

GEN 3.4 COMMUNICATIONS SERVICES

1. 총칙

1 General

1.1 책임기관

1.1 Responsible authority

대한민국의 민간항공통신 및 항행안전시설에 대한 책임 기관은 국토교통부 항공정책실이다.

The responsible authority for the provision of civil aeronautical telecommunication and navigation facility services in the Republic of Korea is Office of Civil Aviation, Ministry of Land, Infrastructure and Transport.

국토교통부 항공정책실

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AFS : RKSLEYAYX

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1.2 관할구역

1.2 Area of Responsibility

대한민국 민간항공통신 책임관할구역은 인천 비행정보구역으로 한다.

Area responsible for civil aeronautical telecommunication in the Republic of Korea is the same as Incheon FIR.

2. 항공고정업무

2. Aeronautical Fixed Service

항공기 안전운항 등에 필요한 전문을 항공고정국 상호간에 교환하기 위한 통신 업무(Operational hours : H24) 이다.

This service is provided for the interchange of message between aeronautical fixed stations, which is related to the safety of air navigation and to the regular, efficient and economical operation of air services.(Operational hours : H24)

2.1 국제항공고정통신망(AFTN)

2.1 Aeronautical Fixed Telecommunication Network(AFTN)

a. 국제항공고정통신망 회선도는 GEN 3.4-3과 같다.

a. International AFTN circuits are illustrated in GEN 3.4-3.

b. 국제항공고정통신망 운영절차는 원칙적으로 국제민간항공기구 부속서 10, 제2권을 적용한다.

b. International AFTN operations are applied in principle to the communication procedures of ICAO Annex 10, Volume II.

2.2 국내항공고정통신망

2.2 Domestic Aeronautical Fixed Telecommunication Network

a. 국내항공고정통신망 회선도는 GEN 3.4-3과 같다.

a. Domestic Aeronautical Fixed Telecommunication Network circuits are illustrated in GEN 3.4-3.

b. 국내항공고정통신망 운영절차는 원칙적으로 국제민간항공기구 부속서 10, 제2권을 적용한다.

b. Domestic AFTN operations are applied in principle to the communication procedures of ICAO Annex 10, Volume II.

3. 항공이동업무

3. Aeronautical Mobile Service

항공국과 항공기국 사이에 주로 항공교통관제업무, 항공로 정보제공업무 등을 무선전화에 의해 행하는 통신 업무이다.

This service is provided mainly to meet the requirements of the air traffic control service, aeronautical en-route information service and so forth by radio telephone between an A/G station and aircraft station.

3.1 청취 및 운용시간

3.1 Watch and Hours of Service

항공국은 3.4.3.5에 공시된 업무시간 및 주파수로 청취를 계속하여야 한다.

An aeronautical station in the mobile service should maintain continuous watch as hours of service and frequencies listed in 3.4.3.5. During its flight, an aircraft should maintain continuous watch as required by the aeronautical station and not cease watch, except for an emergency without informing the aeronautical station concerned.

비행중인 항공기국은 항공국의 주파수로 청취를 계속하여야 하며, 비상시를 제외하고는 항공국에 사전 통보 없이 청취를 중단해서는 안 된다.

3.2 통신의 설정

항공기국은 자국이 비행하고 있는 지역의 항공교통관제를 담당하는 항공국과 통신하여야 한다.

3.3 전문의 취급

서울 라디오에 의해 항공기국으로부터 수신된 정보는 AFTN 전문형식으로 항공사 또는 관련부처에 송달된다.

3.4 사용언어

공지통신에서 사용하는 언어는 통상 한국어나 영어를 사용한다.

3.5 서울라디오

국토교통부 관할 하에 운영되고 있는 서울라디오는 항공교통관제기관과 항공기 사이에 중요한 중계역할을 담당하고 있다. 그밖에 서울라디오는 항공고시보, 기상등과 같은 정보를 비행중인 항공기에 제공하며, 항공교통관제기관이 미치지 않는 지역에서의 위치보고, AIREP을 항공기로부터 수신하여 관련부처로 송달한다. 서울라디오의 사용주파수는 다음과 같다.(인천국제공항 지역에서의 1차주파수는 8903 kHz를 사용한다.)

3.2 Establishment of Communications

An aircraft should normally communicate with the air ground control radio stations which exercise air traffic control in the area in which it is flying.

3.3 Messages Handling

Information received from an aircraft by SEOUL Radio is transmitted in the form of AFTN message to the aircraft operating agency or the post concerned.

3.4 Language to be used

Language normally used in the air ground radio telephony communications should be either Korean or English.

