الخطة الوطنية لتوزيع وتخصيص الطيف الترددي

National Spectrum Allocations & Assignment Plan

Spectrum Management Unit
ISO 9001:2008 and ISO 27001:2005 Certified
Edition 2014

His Majesty Sultan Qaboos Bin Said

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Replacement

This document replaces the National Frequency Allocation and Assignment Plan edition 2011 issued by the Telecommunications Regulatory Authority of the Sultanate of Oman.

CONTENTS

1 - Terms and Definitions 8

1.1 Specific terms related to frequency management 8
1.2 Radio services 8
1.3 Radio stations and systems 10
1.4 Operational terms 13
1.5 Characteristics of emissions and radio equipment 14
1.6 Frequency sharing 16
1.7 Technical terms relating to space 16
1.8 Additional definitions 17

2 - National Frequency Allocations Table 19

2.1 Introduction 20
2.2 Description of the Table 20
2.3 Table of Frequency Allocations 23
2.4 Footnotes 75

3 - National Frequency Assignment Table 121

3.1 Introduction 126
3.2 Concerns on 3rd revision 126
3.3 Future revision 126
3.4 Assignment Table 126

4 - Abbreviations 237

1
Terms and Definitions

1. Terms and definitions

- Telecommunication: Any transmission, emission or reception of signs, signals, writings, images and sounds or intelligence of any nature by wire, radio, optical or other electromagnetic systems (CS).
- Radio: A general term applied to the use of radio waves.
- Radio waves or hertzian waves: Electromagnetic waves of frequencies arbitrarily lower than 3 000 GHz, propagated in space without artificial guide.
- Radiocommunication: Telecommunication by means of radio waves (CS) (CV).
- Terrestrial radiocommunication: Any radiocommunication other than space radiocommunication or radio astronomy.
- Space radiocommunication: Any radiocommunication involving the use of one or more space stations or the use of one or more reflecting satellites or other objects in space.
- Radio determination: The determination of the position, velocity and/or other characteristics of an object, or the obtaining of information relating to these parameters, by means of the propagation properties of radio waves.
- Radionavigation: Radiodetermination used for the purposes of navigation, including obstruction warning.
- Radiolocation: Radiodetermination used for purposes other than those of radionavigation.
- Radio direction-finding: Radiodetermination using the reception of radio waves for the purpose of determining the direction of a station or object.
- Radio astronomy: Astronomy based on the reception of radio waves of cosmic origin.
- Coordinated Universal Time (UTC): Time scale, based on the second (SI), as defined in ITU-R Recommendation ITU-R TF.460-5.

  For most practical purposes associated with the Radio Regulations, UTC is equivalent to mean solar time at the prime meridian (0° longitude), formerly expressed in GMT.
- Industrial, scientific and medical (ISM) applications (of radio frequency energy): Operation of equipment or appliances designed to generate and use locally radio frequency energy for industrial, scientific, medical, domestic or similar purposes, excluding applications in the field of telecommunications.

1.1 Specific terms related to frequency management

- Allocation (of a frequency band): Entry in the Table of Frequency Allocations of a given frequency band for the purpose of its use by one or more terrestrial or space radiocommunication services or the radio astronomy service under specified conditions. This term shall also be applied to the frequency band concerned.
- Allotment (of a radio frequency or radio frequency channel): Entry of a designated frequency channel in an agreed plan, adopted by a competent conference, for use by one or more administrations for a terrestrial or space radiocommunication service in one or more identified countries or geographical areas and under specified conditions.
- Assignment (of a radio frequency or radio frequency channel): Authorization given by an administration for a radio station to use a radio frequency or radio frequency channel under specified conditions.

1.2 Radio services

- *Radiocommunication service:* A service as defined in this Section involving the transmission, *emission* and/or reception of *radio waves* for specific *telecommunication* purposes.

  In these Regulations, unless otherwise stated, any radiocommunication service relates to *terrestrial radiocommunication*.
- *Fixed service:* A *radiocommunication service* between specified fixed points.
- *Fixed-satellite service:* 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; in some cases this service includes satellite-to-satellite links, which may also be operated in the *inter-satellite service*; the fixed-satellite service may also include *feeder links* for other *space radiocommunication services*.
- *Inter-satellite service:* A *radiocommunication service* providing links between artificial *satellites*.
- *Space operation service:* A *radiocommunication service* concerned exclusively with the operation of *spacecraft*, in particular *space tracking, space telemetry* and *space telecommand*.

  These functions will normally be provided within the service in which the space station is operating.

- *Mobile service:* A *radiocommunication service* between *mobile* and *land stations*, or between *mobile stations* (CV).
- *Mobile-satellite service:* 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*.

  This service may also include *feeder links* necessary for its operation.
- *Land mobile service:* A *mobile service* between *base stations* and *land mobile stations*, or between *land mobile stations*.
- *Land mobile-satellite Service:* A *mobile-satellite service* in which *mobile earth stations* are located on land.
- *Maritime mobile service:* A *mobile service* between *coast stations* and *ship stations*, or between *ship stations*, or between associated *on-board communication stations*; *survival craft stations* and *emergency position-indicating radiobeacon stations* may also participate in this service.
- *Maritime mobile-satellite service:* A *mobile-satellite service* in which *mobile earth stations* are located on board ships; *survival craft stations* and *emergency position-indicating radiobeacon stations* may also participate in this service.
- *Port operations service:* A *maritime mobile service* in or near a port, between *coast stations* and *ship stations*, or between *ship stations*, in which messages are restricted to those relating to the operational handling, the movement and the safety of ships and, in emergency, to the safety of persons.

  Messages, which are of a public correspondence nature, shall be excluded from this service.
- *Ship movement service:* A *safety service* in the *maritime mobile service* other than a *port operations service*, between *coast stations* and *ship stations*, or between *ship stations*, in which messages are restricted to those relating to the movement of ships.

  Messages, which are of a public correspondence nature, shall be excluded from this service.
- *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 radiobeacon stations* may also participate in this service on designated distress and emergency frequencies.
- *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.
- *Aeronautical mobile (OR)** service:* An *aeronautical mobile service* intended for communications, including those relating to flight coordination, primarily outside national or international civil air routes.
- *Aeronautical mobile-satellite service:* A *mobile-satellite service* in which *mobile earth stations* are located on board aircraft; *survival craft stations* and *emergency position-indicating radiobeacon stations* may also participate in this service.
- *Aeronautical mobile-satellite (R)* service:* An *aeronautical mobile-satellite service* reserved for communications relating to safety and regularity of flights, primarily along national or international civil air routes.
- *Aeronautical mobile-satellite (OR)** service:* An *aeronautical mobile-satellite service* intended for communications, including those relating to flight coordination, primarily outside national and international civil air routes.
- *Broadcasting service:* A *radiocommunication service* in which the transmissions are intended for direct reception by the general public. This service may include sound transmissions, *television* transmissions, or other types of transmission (CS).
- *Broadcasting-satellite service:* A *radiocommunication service* in which signals transmitted or retransmitted by *space stations* are intended for direct reception by the general public.

  In the broadcasting-satellite service, the term “direct reception” shall encompass both *individual reception* and *community reception*.
- *Radiodetermination service:* A *radiocommunication service* for the purpose of *radiodetermination*.
- *Radiodetermination-satellite service:* A *radiocommunication service* for the purpose of *radiodetermination* involving the use of one or more *space stations*.

  This service may also include *feeder links* necessary for its own operation.

* (R): route.
** (OR): off-route.

- *Radionavigation service:* A *radiodetermination service* for the purpose of *radionavigation*.
- *Radionavigation-satellite service:* A *radiodetermination-satellite service* used for the purpose of *radionavigation*.

  This service may also include *feeder links* necessary for its operation.
- *Maritime radionavigation service:* A *radionavigation service* intended for the benefit and for the safe operation of ships.
- *Maritime radionavigation-satellite service:* A *radionavigation-satellite service* in which *earth stations* are located on board ships.
- *Aeronautical radionavigation service:* A *radionavigation service* intended for the benefit and for the safe operation of aircraft.
- *Aeronautical radionavigation-satellite service:* A *radionavigation-satellite service* in which *earth stations* are located on board aircraft.
- *Radiolocation service:* A *radiodetermination service* for the purpose of *radiolocation*.
- *Radiolocation-satellite service:* A *radiodetermination-satellite service* used for the purpose of *radiolocation*.

  This service may also include the *feeder links* necessary for its operation.
- *Meteorological aids service:* A *radiocommunication service* used for meteorological, including hydrological, observations and exploration.
- *Earth exploration-satellite service:* A *radiocommunication service* between *earth stations* and one or more *space stations*, which may include links between *space stations*, in which:
    - information relating to the characteristics of the Earth and its natural phenomena, including data relating to the state of the environment, is obtained from active sensors or passive sensors on Earth satellites;
    - similar information is collected from airborne or Earth-based platforms;
    - such information may be distributed to earth stations within the system concerned;
    - platform interrogation may be included.

This service may also include *feeder links* necessary for its operation.

- *Meteorological-satellite service:* An *earth exploration-satellite service* for meteorological purposes.
- *Standard frequency and time signal service:* A *radiocommunication service* for scientific, technical, and other purposes, providing the transmission of specified frequencies, time signals, or both, of stated high precision, intended for general reception.
- *Standard frequency and time signal-satellite service:* A *radiocommunication service* using *space stations* on earth *satellites* for the same purposes as those of the *standard frequency and time signal service*.

  This service may also include *feeder links* necessary for its operation.
- *Space research service:* A *radiocommunication service* in which *spacecraft* or other objects in space are used for scientific or technological research purposes.
- *Amateur service:* A *radiocommunication service* for the purpose of self-training, intercommunication and technical investigations carried out by amateurs, that is, by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest.
- *Amateur-satellite service:* A *radiocommunication service* using *space stations* on earth *satellites* for the same purposes as those of the *amateur service*.
- *Radio astronomy service:* A service involving the use of *radio astronomy*.
- *Safety service:* Any *radiocommunication service* used permanently or temporarily for the safeguarding of human life and property.
- *Special service:* A *radiocommunication service*, not otherwise defined in this Section, carried on exclusively for specific needs of general utility and not open to *public correspondence*.

1.3 Radio stations and systems

- *Station:* One or more transmitters or receivers or a combination of transmitters and receivers, including the accessory equipment, necessary at one location for carrying on a *radiocommunication service*, or the *radio astronomy service*.

  Each station shall be classified by the service in which it operates permanently or temporarily.

- *Terrestrial station:* A *station* effecting *terrestrial radiocommunication*.
    - In these Regulations, unless otherwise stated, any *station* is a terrestrial station.
- *Earth station:* A *station* located either on the Earth's surface or within the major portion of the Earth's atmosphere and 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.
- *Space station:* 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.
- *Survival craft station:* A *mobile station* in the *maritime mobile service* or the *aeronautical mobile service* intended solely for survival purposes and located on any lifeboat, life-raft or other survival equipment.
- *Fixed station:* A *station* in the *fixed service*.
- *High altitude platform station:* A station located on an object at an altitude of 20 to 50 km and at a specified, nominal, fixed point relative to the Earth.
- *Mobile station:* A *station* in the *mobile service* intended to be used while in motion or during halts at unspecified points.
- *Mobile earth station:* An *earth station* in the *mobile-satellite service* intended to be used while in motion or during halts at unspecified points.
- *Land station:* A *station* in the *mobile service* not intended to be used while in motion.
- *Land earth station:* An *earth station* in the *fixed-satellite service* or, in some cases, in the *mobile-satellite service,* located at a specified fixed point or within a specified area on land to provide a *feeder link* for the *mobile-satellite service*.
- *Base station:* A *land station* in the *land mobile service*.
- *Base earth station:* An *earth station* in the *fixed-satellite service* or, in some cases, in the *land mobile-satellite service,* located at a specified fixed point or within a specified area on land to provide a *feeder link* for the *land mobile-satellite service*.
- *Land mobile station:* A *mobile station* in the *land mobile service* capable of surface movement within the geographical limits of a country or continent.
- *Land mobile earth station:* A *mobile earth station* in the *land mobile-satellite service* capable of surface movement within the geographical limits of a country or continent.
- *Coast station:* A *land station* in the *maritime mobile service*.
- *Coast earth station:* An *earth station* in the *fixed-satellite service* or, in some cases, in the *maritime mobile-satellite service*, located at a specified fixed point on land to provide a *feeder link* for the *maritime mobile-satellite service*.
- *Ship station:* A *mobile station* in the *maritime mobile service* located on board a vessel, which is not permanently moored, other than a *survival craft station*.
- *Ship earth station:* A *mobile earth station* in the *maritime mobile-satellite service* located on board ship.
- *On-board communication station:* A low-powered *mobile station* in the *maritime mobile service* intended for use for internal communications on board a ship, or between a ship and its lifeboats and life-rafts during lifeboat drills or operations, or for communication within a group of vessels being towed or pushed, as well as for line handling and mooring instructions.
- *Port station:* A *coast station* in the *port operations service*.
- *Aeronautical station:* A *land station* in the *aeronautical mobile service*.

  In certain instances, an aeronautical station may be located, for example, on board ship or on a platform at sea.
- *Aeronautical earth station:* An *earth station* in the *fixed-satellite service*, or, in some cases, in the *aeronautical mobile-satellite service*, located at a specified fixed point on land to provide a *feeder link* for the *aeronautical mobile-satellite service*.
- *Aircraft station:* A *mobile station* in the *aeronautical mobile service*, other than a *survival craft station*, located on board an aircraft.
- *Aircraft earth station:* A *mobile earth station* in the *aeronautical mobile-satellite service* located on board an aircraft.

- *Broadcasting station:* A *station* in the *broadcasting service*.
- *Radiodetermination Station:* A *station* in the *radiodetermination service*.
- *Radionavigation mobile station:* A *station* in the *radionavigation service* intended to be used while in motion or during halts at unspecified points.
- *Radionavigation land station:* A *station* in the *radionavigation service* not intended to be used while in motion.
- *Radiolocation mobile station:* A *station* in the *radiolocation service* intended to be used while in motion or during halts at unspecified points.
- *Radiolocation land station:* A *station* in the *radiolocation service* not intended to be used while in motion.
- *Radio direction-finding station:* A *radiodetermination station* using *radio direction-finding.*
- *Radiobeacon station:* A *station* in the *radionavigation service* the *emissions* of which are intended to enable a *mobile station* to determine its bearing or direction in relation to the radiobeacon station.
- *Emergency position-indicating radiobeacon station:* A *station* in the *mobile service* the *emissions* of which are intended to facilitate search and rescue operations.
- *Satellite emergency position-indicating radiobeacon:* An *earth station* in the *mobile-satellite service* the *emissions* of which are intended to facilitate search and rescue operations.
- *Standard frequency and time signal station:* A *station* in the *standard frequency and time signal service.*
- *Amateur station:* A *station* in the *amateur service.*
- *Radio astronomy station:* A *station* in the *radio astronomy service*.
- *Experimental station:* A *station* utilizing *radio waves* in experiments with a view to the development of science or technique.

  This definition does not include *amateur stations.*
- *Ship's emergency transmitter:* A ship's transmitter to be used exclusively on a distress frequency for distress, urgency, or safety purposes.
- *Radar:* A *radiodetermination* system based on the comparison of reference signals with radio signals reflected, or retransmitted, from the position to be determined.
- *Primary radar:* A *radiodetermination* system based on the comparison of reference signals with radio signals reflected from the position to be determined.
- *Secondary radar:* A *radiodetermination* system based on the comparison of reference signals with radio signals retransmitted from the position to be determined.
- *Radar beacon (racon):* A transmitter-receiver associated with a fixed navigational mark which, when triggered by a *radar,* automatically returns a distinctive signal which can appear on the display of the triggering *radar,* providing range, bearing and identification information.
- *Instrument landing system (ILS):* A *radionavigation* 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.
- *Instrument landing system 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.
- *Instrument landing system 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.
- *Marker beacon:* A transmitter in the *aeronautical radionavigation service*, which radiates vertically a distinctive pattern for providing position information to aircraft.
- *Radio altimeter: Radionavigation* equipment, on board an aircraft or *spacecraft,* used to determine the height of the aircraft or the *spacecraft* above the Earth's surface or another surface.
- *Radiosonde:* An automatic radio transmitter in the *meteorological aids service* usually carried on an aircraft, free balloon, kite or parachute, and which transmits meteorological data.
- *Adaptive system:* A radiocommunication system, which varies its radio characteristics according to channel quality.
- *Space system:* Any group of cooperating *earth stations* and/or *space stations* employing *space*

radiocommunication for specific purposes.

- *Satellite system:* A *space system* using one or more artificial earth *satellites*.
- *Satellite network:* A *satellite system* or a part of a *satellite system*, consisting of only one *satellite* and the cooperating *earth stations*.
- *Satellite link:* A radio link between a transmitting *earth station* and a receiving *earth station* through one *satellite*.

  A satellite link comprises one up-link and one down-link.
- *Multi-satellite link:* A radio link between a transmitting *earth station* and a receiving *earth station* through two or more *satellites*, without any intermediate *earth station*.

