525) MHz 290.60(335.45) MHz Airspace Classification refer to ENR 3.1-1 |
| | | 224 044 | 28.8 | UNL FL 140(3 300) Class A, D, G | | ↓ | |
| | | 213 032 | 24.4 | UNL FL 140(2 900) Class A, D, G | ↑ | | |
| | | | | | | | |
| Z51 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] ▲ BOPTA 364406N 1263658E △ MOXID 362311N 1264359E △ BEDES 360905N 1264844E | N/A | | | | | | Incheon ACC FREQ: (at or below FL255) 126.175(134.375) MHz 317.85(335.55) MHz FREQ: (above FL255) 132.15(123.55) MHz 263.15(272.60) MHz Airspace Classification refer to ENR 3.1-1 |
| | | 173 353 | 21.6 | UNL FL 150(3 900) Class A, D, G | | ↓ | |
| | | 173 353 | 14.6 | UNL FL 150(3 600) Class A, D, G | | | |
| | | | | | | | |
| Z52 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] ▲ OLMEN 364413N 1265928E △ POSAN 365615N 1271316E △ KAKSO 370745N 1272637E | N/A | | | | | | Incheon ACC FREQ: (at or below FL255) 126.175(134.375) MHz 317.85(335.55) MHz FREQ: (above FL255) 132.15(123.55) MHz 263.15(272.60) MHz Airspace Classification refer to ENR 3.1-1 |
| | | 051 231 | 16.4 | UNL 8 000(3 400) Class A, D, G | ↓ | | |
| | | 051 232 | 15.7 | UNL 8 000(3 000) Class A, D, G | | ↑ | |
| | | | | | | | |
| Z53 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] ▲ BITUX 361645N 1280148E △ TEBEX 363341N 1275929E △ BASEM 365037N 1275710E | N/A | | | | | | Daegu ACC FREQ: (at or below FL295) 128.70(118.925) MHz 270.50(263.60) MHz FREQ: (above FL295) 132.80(120.525) MHz 290.60(335.45) MHz Airspace Classification refer to ENR 3.1-1 |
| | | 002 182 | 17.0 | UNL FL 160(4 000) Class A, D, G | | ↓ | |
| | | 002 182 | 17.0 | UNL FL 160(4 600) Class A, D, G | ↑ | | |
| | | | | | | | |

* 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 | Direction of cruising levels | | Remarks Controlling unit Frequency |
|--|---|-------------------|------------------------|---|---------------------------------|------|---|
| | | | | | Odd | Even | |
| 1 | 2 | 3 | 4 | 5 | 6 | | 7 |
| Z54 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] | | | | | | | Daegu ACC |
| △ SONGTAN VORTAC(SOT) 370540N 1270154E | | | | | | | FREQ: (at or below FL 295) 128.70(118.925) MHz 270.50(263.60) MHz |
| ▲ MONSI 371247N 1265015E | N/A | 316 136 | 11.7 | UNL 8 000(2 400) Class A, D, G | | ↓ | FREQ: (above FL 295) 132.80(120.525) MHz 290.60(335.45) MHz |
| △ GOGET 372442N 1263036E | | 316 136 | 19.7 | UNL 8 000(2 300) Class A, D, G | ↑ | | Airspace Classification refer to ENR 3.1-1 |
| Z55 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] | | | | | | | Daegu ACC |
| SANGHAI FIR | | | | | | | FREQ: (at or below FL 295) 128.70(118.925) MHz 270.50(263.60) MHz |
| INCHEON FIR | | | | | | | |
| ▲ AGAVO(FIR BDRY) 371000N 1240000E | | | | | | | FREQ: (above FL 295) 132.80(120.525) MHz 290.60(335.45) MHz |
| ▲ NONOS 364046N 1242453E | N/A | 154 334 | 35.4 | UNL FL 140(1 500) Class A, D, G | | ↑ | Airspace Classification refer to ENR 3.1-1 |
| 1. Critical DME : SEL<AGAVO/NONOS>, KUZ<AGAVO/NONOS> | | | | | | | |
| Z56 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] | | | | | | | Daegu ACC |
| PYONGYANG FIR | | | | | | | FREQ : 122.250(125.925) MHz 263.350(263.85) MHz |
| INCHEON FIR | | | | | | | |
