
Regulations

Earth Stations

Version 5.0

Document Date: 26.06.2026

Telecommunications and Digital Government Regulatory Authority (TDRA)
P O Box 26662, Abu Dhabi, United Arab Emirates (UAE)
www.tdra.gov.ae

Article (1)

Scope of Document

- 1.1 These regulations are issued in accordance with the provisions of the UAE Federal Law by Decree No. 3 of 2003 (Telecom Law) as amended and its Executive Order.
- 1.2 These regulations comprise the Authorization types, application process, obligations and technical conditions for the Authorization of Earth Stations. These regulations shall be read in conjunction with the following regulatory instruments issued by the TDRA and available on TDRA's website:
 - 1.2.1 Spectrum Allocation and Assignment Regulations
 - 1.2.2 Spectrum Fees Regulation
 - 1.2.3 Interference Management Regulations
 - 1.2.4 National Frequency Plan and its Table of Frequency Allocations
 - 1.2.5 Regulatory Policy for Space Services
 - 1.2.6 Aeronautical Radio Systems Regulations, and
 - 1.2.7 International Registration of Satellite Networks Guidelines.

Article (2)

Definitions

- 2.1 The terms, words and phrases used in these Regulations shall have the same meaning as ascribed to them in the UAE Federal Law by Decree No 3 of 2003 (Telecom Law) as amended and its Executive Order; unless these Regulations expressly provide otherwise for, or the context in which those terms, words and phrases are used in these Regulations indicates otherwise. The following terms and words shall be interpreted, as follows:
 - 2.1.1 **"Administration"** means any governmental department (whether in the UAE or another member state of the ITU) which is responsible for undertaking the obligations set out in the ITU Constitution and Convention and in the Administrative Regulations.
 - 2.1.2 **"Aeronautical Mobile-Satellite Service"** means a Mobile-Satellite Service in which Mobile Earth Stations are located on board aircraft.
 - 2.1.3 **"AES"** or **"Aircraft Earth Station"** means a Satellite Earth Station installed on an Aircraft.
 - 2.1.4 **"Aircraft Radio License"** means an authorization issued by TDRA to permit the operation of all radio equipment on the aircraft necessary for communication, navigation, and surveillance purposes.
 - 2.1.5 **"Allocation"** means the entry of a designated frequency or frequency band in the National Frequency Plan for use by one or more users for a terrestrial or space radiocommunications service in the UAE.

TDRA Regulations for Earth Stations, Version 5.0

- 2.1.6 **"Applicant"** means any person who has applied for a license or a spectrum authorization in accordance with the Telecom Law or other regulations issued by TDRA.
- 2.1.7 **"Authority"** or **"TDRA"** means the Telecommunications and Digital Government Regulatory Authority established pursuant to the provisions of Article 6 of Federal Law by Decree No. 3 of 2003 (as amended).
- 2.1.8 **"Authorization"** or **"Frequency Spectrum Authorization"** means a valid frequency spectrum authorization issued by the Authority and permits the use of radio frequency subject to terms and conditions as stipulated by the Authority.
- 2.1.9 **"Class Authorization"** means the Authorization which permits the operation of wireless equipment by any Person within designated frequency bands subject to the terms and conditions stipulated by the Authority.
- 2.1.10 **"D2D"** or **"Direct-to-Device"** means the satellite component of International Mobile Telecommunications as defined in the relevant ITU RR provisions.
- 2.1.11 **"Earth Station"** means a station located either on the Earth's surface or within the major portion of the Earth's atmosphere and is intended for communication with one or more Space Stations, or with one or more stations of the same kind by means of one or more reflecting Satellites or other objects in space.
- 2.1.12 **"End User"** means any person including a customer who receives licensed services from the licensee.
- 2.1.13 **"ESIM"** or **"Earth Station in Motion"** means Earth Stations that are operated in accordance with ITU RR Resolution 121 (WRC-23), ITU RR Resolution 123 (WRC-23), ITU RR Resolution 156 (Rev. WRC-23) or ITU RR Resolution 169 (Rev. WRC-23).
- 2.1.14 **"ESV"** or **"Earth Station on board Vessel"** means Earth Stations operated on ships in accordance with ITU RR Resolution 902 (Rev. WRC-23).
- 2.1.15 **"FSS"** or **"Fixed-Satellite Service"** means a radiocommunication service between Earth Stations at given positions, when one or more Satellites are used; the given position may be a specified fixed point or any fixed point within specified areas.
- 2.1.16 **"Fixed Service"** means a radiocommunication service between specified fixed points.
- 2.1.17 **"GMPCS"** means Global Mobile Personal Communications by Satellite.
- 2.1.18 **"Global Navigation Satellite System (GNSS)"** describes a satellite navigation system that provides autonomous geo-spatial positioning with global coverage.