  A multi-satellite link comprises one up-link, one or more satellite-to-satellite links and one down-link.
- *Feeder link:* A radio link from an *earth station* at a given location to a *space station*, or vice versa, conveying information for a *space radiocommunication service* other than for the *fixed-satellite service*. The given location may be at a specified fixed point, or at any fixed point within specified areas.

1.4 Operational terms

- *Public correspondence:* Any *telecommunication*, which the offices and *stations* must, by reason of their being at the disposal of the public, accept for transmission (CS).
- *Telegraphy*[1]*:* A form of telecommunication in which the transmitted information is intended to be recorded on arrival as a graphic document; the transmitted information may sometimes be presented in an alternative form or may be stored for subsequent use (CS 1016).
- *Telegram:* Written matter intended to be transmitted by *telegraphy* for delivery to the addressee. This term also includes *radiotelegrams* unless otherwise specified (CS).

  In this definition, the term telegraphy has the same general meaning as defined in the Convention.
- *Radio telegram:* A *telegram*, originating in or intended for a *mobile station* or a *mobile earth station* transmitted on all or part of its route over the *radiocommunication* channels of the *mobile service* or of the *mobile-satellite service*.
- *Radiotelex call:* A telex call, originating in or intended for a *mobile station* or a *mobile earth station*, transmitted on all or part of its route over the *radiocommunication* channels of the *mobile service* or the *mobile-satellite service*.
- *Frequency-shift telegraphy: Telegraphy* by frequency modulation in which the telegraph signal shifts the frequency of the carrier between predetermined values.
- *Facsimile:* A form of *telegraphy* for the transmission of fixed images, with or without half-tones, with a view to their reproduction in a permanent form.
- *Telephony:* A form of *telecommunication* primarily intended for the exchange of information in the form of speech (CS 1017).
- *Radiotelephone call:* A telephone call, originating in or intended for a *mobile station* or a *mobile earth station*, transmitted on all or part of its route over the *radiocommunication* channels of the *mobile service* or of the *mobile-satellite service*.
- *Simplex operation:* Operating method in which transmission is made possible alternately in each direction of a *telecommunication* channel, for example, by means of manual control[2].
- *Duplex operation:* Operating method in which transmission is possible simultaneously in both directions of a *telecommunication* channel[2].
- *Semi-duplex operation:* A method, which is *simplex operation* at one end of the circuit and *duplex operation* at the other[2].
- *Television:* A form of *telecommunication* for the transmission of transient images of fixed or moving objects.
- *Individual reception* (in the broadcasting-satellite service)*:* The reception of *emissions* from a *space station* in the *broadcasting-satellite service* by simple domestic installations and in particular those possessing small antennae.
- *Community reception* (in the broadcasting-satellite service)*:* The reception of *emissions* from a *space station* in the *broadcasting-satellite service* by receiving equipment, which in some cases may be complex and have antennae larger than those used for *individual reception*, and intended for use:

1 A graphic document records information in a permanent form and is capable of being filed and consulted; it may take the form of written or printed matter or of a fixed image.
2 In general, *duplex operation* and *semi-duplex operation* require two frequencies in *radiocommunication*; *simplex operation* may use either one or two.

- by a group of the general public at one location; or
- through a distribution system covering a limited area.

- *Telemetry:* The use of *telecommunication* for automatically indicating or recording measurements at a distance from the measuring instrument.
- *Radiotelemetry:* *Telemetry* by means of *radio waves*.
- *Space Telemetry:* The use of *telemetry* for the transmission from a *space station* of results of measurements made in a *spacecraft*, including those relating to the functioning of the *spacecraft*.
- *Telecommand:* The use of *telecommunication* for the transmission of signals to initiate, modify or terminate functions of equipment at a distance.
- *Space telecommand:* The use of *radiocommunication* for the transmission of signals to a *space station* to initiate, modify or terminate functions of equipment on an associated space object, including the *space station*.
- *Space tracking:* Determination of the *orbit*, velocity or instantaneous position of an object in space by means of *radiodetermination*, excluding *primary radar*, for the purpose of following the movement of the object.

1.5 Characteristics of emissions and radio equipment

- *Radiation:* The outward flow of energy from any source in the form of *radio waves*.
- *Emission:* *Radiation* produced, or the production of *radiation*, by a radio transmitting *station*.

  For example, the energy radiated by the local oscillator of a radio receiver would not be an emission but a *radiation*.
- *Class of emission:* The set of characteristics of an *emission*, designated by standard symbols, e.g. type of modulation of the main carrier, modulating signal, type of information to be transmitted, and also, if appropriate, any additional signal characteristics. The element of class of emission described in the Appendix 1 to this handbook.
- *Single-sideband emission:* An amplitude modulated *emission* with one sideband only.
- *Full carrier single-sideband emission:* A *single-sideband emission* without reduction of the carrier.
- *Reduced carrier single-sideband emission:* A *single-sideband emission* in which the degree of carrier suppression enables the carrier to be reconstituted and to be used for demodulation.
- *Suppressed carrier single-sideband emission:* A *single-sideband emission* in which the carrier is virtually suppressed and not intended to be used for demodulation.
- *Out-of-band emission:* *Emission* on a frequency or frequencies immediately outside the *necessary bandwidth* which results from the modulation process, but excluding *spurious emissions*.
- *Spurious emission:* *Emission* on a frequency or frequencies which are outside the *necessary bandwidth* and the level of which may be reduced without affecting the corresponding transmission of information. Spurious emissions include harmonic *emissions*, parasitic *emissions*, intermodulation products and frequency conversion products, but exclude *out-of-band emissions*.
- *Unwanted emissions:* Consist of *spurious emissions* and *out-of-band emissions*.
- *Assigned frequency band:* The frequency band within which the *emission* of a *station* is authorized; the width of the band equals the *necessary bandwidth* plus twice the absolute value of the *frequency tolerance*. Where *space stations* are concerned, the assigned frequency band includes twice the maximum Doppler shift that may occur in relation to any point of the Earth's surface.
- *Assigned frequency:* The center of the frequency band assigned to a *station*.
- *Characteristic frequency:* A frequency, which can be easily identified and measured in a given *emission*.

  A carrier frequency may, for example, be designated as the characteristic frequency.
- *Reference frequency:* A frequency having a fixed and specified position with respect to the *assigned frequency*. The displacement of this frequency with respect to the *assigned frequency* has the same absolute value and sign that the displacement of the *characteristic frequency* has with respect to the center of the frequency band occupied by the *emission*.
- *Frequency tolerance:* The maximum permissible departure by the center frequency of the frequency band occupied by an *emission* from the *assigned frequency* or, by the *characteristic frequency* of an *emission* from the *reference frequency*. Table of frequency tolerance presented in Appendix 2 to this Handbook.

  The frequency tolerance is expressed in parts in 10^6 or in hertz.

- *Necessary bandwidth:* For a given *class of emission*, the width of the frequency band which is just sufficient to ensure the transmission of information at the rate and with the quality required under specified conditions.
- *Occupied bandwidth:* The width of a frequency band such that, below the lower and above the upper frequency limits, the *mean powers* emitted are each equal to a specified percentage ß/2 of the total *mean power* of a given *emission*.

  Unless otherwise specified in an ITU-R Recommendation for the appropriate *class of emission*, the value of ß/2 should be taken as 0.5%.
- *Right-hand* (clockwise) *polarized wave:* An elliptically-or circularly-polarized wave, in which the electric field vector, observed in any fixed plane, normal to the direction of propagation, whilst looking in the direction of propagation, rotates with time in a right-hand or clockwise direction.
- *Left-hand* (anticlockwise) *polarized wave:* An elliptically-or circularly-polarized wave, in which the electric field vector, observed in any fixed plane, normal to the direction of propagation, whilst looking in the direction of propagation, rotates with time in a left-hand or anticlockwise direction.
- *Power:* Whenever the power of a radio transmitter, etc. is referred to it shall be expressed in one of the following forms, according to the class of *emission*, using the arbitrary symbols indicated:
  - *peak envelope power* (*P*X or *p*X);
  - *mean power* (*P*Y or *p*Y);
  - *carrier power* (*P*Z or *p*Z).

  For different *classes of emission*, the relationships between *peak envelope power*, *mean power* and *carrier power*, under the conditions of normal operation and of no modulation, are contained in ITU-R Recommendations which may be used as a guide.

  For use in formulae, the symbol *p* denotes power expressed in watts and the symbol *P* denotes power expressed in decibels relative to a reference level.
- *Peak envelope power* (of a radio transmitter)*:* The average power supplied to the antenna transmission line by a transmitter during one radio frequency cycle at the crest of the modulation envelope taken under normal operating conditions.
- *Mean power* (of a radio transmitter)*:* The average power supplied to the antenna transmission line by a transmitter during an interval of time sufficiently long compared with the lowest frequency encountered in the modulation taken under normal operating conditions.
- *Carrier power* (of a radio transmitter)*:* The average power supplied to the antenna transmission line by a transmitter during one radio frequency cycle taken under the condition of no modulation.
- *Gain of an antenna:* The ratio, usually expressed in decibels, of the power required at the input of a loss-free reference antenna to the power supplied to the input of the given antenna to produce, in a given direction, the same field strength or the same power flux-density at the same distance. When not specified otherwise, the gain refers to the direction of maximum *radiation*. The gain may be considered for a specified polarization.

  Depending on the choice of the reference antenna a distinction is made between:

  a) absolute or isotropic gain (G_i), when the reference antenna is an isotropic antenna isolated in space;

  b) gain relative to a half-wave dipole (G_d), when the reference antenna is a half-wave dipole isolated in space whose equatorial plane contains the given direction;

  c) gain relative to a short vertical antenna (G_v), when the reference antenna is a linear conductor, much shorter than one quarter of the wavelength, normal to the surface of a perfectly conducting plane which contains the given direction.
- *Equivalent isotropically radiated power (e.i.r.p.):* The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna *(absolute or isotropic gain)*.
- *Effective radiated power (e.r.p.)* (in a given direction)*:* The product of the power supplied to the antenna and its *gain relative to a half-wave dipole* in a given direction.
- *Effective monopole radiated power (e.m.r.p.)* (in a given direction)*:* The product of the power supplied to the antenna and its *gain relative to a short vertical antenna* in a given direction.
- *Troposphere scatter:* The propagation of *radio waves* by scattering as a result of irregularities or discontinuities in the physical properties of the troposphere.
- *Ionospheric scatter:* The propagation of *radio waves* by scattering as a result of irregularities or discontinuities in the ionization of the ionosphere.

1.6 Frequency sharing

- *Interference:* The effect of unwanted energy due to one or a combination of *emissions*, *radiations*, or inductions upon reception in a *radiocommunication* system, manifested by any performance degradation, misinterpretation, or loss of information which could be extracted in the absence of such unwanted energy.
- *Permissible interference*[3]*:* Observed or predicted *interference* which complies with quantitative *interference* and sharing criteria contained in these Regulations or in ITU-R Recommendations or in special agreements as provided for in these Regulations.
- *Accepted interference*[3]*: Interference* at a higher level than that defined as *permissible interference* and which has been agreed upon between two or more administrations without prejudice to other administrations.
- *Harmful interference: Interference* which endangers the functioning of a *radionavigation service* or of other *safety services* or seriously degrades, obstructs, or repeatedly interrupts a *radiocommunication service* operating in accordance with Radio Regulations (CS).
- *Protection ratio* (R.F.)*:* The minimum value of the wanted-to-unwanted signal ratio, usually expressed in decibels, at the receiver input, determined under specified conditions such that a specified reception quality of the wanted signal is achieved at the receiver output.
- *Coordination area:* When determining the need for coordination, the area surrounding an *earth station* sharing the same frequency band with *terrestrial stations*, or surrounding a transmitting *earth station* sharing the same bidirectionally allocated frequency band with receiving *earth stations*, beyond which the level of *permissible interference* will not be exceeded and coordination is therefore not required.
- *Coordination contour:* The line enclosing the *coordination area*.
- *Coordination distance:* When determining the need for coordination, the distance on a given azimuth from an *earth station* sharing the same frequency band with *terrestrial stations*, or from a transmitting *earth station* sharing the same bidirectionally allocated frequency band with receiving *earth stations*, beyond which the level of *permissible interference* will not be exceeded and coordination is therefore not required.
- *Equivalent satellite link noise temperature:* The noise temperature referred to the output of the receiving antenna of the *earth station* corresponding to the radio frequency noise power which produces the total observed noise at the output of the *satellite link* excluding noise due to *interference* coming from *satellite links* using other *satellites* and from terrestrial systems.
- *Effective boresight area* (of a steerable satellite beam)*:* An area on the surface of the Earth within which the boresight of a *steerable satellite beam* is intended to be pointed.

  There may be more than one unconnected effective boresight area to which a single *steerable satellite beam* is intended to be pointed.
- *Effective antenna gain contour* (of a steerable satellite beam)*:* An envelope of antenna gain contours resulting from moving the boresight of a *steerable satellite beam* along the limits of the *effective boresight area*.

1.7 Technical terms relating to space

- *Deep space:* Space at distances from the Earth equal to, or greater than, 2×10^6 km.
- *Spacecraft:* A man-made vehicle which is intended to go beyond the major portion of the Earth's atmosphere.
- *Satellite:* 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.
- *Active satellite:* A *satellite* carrying a *station* intended to transmit or retransmit radiocommunication signals.
- *Reflecting satellite:* A *satellite* intended to reflect radiocommunication signals.
- *Active sensor:* A measuring instrument in the *earth exploration-satellite service* or in the *space research service* by means of which information is obtained by transmission and reception of *radio waves*.
- *Passive sensor:* A measuring instrument in the *earth exploration-satellite service* or in the *space research service* by means of which information is obtained by reception of *radio waves* of natural origin.
- *Orbit:* The path, relative to a specified frame of reference, described by the center of mass of a *satellite* or other object in space subjected primarily to natural forces, mainly the force of gravity.

3 The terms "permissible interference" and "accepted interference" are used in the coordination of frequency assignments between administrations.

- *Inclination of an orbit* (of an earth satellite): The angle determined by the plane containing the *orbit* and the plane of the Earth's equator measured in degrees between 0º and 180º and in counter-clockwise direction from the Earth's equatorial plane at the ascending node of the *orbit*.
- *Period* (of a satellite)*:* The time elapsing between two consecutive passages of a *satellite* through a characteristic point on its *orbit*.
- *Altitude of the apogee* or *of the perigee:* The altitude of the apogee or perigee above a specified reference surface serving to represent the surface of the Earth.
- *Geosynchronous satellite:* An earth *satellite* whose period of revolution is equal to the period of rotation of the Earth about its axis.
- *Geostationary satellite:* A *geosynchronous satellite* whose circular and direct *orbit* lies in the plane of the Earth's equator and which thus remains fixed relative to the Earth; by extension, a *satellite* which remains approximately fixed relative to the Earth.
- *Geostationary-satellite orbit:* The *orbit* of a *geosynchronous satellite* whose circular and direct *orbit* lies in the plane of the Earth's equator.
- *Steerable satellite beam:* A *satellite* antenna beam that can be re-pointed.

1.8 Additional definitions

- *Electromagnetic Wave polarization:* The orientation of electric field wave vector respect to a given direction.
- *Monitoring station:* An equipped station for doing measurement and investigation of received electromagnetic wave characteristics and authority.
- *National spectrum allocation chart:* A painted strips of nationally employed radio frequency allocation plan on a $70^{cm} \times 100^{cm}$ (or A0) sized paper sheet, which presents frequencies of edges of the allocated sub-bands, priority of allocations, type of radiocommunication services to which the frequency bands are allocated and informative notes. This chart may be updated in after the each World Radiocommunication Conference (WRC).
- *Short Range Device*: The term "Short Range Device" (SRD) is intended to cover the radio transmitters which provide either unidirectional or bi-directional communication and which have low capability of causing interference to other radio equipment. SRDs use either integral, dedicated or external antennas and all modes of modulation can be permitted subject to relevant standards. Due to the many different services provided by these devices, no description can be exhaustive; however, the following categories are amongst those covered:
    - Telecommand and Telecontrol
    - Telemetry
    - Alarms
    - Speech and Video.

  ITU-R SM.1538 recommendation is a comprehensive reference to the utilized SRD applications world wide.
- *LORAN*: Is a long range radio navigation systems used by ships or crafts to obtain a position fix. The system is based on the difference in transit time required for pulsed radio signals to arrive at the LORAN receiver from multiple synchronized omnidirectional transmitters. The receiving set provides a direct reading, in microsecond, of the time difference is measured between signals
- *MSI*: In the maritime mobile service, these frequencies are used exclusively for the transmission of maritime safety information (MSI) (including meteorological and navigational warnings and urgent information) by coast stations to ships, by means of narrow-band direct-printing telegraphy.
- *NAVTEX:* The NAVTEX system is used for the automatic broadcast of localized Maritime Safety Information (MSI) using Radio Telex (also known as Narrow Band Direct Printing, or NBDP). The system mainly operates in the Medium Frequency radio band just above and below the old 500 kHz Morse Distress frequency. System range is generally 300 or so nautical miles from the transmitter. The NAVTEX system is designed to be used in GMDSS Sea Area A2, and is utilized mainly by those countries with relatively small areas of coastline and/or sea areas to cover. Major areas of NAVTEX coverage include the Mediterranean Sea, the North Sea, coastal areas around Japan and areas around the North American continent.
- *DME (DISTANCE MEASURING EQUIPMENT)*: A system in the band 960-1 215 MHz in which the aircraft interrogator transmits a series of coded pulses which are received at the ground transponder and retransmitted on a new frequency 50 µs later. By timing the period from transmission of the interrogating pulse to the reception of the transponder reply, a measure is obtained of the distance of the aircraft from the transponder. Usually associated with ILS, MLS or VOR facility. When associated with a VOR, the

DME facility is co-located with the VOR facility.