| ▲ KANSU(FIR BDRY) 383800N 1322830E | | | | | | | Airspace Classification refer to ENR 3.1-1 |
| △ PALDU 375813N 1323625E | N/A | 180 360 | 40.2 | UNL FL 200(1 500) Class A, G | ↓ | | |
| △ SABET 373829N 1324019E | | 180 360 | 19.9 | | | | |
| ▲ IGRAS(FIR BDRY) 371846N 1324411E | | 180 360 | 19.9 | | | ↑ | |
| INCHEON FIR | | | | | | | |
| FUKUOKA FIR | | | | | | | |
| 1. Critical DME : KAE<PALDU/SABET>, KPO<PALDU/SABET>, KAE<SABET/IGRAS>, KPO<SABET/IGRAS> 2. DME GAP : KANSU/PALDU, 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 | Direction of cruising levels | | Remarks Controlling unit Frequency |
|---|---|-------------------|------------------------|---|------------------------------------|------|--|
| | | | | Airspace classification | Odd | Even | |
| 1 | 2 | 3 | 4 | 5 | 6 | | 7 |
| Z57 (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 | 154 334 | 14.5 | UNL FL 150(1 500) Class A, D, G | ↓ | | FREQ : (above FL 295) 132.80(120.525) MHz 290.60(335.45) MHz |
| △ DALPO 365835N 1242453E | | | | | | | Airspace Classification refer to ENR 3.1-1 |
| 1. Critical DME : SEL<RILRO/DALPO>, KUZ<RILRO/DALPO> | | | | | | | |
| Z63 (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 | N/A | 060 241 | 23.8 | UNL FL 250(1 500) Class A, G | ↓ | | FREQ : (above FL 295) 122.250(125.925) MHz 263.350(263.85) MHz |
| △ LESBU 374116N 1294104E | | | | | | | Airspace Classification refer to ENR 3.1-1 |
| 1. Critical DME : KAE<PILIT/LESBU>, KPO<PILIT/LESBU> | | | | | | | |
| Z81 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] | | | | | | | Incheon ACC FREQ : 124.525(132.425) MHz 255.40(233.50, 348.10) MHz |
| △ KIDOS 335028N 1263402E | N/A | 182 001 | 27.5 | UNL FL 140(8 700) Class A, D, G | | ↓ | Airspace Classification refer to ENR 3.1-1 |
| △ JEJU VORTAC(CJU) 332305N 1263727E | | | | | | | |
| Z82 (RNAV2) [GNSS, DME/DME/IRU] | | | | | | | Incheon ACC FREQ : 124.525(132.425) MHz 255.40(233.50, 348.10) MHz |
| △ JEJU VORTAC(CJU) 332305N 1263727E | N/A | 230 050 | 31.0 | UNL FL 140(8 700) Class A, D, G | | ↓ | Airspace Classification refer to ENR 3.1-1 |
| ▲ PANSI 330014N 1261225E | | | | | | | |
| 1. DME GAP : CJU/PANSI, 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 | Direction of cruising levels | | Remarks Controlling unit Frequency |
|---|--|-------------------|------------------------|---|---------------------------------|------|--|
| | | | | Airspace classification | Odd | Even | |
| 1 | 2 | 3 | 4 | 5 | 6 | | 7 |
| Z83 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] △ DALSEONG VORTAC(TGU) 354835N 1283527E ▲ MASTA 352847N 1283340E ▲ SARAM 350736N 1283147E ▲ ENGOT 344834N 1282952E ▲ ANROD 343758N 1282952E | N/A | | | | | | 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 |
| | | 192 012 | 19.8 | UNL 5 000(4 900) Class A, D, G | | ↓ | |
| | | 192 012 | 21.2 | UNL 5 000(3 800) Class A, D, G | | | |
| | | 193 013 | 19.1 | UNL 5 000(3 000) Class A, D, G | | | |
| | | 188 008 | 10.6 | UNL 5 000(2 300) Class A, D, G | ↑ | | |
| | | | | | | | |
| 1. Critical DME : PSN<TGU/MASTA>, TGU<TGU/MASTA>, PSN<MASTA/SARAM>, TGU<MASTA/SARAM>, PSN<SARAM/ENGOT>, TGU<SARAM/ENGOT> 2. DME GAP : ENGOT/ANROD, GNSS required. | | | | | | | |