TDRA Regulations for Earth Stations, Version 5.0

- 2.1.19 **"GSO"** means the geo-stationary orbit.
- 2.1.20 **"Harmful Interference"** means interference which impairs the functioning of a radiocommunication service or which materially degrades or obstructs or repeatedly interrupts a radiocommunication service.
- 2.1.21 **"ITU"** means International Telecommunication Union, a leading United Nations agency for information and communication technologies.
- 2.1.22 **"ITU RR"** means the Radio Regulations of the ITU, which form an international treaty governing the use of the electromagnetic spectrum that has been ratified by the UAE.
- 2.1.23 **"LEO" or "Low-altitude Earth Orbit"** means an altitude below about 2,000km above sea level
- 2.1.24 **"Licensed Services"** means the telecommunication services described in the conditions of the Authorisation holder's license.
- 2.1.25 **"Low-water Mark"** means the intersection of the low-water tidal plane with the land.
- 2.1.26 **"Maritime Mobile-Satellite Service"** means a Mobile-Satellite Service in which Mobile Earth Stations are located on board ships.
- 2.1.27 **"Minimum Distance"** means the distances from Low-water Mark as specified in the latest revision to ITU RR Resolution 902.
- 2.1.28 **"Mobile Earth Station"** means an Earth Station in the Mobile-Satellite Service intended to be used while in motion or during halts at unspecified points.
- 2.1.29 **"MSS" or "Mobile-Satellite Service"** means a radiocommunication service between Mobile Earth Stations and one or more Space Stations, or between Space Stations used by this service; or– between Mobile Earth Stations by means of one or more Space Stations.
- 2.1.30 **"National Frequency Plan"** means radio frequency allocation plan for the UAE.
- 2.1.31 **"NGSO"** means a non-geostationary Satellite orbit, referring to any orbit at an altitude and inclination such that the Satellite does not remain stationery relative to a specific point on the Earth's surface.
- 2.1.32 **"Radio Astronomy Earth Station" or "Radio Astronomy (receive-only) Earth Station"** means an Earth Station used exclusively for radio astronomy observations, operating on a receive-only basis, for the reception of cosmic radio waves.
- 2.1.33 **"Radiocommunication Service"** means a service involving the transmission, emission and/or reception of radio waves for specific telecommunication purposes.
- 2.1.34 **"Satellite"** means a body which revolves around another body of preponderant mass and which has a motion primarily and permanently determined by the force of attraction of that other body.

TDRA Regulations for Earth Stations, Version 5.0

- 2.1.35 **"Satellite Network"** means a Satellite System or a part of a Satellite System consisting of only one Satellite and the cooperating Earth stations.
- 2.1.36 **"Satellite System"** means a space system using one or more artificial Earth Satellites.
- 2.1.37 **"Ship Radio License"** means an Authorization issued by the Authority to permit the operation of all radio equipment on board ship necessary for communication, navigation, and surveillance purposes.
- 2.1.38 **"Space Services"** means the provision of radio services using Satellite
- 2.1.39 **"Space Station"** means a station located on an object which is beyond, is intended to go beyond, or has been beyond, the major portion of the Earth's atmosphere.
- 2.1.40 **"Territorial Waters"** means "territorial sea", as defined in the UN Convention on the Law of the Sea (UNCLOS, 1982), excluding internal waters, harbours, and ports.
- 2.1.41 **"UAE"** or **"State"** means the United Arab Emirates including its territorial waters and the airspace above.
- 2.1.42 **"Terminal"** means the equipment used by End Users to access the Licensed Service.
- 2.1.43 **"VSAT"** means Very Small Aperture Terminal.
- 2.1.44 **"WRC"** means World Radiocommunication Conference of the ITU

Article (3)

Types of Authorizations

- 3.1 The Authority may issue Earth Station Authorizations belonging to three different categories. These categories are defined to provide a flexible approach that can accommodate a wide range of Earth Station types.