- *SSR (SECONDARY SURVEILLANCE RADAR)*: The SSR system is used as an aid to air traffic services and it consists of two components: a ground interrogator and an airborne transponder. The ground interrogator can operate in different modes (A, B, C, D). Mode A is used to initiate a response from the aircraft transponder for identification and tracking; Mode C is used to initiate automatic pressure altitude transmission. The interrogation and control transmissions are in the ground to air direction on the centre frequency 1 030 MHz. The reply transmission, in the air to ground direction, is on the centre frequency 1 090 MHz. The transponder antenna system, installed onboard aircraft has an omnidirectional antenna pattern in the horizontal plane. The SSR system is intended to provide service under all weather conditions at all bearings and at all distances between 1.85 km and 370 km, and at all operational altitudes up to at least 30 480 m above mean sea level between at least the angles of elevation of 0.5° and 45°.
- *MLS (MICROWAVE LANDING SYSTEMS):* MLS is a precision approach and landing guidance system that provides position information and various ground-to-air data. The position information is provided in a wide coverage sector and is determined by an azimuth angle measurement, an elevation angle measurement and a range (distance) measurement. The MLS equipment operates on a frequency pairing basis with the DME equipment. Radiators in a linear array are fed sequentially from a microwave power source which produces a Time Referenced Scanning Beam (TRSB), that is equivalent to the source moving along a linear track. An aircraft will receive the signal with a Doppler shift which depends on the component of the apparent velocity of the source towards the aircraft, and is proportional to the cosine of the angle between the aircraft and the line of the transmitting array. To eliminate effects of frequency drift and Doppler shift due to the movement of the aircraft, the same r.f. signal is simultaneously radiated from a antenna. Azimuth guidance is obtained from a horizontal transmitting array, while a vertical array gives guidance in the elevation plane. A measure of the distance to touchdown is obtained using a Precision DME in a frequency paired relationship with the MLS. The sharing criteria between MLS and radionavigation-satellite service is available in ITU-R M.1582
- *GLONASS:* The Global Navigation Satellite System (GLONASS) is based on a constellation of active satellites which continuously transmit coded signals in two frequency bands (1602.5625 - 1615.5 MHz and 1246.4375 – 1256.5 MHz), which can be received by users anywhere on the Earth's surface to identify their position and velocity in real time based on ranging measurements. The system is a counterpart to the United States Global Positioning System (GPS) and both systems share the same principles in the data transmission and positioning methods. GLONASS is managed for the Russian Federation Government by the Russian Space Forces and the system is operated by the Coordination Scientific Information Center (KNITs) of the Ministry of Defense of the Russian Federation. The operational space segment of GLONASS consists of 21 satellites in 3 orbital planes, with 3 on-orbit spares. The three orbital planes are separated 120 degrees, and the satellites within the same orbit plane by 45 degrees. Each satellite operates in circular 19,100 km orbits at an inclination angle of 64.8 degrees and each satellite completes an orbit in approximately 11 hours 15 minutes. ITU-R recommendation M.1317 provides characteristics of GLONASS radionavigation system.
- *GPS:* The Navigation System with Timing And Ranging (NAVSTAR) Global Positioning System (GPS) was conceived as a ranging system from known positions of satellites in space to unknown positions on land, sea, in air and space. The GPS constellation consists of 24 satellites in 6 orbital planes with 4 satellites in each plane. The ascending nodes of the orbital planes are separated by 60 degrees and the planes are inclined 55 degrees. Each GPS satellite is in an approximately circular, semi-synchronous (20,200 km altitude) orbit. The orbits of the GPS satellites are available by broadcast - superimposed on the GPS pseudorandom noise codes (PRN), or after post-processing to get precise ephemerides, they are available from organizations such as the Jet Propulsion Lab (JPL) or the International Geodetic Service (IGS) among others. The GPS receivers convert the satellite's signals into position, velocity, and time estimates for navigation, positioning, time dissemination, or geodesy. Each GPS satellite transmits data on two frequencies, L1 (1575.42 MHz) and L2 (1227.60 MHz). ITU-R recommendation M.1088 provides the characteristics of GPS radionavigation system.

2
National Frequency Allocations Table

2.1 Introduction

Table of frequency allocations presented herewith constitutes the document for regulation of the frequency allocations and the frequency utilization in the Sultanate of Oman by legal and physical entities which engaged in ordering, development and purchasing radio-electronic installations (REI) or in planning frequency use by the existing REI. The Table, however, does not present any right for a frequency band use (or a specific frequency) for development, production, import and operation of the REI without issue of duly completed authorization by Telecommunications Regulatory Authority (TRA) which is empowered for this duty by the Government of the Sultanate of Oman.

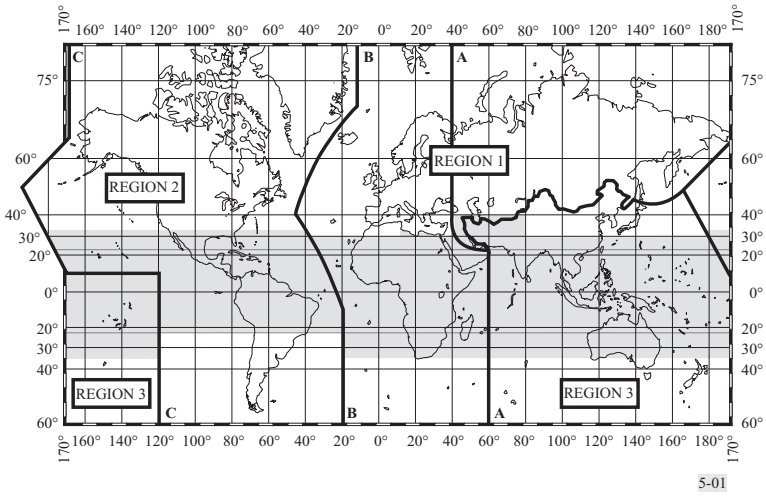
The content of frequency allocation table and accompanied regulations are always under the optimization of the Telecommunications Regulatory Authority for embracing the increasing demands of radio telecommunication sector, as far as compatible with national Telecommunication Act, international trends and existing applications.

2.2 Description of the Table

Regions and areas

For the allocation of frequencies the world has been divided into three Regions[1] as shown on the following map and described after map:

Figure 1. The radio communication Regions (shortly Regions) of world



The shaded part represents the Tropical Zones. Different Regions and Tropical Zones are distinguished in accordance to the following definitions in detail:

- *Region 1:* Region 1 includes the area limited on the east by line A (lines A, B and C are defined below) and on the west by line B, excluding any of the territory of the Islamic Republic of Iran which lies between these limits. It also includes the whole of the territory of Armenia, Azerbaijan, the Russian Federation, Georgia, Kazakhstan, Mongolia, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan, Turkey and Ukraine and the area to the north of Russian Federation which lies between lines A and C.
- *Region 2:* Region 2 includes the area limited on the east by line B and on the west by line C.
- *Region 3:* Region 3 includes the area limited on the east by line C and on the west by line A, except any of the territory of Armenia, Azerbaijan, the Russian Federation, Georgia, Kazakhstan, Mongolia, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan, Turkey and Ukraine and the area to the north of Russian Federation. It also includes that part of the territory of the Islamic Republic of Iran lying outside of those limits.
- *Tropical Zone*: The whole of that area in Region 2 between the Tropics of Cancer and Capricorn, the whole of that area in Regions 1 and 3 contained between the parallels 30° North and 35° South with the addition of i) the area contained between the meridians 40° East and 80° East of Greenwich and the parallels 30° North and 40° North; and ii) that part of Libyan Arab Jamahiriya north of parallel 30° North. In Region 2, the Tropical Zone may be extended to parallel 33° North, subject to special agreements

1 It should be noted that where the words “regions” or “regional” are without a capital “R” in these Regulations, they do not relate to the three Regions here defined for purposes of frequency allocation.

between the countries concerned in that Region.

The lines A, B and C are defined as follows:

- *Line A:* Line A extends from the North Pole along meridian 40° East of Greenwich to parallel 40° North; thence by great circle arc to the intersection of meridian 60° East and the Tropic of Cancer; thence along the meridian 60° East to the South Pole.
- *Line B:* Line B extends from the North Pole along meridian 10° West of Greenwich to its intersection with parallel 72° North; thence by great circle arc to the intersection of meridian 50° West and parallel 40° North; thence by great circle arc to the intersection of meridian 20° West and parallel 10° South; thence along meridian 20° West to the South Pole.
- *Line C:* Line C extends from the North Pole by great circle arc to the intersection of parallel 65° 30′ North with the international boundary in Bering Strait; thence by great circle arc to the intersection of meridian 165° East of Greenwich and parallel 50° North; thence by great circle arc to the intersection of meridian 170° West and parallel 10° North; thence along parallel 10° North to its intersection with meridian 120° West; thence along meridian 120° West to the South Pole.

For the purposes of these Regulations, the term “African Broadcasting Area” means *a) A*frican countries, parts of countries, territories and groups of territories situated between the parallels 40° South and 30° North; *b)* islands in the Indian Ocean west of meridian 60° East of Greenwich, situated between the parallel 40° South and the great circle arc joining the points 45° East, 11° 30′ North and 60° East, 15° North; and *c)* islands in the Atlantic Ocean east of line B (as defined above) of these Regulations, situated between the parallels 40° South and 30° North. Television-signal broadcasting in this region is governed by Geneva-89 regional agreement which includes the territory of Oman.

The “European Broadcasting Area” is bounded on the west by the western boundary of Region 1, on the east by the meridian 40° East of Greenwich and on the south by the parallel 30° North so as to include the northern part of Saudi Arabia and that part of those countries bordering the Mediterranean within these limits. In addition, Armenia, Azerbaijan, Georgia and those parts of the territories of Iraq, Jordan, Syrian Arab Republic, Turkey and Ukraine lying outside the above limits are included in the European Broadcasting Area.

The “European Maritime Area” is bounded to the north by a line extending along parallel 72° North from its intersection with meridian 55° East of Greenwich to its intersection with meridian 5° West, then along meridian 5° West to its intersection with parallel 67° North, thence along parallel 67° North to its intersection with meridian 32° West; to the west by a line extending along meridian 32° West to its intersection with parallel 30° North; to the south by a line extending along parallel 30° North to its intersection with meridian 43° East; to the east by a line extending along meridian 43° East to its intersection with parallel 60° North, thence along parallel 60° North to its intersection with meridian 55° East and thence along meridian 55° East to its intersection with parallel 72° North.

A sub-Region is an area consisting of two or more countries in the same Region.

Categories of services and allocations

Primary and secondary services:

Where, in a box of the Table in Section 3.3 of this chapter, a band is indicated as allocated to more than one service, either on a worldwide or Regional basis, such services are listed in the following order:

a) services the names of which are printed in “capitals” (example: FIXED); these are called “primary” services. Where a band is indicated in a footnote of the Table as allocated to a service “on a primary basis”, in an area smaller than a Region, or in a particular country, this is a primary service only in that area or country.

b) services the names of which are printed in “normal characters” (example: Mobile); these are called “secondary” services. Stations of a secondary service shall not cause harmful interference to stations of primary services to which frequencies are already assigned or to which frequencies may be assigned at a later date. Moreover, Stations of a secondary service cannot claim protection from harmful interference from stations of a primary service to which frequencies are already assigned or may be assigned at a later date. However they can claim protection, from harmful interference from stations of the same or other secondary service(s) to which frequencies may be assigned at a later date. Where a band is indicated in a footnote of the Table as allocated to a service “on a secondary basis” in an area smaller than a Region, or in a particular country, this is a secondary service

Additional allocations:

Where a band is indicated in a footnote of the Table as “also allocated” to a service in an area smaller than a Region, or in a particular country, this is an “additional” allocation, i.e. an allocation which is added in this area or in this country to the service or services which are indicated in the Table. If the footnote does not include any restriction on the service or services concerned apart from the restriction to operate only in a particular area or country, stations of this service or these services shall have equality of right to operate with stations of the other

primary service or services indicated in the Table.

Alternative allocations:

Where a band is indicated in a footnote of the Table as “allocated” to one or more services in an area smaller than a Region, or in a particular country, this is an “alternative” allocation, i.e. an allocation which replaces, in this area or in this country, the allocation indicated in the Table. If the footnote does not include any restriction on stations of the service or services concerned, apart from the restriction to operate only in a particular area or country, these stations of such a service or services shall have an equality of right to operate with stations of the primary service or services, indicated in the Table, to which the band is allocated in other areas or countries.

Miscellaneous provisions

Where it is indicated in these Regulations that a service or stations in a service may operate in a specific frequency band subject to not causing harmful interference to another service or to another station in the same service, this means also that the service which is subject to not causing harmful interference cannot claim protection from harmful interference caused by the other service or other station in the same service. Vice versa, where it is indicated in these Regulations that a service or stations in a service may operate in a specific frequency band subject to not claiming protection from another service or from another station in the same service, this means also that the service which is subject to not claiming protection shall not cause harmful interference to the other service or other station in the same service.

Except if otherwise specified in a footnote, the term “fixed service”, where appearing in Section 3.3 of this chapter, does not include systems using ionospheric scatter propagation.

Table columns

The heading of the Table in Section 3.3 of this chapter includes four columns, three left columns correspond to one of the Regions (Section 3.2.1) and the fourth columns presents national frequency allocations. Where an allocation occupies the whole three left columns of the Table or only one or two of these three columns, this is a worldwide allocation or a Regional allocation, respectively. The frequency band referred to in each allocation is indicated in the left-hand top corner of the part of the Table concerned. The order of radio communication service listing in each band does not indicate relative priority within each category (Section 3.2.2). In the case where there is a parenthetical addition to an allocation in the Table, that service allocation is restricted to the type of operation so indicated.

Column four not only indicates the frequency bands, but also identifies the category of users allowed to utilize it in the territory of Oman. One of following categories is assigned for each frequency band:

MILITARY:	Frequency bands provided exclusively for the use of stations for the national security purpose;
CIVIL:	Frequency bands provided exclusively for the use of stations for those purpose except security;
SHARED:	Frequency band provided for the shared use of both Military and Civil user categories.

The footnote references which appear in the three left columns of Table below the allocated service or services apply to more than one of the allocated services, or to the whole of the allocation concerned. If the footnote references appear to the right of the name of a service, it is applicable only to that particular service. In certain cases, the names of countries appearing in the footnotes have been simplified in order to shorten the text. Furthermore, applicable Region one footnotes under each frequency band analyzed and the most relevant ones referenced under the corresponding bands in the fourth column. The text of each footnote (international and national) is provided after the Table.

Assignment of the operational frequencies to be used by the civil and military REI in the corresponding civil, military or shared bands as well as designating the frequency bands (specific frequencies) for development of new (or modernized) REI is the duty of the Telecommunications Regulatory Authority (TRA) of the Sultanate of Oman.