3.5 SEOUL Radio

SEOUL Radio which is operated under the jurisdiction of The Ministry of Land, Infrastructure and Transport is in charge of a valuable link between ATC and an aircraft. Besides, such informations as NOTAM, weather and the like are given to an aircraft during its flight by SEOUL Radio, and SEOUL Radio receives position report and AIREP from an aircraft in the area beyond reaching of ATC authority and the above mentioned informations are transmitted to the post concerned. Frequencies of SEOUL Radio are as follows.(8903 kHz is used as a primary frequency within Incheon INTL Airport.)

| Call sign | Frequencies | Hours of Operation | Remarks |
|-------------|---------------------------------------------------------------------------------------------------------------------|--------------------|---------------|
| SEOUL Radio | 127.1 MHz, 3004 kHz, 4687 kHz, 6532 kHz, 8903 kHz, 10072 kHz, 13300 kHz, 13303 kHz, 13333 kHz, 17904 kHz, 17916 kHz | H24 | MET Available |

3.6 조종사는 항공교통관제기관 및 서울라디오와 긴밀한 협조를 통해 비행 중에 필요한 협력을 얻도록 한다.

3.6 A pilot will find ready help and cooperation during its flight working in close harmony with ATC and SEOUL Radio.

4. 항행안전무선업무

이용할 수 있는 항행안전무선시설은 다음과 같다.

- 무지향표지시설(NDB);
- 전방향표지시설(VOR);
- 거리측정시설(DME);
- 계기착륙시설(ILS);
- 레이더(RADAR);
- 전술항행표지시설(TACAN);
- 지상유도접근시설(GCA) : 지상유도접근시설을 사용하고자 하는 항공기는 사용채널에 대한 해당 항공교통관제기관으로부터 지시를 받아야 한다.

4. Radio Navigation Service

The following of radio aids are available for air navigation.

- Non-Directional radio Beacon(NDB);
- VHF Omni-directional Range(VOR);
- Distance Measuring Equipment(DME);
- Instrument Landing System(ILS);
- Radio Detection and Ranging(RADAR);
- Tactical Air Navigation(TACAN);
- Ground Controlled Approach(GCA) : Aircraft about to use GCA will receive instructions from appropriate ATC facility as to the channel to be used.

5. 적용할 수 있는 ICAO 서류

적용할 수 있는 국제민간항공기구 표준과 권고방식 및 절차는 아래 도서내용에 포함되어 있다.

- 부속서 제10권 - 항공통신
- DOC 8400 - 약어 및 부호
- DOC 8585 - 항공업무기관 및 항공사 약어명
- DOC 7910 - 지명약어

5. Applicable ICAO Documents

Applicable ICAO Standards, Recommended Practices and Procedures are contained in the following documents.

- ANNEX 10 - Aeronautical Telecommunications
- DOC 8400 - ICAO Abbreviations and Codes
- DOC 8585 - Designators for Aircraft Operating Agencies, Aeronautical Authorities and Services
- DOC 7910 - Location Indicators