Authorization Category	Scope and Definition	Earth Station Types
Gateway Earth Station Authorization	This category of Authorizations applies to Earth Stations that form part of a satellite system's ground infrastructure and are intended to establish connectivity between the satellite and terrestrial networks. The Gateway Earth Station typically operates from a fixed location (including feeder links) and communicates with one or more satellites for the purpose of aggregating or distributing traffic to and from Terminals. The authorization is site-specific and is granted for a location situated within a defined radius of the	• Gateway Earth Station • Other types

TDRA Regulations for Earth Stations, Version 5.0

Authorization Category	Scope and Definition	Earth Station Types
	nominated geographical coordinates submitted in the application	
Terminal Earth Station Network Authorization	This category of Authorizations applies to the deployment and use of a class or network of Terminals that operate under the envelope of similar technical characteristics to access satellite capacity to enable communication services for End Users which may be fixed, portable, or mobile	• ESV • ESIM • GMPCS • VSAT (Earth Stations with fixed location with antenna diameter of generally less than 2.4 meters) • Other types (e.g., LEO satellite Terminals, D2D Terminals, etc.)
Other Earth Station Authorizations	This category of Authorization applies to Earth Stations that do not fall within the scope of Gateway or Terminal Earth Station Authorizations. It includes, but is not limited to, the following types of stations: - Transportable or temporary Earth Stations, including those used for digital satellite news gathering (DSNG) or live event coverage - Receive-only Earth Stations that are not authorized to transmit but are permitted to receive satellite signals; - Special-purpose Earth Stations used for academic, experimental, testing, or research applications	• DSNG (Earth Stations with antenna diameter of generally less than 2.4 meters and associated with the broadcasting industry.) • GNSS receivers • Receive-only • Radio-astronomy receive-only • Other receive-only • Other types

3.2 The following types of Earth Stations can be Class Authorized for the frequency ranges given in the Annexes:

3.2.1 From Terminal Earth Station Network Authorization category: ESV, ESIMs, MSS Terminals (including GMPCS) and VSATs of a licensee

3.2.2 From Other Earth Station Authorization category: TV receive-only and GNSS receivers

3.3 The Authority may decide to facilitate Class Authorization for other categories of Earth Stations provided that they comply with the Class Authorization conditions defined by the Authority.

3.4 Earth Stations installed on a vessel are authorized as part of the Ship Radio License according to technical requirements as stated in Annex B for ESV and ESIM. Other Earth Stations operating in the Maritime Mobile-Satellite Service shall comply with the coordination agreements of the Satellite Networks with which this Earth Station is associated.

3.5 Aircraft Earth Stations (AES) installed on an aircraft are authorized as part of the Aircraft Radio License. The frequency ranges for AES are provided in the Authority Regulations for Aeronautical Radio Systems. The technical

TDRA Regulations for Earth Stations, Version 5.0

requirements for ESIM are stated in Annex B. Other Earth Stations operating in the Aeronautical Mobile-Satellite Service shall comply with the coordination agreements of the Satellite Networks with which this Earth Station is associated.

- 3.6 Available frequency ranges that are routinely available for different Earth Station Authorization types and associated technical conditions can be found in the Annexes. The Authority may update the frequency ranges and technical conditions independently of these Regulations.

Article (4)

Application process

- 4.1 The process for obtaining an Earth Station Authorization from the Authority includes three stages: application submission, assessment, and decision and issuance.
- 4.2 Applicants seeking an Earth Station Authorization shall submit a completed application in the form and manner specified by the Authority. The application shall include, at a minimum, the following information:
- 4.2.1 Type of Earth Station Authorization being requested, as defined in Article (3);
 - 4.2.2 Technical specifications of the Earth Station, including frequency bands, antenna characteristics, emission parameters, and equipment type;
 - 4.2.3 Geographical location or coverage area of the Earth Station or network of Terminals;
 - 4.2.4 Details of any associated Satellite System(s) including ITU coordination evidence;
 - 4.2.5 Copies of relevant telecommunications licences, Frequency Spectrum Authorizations, or supporting documents as may be required by the Authority.
 - 4.2.6 At any point during the process, the Authority may request additional information or clarifications from the Applicant.
- 4.3 Following the completion of the assessment, the Authority may issue an Earth Station Authorization, specifying the conditions of use.
- 4.3.1 The Authority reserves the right to deny, suspend, or revoke an Earth Station Authorization in accordance with applicable laws and regulations.
- 4.4 The applications for Earth Stations Authorization will be evaluated on a case-by-case basis for the following
- Applications for frequency ranges not listed in the table above but having an Allocation in the National Frequency Plan; and the appropriateness of the requested Authorization category based on the antenna type and size.

