



Regulations

Aeronautical Radio Service

Version 1.0

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Article (1)

Definitions

- 1.1 In applying these Regulations, the following terms shall have the following meanings unless the context requires otherwise, whereas any term undefined in the following shall be defined in line with the Federal Law by Decree No. 3 of 2003 as amended its Executive Order and Radiocommunications Policy:
- 1.1.1 **“Aeronautical Mobile Service”** A mobile service between aeronautical stations and aircraft stations, or between aircraft stations, in which survival craft stations may participate: emergency, position-indicating radio beacon stations may also participate in this service on designated distress and emergency frequencies.
 - 1.1.2 **“Aeronautical Mobile (R) service”** An aeronautical mobile service reserved for communications relating to safety and regularity of flight primarily along national or international civil air routes.
 - 1.1.3 **“Aeronautical Radio (OR) Service”** An aeronautical mobile service intended for communications including those relating to flight coordination, primarily outside national or international civil air routes.
 - 1.1.4 **“Aeronautical Station”** A land station in the aeronautical mobile service.
 - 1.1.5 **“Aeronautical Radionavigation Service”** A radio navigation service intended for the benefit and for the safe operation of aircraft.
 - 1.1.6 **“Aircraft Station”** A mobile station in the aeronautical mobile service, other than a survival craft station located on board an aircraft.
 - 1.1.7 **“Applicant”** means any Person who has applied for a License or an Authorization in accordance with the Telecom Law or other Regulatory Instruments issued by the Authority.
 - 1.1.8 **“Application”** means the request for issuance of a License or an Authorization, received at the Authority on prescribed forms as per the procedure in vogue.
 - 1.1.9 **“Assigned frequency”** means the centre of the frequency band assigned to a station by the TRA.
 - 1.1.10 **“Authorization”** means a frequency spectrum Authorization granted by the TRA.
 - 1.1.11 **“Authorized User”** means a Person that has been granted an Authorization by the TRA.

- 1.1.12 **“DME”** aeronautical radio navigation system intended for distance measuring equipment between the aircraft and reference point of descent.
- 1.1.13 **“Instrument Landing System (ILS)”** A radio navigation system which provides aircraft with horizontal and vertical guidance just before and during landing and, at certain fixed points indicates the distance to the reference point of landing.
- 1.1.14 **“ILS-Localizer”** A system of horizontal guidance embodied in the instrument landing system which indicates the horizontal deviation of the aircraft from its optimum path of descent along the axis of the runway.
- 1.1.15 **“ILS-Glide Path”** A system of vertical guidance embodied in the instrument landing system which indicates the vertical deviation of the aircraft from its optimum path of descent.
- 1.1.16 **“Marker Beacon”** A transmitter in the aeronautical radio navigation service which radiate vertically a distinctive pattern for providing position information to aircraft.
- 1.1.17 **“MID FASID”** means the ICAO Middle East office (MID) Facilities And Services Implementation Document (FASID)
- 1.1.18 **“Primary Radar”** A radio determination system based on the comparison of reference signal with radio signal reflected the position to be detected.
- 1.1.19 **“Secondary Radar”** A radio determination system based on the comparison of reference signal with radio signal retransmitted from the position to be detected.
- 1.1.20 **“Emergency Locator Transmitter (ELT)”** means a radio device fitted on aircraft to send alert signal to search and rescue centres via satellite.
- 1.1.21 **“International Telecommunications Union (ITU)”** International Telecommunication Union, a leading United Nations agency for information and communication technologies.
- 1.1.22 **“Radio Regulations (RR)”** means the publication issued by the International Telecommunication union and ratified by the States through the Final Acts of the World Radiocommunication Conference. RR consists of four volumes; volume 1 for articles, volume 2 for appendices; volume 3 for resolutions and volume 4 for recommendations.
- 1.1.23 **“International Civil Aviation Organization (ICAO)”** means the United Nations specialized agency for civil aviation.