6. ATN / AFTN CIRCUIT

| BEIJING COM CENTER ZBBBYFYX | | SEOUL COM CENTER RKSSYFYX | | FUKUOKA COM CENTER RJJJYFYX | |
|-----------------------------------|------------------------------|---------------------------------|------------------------------|-----------------------------------|--|
| DOMESTIC AFTN LIST | | | | | |
| RKBBZSZX | KOMCC(SARSAT) | RKRRZQZF | INCHEON ACC | | |
| RKDAYXYX | 700 ATC SQ(MCRC) | RKRRZQZG | INCHEON ACC | | |
| RKDAZQZF | DAEGU FDP SERVER ADDRESS | RKRRZQZH | INCHEON ACC AIDC | | |
| RKDAZQZG | DAEGU FPL&MET SERVER ADDRESS | RKRRZQZX | INCHEON ACC | | |
| RKDAZQZH | DAEGU ACC AIDC | RKSIAARX | INCHEON AAR | | |
| RKDAZQZX | DAEGU ACC | RKSIKALO | INCHEON KAL | | |
| RKDAYFYX | DAEGU ACC | RKSIKALX | INCHEON KAL | | |
| RKDAYNYO | DAEGU ACC NOTAM DB | RKSISHKO | SHARP INC. | | |
| RKDAYNYS | DAEGU ACC NOTAM | RKSIYIYA | INCHEON ATIS | | |
| RKDAYOYX | DAEGU ACC FLT INFO CENTER | RKSIYPYX | AVIATION MET OFFICE | | |
| RKDAYOYE | DAEGU ACC FLT INFO CENTER | RKSIZAZS | SEOUL APP | | |
| RKDAZQZE | DAEGU ACC | RKSIZPZG | FOIS SYSTEM | | |
| RKDAZQZS | DAEGU ACC | RKSIZPZH | FOIS SYSTEM | | |
| RKDAYIYT | DAEGU ACC KAC | RKSIZPZI | FOIS SYSTEM | | |
| RKDAZAZS | ATFMS | RKSIZPZN | FOIS SYSTEM | | |
| RKDAZAZX | ATFMS | RKSIZPZX | INCHEON AIS T1 | | |
| RKDAZEZA | ATMO FSMS | RKSIZPZB | INCHEON AIS T2 | | |
| RKDJHKAX | HELIKOREA | RKSIYPYS | AVIATION MET OFFICE | | |
| RKJBIFYX | MUAN COM STN | RKSIZAZB | INCHEON IAC | | |
| RKJBIIYX | MUAN ATIS | RKSIZAZC | INCHEON IAC | | |
| RKJBZPZX | MUAN AIS | RKSIZAZD | INCHEON IAC | | |
| RKJBZTZX | MUAN TWR | RKSIZAZX | INCHEON IAC | | |
| RKJJYFYX | GWANGJU COM STN | RKSIZXFM | IAC FIMS | | |
| RKJJZAZX | GWANGJU APP | RKSLYAYX | MINISTRY OF LAND TRANSPORT | | |
| RKJJZPZX | GWANGJU AIS | RKSLYLYX | FLT ACCIDENT INVEST BOARD | | |
| RKJKZPZX | GUNSAN AIS | RKSLYNYS | MINISTRY OF LAND, | | |
| RKJYZPZX | YEOSU AIS | | INFRASTRUCTURE AND TRANSPORT | | |
| RKJYIYA | YEOSU ATIS | RKSSAARO | GIMPO AAR | | |
| RKNWYFYX | WONJU COM STN | RKSSABLO | AIR BUSAN | | |
| RKNWZPZX | WONJU AIS | RKSSADBS | KAC | | |
| RKNYZPZX | YANGYANG AIS | RKSSASVO | GIMPO AIR SEOUL | | |
| RKNYZTZX | YANGYANG TWR | RKSIAIHX | INCHEON AIH | | |
| RKNYIYA | YANGYANG ATIS | RKSSESRO | EASTAR JET | | |
| RKNYIYB | YANGYANG ATIS | RKSSESRX | EASTAR JET | | |
| RKPCAARO | JEJU AAR | RKSSFGWO | FLY GANGWON | | |
| RKPCYFYA | JEJU COM STN | RKSSHGGX | HI AIR | | |
| RKPCYFYX | JEJU COM STN | RKSSHPBX | HANHWA | | |
| RKPCYIYX | JEJU KAC | RKSSJJAO | JEJU AIR | | |
| RKPCZAZS | JEJU APP(ARTS) | RKSSJJAS | JEJU AIR | | |
| RKPCZAZX | JEJU APP | RKSSJNAX | JIN AIR | | |
| RKPCZPZA | JEJU AIS | RKSSKABO | AIR POHANG | | |
| RKPCZPZX | JEJU AIS | RKSSKALC | GIMPO KAL | | |
| RKPCZTZA | JEJU ATIS | RKSSKALH | GIMPO KAL | | |
| RKPCZTZX | JEJU TWR | RKSSKALO | GIMPO KAL | | |
| RKPDZPZX | JEONGSEOK AIS | RKSSKALS | GIMPO KAL | | |
| RKPDZTZX | JEONGSEOK TWR | RKSSKALX | GIMPO KAL | | |
| RKPKAARO | GIMHAE AAR | RKSSSTWBX | TWAY AIR | | |
| RKPKYFYA | GIMHAE COM STN | RKSSYAYX | GIMPO CNS STN | | |
| RKPKYFYB | GIMHAE COM STN | RKSSYEYX | FLT INSP CENTER | | |
| RKPKYFYC | GIMHAE COM STN | RKSSYHYX | SEOUL FIRE AVIATION OFFICE | | |
| RKPKYFYD | GIMHAE COM STN | RKSSYIYI | KAC | | |
| RKPKYFYX | GIMHAE COM STN | RKSSYIYX | GIMPO KAC | | |
| RKPKZPZX | GIMHAE AIS | RKSSYOYX | GIMPO NOTAM OFFICE | | |
| RKPKZAZC | GIMHAE ARTS | | | | |
| RKPKZAZX | GIMHAE APP | | | | |
| RKPKZTZX | GIMHAE TWR | | | | |
| RKPSZPZX | SACHEON AIS | | | | |
| RKPUZPZX | ULSAN AIS | | | | |
| RKPUIYIX | ULSAN ATIS | | | | |
| RKRRYFYX | INCHEON ACC | | | | |
| RKRRYIYT | INCHEON KAC | | | | |
| RKRRYNYS | INTL NOTAM OFFICE | | | | |
| RKRRYNYX | INTL NOTAM OFFICE | | | | |

| | | |
|----------|----------------------------|--|
| RKSSYQYX | AIR NAV CENTRAL MANAGEMENT | |
| RKSSYSYX | SEOUL RADIO | |
| RKSSZKPY | SEL COM CENTER | |
| RKSSZPZX | GIMPO AIS | |
| RKSSZTZR | GIMPO ASDE1 | |
| RKSSZTZX | GIMPO ASDE2 | |
| RKSSZZZX | SEOUL RADIO | |
| RKTAHSFX | TAEAN AIS | |
| RKTFYXYX | ROKAF MET HQ | |
| RKTHZPZX | POHANG GYEONGJU AIS | |
| RKTLZTZX | ULJIN TWR | |
| RKTLZPZX | ULJIN AIS | |
| RKTNZPZX | DAEGU AIS | |
| RKTUYOYX | CHEONGJU AIS | |
| RKTUZAZA | CHEONGJU APP | |
| RKTUZAAB | CHEONGJU APP | |
| RKTUZAAC | CHEONGJU APP | |
| RKTUZPZX | CHEONGJU AIS | |

7. 추가 정보

NIL

7. Miscellaneous

NIL