Article (5)

Authorization Conditions

- 5.1 An Earth Station authorized under any category or subject to Class Authorization shall be operated in accordance with the provisions of the ITU RR and these Regulations.
- 5.2 Authorized Users shall be required to conform to all conditions given within the Authorization. Where appropriate, the Authorized User may be required to implement additional installation measures to reduce the potential for causing interference to operational systems as mentioned in the Authorization.
- 5.3 The apparatus used for transmission must comply with the relevant technical specifications and meet applicable type approval requirements for installation and operation in the UAE.
- 5.4 The apparatus shall be designed, constructed, maintained and operated in such a manner that its use does not cause any Harmful Interference.
- 5.5 The authorized apparatus shall be associated with Satellite Networks filed with the ITU Radiocommunication Bureau according to ITU procedures.
- 5.6 Authorized users must ensure that their systems (i.e. equipment with antennas) meet planning requirements and, where applicable, appropriate approvals are obtained from the Authority or other relevant government entity.
- 5.7 All Earth Stations shall comply with the coordination agreements of the Satellite Networks with which the relevant Earth Station is associated.
- 5.8 All Earth Stations Authorizations shall comply with the applicable technical conditions specified in the Article (9) – Annexes.
- 5.9 Earth Station Authorizations shall be valid for a standard term of one (1) year, subject to renewal upon application and continued compliance. The Authority may issue Earth Station Authorizations with a longer validity on a case-by-case basis.

Article (6)

Fees

- 6.1 All Earth Station Authorizations shall be subject to applicable fees, as determined by the Authority in accordance with the Frequency Spectrum Fees Regulation.

Article (7)

Spectrum Coordination and Notification

TDRA Regulations for Earth Stations, Version 5.0

- 7.1 Coordinating Radio Frequencies for Earth Stations at the national, regional and international levels shall be made through the Authority, as it is the sole body responsible for radio frequency coordination.
- 7.2 The Authority may delegate the responsibility of coordination among operators, subject to ratification by the Authority.
- 7.3 Notifying and Registering of Radio Frequencies in the ITU shall be made through the Authority according to the procedures outlined in the Radio Regulations and the Guidelines for Coordination of Satellite Networks.
- 7.4 The Applicant or operator shall support the coordination procedures.

Article (8)

Implementation

- 8.1 These regulations are effective from the date of its issue and supersede any prior provisions on the subject matter.

Annexes

Annex A: Frequency ranges and technical conditions for Gateway Earth Station Authorization category

Authorization Type	Available Frequency Ranges	References
Earth Station Authorization	Range of frequency bands identified for Satellite services in the National Frequency Plan.	Relevant ITU RR Article 5 Footnotes and UAE National Frequency Plan

Technical Conditions for Gateway Earth Station Authorization

- Relevant provisions as given in ITU RR Article 21 (Terrestrial and space services sharing frequency bands above 1 GHz) and Article 22 (Space services) should be complied with. Key provisions include the following:
 - Earth Station power limits as given in ITU RR 21.8 to RR 21.13;
 - Minimum angle of elevation of an Earth Station as given in ITU RR 21.14;
 - Earth Station off-axis power limits for GSO FSS networks as given in ITU RR 22.26 to RR 22.39 for frequency ranges where these limits apply; and
 - The equivalent power flux-density (pfd) limitations for Earth Stations operating with NGSO Satellites as given in ITU RR Article 22.
- The e.i.r.p. density of emissions from any GSO FSS Earth Station in the band 13.77 - 13.78 GHz as given in ITU RR 5.503 should be complied with.
- Minimum GSO FSS Earth Station antenna diameter, power flux density and e.i.r.p. limits for the band 13.75 – 14 GHz as given in ITU RR 5.502 should be complied with.
- A minimum diameter for NGSO FSS Earth Stations operating in the band 13.75 – 14 GHz should be 4.5 metres as given in ITU RR 5.502.
- The minimum performance for an antenna radiation pattern should comply with the relevant ITU-R Recommendations (e.g. ITU-R S.580). The antenna pattern shall be detailed by the Applicant.
- The Applicant must obtain, where necessary, satisfactory site clearance and terrestrial coordination from the concerned authorities for operation at the specified location prior to obtaining a spectrum Authorization from the Authority.