- 1.1.24 “**Annex 10 to the Convention on International Civil Aviation**” means the ICAO publication consisting of five volumes containing the Standards and Recommended Practices (SARPs), Procedures for Air Navigation Services (PANS) and guidance material on aeronautical communication, navigation and surveillance systems.
- 1.1.25 “**CAR**” Civil Aviation Regulations issued by the General Civil Aviation Authority in the UAE.
- 1.1.26 “**Station**” means an installation operated by an Authorized User, for carrying on a Radiocommunication Service.
- 1.1.27 “**Temporary Authorization**” means an Authorization issued by the TRA which permits the use of assigned frequency for a period up to 90 days.
- 1.1.28 “**UAE**” means the United Arab Emirates including its territorial waters and the airspace above.
- 1.1.29 “**Wireless Equipment**” means a category of Telecommunication Apparatus used for Radiocommunication Service.

Article (2)

Permitted Usage

- 2.1 Usage of Frequency Spectrum is allowed for the following uses, subject to terms and conditions as given on the TRA Authorization and applicable Regulatory Instruments.
- 2.1.1 Aeronautical Mobile radio (Ground –to –Air)
 - 2.1.2 Aeronautical Mobile radio (Air –to –Air)
 - 2.1.3 Aeronautical Radionavigation Service (Navigational Aids).
 - 2.1.4 Aeronautical Mobile Satellite Service (e.g. Aircraft Earth Station).
 - 2.1.5 Aeronautical Radionavigation Satellite Service.
 - 2.1.6 Radiolocation Service (e.g. Primary Radar, Secondary Radar, SMR).
 - 2.1.7 Radionavigation Service (e.g. Radio Altimeter).
 - 2.1.8 Meteorological Aids Service (e.g. Wind Profiler Radar).
- 2.2 Land Mobile (Ground-to-Ground) Applications on the airport or airfield shall be applied on the TRA Private Mobile Radio form available online (www.tra.gov.ae). Digital Trunking systems shall be preferred for airport use.

Article (3)

Radio Frequency Usage

Frequency Sub-Bands	Use
130-535 kHz	- NDB
2850-22000 kHz	- AERONAUTICAL MOBILE (Ground to Air Voice and data)
3023-5680 kHz	- AERONAUTICAL MOBILE (Route) (Search and Rescue)
74.8-75.2 MHz	- Marker Beacon
108-117.975 MHz	- VOR/ILS localizer/GBAS/VDL4
117.975 – 137 MHz	- AERONAUTICAL MOBILE (R) (Air to Ground and Air to Air Voice and data)
121.5, 123.1, 243 MHz	- Emergency frequencies 123.1 MHz purely for coordinating SAR activities
121.6 MHz	- Communication between pilot and crash tender for fire control
122.275 MHz 123.350 MHz (Standby)	- Off-route Air to Air Voice Communication between small aircraft
230-328.6 MHz	- AERONAUTICAL MOBILE (OR) (Ground to Air and Air to Air Voice and data) - AERONAUTICAL MOBILE (Spot frequencies for ATC Ground to Air Voice)
328.6-335.4 MHz	- ILS Glide path
406-406.1 MHz	- ELT (Search and Rescue)
960-1215 MHz	- DME/UAT/GNSS
1030, 1090 MHz	- SSR/ACAS
1215-1400 MHz	- Primary Radar, Wind Profiler Radar and GNSS
1525-1559 MHz 1626.5-1660.5 MHz	- Mobile Satellite Service
1559-1626.5 MHz	- GNSS
2700-3300 MHz	- Primary Radar
4200-4400 MHz	- Airborne Radio Altimeter
5030-5150 MHz	- Microwave Landing System (MLS)
5350-5470 MHz	- Airborne Weather Radar
8750-8850 MHz	- Airborne Doppler Radar
9000-9500 MHz	- Precision Approach Radar (ASDE) - Surface Movement Radar - Airborne Weather Radar
13.25-13.4 GHz	- Airborne Doppler Radar
15.4-15.7 GHz 24.25-24.65 GHz 31.8-33.4 GHz	- Precision Approach Radar (ASDE)
77 GHz, 94 GHz bands	- Surface Movement Radar

Article (4)