2.3 Table of Frequency Allocations

9 – 117.6 kHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
Below 8.3	(Not allocated) 5.53 5.54		**Below 8.3** (Not allocated)
8.3-9	METEOROLOGICAL AIDS 5.54A 5.54B 5.54C		**8.3-9 (SHARED)** METEOROLOGICAL AIDS 5.54A
9-11.3	METEOROLOGICAL AIDS 5.54A RADIONAVIGATION		**9-11.3 (SHARED)** METEOROLOGICAL AIDS 5.54A RADIONAVIGATION
11.3-14	RADIONAVIGATION		**11.3-14 (SHARED)** RADIONAVIGATION
14-19.95	FIXED MARITIME MOBILE 5.57 5.55 5.56		**14-19.95 (SHARED)** FIXED MARITIME MOBILE 5.57 5.56
19.95-20.05	STANDARD FREQUENCY AND TIME SIGNAL (20 kHz)		**19.95-20.05 (SHARED)** STANDARD FREQUENCY AND TIME SIGNAL (20 kHz)
20.05-70	FIXED MARITIME MOBILE 5.57 5.56 5.58		**20.05-70 (SHARED)** FIXED MARITIME MOBILE 5.57 5.56
70-72 RADIONAVIGATION 5.60	**70-90** FIXED MARITIME MOBILE 5.57 MARITIME RADIO- NAVIGATION 5.60 Radiolocation	**70-72** RADIONAVIGATION 5.60 Fixed Maritime mobile 5.57 5.59	**70-72 (SHARED)** RADIONAVIGATION 5.60
72-84 FIXED MARITIME MOBILE 5.57 RADIONAVIGATION 5.60 5.56		**72-84** FIXED MARITIME MOBILE 5.57 RADIONAVIGATION 5.60	**72-84 (SHARED)** FIXED MARITIME MOBILE 5.57 RADIONAVIGATION 5.60 5.56
84-86 RADIONAVIGATION 5.60		**84-86** RADIONAVIGATION 5.60 Fixed Maritime mobile 5.57 5.59	**84-86 (SHARED)** RADIONAVIGATION 5.60
86-90 FIXED MARITIME MOBILE 5.57 RADIONAVIGATION 5.56	5.61	**86-90** FIXED MARITIME MOBILE 5.57 RADIONAVIGATION 5.60	**86-90 (SHARED)** FIXED MARITIME MOBILE 5.57 RADIONAVIGATION 5.56
90-110	RADIONAVIGATION 5.62 Fixed 5.64		**90-110 (SHARED)** RADIONAVIGATION 5.62 Fixed 5.64
110-112 FIXED MARITIME MOBILE RADIONAVIGATION 5.64	**110-130** FIXED MARITIME MOBILE MARITIME RADIO- NAVIGATION 5.60 Radiolocation	**110-112** FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64	**110-112 (SHARED)** FIXED MARITIME MOBILE RADIONAVIGATION 5.64
112-115 RADIONAVIGATION 5.60		**112-117.6** RADIONAVIGATION 5.60	**112-115 (SHARED)** RADIONAVIGATION 5.60
115-117.6 RADIONAVIGATION 5.60 Fixed Maritime mobile 5.64 5.66	5.61 5.64	Fixed Maritime mobile 5.64 5.65	**115-117.6 (SHARED)** RADIONAVIGATION 5.60 Fixed Maritime mobile 5.64

117.6 – 405 kHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
117.6-126 FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64		**117.6-126** FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64	**117.6-126 (SHARED)** FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64
126-129 RADIONAVIGATION 5.60		**126-129** RADIONAVIGATION 5.60 Fixed Maritime mobile 5.64 5.65	**126-129 (SHARED)** RADIONAVIGATION 5.60
129-130 FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64		**129-130** FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64	**129-130 (SHARED)** FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64
130-135.7 FIXED MARITIME MOBILE 5.64 5.67	**130-135.7** FIXED MARITIME MOBILE 5.64	**130-135.7** FIXED MARITIME MOBILE RADIONAVIGATION 5.64	**130-135.7 (SHARED)** FIXED MARITIME MOBILE 5.64
135.7-137.8 FIXED MARITIME MOBILE Amateur 5.67A 5.64 5.67 5.67B	**135.7-137.8** FIXED MARITIME MOBILE Amateur 5.67A 5.64	**135.7-137.8** FIXED MARITIME MOBILE RADIONAVIGATION Amateur 5.67A 5.64 5.67B	**135.7-137.8 (SHARED)** FIXED MARITIME MOBILE Amateur 5.67A 5.64
137.8-148.5 FIXED MARITIME MOBILE 5.64 5.67	**137.8-160** FIXED MARITIME MOBILE	**137.8-160** FIXED MARITIME MOBILE RADIONAVIGATION	**137.8-148.5 (SHARED)** FIXED MARITIME MOBILE 5.64
148.5-255 BROADCASTING 5.68 5.69 5.70	5.64	5.64	**148.5-200 (CIVIL)** BROADCASTING
	160-190 FIXED	**160-190** FIXED Aeronautical radionavigation	
	190-200 AERONAUTICAL RADIONAVIGATION		
	200-275 AERONAUTICAL RADIONAVIGATION Aeronautical mobile	**200-285** AERONAUTICAL RADIONAVIGATION Aeronautical mobile	**200-255 (SHARED)** AERONAUTICAL RADIONAVIGATION
255-283.5 BROADCASTING AERONAUTICAL RADIONAVIGATION 5.70 5.71	**275-285** AERONAUTICAL RADIONAVIGATION Aeronautical mobile Maritime radionavigation (radiobeacons)		**255-283.5 (SHARED)** AERONAUTICAL RADIONAVIGATION
283.5-315 AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (radiobeacons) 5.73 5.72 5.74	**285-315** AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (radiobeacons) 5.73		**283.5-315 (SHARED)** AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (radiobeacons) 5.73 5.74
315-325 AERONAUTICAL RADIONAVIGATION Maritime radionavigation (radiobeacons) 5.73 5.72 5.75	**315-325** MARITIME RADIONAVIGATION (radiobeacons) 5.73 Aeronautical radionavigation	**315-325** AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (radiobeacons) 5.73	**315-325 (SHARED)** AERONAUTICAL RADIONAVIGATION Maritime radionavigation (radiobeacons) 5.73
325-405 AERONAUTICAL RADIONAVIGATION 5.72	**325-335** AERONAUTICAL RADIONAVIGATION Aeronautical mobile Maritime radionavigation (radiobeacons)	**325-405** AERONAUTICAL RADIONAVIGATION Aeronautical mobile	**325-405 (SHARED)** AERONAUTICAL RADIONAVIGATION
	335-405 AERONAUTICAL RADIONAVIGATION Aeronautical mobile		

405 – 1 800 kHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
405-415 RADIONAVIGATION 5.76 5.72	**405-415** RADIONAVIGATION 5.76 Aeronautical mobile		**405-415 (SHARED)** RADIONAVIGATION 5.76
415-435 MARITIME MOBILE 5.79 AERONAUTICAL RADIONAVIGATION	**415-472** MARITIME MOBILE 5.79 Aeronautical radionavigation 5.77 5.80		**415-435 (SHARED)** MARITIME MOBILE 5.79 AERONAUTICAL RADIONAVIGATION
435-472 MARITIME MOBILE 5.79 Aeronautical radionavigation 5.77 5.82	5.78 5.82		**435-472 (SHARED)** MARITIME MOBILE 5.79 Aeronautical radionavigation 5.82
472-479 MARITIME MOBILE 5.79 Amateur 5.80A Aeronautical radionavigation 5.77 5.80 5.80B 5.82			**472-479 (SHARED)** MARITIME MOBILE 5.79 Amateur 5.80A Aeronautical radionavigation 5.77 5.80B 5.82
479-495 MARITIME MOBILE 5.79 5.79A Aeronautical radionavigation 5.77 5.82	**479-495** MARITIME MOBILE 5.79 5.79A Aeronautical radionavigation 5.77 5.80 5.82		**479-495 (SHARED)** MARITIME MOBILE 5.79 5.79A Aeronautical radionavigation 5.77 5.82
495-505 MARITIME MOBILE			**495-505 (SHARED)** MARITIME MOBILE
505-526.5 MARITIME MOBILE 5.79 5.79A 5.84 AERONAUTICAL RADIONAVIGATION 5.72	**505-510** MARITIME MOBILE 5.79	**505-526.5** MARITIME MOBILE 5.79 5.79A 5.84 AERONAUTICAL RADIONAVIGATION Aeronautical mobile Land mobile	**505-526.5 (SHARED)** MARITIME MOBILE 5.79 5.79A 5.84 AERONAUTICAL RADIONAVIGATION
	510-525 MOBILE 5.79A 5.84 AERONAUTICAL RADIONAVIGATION		
526.5-1 606.5 BROADCASTING 5.87 5.87A	**525-535** BROADCASTING 5.86 AERONAUTICAL RADIONAVIGATION	**526.5-535** BROADCASTING Mobile 5.88	**526.5-1 606.5 (CIVIL)** BROADCASTING
	535-1 605 BROADCASTING	**535-1 606.5** BROADCASTING	
1 606.5-1 625 FIXED MARITIME MOBILE 5.90 LAND MOBILE 5.92	**1 605-1 625** BROADCASTING 5.89 5.90	**1 606.5-1 800** FIXED MOBILE RADIOLOCATION RADIONAVIGATION	**1 606.5-1 625 (SHARED)** FIXED MARITIME MOBILE 5.90 LAND MOBILE
1 625-1 635 RADIOLOCATION 5.93	**1 625-1 705** FIXED MOBILE		**1 625-1 635 (SHARED)** RADIOLOCATION
1 635-1 800 FIXED MARITIME MOBILE 5.90 LAND MOBILE 5.92 5.96	BROADCASTING 5.89 Radiolocation 5.90		**1 635-1 800 (SHARED)** FIXED MARITIME MOBILE 5.90 LAND MOBILE 5.92
	1 705-1 800 FIXED MOBILE RADIOLOCATION AERONAUTICAL RADIONAVIGATION	5.91	

1 800 – 2 501 kHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
1 800-1 810 RADIOLOCATION 5.93	**1 800-1 850** AMATEUR	**1 800-2 000** AMATEUR FIXED MOBILE except aeronautical mobile RADIONAVIGATION Radiolocation	**1 800-1 810 (SHARED)** RADIOLOCATION
1 810-1 850 AMATEUR 5.98 5.99 5.100 5.101			**1 810-1 850 (CIVIL)** AMATEUR
1 850-2 000 FIXED MOBILE except aeronautical mobile 5.92 5.96 5.103	**1 850-2 000** AMATEUR FIXED MOBILE except aeronautical mobile RADIOLOCATION RADIONAVIGATION 5.102	5.97	**1 850-2 000 (SHARED)** FIXED MOBILE except aeronautical mobile 5.92 5.103
2 000-2 025 FIXED MOBILE except aeronautical mobile (R) 5.92 5.103	**2 000-2 065** FIXED MOBILE		**2 000-2 025 (SHARED)** FIXED MOBILE except aeronautical mobile (R) 5.92 5.103
2 025-2 045 FIXED MOBILE except aeronautical mobile (R) Meteorological aids 5.104 5.92 5.103			**2 025-2 045 (SHARED)** FIXED MOBILE except aeronautical mobile (R) Meteorological aids 5.104 5.92 5.103
2 045-2 160 FIXED MARITIME MOBILE LAND MOBILE 5.92	**2 065-2 107** MARITIME MOBILE 5.105 5.106		**2 045-2 160 (SHARED)** FIXED MARITIME MOBILE LAND MOBILE 5.92
2 160-2 170 RADIOLOCATION 5.93 5.107	**2 107-2 170** FIXED MOBILE		**2 160-2 170 (SHARED)** RADIOLOCATION
2 170-2 173.5	MARITIME MOBILE		**2 170-2 173.5 (SHARED)** MARITIME MOBILE
2 173.5-2 190.5	MOBILE (distress and calling) 5.108 5.109 5.110 5.111		**2 173.5-2 190.5 (SHARED)** MOBILE (distress and calling) 5.108 5.109 5.110 5.111
2 190.5-2 194	MARITIME MOBILE		**2 190.5-2 194 (SHARED)** MARITIME MOBILE
2 194-2 300 FIXED MOBILE except aeronautical mobile (R) 5.92 5.103 5.112	**2 194-2 300** FIXED MOBILE 5.112		**2 194-2 300 (SHARED)** FIXED MOBILE except aeronautical mobile (R) 5.92 5.103
2 300-2 498 FIXED MOBILE except aeronautical mobile (R) BROADCASTING 5.113 5.103	**2 300-2 495** FIXED MOBILE BROADCASTING 5.113		**2 300-2 498 (SHARED)** FIXED MOBILE except aeronautical mobile (R) BROADCASTING 5.113 5.103
2 498-2 501 STANDARD FREQUENCY AND TIME SIGNAL (2 500 kHz)	**2 495-2 501** STANDARD FREQUENCY AND TIME SIGNAL (2 500 kHz)		**2 498-2 501 (SHARED)** STANDARD FREQUENCY AND TIME SIGNAL (2 500 kHz)

2 501 – 3 950 kHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
2 501-2 502	STANDARD FREQUENCY AND TIME SIGNAL Space Research		**2 501-2 502 (SHARED)** STANDARD FREQUENCY AND TIME SIGNAL Space Research
2 502-2 625 FIXED MOBILE except aeronautical mobile (R) 5.92 5.103 5.114	**2 502-2 505** STANDARD FREQUENCY AND TIME SIGNAL		**2 502-2 625 (SHARED)** FIXED MOBILE except aeronautical mobile (R) 5.92 5.103
	2 505-2 850 FIXED MOBILE		
2 625-2 650 MARITIME MOBILE MARITIME RADIONAVIGATION 5.92			**2 625-2 650 (SHARED)** MARITIME MOBILE MARITIME RADIONAVIGATION 5.92
2 650-2 850 FIXED MOBILE except aeronautical mobile (R) 5.92 5.103			**2 650-2 850 (SHARED)** FIXED MOBILE except aeronautical mobile (R) 5.92 5.103
2 850-3 025	AERONAUTICAL MOBILE (R) 5.111 5.115		**2 850-3 025 (SHARED)** AERONAUTICAL MOBILE (R) 5.111 5.115
3 025-3 155	AERONAUTICAL MOBILE (OR)		**3 025-3 155 (SHARED)** AERONAUTICAL MOBILE (OR)
3 155-3 200	FIXED MOBILE except aeronautical mobile (R) 5.116 5.117		**3 155-3 200 (SHARED)** FIXED MOBILE except aeronautical mobile (R) 5.116
3 200-3 230	FIXED MOBILE except aeronautical mobile (R) BROADCASTING 5.113 5.116		**3 200-3 230 (SHARED)** FIXED MOBILE except aeronautical mobile (R) BROADCASTING 5.113 5.116
3 230-3 400	FIXED MOBILE except aeronautical mobile BROADCASTING 5.113 5.116 5.118		**3 230-3 400 (SHARED)** FIXED MOBILE except aeronautical mobile BROADCASTING 5.113 5.116
3 400-3 500	AERONAUTICAL MOBILE (R)		**3 400-3 500 (SHARED)** AERONAUTICAL MOBILE (R)
3 500-3 800 AMATEUR FIXED MOBILE except aeronautical mobile 5.92	**3 500-3 750** AMATEUR 5.119	**3 500-3 900** AMATEUR FIXED MOBILE	**3 500-3 800 (SHARED)** AMATEUR FIXED MOBILE except aeronautical mobile 5.92
3 800-3 900 FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	**3 750-4 000** AMATEUR FIXED MOBILE except aeronautical mobile (R)		**3 800-3 900 (SHARED)** FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE
3 900-3 950 AERONAUTICAL MOBILE (OR) 5.123	5.122 5.125	**3 900-3 950** AERONAUTICAL MOBILE BROADCASTING	**3 900-3 950 (SHARED)** AERONAUTICAL MOBILE (OR)

3 950 – 5 730 kHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
3 950-4 000 FIXED BROADCASTING		**3 950-4 000** FIXED BROADCASTING 5.126	**3 950-4 000 (SHARED)** FIXED BROADCASTING
4 000-4 063	FIXED MARITIME MOBILE 5.127 5.126		**4 000-4 063 (SHARED)** FIXED MARITIME MOBILE 5.127
4 063-4 438	MARITIME MOBILE 5.79A 5.109 5.110 5.130 5.131 5.132 5.128		**4 063-4 438 (SHARED)** MARITIME MOBILE 5.79A 5.109 5.110 5.130 5.131 5.132
4 438-4 488 FIXED MOBILE except aeronautical mobile (R) Radiolocation 5.132A 5.132B	**4 438-4 488** FIXED MOBILE except aeronautical mobile (R) RADIOLOCATION 5.132A	**4 438-4 488** FIXED MOBILE except aeronautical mobile Radiolocation 5.132A	**4 438-4 488 (SHARED)** FIXED MOBILE except aeronautical mobile (R) Radiolocation 5.132A
4 488-4 650 FIXED MOBILE except aeronautical mobile (R)		**4 488-4 650** FIXED MOBILE except aeronautical mobile	**4 488-4 650 (SHARED)** FIXED MOBILE except aeronautical mobile (R)
4 650-4 700	AERONAUTICAL MOBILE (R)		**4 650-4 700 (SHARED)** AERONAUTICAL MOBILE (R)
4 700-4 750	AERONAUTICAL MOBILE (OR)		**4 700-4 750 (SHARED)** AERONAUTICAL MOBILE (OR)
4 750-4 850 FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE BROADCASTING 5.113	**4 750-4 850** FIXED MOBILE except aeronautical mobile (R) BROADCASTING 5.113	**4 750-4 850** FIXED BROADCASTING 5.113 Land mobile	**4 750-4 850 (SHARED)** FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE BROADCASTING 5.113
4 850-4 995	FIXED LAND MOBILE BROADCASTING 5.113		**4 850-4 995 (SHARED)** FIXED LAND MOBILE BROADCASTING 5.113
4 995-5 003	STANDARD FREQUENCY AND TIME SIGNAL (5 000 kHz)		**4 995-5 003 (SHARED)** STANDARD FREQUENCY AND TIME SIGNAL (5 000 kHz)
5 003-5 005	STANDARD FREQUENCY AND TIME SIGNAL Space research		**5 003-5 005 (SHARED)** STANDARD FREQUENCY AND TIME SIGNAL Space research
5 005-5 060	FIXED BROADCASTING 5.113		**5 005-5 060 (SHARED)** FIXED BROADCASTING 5.113
5 060-5 250	FIXED Mobile except aeronautical mobile 5.133		**5 060-5 250 (SHARED)** FIXED Mobile except aeronautical mobile
5 250-5 275 FIXED MOBILE except aeronautical mobile Radiolocation 5.132A 5.133A	**5 250-5 275** FIXED MOBILE except aeronautical mobile RADIOLOCATION 5.132A	**5 250-5 275** FIXED MOBILE except aeronautical mobile Radiolocation 5.132A	**5 250-5 275 (SHARED)** FIXED MOBILE except aeronautical mobile Radiolocation 5.132A
5 275-5 450	FIXED MOBILE except aeronautical mobile		**5 275-5 450 (SHARED)** FIXED MOBILE except aeronautical mobile
5 450-5 480 FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	**5 450-5 480** AERONAUTICAL MOBILE (R)	**5 450-5 480** FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	**5 450-5 480 (SHARED)** FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE
5 480-5 680	AERONAUTICAL MOBILE (R) 5.111 5.115		**5 480-5 680 (SHARED)** AERONAUTICAL MOBILE (R) 5.111 5.115
5 680-5 730	AERONAUTICAL MOBILE (OR) 5.111 5.115		**5 680-5 730 (SHARED)** AERONAUTICAL MOBILE (OR) 5.111 5.115