Technical conditions for other types of Earth Stations

- For other types of Earth Stations, the applicant shall submit information of the technical conditions for review by the Authority

Annex B

Frequency ranges and technical conditions for Terminal Earth Station Network Authorization category

Authorization Type	Available Frequency Ranges	References
VSAT Authorization	<u>Frequency ranges in C-Band</u> 3.8 - 4.2 GHz (Space-to-Earth) 4.5 - 4.8 GHz (Space-to-Earth) 5.15 - 5.25 GHz (Earth-to-Space) 5.725 - 6.725 GHz (Earth-to-Space) <u>Frequency ranges in Ku – Band</u> 10.7 - 11.7 GHz (Space-to-Earth) / (Earth-to-Space) 12.5 - 13.25 GHz (Space-to-Earth) / (Earth-to-Space) 13.4 - 13.65 GHz (Earth-to-Space) <u>Frequency ranges in Ka-Band</u> 19.7 - 21.2 GHz (Space-to-Earth) 27.5 – 31 GHz (Earth-to-Space)	Relevant ITU RR Article 5 Footnotes and UAE National Frequency Plan
ESIM Authorization	<u>Frequency ranges in Ka-band</u> 19.7 – 20.2 GHz (space-to-Earth) 29.5 – 30 GHz (Earth-to-space)	ITU RR Resolution 156 (Rev. WRC 23) (Use of the frequency bands 19.7 - 20.2 GHz and 29.5 - 30.0 GHz by earth stations in motion communicating with geostationary space stations in the fixed-satellite service) Relevant ITU RR Article 5 Footnotes and UAE National Frequency Plan
ESIM-L, -M, -AAuthorization	<u>Frequency Ranges in Ku-Band</u> 12.75 – 13.25 GHz (Earth-to-space) <u>Frequency ranges in Ka-Band</u> 17.7 – 18.6 GHz (space-to-Earth) 17.7-19.7 GHz (space-to-Earth) 18.8 – 19.3 GHz (space-to-Earth) 19.7–20.2 GHz (space-to-Earth) 27.5-29.5 GHz (Earth-to-space) 29.5–30.0 GHz (Earth-to-space)	ITU RR Resolution 121 (WRC-23) (“Use of the frequency band 12.75-13.25 GHz by earth station in motion on aircraft and vessels communicating with geostationary space stations in the fixed-satellite service”), ITU RR Resolution 123 (WRC-23) (“Use of the frequency bands 17.7-18.6 GHz, 18.8-19.3 GHz and 19.7-20.2 GHz (space-to-earth) and 27.5-29.1 GHz and 29.5-30 GHz (earth-to-space) by aeronautical and maritime earth stations in motion communicating with non-geostationary space stations in the fixed-satellite space”), ITU RR Resolution 169 (Rev. WRC-

TDRA Regulations for Earth Stations, Version 5.0

Authorization Type	Available Frequency Ranges	References
		23) ("Use of the frequency bands 17.7 - 19.7 GHz (space-to-Earth) and 27.5 - 29.5 GHz (Earth-to-space) by earth stations in motion communicating with geostationary space stations in the fixed-satellite service") Relevant ITU RR Article 5 Footnotes and UAE National Frequency Plan
ESV Authorization	<u>Frequency Ranges in C-Band</u> 3.8 – 4.2 GHz (Space-to-Earth) 5.925 – 6.425 GHz (Earth-to-Space) <u>Frequency Ranges in Ku – Band</u> 10.70 – 12.75 GHz (Space-to-Earth) 14.0 – 14.50 GHz (Earth-to-Space)	ITU RR Resolution 902 (Rev. WRC 23) (Provisions relating to Earth Stations located on board vessels which operate in fixed-satellite service networks in the uplink bands 5925 - 6425 MHz and 14 - 14.5 GHz) Relevant ITU RR Article 5 Footnotes and UAE National Frequency Plan
MSS Terminals (including GMPCS and D2D ¹)	<u>Frequency Ranges in L-Band</u> 1.518 - 1.559 GHz 1.6265 - 1.6605 GHz 1.668 - 1.675 GHz <u>Frequency Ranges in S-Band</u> 1.980 - 2.010 GHz 2.170 – 2.200 GHz	ITU RR Resolution 25 (Rev. WRC 23) "Operation of global satellite systems for personal communications" ITU RR Resolution 212 (Rev. WRC-23) ("Implementation of International Mobile Telecommunications in the frequency bands 1885-2025 MHz and 2110-2200 MHz) and 225 (Rev. WRC-23) ("Use of additional frequency bands for the satellite component of IMT") Relevant ITU RR Article 5 Footnotes and UAE National Frequency Plan