Application forms' categories

- 4.1 Aeronautical Mobile Applications (Ground-to-Air) in any frequency range shall be applied on the TRA Private Mobile Radio form available online (www.tra.gov.ae). If applied for use by any entity other than the airport operator, a no objection certificate from the GCAA shall be attached.
- 4.2 Ground based Navigational Aids shall be applied on the TRA Navigational Aids form available online (www.tra.gov.ae).
- 4.3 Ground based radar shall be applied on the TRA radar form available online (www.tra.gov.ae).
- 4.4 Aircraft radio License shall be applied on the TRA Aircraft form available online (www.tra.gov.ae). This application form shall be used for all aircraft including small, light and rotary aircraft and hot air balloons.
- 4.5 Cellular service onboard aircraft and internet service onboard aircraft has two components. The Wireless Equipment onboard aircraft shall be applied in the Aircraft radio License application. The radio spectrum use for aeronautical mobile satellite service shall be applied on a company letter with all technical details.

Article (5)

Call sign

- 5.1 The Callsign for all UAE registered aircraft shall be A6XXX where X shall represent an alphabet.
- 5.2 The Callsign for all UAE registered aircraft shall be issued by the GCAA

Article (6)

Technical conditions

- 6.1 The VHF frequencies in the range 117.975 – 137 MHz shall be applied in accordance with the MID FASID Appendix B to Communications, Navigation and Surveillance (CNS) Table 2 giving the VHF Frequency utilization Plan. The ground facilities technical characteristics shall be in accordance with the Annex 10 to the Convention on International Civil Aviation.
- 6.2 The HF frequencies in the range 2850 – 22000 kHz for Aeronautical Mobile (R) shall be in accordance with the RR Appendix 27 giving the frequency allotment plan.

- 6.3 The HF frequencies in the range 3025 – 18030 kHz for Aeronautical Mobile (OR) shall be in accordance with the RR Appendix 26 giving the frequency allotment plan.
- 6.4 The HF Air-Ground Digital Link (HDL) and VHF Air-Ground Digital Link (VDL) shall be applied on sharing basis in accordance with the Annex 10 to the Convention on International Civil Aviation.
- 6.5 Selective Calling (SELCAL) systems on board aircraft and on ground shall be in accordance with the Annex 10 to the Convention on International Civil Aviation.
- 6.6 The pairing of frequencies (channels) for navigational aids shall be in accordance with the Annex 10 to the Convention on International Civil Aviation.
- 6.7 All Authorized Users shall comply with the CAR issued by the GCAA.
- 6.8 The VHF frequencies in the range 117.975 – 137 MHz shall be switched to 8.33 kHz channelling arrangement by the year 2013 (01 January). All aircraft shall be required to carry VHF equipment compliant with 8.33 kHz channelling.
- 6.9 The Cellular system onboard aircraft shall only be used at altitude of 10,000 feet and above.

Article (7)

Priority of communications

- 7.1 The highest priority of communications (RR Article 44) shall be for
 - 7.1.1 Distress calls, distress messages and distress traffic.
 - 7.1.2 Communications preceded by the urgency signal
- 7.2 The next priority of communications shall be in the following order:
 - 7.2.1 Communications relating to radio direction finding
 - 7.2.2 Flight safety messages
 - 7.2.3 Meteorological messages
 - 7.2.4 Flight regularity messages
 - 7.2.5 Messages relating to the application of the United Nations Charter
 - 7.2.6 Government messages for which priority has been requested
 - 7.2.7 Service communications
 - 7.2.8 Other aeronautical communications

Article (8)

Specific conditions for aircraft

- 8.1 The Applicant shall provide the TRA with the Application copy of the aircraft registration (call sign) and the air worthiness certificate issued by the GCAA.
- 8.2 All aircraft shall carry the TRA Authorization (License).
- 8.3 All aircraft shall carry the log and published documents (printed or electronic format) containing official information relating to stations which the aircraft may use for its operation.

Article (9)

Spectrum Coordination

9. 1 All aeronautical radio spectrum applications shall require co-ordination with international civil aviation organization ICAO regional office through the GCC Telecommunications Bureau.

Article (10)

Penalties

- 10.1 The penalties of the Federal Law by Decree No. 3 of 2003 and any amendments thereof and its Executive Order shall apply to any violation to these Regulations or to any breach of a term of Authorization.