5 730 – 8 195 kHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
5 730-5 900 FIXED LAND MOBILE	**5 730-5 900** FIXED MOBILE except aeronautical mobile (R)	**5 730-5 900** FIXED Mobile except aeronautical mobile (R)	**5 730-5 900 (SHARED)** FIXED LAND MOBILE
5 900-5 950	BROADCASTING 5.134 5.136		**5 900-5 950 (CIVIL)** BROADCASTING 5.134 5.136
5 950-6 200	BROADCASTING		**5 950-6 200 (CIVIL)** BROADCASTING
6 200-6 525	MARITIME MOBILE 5.109 5.110 5.130 5.132 5.137		**6 200-6 525 (SHARED)** MARITIME MOBILE 5.109 5.110 5.130 5.132 5.137
6 525-6 685	AERONAUTICAL MOBILE (R)		**6 525-6 685 (CIVIL)** AERONAUTICAL MOBILE (R)
6 685-6 765	AERONAUTICAL MOBILE (OR)		**6 685-6 765 (SHARED)** AERONAUTICAL MOBILE (OR)
6 765-7 000	FIXED MOBILE except aeronautical mobile (R) 5.138 5.138A 5.139		**6 765-7 000 (SHARED)** FIXED MOBILE except aeronautical mobile (R) 5.138A Land mobile 5.138A 5.138
7 000-7 100	AMATEUR AMATEUR-SATELLITE 5.140 5.141 5.141A		**7 000-7 100 (CIVIL)** AMATEUR AMATEUR-SATELLITE
7 100-7 200	AMATEUR 5.141A 5.141B 5.141C 5.142		**7 100-7 200 (CIVIL)** AMATEUR FIXED 5.141B MOBILE except aeronautical mobile (R) 5.141B 5.141C 5.142
7 200-7 300 BROADCASTING	**7 200-7 300** AMATEUR 5.142	**7 200-7 300** BROADCASTING	**7 200-7 300 (CIVIL)** BROADCASTING
7 300-7 400	BROADCASTING 5.134 5.143 5.143A 5.143B 5.143C 5.143D		**7 300-7 350 (CIVIL)** BROADCASTING 5.134 5.143 5.143B **7 350-7 400 (CIVIL)** BROADCASTING 5.134 FIXED 5.143C 5.143 5.143B
7 400-7 450 BROADCASTING 5.143B 5.143C	**7 400-7 450** FIXED MOBILE except aeronautical mobile (R)	**7 400-7 450** BROADCASTING 5.143A 5.143C	**7 400-7 450 (CIVIL)** BROADCASTING FIXED 5.143C 5.143B
7 450-8 100	FIXED MOBILE except aeronautical mobile (R) 5.143E 5.144		**7 450-8 100 (SHARED)** FIXED MOBILE except aeronautical mobile (R) 5.143E
8 100-8 195	FIXED MARITIME MOBILE		**8 100-8 195 (SHARED)** FIXED MARITIME MOBILE

8 195 – 12 230 kHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
8 195-8 815 MARITIME MOBILE 5.109 5.110 5.132 5.145 5.111			**8 195-8 815 (SHARED)** MARITIME MOBILE 5.109 5.110 5.132 5.145 5.111
8 815-8 965 AERONAUTICAL MOBILE (R)			**8 815-8 965 (CIVIL)** AERONAUTICAL MOBILE (R)
8 965-9 040 AERONAUTICAL MOBILE (OR)			**8 965-9 040 (MILITARY)** AERONAUTICAL MOBILE (OR)
9 040-9 305 FIXED	**9 040-9 400** FIXED	**9 040-9 305** FIXED	**9 040-9 305 (SHARED)** FIXED
9 305-9 355 FIXED Radiolocation 5.145A		**9 305-9 355** FIXED Radiolocation 5.145A	**9 305-9 355 (SHARED)** FIXED Radiolocation 5.145A
9 355-9 400 FIXED		**9 355-9 400** FIXED	**9 355-9 400 (SHARED))** FIXED
9 400-9 500 BROADCASTING 5.134 5.146			**9 400-9 500 (CIVIL)** BROADCASTING 5.134 5.146
9 500-9 900 BROADCASTING 5.147			**9 500-9 900 (CIVIL)** BROADCASTING 5.147
9 900-9 995 FIXED			**9 900-9 995 (SHARED)** FIXED
9 995-10 003 STANDARD FREQUENCY AND TIME SIGNAL (10 000 kHz) 5.111			**9 995-10 003 (SHARED)** STANDARD FREQUENCY AND TIME SIGNAL (10 000 kHz) 5.111
10 003-10 005 STANDARD FREQUENCY AND TIME SIGNAL Space research 5.111			**10 003-10 005 (SHARED)** STANDARD FREQUENCY AND TIME SIGNAL Space research 5.111
10 005-10 100 AERONAUTICAL MOBILE (R) 5.111			**10 005-10 100 (CIVIL)** AERONAUTICAL MOBILE (R) 5.111
10 100-10 150 FIXED Amateur			**10 100-10 150 (SHARED)** FIXED Amateur
10 150-11 175 FIXED Mobile except aeronautical mobile (R)			**10 150-11 175 (SHARED)** FIXED Mobile except aeronautical mobile (R)
11 175-11 275 AERONAUTICAL MOBILE (OR)			**11 175-11 275 (SHARED)** AERONAUTICAL MOBILE (OR)
11 275-11 400 AERONAUTICAL MOBILE (R)			**11 275-11 400 (SHARED)** AERONAUTICAL MOBILE (R)
11 400-11 600 FIXED			**11 400-11 600 (SHARED)** FIXED
11 600-11 650 BROADCASTING 5.134 5.146			**11 600-11 650 (CIVIL)** BROADCASTING 5.134 5.146
11 650-12 050 BROADCASTING 5.147			**11 650-12 050 (CIVIL)** BROADCASTING 5.147
12 050-12 100 BROADCASTING 5.134 5.146			**12 050-12 100 (CIVIL)** BROADCASTING 5.134 5.146
12 100-12 230 FIXED			**12 100-12 230 (SHARED)** FIXED

12 230 – 16 360 kHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
12 230-13 200	MARITIME MOBILE 5.109 5.110 5.132 5.145		**12 230-13 200 (SHARED)** MARITIME MOBILE 5.109 5.110 5.132 5.145
13 200-13 260	AERONAUTICAL MOBILE (OR)		**13 200-13 260 (SHARED)** AERONAUTICAL MOBILE (OR)
13 260-13 360	AERONAUTICAL MOBILE (R)		**13 260-13 360 (SHARED)** AERONAUTICAL MOBILE (R)
13 360-13 410	FIXED RADIO ASTRONOMY 5.149		**13 360-13 410 (SHARED)** FIXED RADIO ASTRONOMY 5.149
13 410-13 450	FIXED Mobile except aeronautical mobile (R)		**13 410-13 450 (SHARED)** FIXED Mobile except aeronautical mobile (R)
13 450-13 550 FIXED Mobile except aeronautical mobile (R) Radiolocation 5.132A 5.149A	**13 450-13 550** FIXED Mobile except aeronautical mobile (R) Radiolocation 5.132A		**13 450-13 550 (SHARED)** FIXED Mobile except aeronautical mobile (R) Radiolocation 5.132A
13 550-13 570	FIXED Mobile except aeronautical mobile (R) 5.150		**13 550-13 570 (SHARED)** FIXED Mobile except aeronautical mobile (R) 5.150
13 570-13 600	BROADCASTING 5.134 5.151		**13 570-13 600 (CIVIL)** BROADCASTING 5.134 5.151
13 600-13 800	BROADCASTING		**13 600-13 800 (CIVIL)** BROADCASTING
13 800-13 870	BROADCASTING 5.134 5.151		**13 800-13 870 (CIVIL)** BROADCASTING 5.134 5.151
13 870-14 000	FIXED Mobile except aeronautical mobile (R)		**13 870-14 000 (SHARED)** FIXED Mobile except aeronautical mobile (R)
14 000-14 250	AMATEUR AMATEUR-SATELLITE		**14 000-14 250 (CIVIL)** AMATEUR AMATEUR-SATELLITE
14 250-14 350	AMATEUR 5.152		**14 250-14 350 (CIVIL)** AMATEUR
14 350-14 990	FIXED Mobile except aeronautical mobile (R)		**14 350-14 990 (SHARED)** FIXED Mobile except aeronautical mobile (R)
14 990-15 005	STANDARD FREQUENCY AND TIME SIGNAL (15 000 kHz) 5.111		**14 990-15 005 (SHARED)** STANDARD FREQUENCY AND TIME SIGNAL (15 000 kHz) 5.111
15 005-15 010	STANDARD FREQUENCY AND TIME SIGNAL Space research		**15 005-15 010 (SHARED)** STANDARD FREQUENCY AND TIME SIGNAL Space research
15 010-15 100	AERONAUTICAL MOBILE (OR)		**15 010-15 100 (SHARED)** AERONAUTICAL MOBILE (OR)
15 100-15 600	BROADCASTING		**15 100-15 600 (CIVIL)** BROADCASTING
15 600-15 800	BROADCASTING 5.134 5.146		**15 600-15 800 (CIVIL)** BROADCASTING 5.134 5.146
15 800-16 100	FIXED 5.153		**15 800-16 100 (SHARED)** FIXED
16 100-16 200 FIXED Radiolocation 5.145A 5.145B	**16 100-16 200** FIXED RADIOLOCATION 5.145A	**16 100-16 200** FIXED Radiolocation 5.145A	**16 100-16 200 (SHARED)** FIXED Radiolocation 5.145A
16 200-16 360	FIXED		**16 200-16 360 (SHARED)** FIXED

16 360 – 21 870 kHz

Allocation to services			
Region 1	Region 2	Region 3	Sultanate of Oman
16 360-17 410	MARITIME MOBILE 5.109 5.110 5.132 5.145		**16 360-17 410 (SHARED)** MARITIME MOBILE 5.109 5.110 5.132 5.145
17 410-17 480	FIXED		**17 410-17 480 (SHARED)** FIXED
17 480-17 550	BROADCASTING 5.134 5.146		**17 480-17 550 (CIVIL)** BROADCASTING 5.134 5.146
17 550-17 900	BROADCASTING		**17 550-17 900 (CIVIL)** BROADCASTING
17 900-17 970	AERONAUTICAL MOBILE (R)		**17 900-17 970 (SHARED)** AERONAUTICAL MOBILE (R)
17 970-18 030	AERONAUTICAL MOBILE (OR)		**17 970-18 030 (SHARED)** AERONAUTICAL MOBILE (OR)
18 030-18 052	FIXED		**18 030-18 052 (SHARED)** FIXED
18 052-18 068	FIXED Space research		**18 052-18 068 (SHARED)** FIXED Space research
18 068-18 168	AMATEUR AMATEUR-SATELLITE 5.154		**18 068-18 168 (CIVIL)** AMATEUR AMATEUR-SATELLITE
18 168-18 780	FIXED Mobile except aeronautical mobile		**18 168-18 780 (SHARED)** FIXED Mobile except aeronautical mobile
18 780-18 900	MARITIME MOBILE		**18 780-18 900 (SHARED)** MARITIME MOBILE
18 900-19 020	BROADCASTING 5.134 5.146		**18 900-19 020 (CIVIL)** BROADCASTING 5.134 5.146
19 020-19 680	FIXED		**19 020-19 680 (SHARED)** FIXED
19 680-19 800	MARITIME MOBILE 5.132		**19 680-19 800 (SHARED)** MARITIME MOBILE 5.132
19 800-19 990	FIXED		**19 800-19 990 (SHARED)** FIXED
19 990-19 995	STANDARD FREQUENCY AND TIME SIGNAL Space research 5.111		**19 990-19 995 (SHARED)** STANDARD FREQUENCY AND TIME SIGNAL Space research 5.111
19 995-20 010	STANDARD FREQUENCY AND TIME SIGNAL (20 000 kHz) 5.111		**19 995-20 010 (SHARED)** STANDARD FREQUENCY AND TIME SIGNAL (20 000 kHz) 5.111
20 010-21 000	FIXED Mobile		**20 010-21 000 (SHARED)** FIXED Mobile
21 000-21 450	AMATEUR AMATEUR-SATELLITE		**21 000-21 450 (CIVIL)** AMATEUR AMATEUR-SATELLITE
21 450-21 850	BROADCASTING		**21 450-21 850 (CIVIL)** BROADCASTING
21 850-21 870	FIXED 5.155A 5.155		**21 850-21 870 (SHARED)** FIXED

21870 – 27 500 kHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
21 870-21 924	FIXED 5.155B		**21 870-21 924 (SHARED)** FIXED 5.155B
21 924-22 000	AERONAUTICAL MOBILE (R)		**21 924-22 000 (SHARED)** AERONAUTICAL MOBILE (R)
22 000-22 855	MARITIME MOBILE 5.132 5.156		**22 000-22 855 (SHARED)** MARITIME MOBILE 5.132
22 855-23 000	FIXED 5.156		**22 855-23 000 (SHARED)** FIXED
23 000-23 200	FIXED Mobile except aeronautical mobile (R) 5.156		**23 000-23 200 (SHARED)** FIXED Mobile except aeronautical mobile (R)
23 200-23 350	FIXED 5.156A AERONAUTICAL MOBILE (OR)		**23 200-23 350 (SHARED)** FIXED 5.156A AERONAUTICAL MOBILE (OR)
23 350-24 000	FIXED MOBILE except aeronautical mobile 5.157		**23 350-24 000 (SHARED)** FIXED MOBILE except aeronautical mobile 5.157
24 000-24 450	FIXED LAND MOBILE		**24 000-24 450 (SHARED)** FIXED LAND MOBILE
24 450-24 600 FIXED LAND MOBILE Radiolocation 5.132A 5.158	**24 450-24 600** FIXED LAND MOBILE RADIOLOCATION 5.132A	**24 450-24 600** FIXED LAND MOBILE Radiolocation 5.132A	**24 450-24 600 (SHARED)** FIXED LAND MOBILE Radiolocation 5.132A
24 600-24 890 FIXED LAND MOBILE	**24 650-24 890** FIXED LAND MOBILE	**24 600-24 890** FIXED LAND MOBILE	**24 600-24 890 (SHARED)** FIXED LAND MOBILE
24 890-24 990	AMATEUR AMATEUR-SATELLITE		**24 890-24 990 (CIVIL)** AMATEUR AMATEUR-SATELLITE
24 990-25 005	STANDARD FREQUENCY AND TIME SIGNAL (25 000 kHz)		**24 990-25 005 (SHARED)** STANDARD FREQUENCY AND TIME SIGNAL (25 000 kHz)
25 005-25 010	STANDARD FREQUENCY AND TIME SIGNAL Space research		**25 005-25 010 (SHARED)** STANDARD FREQUENCY AND TIME SIGNAL Space research
25 010-25 070	FIXED MOBILE except aeronautical mobile		**25 010-25 070 (SHARED)** FIXED MOBILE except aeronautical mobile
25 070-25 210	MARITIME MOBILE		**25 070-25 210 (SHARED)** MARITIME MOBILE
25 210-25 550	FIXED MOBILE except aeronautical mobile		**25 210-25 550 (SHARED)** FIXED MOBILE except aeronautical mobile
25 550-25 670	RADIO ASTRONOMY 5.149		**25 550-25 670 (SHARED)** RADIO ASTRONOMY 5.149
25 670-26 100	BROADCASTING		**25 670-26 100 (CIVIL)** BROADCASTING
26 100-26 175	MARITIME MOBILE 5.132		**26 100-26 175 (SHARED)** MARITIME MOBILE 5.132
26 175-26 200	FIXED MOBILE except aeronautical mobile		**26 175-26 200 (SHARED)** FIXED MOBILE except aeronautical mobile
26 200-26 350 FIXED MOBILE except aeronautical mobile Radiolocation 5.132A 5.133A	**26 200-26 420** FIXED MOBILE except aeronautical mobile RADIOLOCATION 5.132A	**26 200-26 350** FIXED MOBILE except aeronautical mobile Radiolocation 5.132A	**26 200-26 350 (SHARED)** FIXED MOBILE except aeronautical mobile Radiolocation 5.132A
26 350-27 500 FIXED MOBILE except aeronautical mobile 5.150	**26 420-27 500** FIXED MOBILE except aeronautical mobile 5.150	**26 350-27 500** FIXED MOBILE except aeronautical mobile 5.150	**26 350-27 500 (SHARED)** FIXED MOBILE except aeronautical mobile 5.150