Technical Conditions for VSAT

- 1 Relevant provisions as given in ITU RR Article 21 (Terrestrial and space services sharing frequency bands above 1 GHz) and Article 22 (Space services) should be complied with. Key provisions include the following:
 - 1.1 Minimum angle of elevation as given in ITU RR 21.14; and

¹ D2D refers to the satellite component of International Mobile Telecommunications as defined in the relevant ITU RR provisions.

TDRA Regulations for Earth Stations, Version 5.0

- 1.2 Off-axis power limits as given in ITU RR 22.26 to RR 22.39 for frequency ranges where these limits apply.
- 2 The minimum performance for an antenna radiation pattern should comply with the relevant ITU-R Recommendations (e.g. ITU-R S.580). The antenna pattern shall be detailed by the Applicant.
- 3 Terminals which are included as part of a VSAT network Authorization shall implement independent local control and monitoring functions at the terminal, and be authorized, supervised and administered by a network control and monitoring centre.
- 4 An emergency contact must be identified for the network control and monitoring centre.
- 5 The operator shall have the facility to disable individual terminal transmission.
- 6 The network control and monitoring centre located within the UAE shall be authorized.
- 7 Site clearance of individual VSATs may be required depending on the location and radiated power. Details of the specific cases where clearance is required shall be provided to the Applicant as a condition of use within the Authorization.

Technical Conditions for ESIM

- 1 The use of ESIM shall be in accordance with the relevant ITU resolution for the specific frequency range:
 - 1.1 ITU RR Resolution 121 (WRC-23) for 12.75 – 13.25 GHz,
 - 1.2 ITU RR Resolution 123 (WRC-23) for 17.7-18.6 GHz, 19.7-20.2 GHz and 27.5-29.1 GHz,
 - 1.3 ITU RR Resolution 156 (Rev. WRC-23) for 19.7 – 20.2 GHz and 29.5 – 30.0 GHz, and
 - 1.4 Or the ITU RR Resolution 169 (Rev. WRC-23) for 17.7 – 19.7 GHz and 27.5 – 29.5 GHz on a case-by-case basis.
- 2 The use of ESIM on UAE registered ships and aircraft must be included in the ship or aircraft's Authorization by the Authority.
- 3 The ESIM within the UAE territory, including territorial waters and territorial airspace, is authorized within the network of a telecommunications or Satellite operator appropriately licensed by the Authority in the UAE.
- 4 The ESIM shall remain within the envelope of the coordination agreements of the Satellite Networks with which this Earth Station is associated or, in the absence of such agreements, comply with the off-axis e.i.r.p. density levels mentioned in the relevant ITU RR resolutions.

Technical Conditions for ESV

- 1 The use of ESV in frequency ranges 3.8 – 4.2 GHz, 5.925 – 6.425 GHz, 10.70 – 12.75 GHz and 14.0 – 14.50 GHz shall be in accordance with ITU RR Resolution 902 (Rev. WRC-23).
- 2 The use of ESV on any UAE registered ship shall be allowed only if included in the Ship Radio License (Authorization).
- 3 The responsibility to adhere to the National regulations within the Territorial Waters of each State by UAE registered ships lies with the ship owner and/or ship operator.
- 4 UAE and Foreign registered vessels may be able to use the ESV in the zone between the Territorial Waters of the UAE and Minimum Distance if their Ship Radio License includes the ESV and adheres to the conditions as set in these Regulations.
- 5 The Licensing Administration or the owner of the foreign registered vessels intending to use ESV in the zone between the Territorial Waters of the UAE and Minimum Distance shall provide the Authority a point of contact.
- 6 The use of ESV in the Territorial Waters of the UAE is authorized within the network of a telecommunications or Satellite operator appropriately licensed by the Authority in the UAE.
- 7 In all conditions whatsoever, the ESV shall be switched OFF immediately if directed by the Authority.
- 8 UAE registered ships requiring ESV coordination for use in the Minimum Distance of other countries can request the support of the Authority for facilitating this coordination at the Administration level.
- 9 The UAE has Fixed Services and operational and planned Satellite Earth Stations in the bands authorized for ESV usage. These services shall have protection from harmful interference from ESV.
- 10 In case of any interference reported to UAE Fixed Services or UAE Earth Stations as a result of ESV operation within the Minimum Distance, the ESV shall immediately cease its transmissions.