| Z84 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] △ BUSAN VORTAC(PSN) 350721N 1285958E ▲ KALEK(FIR BDRY) 351232N 1295305E | N/A | 091 272 | 43.8 | UNL 8 000(3 100) Class A, D, G | ↓ | ↑ | 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 |
| | | | | | | | |
| | INCHEON FIR | | | | | | |
| FUKUOKA FIR | | | | | | | |
| Z85 (RNAV2) [GNSS, DME/DME/IRU] △ BILUM 334613N 1270439E △ PAPLU 333441N 1270337E ▲ RUGMA(FIR BDRY) 323012N 1265753E | N/A | 192 012 | 11.5 | UNL FL 170(1 500) Class A, D, G | ↓ | ↑ | Incheon ACC FREQ : 124.525(132.425) MHz 255.40(233.50, 348.10) MHz Airspace Classification refer to ENR 3.1-1 |
| | | 192 011 | 64.5 | | | | |
| | | | | | | | |
| | INCHEON FIR | | | | | | |
| FUKUOKA FIR | | | | | | | |
| 1. DME GAP : BILUM/PAPLU, PAPLU/RUGMA, 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 | Direction of cruising levels | | Remarks Controlling unit Frequency |
|--|--|-------------------|------------------------|---|---------------------------------|------|---|
| | | | | Lower limits (MOCA) ft AMSL or FL Airspace classification | Odd | Even | |
| 1 | 2 | 3 | 4 | 5 | 7 | | 10 |
| Z86 (RNAV2) [GNSS, DME/DME/IRU] △ BONSO 302840N 1250851E ▲ ATOTI(FIR BDRY) 300013N 1251154E | | | | | | | Incheon ACC FREQ : 124.525(132.425) MHz 255.40(233.50, 348.10) MHz * Note Any aircraft planning to operate below FL 320 after MUGUS must use Z86 between BONSO and ATOTI, then use B576. |
| | N/A | 181 001 | 28.5 | UNL FL 140(1 500) Class A, D, G | | ↓ | |
| | | | | | | | |
| INCHEON FIR | | | | | | | Airspace Classification refer to ENR 3.1-1 |
| FUKUOKA FIR | | | | | | | |
| 1. DME GAP : BONSO/ATOTI, GNSS required. | | | | | | | |
| Z91 (RNAV2) [GNSS, DME/DME, DME/DME/IRU] △ BUSAN VORTAC(P SN) 350721N 1285958E ▲ INVOK(FIR BDRY) 344719N 1291923E | | | | | | | 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 |
| | N/A | 149 329 | 25.6 | UNL 10 000(3 000) Class A, D, G | ↓ | | |
| | | | | | | | |
| INCHEON FIR | | | | | | | Airspace Classification refer to ENR 3.1-1 |
| FUKUOKA FIR | | | | | | | |

* 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 | Direction of cruising levels | | Remarks Controlling unit Frequency |
|---|--|-------------------|------------------------|---|---------------------------------|------|---|
| | | | | Lower limits (MOCA) ft AMSL or FL Airspace classification | Odd | Even | |
| 1 | 2 | 3 | 4 | 5 | 7 | | 10 |
| Y590 (RNAV2) [GNSS, DME/DME/IRU] | | | | | | | Incheon ACC |
| FUKUOKA FIR | | | | | | | FREQ: (at or above FL 335) |
| INCHEON FIR | | | | | | | 133.425(132.425) MHz 234.35(234.65) MHz |
| ▲ BEDAR(FIR BDRY) 315401N 1262910E | N/A | <u>263</u> 082 | 28.9 | UNL FL 240(1 500) Class A, G | | | FREQ : (below FL 335) 125.725(132.825, 128.375) MHz 232.95(233.15) MHz |
| △ ELGEP 314653N 1255617E | | <u>262</u> 082 | 14.5 | | | | Airspace Classification refer to ENR 3.1-1 |
| △ IKEDO 314314N 1253948E | | <u>288</u> 108 | 34.5 | | | | |
| ▲ SADLI 314948N 1250000E | | | | | | | |
| 1. DME GAP : BEDAR/SADLI, GNSS required. 2. 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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