27.5 – 68 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
27.5-28 METEOROLOGICAL AIDS FIXED MOBILE			**27.5-28 (SHARED)** METEOROLOGICAL AIDS FIXED MOBILE
28-29.7 AMATEUR AMATEUR-SATELLITE			**28-29.7 (CIVIL)** AMATEUR AMATEUR-SATELLITE
29.7-30.005 FIXED MOBILE			**29.7-30.005 (MILITARY)** FIXED MOBILE
30.005-30.01 SPACE OPERATION (satellite identification) FIXED MOBILE SPACE RESEARCH			**30.005-30.01 (MILITARY)** SPACE OPERATION (satellite identification) FIXED MOBILE SPACE RESEARCH
30.01-37.5 FIXED MOBILE			**30.01-37.5 (MILITARY)** FIXED MOBILE
37.5-38.25 FIXED MOBILE Radio astronomy 5.149			**37.5-38.25 (SHARED)** FIXED MOBILE Radio astronomy 5.149
38.25-39 FIXED MOBILE	**38.25-39.986** FIXED MOBILE	**38.25-39** FIXED MOBILE	**38.25-39 (SHARED)** FIXED MOBILE
39-39.5 FIXED MOBILE Radiolocation 5.132A 5.159			**39-39.5 (SHARED)** FIXED MOBILE Radiolocation 5.132A 5.159
39.5-39.986 FIXED MOBILE		**39.5-39.986** FIXED MOBILE RADIOLOCATION 5.132A	**39.5-39.986 (SHARED)** FIXED MOBILE
39.986-40.02 FIXED MOBILE Space research		**39.986-40** FIXED MOBILE RADIOLOCATION 5.132A Space research	**39.986-40.02 (SHARED)** FIXED MOBILE Space research
		40-40.02 FIXED MOBILE Space research	
40.02-40.98 FIXED MOBILE 5.150			**40.02-40.98 (SHARED)** FIXED MOBILE 5.150
40.98-41.015 FIXED MOBILE Space research 5.160 5.161			**40.98-41.015 (SHARED)** FIXED MOBILE Space research
41.015-42 FIXED MOBILE 5.160 5.161			**41.015-42 (MILITARY)** FIXED MOBILE
42-42.5 FIXED MOBILE Radiolocation 5.132A 5.160 5.161B	**42-42.5** FIXED MOBILE 5.161		**42-42.5 (MILITARY)** FIXED MOBILE Radiolocation 5.132A
42.5-44 FIXED MOBILE 5.160 5.161 5.161A			**42.5-44 (MILITARY)** FIXED MOBILE
44-47 FIXED MOBILE 5.162 5.162A			**44-47 (MILITARY)** FIXED MOBILE
47-68 BROADCASTING	**47-50** FIXED MOBILE	**47-50** FIXED MOBILE BROADCASTING 5.162A	**47-68 (CIVIL)** BROADCASTING
	50-54 AMATEUR 5.162A 5.166 5.167 5.167A 5.168 5.170		
5.162A 5.163 5.164 5.165 5.169 5.171	**54-68** BROADCASTING Fixed Mobile 5.172	**54-68** FIXED MOBILE BROADCASTING 5.162A	OMA 1

68 – 137 MHz

<table>
<tr><th colspan="4">Allocation to services</th></tr>
<tr><th>Region 1</th><th>Region 2</th><th>Region 3</th><th>Sultanate of Oman</th></tr>
<tr><td>68-74.8
FIXED
MOBILE except aeronautical mobile

5.149 5.175 5.177
5.179</td><td>68-72
BROADCASTING
Fixed
Mobile
5.173

72-73
FIXED
MOBILE

73-74.6
RADIO ASTRONOMY
5.178

74.6-74.8
FIXED
MOBILE</td><td>68-74.8
FIXED
MOBILE

5.149 5.176 5.179</td><td>68-74.8 (SHARED)
FIXED
MOBILE except aeronautical mobile

5.149</td></tr>
<tr><td colspan="2">74.8-75.2
AERONAUTICAL RADIONAVIGATION

5.180 5.181</td><td colspan="2">74.8-75.2 (SHARED)
AERONAUTICAL RADIONAVIGATION
5.180</td></tr>
<tr><td>75.2-87.5
FIXED
MOBILE except aeronautical mobile

5.175 5.179 5.187</td><td>75.2-75.4
FIXED
MOBILE
5.179

75.4-76
FIXED
MOBILE

76-88
BROADCASTING
Fixed
Mobile</td><td>75.4-87
FIXED
MOBILE

5.182 5.183 5.188

87-100
FIXED
MOBILE
BROADCASTING</td><td>75.2-77.8 (MILITARY)
FIXED
MOBILE except aeronautical mobile

77.8-84.6 (SHARED)
FIXED
MOBILE except aeronautical mobile

84.6-87.5 (MILITARY)
FIXED
MOBILE except aeronautical mobile</td></tr>
<tr><td>87.5-100
BROADCASTING
5.190</td><td>5.185

88-100
BROADCASTING</td><td></td><td>87.5-100 (CIVIL)
BROADCASTING</td></tr>
<tr><td colspan="2">100-108
BROADCASTING
5.192 5.194</td><td colspan="2">100-108 (CIVIL)
BROADCASTING</td></tr>
<tr><td colspan="2">108-117.975
AERONAUTICAL RADIONAVIGATION

5.197 5.197A</td><td colspan="2">108-117.975 (CIVIL)
AERONAUTICAL RADIONAVIGATION
5.197A</td></tr>
<tr><td colspan="2">117.975-137
AERONAUTICAL MOBILE (R)

5.111 5.200 5.201 5.202</td><td colspan="2">117.975-137 (CIVIL)
AERONAUTICAL MOBILE (R)
5.111 5.200 5.202</td></tr>
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137 – 144 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
137-137.025 SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209 SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R) 5.204 5.205 5.206 5.207 5.208			**137-137.025 (CIVIL)** FIXED MOBILE except aeronautical mobile (R) SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209 SPACE RESEARCH (space-to-Earth) 5.208
137.025-137.175 SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Fixed Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.209 Mobile except aeronautical mobile (R) 5.204 5.205 5.206 5.207 5.208			**137.025-137.175 (CIVIL)** FIXED MOBILE except aeronautical mobile (R) SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.209 5.208
137.175-137.825 SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209 SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R) 5.204 5.205 5.206 5.207 5.208			**137.175-137.825 (CIVIL)** FIXED MOBILE except aeronautical mobile (R) SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209 SPACE RESEARCH (space-to-Earth) 5.208
137.825-138 SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Fixed Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.209 Mobile except aeronautical mobile (R) 5.204 5.205 5.206 5.207 5.208			**137.825-138 (CIVIL)** FIXED MOBILE except aeronautical mobile (R) SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.209 5.208
138-143.6 AERONAUTICAL MOBILE (OR) 5.210 5.211 5.212 5.214	**138-143.6** FIXED MOBILE RADIOLOCATION Space research (space-to-Earth)	**138-143.6** FIXED MOBILE Space research (space-to-Earth) 5.207 5.213	**138-144 (SHARED)** FIXED MOBILE

143.6 – 156.8375 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
143.6-143.65 AERONAUTICAL MOBILE (OR) SPACE RESEARCH (space-to-Earth) 5.211 5.212 5.214	**143.6-143.65** FIXED MOBILE RADIOLOCATION SPACE RESEARCH (space-to-Earth)	**143.6-143.65** FIXED MOBILE SPACE RESEARCH (space-to-Earth) 5.207 5.213	
143.65-144 AERONAUTICAL MOBILE (OR) 5.210 5.211 5.212 5.214	**143.65-144** FIXED MOBILE RADIOLOCATION Space research (space-to-Earth)	**143.65-144** FIXED MOBILE Space research (space-to-Earth) 5.207 5.213	
144-146 AMATEUR AMATEUR-SATELLITE 5.216			**144-146 (CIVIL)** AMATEUR AMATEUR-SATELLITE
146-148 FIXED MOBILE except aeronautical mobile (R)	**146-148** AMATEUR 5.217	**146-148** AMATEUR FIXED MOBILE 5.217	**146-148 (CIVIL)** FIXED MOBILE except aeronautical mobile (R)
148-149.9 FIXED MOBILE except aeronautical mobile (R) MOBILE-SATELLITE (Earth-to-space) 5.209 5.218 5.219 5.221	**148-149.9** FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) 5.209 5.218 5.219 5.221		**148-149.9 (CIVIL)** FIXED MOBILE except aeronautical mobile (R) MOBILE-SATELLITE (Earth-to-space) 5.209 5.218 5.219 5.221
149.9-150.05 MOBILE-SATELLITE (Earth-to-space) 5.209 5.224A RADIONAVIGATION-SATELLITE 5.224B 5.220 5.222 5.223			**149.9-150.05 (CIVIL)** MOBILE-SATELLITE (Earth-to-space) 5.209 5.224A RADIONAVIGATION-SATELLITE 5.224B 5.220 5.222 5.223
150.05-153 FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149	**150.05-154** FIXED MOBILE		**150.05-153 (CIVIL)** FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149
153-154 FIXED MOBILE except aeronautical mobile (R) Meteorological Aids	5.225 5.226		**153-154 (CIVIL)** FIXED MOBILE except aeronautical mobile (R) Meteorological Aids
154-156.4875 FIXED MOBILE except aeronautical mobile (R) 5.226	**154-156.4875** FIXED MOBILE 5.226	**154-156.4875** FIXED MOBILE 5.225A 5.226	**154-156 (CIVIL)** FIXED MOBILE except aeronautical mobile (R) **156-156.4875 (SHARED)** FIXED MOBILE except aeronautical mobile (R) 5.226
156.4875-156.5625 MARITIME MOBILE (distress and calling via DSC) 5.111 5.226 5.227			**156.4875-156.5625 (SHARED)** MARITIME MOBILE (distress and calling via DSC) 5.111 5.226 5.227
156.5625-156.7625 FIXED MOBILE except aeronautical mobile (R) 5.226	**156.5625-156.7625** FIXED MOBILE 5.225 5.226		**156.5625-156.7625 (SHARED)** FIXED MOBILE except aeronautical mobile (R) 5.226
156.7625-156.7875 MARITIME MOBILE Mobile-satellite (Earth-to-space) 5.111 5.226 5.228	**156.7625-156.7875** MARITIME MOBILE MOBILE-SATELLITE (Earth-to-space) 5.111 5.226 5.228	**156.7625-156.7875** MARITIME MOBILE Mobile-satellite (Earth-to-space) 5.111 5.226 5.228	**156.7625-156.7875 (CIVIL)** MARITIME MOBILE Mobile-satellite (Earth-to-space) 5.111 5.226 5.228
1156.7875-156.8125 MARITIME MOBILE (distress and calling) 5.111 5.226			**156.7875-156.8125 (CIVIL)** MARITIME MOBILE (distress and calling)
156.8125-156.8375 MARITIME MOBILE Mobile-satellite (Earth-to-space) 5.111 5.226 5.228	**156.8125-156.8375** MARITIME MOBILE MOBILE-SATELLITE (Earth-to-space) 5.111 5.226 5.228	**156.8125-156.8375** MARITIME MOBILE Mobile-satellite (Earth-to-space) 5.111 5.226 5.228	**156.8125-156.8375 (CIVIL)** MARITIME MOBILE Mobile-satellite (Earth-to-space) 5.111 5.226 5.228

156.8375 – 267 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
156.8375-161.9625 FIXED MOBILE except aeronautical mobile 5.226	**156.8375-161.9625** FIXED MOBILE 5.226		**156.8375-157.45 (SHARED)** MARITIME MOBILE
			157.45-160.6 (CIVIL) FIXED MOBILE except aeronautical mobile
			160.6-160.975 (SHARED) MARITIME MOBILE
			160.975-161.475 (CIVIL) FIXED MOBILE except aeronautical mobile
			161.475-161.9625 (SHARED) MARITIME MOBILE 5.226
161.9625-161.9875 FIXED MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.228F 5.226 5.228A 5.228B	**161.9625-161.9875** AERONAUTICAL MOBILE (OR) MARITIME MOBILE MOBILE-SATELLITE (Earth-to-space) 5.228C 5.228D	**161.9625-161.9875** MARITIME MOBILE Aeronautical mobile (OR) 5.228E Mobile-satellite (Earth-to-space) 5.228F 5.226	**161.9625-161.9875(SHARED)** MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.228F 5.226 5.228A 5.228B
161.9875-162.0125 FIXED MOBILE except aeronautical mobile 5.226 5.229	**161.9875-162.0125** FIXED MOBILE 5.226		**161.9875-162.0125(SHARED)** MOBILE except aeronautical mobile 5.226
162.0125-162.0375 FIXED MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.228F 5.226 5.228A 5.228B 5.229	**162.0125-162.0375** AERONAUTICAL MOBILE (OR) MARITIME MOBILE MOBILE-SATELLITE (Earth-to-space) 5.228C 5.228D	**162.0125-162.0375** MARITIME MOBILE Aeronautical mobile (OR) 5.228E Mobile-satellite (Earth-to-space) 5.228F 5.226	**162.0125-162.0375(SHARED)** MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.228F 5.226 5.228A 5.228B
162.0375-174 FIXED MOBILE except aeronautical mobile 5.226 5.229	**162.0375-174** FIXED MOBILE 5.226 5.230 5.231 5.232		**162.0375-162.05 (SHARED)** MOBILE except aeronautical mobile 5.226
			162.05-174 (CIVIL) FIXED MOBILE except aeronautical mobile 5.226
174-223 BROADCASTING 5.235 5.237 5.243	**174-216** BROADCASTING Fixed Mobile 5.234	**174-223** FIXED MOBILE BROADCASTING 5.233 5.238 5.240 5.245	**174-223 (CIVIL)** BROADCASTING
	216-220 FIXED MARITIME MOBILE Radiolocation 5.241 5.242		
223-230 BROADCASTING Fixed Mobile 5.243 5.246 5.247	**220-225** AMATEUR FIXED MOBILE Radiolocation 5.241	**223-230** FIXED MOBILE AERONAUTICAL RADIONAVIGATION Radiolocation 5.250	**223-230 (CIVIL)** BROADCASTING Fixed Mobile
	225-235 FIXED MOBILE		
230-235 FIXED MOBILE 5.247 5.251 5.252		**230-235** FIXED MOBILE AERONAUTICAL RADIONAVIGATION 5.250	**230-235 (MILITARY)** AERONAUTICAL RADIONAVIGATION FIXED MOBILE
235-267 FIXED MOBILE 5.111 5.199 5.252 5.254 5.256 5.256A			**235-242.95 (MILITARY)** FIXED MOBILE 5.254
			242.95-243.05 (SHARED) MOBILE 5.256 MOBILE-SATELLITE 5.199 5.111
			243.05-267 (MILITARY) FIXED MOBILE 5.254

267 – 400.05 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
267-272	FIXED MOBILE Space operation (space-to-Earth) 5.254 5.257		**267-272 (MILITARY)** FIXED MOBILE Space operation (space-to-Earth) 5.254 5.257
272-273	SPACE OPERATION (space-to-Earth) FIXED MOBILE 5.254		**272-273 (MILITARY)** SPACE OPERATION (space-to-Earth) FIXED MOBILE 5.254
273-312	FIXED MOBILE 5.254		**273-312 (MILITARY)** FIXED MOBILE 5.254
312-315	FIXED MOBILE Mobile-satellite (Earth-to-space) 5.254 5.255		**312-315 (MILITARY)** FIXED MOBILE Mobile-satellite (Earth-to-space) 5.254 5.255
315-322	FIXED MOBILE 5.254		**315-322 (MILITARY)** FIXED MOBILE 5.254
322-328.6	FIXED MOBILE RADIO ASTRONOMY 5.149		**322-328.6 (SHARED)** FIXED MOBILE RADIO ASTRONOMY 5.149
328.6-335.4	AERONAUTICAL RADIONAVIGATION 5.258 5.259		**328.6-335.4 (SHARED)** AERONAUTICAL RADIONAVIGATION 5.258
335.4-387	FIXED MOBILE 5.254		**335.4-380 (MILITARY)** FIXED MOBILE 5.254 **380-387 (MILITARY)** MOBILE 5.254
387-390	FIXED MOBILE Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.254 5.255		**387-390 (MILITARY)** MOBILE Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.254 5.255
390-399.9	FIXED MOBILE 5.254		**390-399.9 (MILITARY)** MOBILE 5.254
399.9-400.05	MOBILE-SATELLITE (Earth-to-space) 5.209 5.224A RADIONAVIGATION-SATELLITE 5.222 5.224B 5.260 5.220		**399.9-400.05 (CIVIL)** MOBILE-SATELLITE (Earth-to-space) 5.209 5.224A RADIONAVIGATION-SATELLITE 5.222 5.224B 5.260 5.220