Technical Conditions for GMPCS

- 1 ITU RR Resolution 25 (Rev. WRC-23) provides provisions for the operation of global Satellite Systems for personal communication.
- 2 ITU-R Recommendations M.1343 and M.1480 provide the essential technical requirements that should be used by Administrations as a common technical basis facilitating the global circulation and use of such GMPCS Terminals in conformity with these Recommendations.

Annex C

Frequency ranges and technical conditions for Other Earth Station Authorizations category

Authorization Type	Available Frequency Ranges	References
Digital Satellite News Gathering (DSNG) Authorization	<u>Frequency ranges in Ku – Band</u> 10.7 - 11.7 GHz (Space-to-Earth) / (Earth-to-Space) 12.5 - 13.25 GHz (Space-to-Earth) / (Earth-to-Space) 13.75 -14.8 GHz (Earth-to-Space) <u>Frequency ranges in Ka-Band</u> 19.7 - 21.2 GHz (Space-to-Earth) 27.5 – 31 GHz (Earth-to-Space)	Relevant ITU RR Article 5 Footnotes and UAE National Frequency Plan
GNSS	<u>Frequency Ranges in L-Band</u> 1.559 - 1.6265 GHz	Relevant ITU RR Article 5 Footnotes and UAE National Frequency Plan
Radio astronomy receive-only	<u>Frequency Ranges</u> 48.94 – 49.04 GHz 51.4 – 54.25 GHz 58.2 – 59 GHz 64 – 65 GHz 275 – 1000 GHz	Relevant ITU RR Article 5 Footnotes and UAE National Frequency Plan

Technical Conditions for Digital Satellite News Gathering (DSNG)

- Relevant provisions as given in ITU RR Article 21 (Terrestrial and space services sharing frequency bands above 1 GHz) and Article 22 (Space services) should be complied with. Key provisions include the following:
 - Earth Station power limits as given in ITU RR 21.8 to RR 21.13;
 - Minimum angle of elevation of an Earth Station as given in ITU RR 21.14; and
 - Earth Station off-axis power limits for GSO FSS networks as given in ITU RR 22.26 to RR 22.39 for frequency ranges where these limits apply.
- Minimum GSO FSS Earth Station antenna diameter, power flux density and e.i.r.p. limits for the band 13.75 – 14 GHz as given in ITU RR 5.502 should be complied with.
- The minimum performance for an antenna radiation pattern should comply with the relevant ITU-R Recommendations (e.g. ITU-R S.580). The antenna pattern shall be detailed by the Applicant.

TDRA Regulations for Earth Stations, Version 5.0

- 4 The Applicant shall be responsible to obtain all the necessary media production, filming and shooting permissions from the relevant authorities.
- 5 The Applicant shall comply with any Health and Safety Executive requirements and must ensure that the necessary local permissions from the appropriate authorities are obtained at each notified location site prior to commencing operation.
- 6 The apparatus shall be attended at all times during operation, and an emergency contact shall be identified for the designated site.
- 7 The Applicant must obtain, where necessary, satisfactory site clearance and terrestrial coordination from the concerned authorities for operation at the specified location prior to commencing operation in the UAE

Technical conditions for Radio Astronomy Earth Stations

- 1 Operation shall be in accordance with the relevant ITU RR provisions; operation is strictly receive-only; no transmissions are permitted.
- 2 The station operator shall provide the Authority with accurate site data (geographic coordinates, antenna type, operating bands, sensitivity).
- 3 The operator shall maintain observation logs to assist in interference investigations and must promptly report Harmful Interference to the Authority.