400.05 – 430 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
400.05-400.15	STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE (400.1 MHz) 5.261 5.262		**400.05-400.15 (SHARED)** STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE (400.1 MHz) 5.261
400.15-401	METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209 SPACE RESEARCH (space-to-Earth) 5.263 Space operation (space-to-Earth) 5.262 5.264		**400.15-401 (SHARED)** METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209 SPACE RESEARCH (space-to-Earth) 5.263 Space operation (space-to-Earth) 5.264
401-402	METEOROLOGICAL AIDS SPACE OPERATION (space-to-Earth) EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) Fixed Mobile except aeronautical mobile		**401-402 (SHARED)** METEOROLOGICAL AIDS SPACE OPERATION (space-to-Earth) EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) Fixed Mobile except aeronautical mobile
402-403	METEOROLOGICAL AIDS EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) Fixed Mobile except aeronautical mobile		**402-403 (SHARED)** METEOROLOGICAL AIDS EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) Fixed Mobile except aeronautical mobile
403-406	METEOROLOGICAL AIDS Fixed Mobile except aeronautical mobile		**403-406 (SHARED)** METEOROLOGICAL AIDS Fixed Mobile except aeronautical mobile
406-406.1	MOBILE-SATELLITE (Earth-to-space) 5.266 5.267		**406-406.1 (SHARED)** MOBILE-SATELLITE (Earth-to-space) 5.266 5.267
406.1-410	FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149		**406.1-410 (CIVIL)** FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149
410-420	FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-space) 5.268		**410-420 (CIVIL)** FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-space) 5.268
420-430	FIXED MOBILE except aeronautical mobile Radiolocation 5.269 5.270 5.271		**420-430 (CIVIL)** FIXED MOBILE except aeronautical mobile Radiolocation

430 – 460 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
430-432 AMATEUR RADIOLOCATION 5.271 5.272 5.273 5.274 5.275 5.276 5.277	**430-432** RADIOLOCATION Amateur 5.271 5.276 5.277 5.278 5.279		**430-432 (CIVIL)** AMATEUR FIXED MOBILE except aeronautical mobile RADIOLOCATION
432-438 AMATEUR RADIOLOCATION Earth exploration-satellite (active) 5.279A 5.138 5.271 5.272 5.276 5.277 5.280 5.281 5.282	**432-438** RADIOLOCATION Amateur Earth exploration-satellite (active) 5.279A 5.271 5.276 5.277 5.278 5.279 5.281 5.282		**432-435 (CIVIL)** AMATEUR FIXED MOBILE except aeronautical mobile RADIOLOCATION Earth exploration-satellite (active) 5.279A 5.138 **435-438 (CIVIL)** AMATEUR FIXED RADIOLOCATION Earth exploration-satellite (active) 5.279A
438-440 AMATEUR RADIOLOCATION 5.271 5.273 5.274 5.275 5.276 5.277 5.283	**438-440** RADIOLOCATION Amateur 5.271 5.276 5.277 5.278 5.279		**438-440 (CIVIL)** AMATEUR FIXED MOBILE except aeronautical mobile RADIOLOCATION
440-450 FIXED MOBILE except aeronautical mobile Radiolocation 5.269 5.270 5.271 5.284 5.285 5.286			**440-450 (CIVIL)** FIXED MOBILE except aeronautical mobile Radiolocation 5.286
450-455 FIXED MOBILE 5.286AA 5.209 5.271 5.286 5.286A 5.286B 5.286C 5.286D 5.286E			**450-455 (CIVIL)** FIXED MOBILE 5.286AA 5.209 5.286 5.286A
455-456 FIXED MOBILE 5.286AA 5.209 5.271 5.286A 5.286B 5.286C 5.286E	**455-456** FIXED MOBILE 5.286AA MOBILE-SATELLITE (Earth-to-space) 5.286A 5.286B 5.286C 5.209	**455-456** FIXED MOBILE 5.286AA 5.209 5.271 5.286A 5.286B 5.286C 5.286E	**455-456 (CIVIL)** FIXED MOBILE 5.286AA 5.209 5.286A
456-459 FIXED MOBILE 5.286AA 5.271 5.287 5.288			**456-459 (CIVIL)** FIXED MOBILE 5.286AA 5.287
459-460 FIXED MOBILE 5.286AA 5.209 5.271 5.286A 5.286B 5.286C 5.286E	**459-460** FIXED MOBILE 5.286AA MOBILE-SATELLITE (Earth-to-space) 5.286A 5.286B 5.286C 5.209	**459-460** FIXED MOBILE 5.286AA 5.209 5.271 5.286A 5.286B 5.286C 5.286E	**459-460 (CIVIL)** FIXED MOBILE 5.286AA 5.209 5.286A

460 – 942 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
460-470 FIXED MOBILE 5.286AA Meteorological-Satellite (space-to-Earth) 5.287 5.288 5.289 5.290			**460-470 (CIVIL)** FIXED MOBILE 5.286AA Meteorological-Satellite (space-to-Earth) 5.287 5.289
470-790 BROADCASTING 5.149 5.291A 5.294 5.296 5.300 5.304 5.306 5.311A 5.312 5.312A	**470-512** BROADCASTING Fixed Mobile 5.292 5.293	**470-585** FIXED MOBILE BROADCASTING 5.291 5.298	**470-790 (CIVIL)** BROADCASTING Fixed 5.300 Land mobile 5.296 Mobile except aeronautical mobile 5.300 5.149 5.311A
	512-608 BROADCASTING 5.297	**585-610** FIXED MOBILE BROADCASTING RADIONAVIGATION 5.149 5.305 5.306 5.307	
	608-614 RADIO ASTRONOMY Mobile-satellite except aeronautical mobile-satellite (Earth-to-space)	**610-890** FIXED MOBILE 5.313A 5.317A BROADCASTING	
790-862 FIXED BROADCASTING MOBILE except aeronautical mobile 5.316B 5.317A 5.312 5.314 5.315 5.316 5.316A 5.319	**614-698** BROADCASTING Fixed Mobile 5.293 5.309 5.311A		**790-862 (CIVIL)** FIXED BROADCASTING MOBILE except aeronautical mobile 5.316B 5.317A 5.316A
	698-806 BROADCASTING MOBILE 5.313B 5.317A Fixed 5.293 5.309 5.311A		
	806-890 FIXED MOBILE 5.317A BROADCASTING		
862-890 FIXED MOBILE except aeronautical mobile 5.317A BROADCASTING 5.322 5.319 5.323	5.317 5.318	5.149 5.305 5.306 5.307 5.311A 5.320	**862-870 (CIVIL)** FIXED MOBILE except aeronautical mobile 5.317A **870-876 (MILITARY)** FIXED MOBILE except aeronautical mobile 5.317A **876-915 (CIVIL)** LAND MOBILE 5.317A
890-942 FIXED MOBILE except aeronautical mobile 5.317A BROADCASTING 5.322 Radiolocation 5.323	**890-902** FIXED MOBILE except aeronautical mobile 5.317A Radiolocation 5.318 5.325	**890-942** FIXED MOBILE 5.317A BROADCASTING Radiolocation 5.327	

902 – 1 350 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
	902-928 FIXED Amateur Mobile except aeronautical mobile 5.325A Radiolocation 5.150 5.325 5.326		**915-921 (MILITARY)** FIXED MOBILE except aeronautical mobile 5.317A **921-960 (CIVIL)** LAND MOBILE 5.317A
	928-942 FIXED MOBILE except aeronautical mobile 5.317A Radiolocation 5.325		
942-960 FIXED MOBILE except aeronautical mobile 5.317A BROADCASTING 5.322 5.323	**942-960** FIXED MOBILE 5.317A	**942-960** FIXED MOBILE 5.317A BROADCASTING 5.320	
960-1 164	AERONAUTICAL RADIONAVIGATION 5.328 AERONAUTICAL MOBILE (R) 5.327A		**960-1 164 (SHARED)** AERONAUTICAL RADIONAVIGATION 5.328 AERONAUTICAL MOBILE (R) 5.327A
1 164-1 215	AERONAUTICAL RADIONAVIGATION 5.328 RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.328A		**1 164-1 215 (SHARED)** AERONAUTICAL RADIONAVIGATION 5.328 RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.328A
1 215-1 240	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329 5.329A SPACE RESEARCH (active) 5.330 5.331 5.332		**1 215-1 240 (SHARED)** EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329 5.329A SPACE RESEARCH (active) 5.332
1 240-1 300	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329 5.329A SPACE RESEARCH (active) Amateur 5.282 5.330 5.331 5.332 5.335 5.335A		**1 240-1 300 (SHARED)** EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329 5.329A SPACE RESEARCH (active) Amateur 5.282 5.332 5.335A
1 300-1 350	AERONAUTICAL RADIONAVIGATION 5.337 RADIOLOCATION RADIONAVIGATION SATELLITE (Earth-to-space) 5.149 5.337A		**1 300-1 350 (CIVIL)** AERONAUTICAL RADIONAVIGATION 5.337 RADIOLOCATION RADIONAVIGATION SATELLITE (Earth-to-space) 5.149 5.337A

1 350 – 1 530 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
1 350-1 400 FIXED MOBILE RADIOLOCATION 5.149 5.338 5.338A 5.339	**1 350-1 400** RADIOLOCATION 5.338A 5.149 5.334 5.339		**1 350-1 400 (SHARED)** FIXED MOBILE RADIOLOCATION 5.149 5.338A
1 400-1 427	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341		**1 400-1 427 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341
1 427-1 429	SPACE OPERATION (Earth-to-space) FIXED MOBILE except aeronautical mobile 5.338A 5.341		**1 427-1 429 (SHARED)** SPACE OPERATION (Earth-to-space) FIXED MOBILE except aeronautical mobile 5.338A 5.341
1 429-1 452 FIXED MOBILE except aeronautical mobile 5.338A 5.341 5.342	**1 429-1 452** FIXED MOBILE 5.343 5.338A 5.341		**1 429-1 452 (SHARED)** FIXED MOBILE except aeronautical mobile 5.338A 5.341
1 452-1 492 FIXED MOBILE except aeronautical mobile BROADCASTING 5.345 BROADCASTING-SATELLITE 5.208B 5.345 5.341 5.342	**1 452-1 492** FIXED MOBILE 5.343 BROADCASTING 5.345 BROADCASTING-SATELLITE 5.208B 5.345 5.341 5.344		**1 452-1 492 (CIVIL)** FIXED MOBILE except aeronautical mobile BROADCASTING 5.345 BROADCASTING-SATELLITE 5.208B 5.345 5.341
1 492-1 518 FIXED MOBILE except aeronautical mobile 5.341 5.342	**1 492-1 518** FIXED MOBILE 5.343 5.341 5.344	**1 492-1 518** FIXED MOBILE 5.341	**1 492-1 518 (SHARED)** FIXED MOBILE except aeronautical mobile 5.341
1 518-1 525 FIXED MOBILE except aeronautical mobile MOBILE-SATELLITE (space-to-Earth) 5.348 5.348A 5.348B 5.351A 5.341 5.342	**1 518-1 525** FIXED MOBILE 5.343 MOBILE-SATELLITE (space-to-Earth) 5.348 5.348A 5.348B 5.351A 5.341 5.344	**1 518-1 525** FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.348 5.348A 5.348B 5.351A 5.341	**1 518-1 525 (CIVIL)** FIXED MOBILE except aeronautical mobile MOBILE-SATELLITE (space-to-Earth) 5.348 5.348A 5.351A 5.341
1 525-1 530 SPACE OPERATION (space-to-Earth) FIXED MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A Earth exploration-satellite Mobile except aeronautical mobile 5.349 5.341 5.342 5.350 5.351 5.352A 5.354	**1 525-1 530** SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A Earth exploration-satellite Fixed Mobile 5.343 5.341 5.351 5.354	**1 525-1 530** SPACE OPERATION (space-to-Earth) FIXED MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A Earth exploration-satellite Mobile 5.349 5.341 5.351 5.352A 5.354	**1 525-1 530 (CIVIL)** SPACE OPERATION (space-to-Earth) FIXED MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A Earth exploration-satellite Mobile except aeronautical mobile 5.341 5.351 5.352A 5.354

1 530 – 1 660 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
1 530-1 535 SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A 5.353A Earth exploration-satellite Fixed Mobile except aeronautical mobile 5.341 5.342 5.351 5.354	**1 530-1 535** SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A 5.353A Earth exploration-satellite Fixed Mobile 5.343 5.341 5.351 5.354		**1 530-1 535 (CIVIL)** SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A 5.353A Earth exploration-satellite Fixed Mobile except aeronautical mobile 5.341 5.351 5.354
1 535-1 559	MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A 5.341 5.351 5.353A 5.354 5.355 5.356 5.357 5.357A 5.359 5.362A		**1 535-1 559 (CIVIL)** MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A 5.341 5.351 5.353A 5.354 5.356 5.357 5.357A
1 559-1 610	AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.208B 5.328B 5.329A 5.341 5.362B 5.362C		**1 559-1 610 (SHARED)** AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.208B 5.328B 5.329A 5.341
1 610-1 610.6 MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION 5.341 5.355 5.359 5.364 5.366 5.367 5.368 5.369 5.371 5.372	**1 610-1 610.6** MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION RADIODETERMINATION-SATELLITE (Earth-to-space) 5.341 5.364 5.366 5.367 5.368 5.370 5.372	**1 610-1 610.6** MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION Radiodetermination-satellite (Earth-to-space) 5.341 5.355 5.359 5.364 5.366 5.367 5.368 5.369 5.372	**1 610-1 610.6 (CIVIL)** MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION 5.341 5.364 5.366 5.367 5.368 5.371 5.372
1 610.6-1 613.8 MOBILE-SATELLITE (Earth-to-space) 5.351A RADIO ASTRONOMY AERONAUTICAL RADIONAVIGATION 5.149 5.341 5.355 5.359 5.364 5.366 5.367 5.368 5.369 5.371 5.372	**1 610.6-1 613.8** MOBILE-SATELLITE (Earth-to-space) 5.351A RADIO ASTRONOMY AERONAUTICAL RADIONAVIGATION RADIODETERMINATION-SATELLITE (Earth-to-space) 5.149 5.341 5.364 5.366 5.367 5.368 5.370 5.372	**1 610.6-1 613.8** MOBILE-SATELLITE (Earth-to-space) 5.351A RADIO ASTRONOMY AERONAUTICAL RADIONAVIGATION Radiodetermination-satellite (Earth-to-space) 5.149 5.341 5.355 5.359 5.364 5.366 5.367 5.368 5.369 5.372	**1 610.6-1 613.8 (CIVIL)** MOBILE-SATELLITE (Earth-to-space) 5.351A RADIO ASTRONOMY AERONAUTICAL RADIONAVIGATION 5.149 5.341 5.364 5.366 5.367 5.368 5.371 5.372
1 613.8-1 626.5 MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION Mobile-satellite (space-to-Earth) 5.208B 5.341 5.355 5.359 5.364 5.365 5.366 5.367 5.368 5.369 5.371 5.372	**1 613.8-1 626.5** MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION RADIODETERMINATION-SATELLITE (Earth-to-space) Mobile-satellite (space-to-Earth) 5.208B 5.341 5.364 5.365 5.366 5.367 5.368 5.370 5.372	**1 613.8-1 626.5** MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION Mobile-satellite (space-to-Earth) 5.208B Radiodetermination-satellite (Earth-to-space) 5.341 5.355 5.359 5.364 5.365 5.366 5.367 5.368 5.369 5.372	**1 613.8-1 626.5 (CIVIL)** MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION Mobile-satellite (space-to-Earth) 5.208B 5.341 5.364 5.365 5.366 5.367 5.368 5.371 5.372
1 626.5-1 660	MOBILE-SATELLITE (Earth-to-space) 5.351A 5.341 5.351 5.353A 5.354 5.355 5.357A 5.359 5.362A 5.374 5.375 5.376		**1 626.5-1 660 (CIVIL)** MOBILE-SATELLITE (Earth-to-space) 5.351A 5.341 5.351 5.353A 5.354 5.357A 5.374 5.375 5.376

1 660 – 1 700 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
1 660-1 660.5	MOBILE-SATELLITE (Earth-to-space) 5.351A RADIO ASTRONOMY 5.149 5.341 5.351 5.354 5.362A 5.376A		**1 660-1 660.5 (CIVIL)** MOBILE-SATELLITE (Earth-to-space) 5.351A RADIO ASTRONOMY 5.149 5.341 5.351 5.354 5.376A
1 660.5-1 668	RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149 5.341 5.379 5.379A		**1 660.5-1 668 (CIVIL)** RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149 5.341 5.379A
1 668-1 668.4	MOBILE-SATELLITE (Earth-to-space) 5.351A 5.379B 5.379C RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149 5.341 5.379 5.379A		**1 668-1 668.4 (CIVIL)** MOBILE-SATELLITE (Earth-to-space) 5.351A 5.379B 5.379C RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149 5.341 5.379A
1 668.4-1 670	METEOROLOGICAL AIDS FIXED MOBILE except aeronautical mobile MOBILE-SATELLITE (Earth-to-space) 5.351A 5.379B 5.379C RADIO ASTRONOMY 5.149 5.341 5.379D 5.379E		**1 668.4-1 670 (CIVIL)** METEOROLOGICAL AIDS FIXED MOBILE except aeronautical mobile MOBILE-SATELLITE (Earth-to-space) 5.351A 5.379B 5.379C RADIO ASTRONOMY 5.149 5.341 5.379D 5.379E
1 670-1 675	METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (Earth-to-space) 5.351A 5.379B 5.341 5.379D 5.379E 5.380A		**1 670-1 675 (CIVIL)** METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (Earth-to-space) 5.351A 5.379B 5.341 5.379D 5.379E 5.380A
1 675-1 690	METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.341		**1 675-1 690 (SHARED)** METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.341
1 690-1 700 METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) Fixed Mobile except aeronautical mobile 5.289 5.341 5.382	**1 690-1 700** METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) 5.289 5.341 5.381		**1 690-1 700 (SHARED)** FIXED METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.289 5.341

1 700 – 2 110 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
1 700-1 710 FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.289 5.341		**1 700-1 710** FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.289 5.341 5.384	**1 700-1 710 (CIVIL)** FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.289 5.341
1 710-1 930 FIXED MOBILE 5.384A 5.388A 5.388B 5.149 5.341 5.385 5.386 5.387 5.388			**1 710-1 785 (CIVIL)** LAND MOBILE 5.384A 5.149 5.341 5.385
			1 785-1 800 (CIVIL) FIXED MOBILE 5.384A
			1 800-1 880 (CIVIL) MOBILE 5.384A
			1 880-1 885 (CIVIL) FIXED LAND MOBILE 5.384A
			1 885-1 980 (CIVIL) LAND MOBILE 5.388A 5.388B
1 930-1 970 FIXED MOBILE 5.388A 5.388B 5.388	**1 930-1 970** FIXED MOBILE 5.388A 5.388B Mobile-satellite (Earth-to-space) 5.388	**1 930-1 970** FIXED MOBILE 5.388A 5.388B 5.388	
1 970-1 980 FIXED MOBILE 5.388A 5.388B 5.388			5.388
1 980-2 010 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) 5.351A 5.388 5.389A 5.389B 5.389F			**1 980-2 010 (CIVIL)** FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) 5.351A 5.388 5.389A
2 010-2 025 FIXED MOBILE 5.388A 5.388B 5.388	**2 010-2 025** FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) 5.388 5.389C 5.389E	**2 010-2 025** FIXED MOBILE 5.388A 5.388B 5.388	**2 010-2 025 (CIVIL)** FIXED MOBILE 5.388A 5.388B 5.388
2 025-2 110 SPACE OPERATION (Earth-to-space) (space-to-space) EARTH EXPLORATION-SATELLITE (Earth-to-space) (space-to-space) FIXED MOBILE 5.391 SPACE RESEARCH (Earth-to-space) (space-to-space) 5.392			**2 025-2 070 (MILITARY)** SPACE OPERATION (Earth-to-space) (space-to-space) EARTH EXPLORATION-SATELLITE (Earth-to-space) (space-to-space) FIXED MOBILE 5.391 SPACE RESEARCH (Earth-to-space) (space-to-space) 5.392

2 070 – 2 300 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
			2 070-2 110 (CIVIL) SPACE OPERATION (Earth-to-space) (space-to-space) EARTH EXPLORATION-SATELLITE (Earth-to-space) (space-to-space) FIXED MOBILE 5.391 SPACE RESEARCH (Earth-to-space) (space-to-space) 5.392
2 110-2 120 FIXED MOBILE 5.388A 5.388B SPACE RESEARCH (deep space) (Earth-to-space) 5.388			**2 110-2 120 (CIVIL)** LAND MOBILE 5.388A 5.388B SPACE RESEARCH (deep space) (Earth-to-space) 5.388
2 120-2 160 FIXED MOBILE 5.388A 5.388B 5.388	**2 120-2 160** FIXED MOBILE 5.388A 5.388B Mobile-satellite (space-to-Earth) 5.388	**2 120-2 160** FIXED MOBILE 5.388A 5.388B 5.388	**2 120-2 170 (CIVIL)** LAND MOBILE 5.388A 5.388B 5.388
2 160-2 170 FIXED MOBILE 5.388A 5.388B 5.388	**2 160-2 170** FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.388 5.389C 5.389E	**2 160-2 170** FIXED MOBILE 5.388A 5.388B 5.388	
2 170-2 200 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A 5.388 5.389A 5.389F			**2 170-2 200 (CIVIL)** FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A 5.388 5.389A
2 200-2 290 SPACE OPERATION (space-to-Earth) (space-to-space) EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space) FIXED MOBILE 5.391 SPACE RESEARCH (space-to-Earth) (space-to-space) 5.392			**2 200-2 245 (MILITARY)** SPACE OPERATION (space-to-Earth) (space-to-space) EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space) FIXED MOBILE 5.391 SPACE RESEARCH (space-to-Earth) (space-to-space) 5.392
			2 245-2 290 (CIVIL) SPACE OPERATION (space-to-Earth) (space-to-space) EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space) FIXED MOBILE 5.391 SPACE RESEARCH (space-to-Earth) (space-to-space) 5.392
2 290-2 300 FIXED MOBILE except aeronautical mobile SPACE RESEARCH (deep space) (space-to-Earth)			**2 290-2 300 (CIVIL)** FIXED MOBILE except aeronautical mobile SPACE RESEARCH (deep space) (space-to-Earth)

2 300 – 2 655 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
2 300-2 450 FIXED MOBILE 5.384A Amateur Radiolocation 5.150 5.282 5.395	**2 300-2 450** FIXED MOBILE 5.384A RADIOLOCATION Amateur 5.150 5.282 5.393 5.394 5.396		**2 300-2 400 (CIVIL)** FIXED MOBILE Amateur Radiolocation 5.395 **2 400-2 450 (CIVIL)** FIXED MOBILE Amateur Radiolocation 5.150 5.282
2 450-2 483.5 FIXED MOBILE Radiolocation 5.150 5.397	**2 450-2 483.5** FIXED MOBILE RADIOLOCATION 5.150		**2 450-2 483.5 (CIVIL)** FIXED MOBILE Radiolocation 5.150
2 483.5-2 500 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A RADIODETERMINATION-SATELLITE (space-to-Earth) 5.398 Radiolocation 5.398A 5.150 5.399 5.401 5.402	**2 483.5-2 500** FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A RADIOLOCATION RADIODETERMINATION-SATELLITE (space-to-Earth) 5.398 5.150 5.402	**2 483.5-2 500** FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A RADIOLOCATION RADIODETERMINATION-SATELLITE (space-to-Earth) 5.398 Radiodetermination-satellite (space-to-Earth) 5.398 5.150 5.401 5.402	**2 483.5-2 500 (CIVIL)** FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A RADIODETERMINATION-SATELLITE (space-to-Earth) 5.398 Radiolocation 5.150 5.402
2 500-2 520 FIXED 5.410 MOBILE except aeronautical mobile 5.384A 5.405 5.412	**2 500-2 520** FIXED 5.410 FIXED-SATELLITE (space-to-Earth) 5.415 MOBILE except aeronautical mobile 5.384A 5.404	**2 500-2 520** FIXED 5.410 FIXED-SATELLITE (space-to-Earth) 5.415 MOBILE except aeronautical mobile 5.384A MOBILE-SATELLITE (space-to-Earth) 5.351A 5.407 5.414 5.414A 5.404 5.415A	**2 500-2 520 (CIVIL)** FIXED 5.410 MOBILE except aeronautical mobile 5.384A
2 520-2 655 FIXED 5.410 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.413 5.416 5.339 5.405 5.412 5.417C 5.417D 5.418B 5.418C	**2 520-2 655** FIXED 5.410 FIXED-SATELLITE (space-to-Earth) 5.415 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.413 5.416 5.339 5.417C 5.417D 5.418B 5.418C	**2 520-2 535** FIXED 5.410 FIXED-SATELLITE (space-to-Earth) 5.415 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.413 5.416 5.403 5.414A 5.415A **2 535-2 655** FIXED 5.410 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.413 5.416 5.339 5.417A 5.417B 5.417C 5.417D 5.418 5.418A 5.418B 5.418C	**2 520-2 655 (CIVIL)** FIXED 5.410 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.413 5.416 5.339 5.417C 5.417D 5.418B 5.418C

2 655 – 3 600 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
2 655-2 670 FIXED 5.410 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.208B 5.413 5.416 Earth exploration-satellite (passive) Radio astronomy Space research (passive) 5.149 5.412	**2 655-2 670** FIXED 5.410 FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.415 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.413 5.416 Earth exploration-satellite (passive) Radio astronomy Space research (passive) 5.149 5.208B	**2 655-2 670** FIXED 5.410 FIXED-SATELLITE (Earth-to-space) 5.415 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.413 5.416 Earth exploration-satellite (passive) Radio astronomy Space research (passive) 5.149 5.208B 5.420	**2 655-2 670 (CIVIL)** FIXED 5.410 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.208B 5.413 5.416 Earth exploration-satellite (passive) Radio astronomy Space research (passive) 5.149
2 670-2 690 FIXED 5.410 MOBILE except aeronautical mobile 5.384A Earth exploration-satellite (passive) Radio astronomy Space research (passive) 5.149 5.412	**2 670-2 690** FIXED 5.410 FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.208B 5.415 MOBILE except aeronautical mobile 5.384A Earth exploration-satellite (passive) Radio astronomy Space research (passive) 5.149	**2 670-2 690** FIXED 5.410 FIXED-SATELLITE (Earth-to-space) 5.415 MOBILE except aeronautical mobile 5.384A MOBILE-SATELLITE (Earth-to-space) 5.351A 5.419 Earth exploration-satellite (passive) Radio astronomy Space research (passive) 5.149	**2 670-2 690 (CIVIL)** FIXED 5.410 MOBILE except aeronautical mobile 5.384A Earth exploration-satellite (passive) Radio astronomy Space research (passive) 5.149
2 690-2 700 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.422			**2 690-2 700 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.422
2 700-2 900 AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation 5.423 5.424			**2 700-2 900 (SHARED)** AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation 5.423
2 900-3 100 RADIOLOCATION 5.424A RADIONAVIGATION 5.426 5.425 5.427			**2 900-3 100 (SHARED)** RADIOLOCATION 5.424A RADIONAVIGATION 5.426 5.425 5.427
3 100-3 300 RADIOLOCATION Earth exploration-satellite (active) Space research (active) 5.149 5.428			**3 100-3 300 (SHARED)** RADIOLOCATION Earth exploration-satellite (active) Space research (active) 5.149
3 300-3 400 RADIOLOCATION 5.149 5.429 5.430	**3 300-3 400** RADIOLOCATION Amateur Fixed Mobile 5.149	**3 300-3 400** RADIOLOCATION Amateur 5.149 5.429	**3 300-3 400 (SHARED)** FIXED MOBILE RADIOLOCATION 5.149
3 400-3 600 FIXED FIXED-SATELLITE (space-to-Earth) Mobile 5.430A Radiolocation 5.431	**3 400-3 500** FIXED FIXED-SATELLITE (space-to-Earth) Amateur Mobile 5.431A Radiolocation 5.433 5.282	**3 400-3 500** FIXED FIXED-SATELLITE (space-to-Earth) Amateur Mobile 5.432B Radiolocation 5.433 5.282 5.432 5.432A	**3 400-3 600 (CIVIL)** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.430A Radiolocation

3 500 – 5 250 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
	3 500-3 700 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile Radiolocation 5.433	**3 500-3 600** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.433A Radiolocation 5.433	
3 600-4 200 FIXED FIXED-SATELLITE (space-to-Earth) Mobile		**3 600-3 700** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile Radiolocation 5.435	**3 600-4 200 (CIVIL)** FIXED FIXED-SATELLITE (space-to-Earth) Mobile
	3 700-4 200 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile		
4 200-4 400	AERONAUTICAL RADIONAVIGATION 5.438 5.439 5.440		**4 200-4 400 (CIVIL)** AERONAUTICAL RADIONAVIGATION 5.438 5.440
4 400-4 500	FIXED MOBILE 5.440A		**4 400-4 500 (MILITARY)** FIXED MOBILE
4 500-4 800	FIXED FIXED-SATELLITE (space-to-Earth) 5.441 MOBILE 5.440A		**4 500-4 800 (SHARED)** FIXED FIXED-SATELLITE (space-to-Earth) 5.441 MOBILE
4 800-4 990	FIXED MOBILE 5.440A 5.442 Radio astronomy 5.149 5.339 5.443		**4 800-4 990 (MILITARY)** FIXED MOBILE 5.442 Radio astronomy 5.149
4 990-5 000	FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY Space research (passive) 5.149		**4 990-5 000 (MILITARY)** FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY Space research (passive) 5.149
5 000-5 010	AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (Earth-to-space)		**5 000-5 010 (CIVIL)** AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (Earth-to-space)
5 010-5 030	AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.443B		**5 010-5 030 (CIVIL)** AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.443B
5 030-5 091	AERONAUTICAL MOBILE (R) 5.443C AERONAUTICAL MOBILE-SATELLITE (R) 5.443D AERONAUTICAL RADIONAVIGATION 5.444		**5 030-5 091 (CIVIL)** AERONAUTICAL MOBILE (R) 5.443C AERONAUTICAL MOBILE-SATELLITE (R) 5.443D AERONAUTICAL RADIONAVIGATION 5.444
5 091-5 150	AERONAUTICAL MOBILE 5.444B AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION 5.444 5.444A		**5 091-5 150 (CIVIL)** AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION AERONAUTICAL MOBILE 5.444B 5.444 5.444A
5 150-5 250	AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (Earth-to-space) 5.447A MOBILE except aeronautical mobile 5.446A 5.446B 5.446 5.446C 5.447 5.447B 5.447C		**5 150-5 250 (CIVIL)** AERONAUTICAL RADIONAVIGATION AERONAUTICAL MOBILE 5.446C FIXED-SATELLITE (Earth-to-space) 5.447A MOBILE except aeronautical mobile 5.446A 5.446B 5.446 5.447B 5.447C

5 250 – 5 830 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
5 250-5 255 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH 5.447D MOBILE except aeronautical mobile 5.446A 5.447F 5.447E 5.448 5.448A			**5 250-5 255 (SHARED)** EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH 5.447D MOBILE except aeronautical mobile 5.446A 5.447F 5.448A
5 255- 5 350 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) MOBILE except aeronautical mobile 5.446A 5.447F 5.447E 5.448 5.448A			**5 255- 5 350 (SHARED)** EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) MOBILE except aeronautical mobile 5.446A 5.447F 5.448A
5 350-5 460 EARTH EXPLORATION-SATELLITE (active) 5.448B SPACE RESEARCH (active) 5.448C AERONAUTICAL RADIONAVIGATION 5.449 RADIOLOCATION 5.448D			**5 350-5 460 (SHARED)** EARTH EXPLORATION-SATELLITE (active) 5.448B SPACE RESEARCH (active) 5.448C AERONAUTICAL RADIONAVIGATION 5.449 RADIOLOCATION 5.448D
5 460-5 470 RADIONAVIGATION 5.449 EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) RADIOLOCATION 5.448D 5.448B			**5 460-5 470 (SHARED)** RADIONAVIGATION 5.449 EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) RADIOLOCATION 5.448D 5.448B
5 470-5 570 MARITIME RADIONAVIGATION MOBILE except aeronautical mobile 5.446A 5.450A EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) RADIOLOCATION 5.450B 5.448B 5.450 5.451			**5 470-5 570 (SHARED)** MARITIME RADIONAVIGATION MOBILE except aeronautical mobile 5.446A 5.450A EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) RADIOLOCATION 5.450B 5.448B
5 570-5 650 MARITIME RADIONAVIGATION MOBILE except aeronautical mobile 5.446A 5.450A RADIOLOCATION 5.450B 5.450 5.451 5.452			**5 570-5 650 (SHARED)** MARITIME RADIONAVIGATION MOBILE except aeronautical mobile 5.446A 5.450A RADIOLOCATION 5.450B 5.452
5 650-5 725 RADIOLOCATION MOBILE except aeronautical mobile 5.446A 5.450A Amateur Space research (deep space) 5.282 5.451 5.453 5.454 5.455			**5 650-5 725 (SHARED)** FIXED MOBILE 5.450A RADIOLOCATION Amateur Space research (deep space) 5.282
5 725-5 830 FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur 5.150 5.451 5.453 5.455 5.456	**5 725-5 830** RADIOLOCATION Amateur 5.150 5.453 5.455		**5 725-5 830 (SHARED)** FIXED MOBILE FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur 5.150

5 830 – 7 550 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
5 830-5 850 FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur Amateur-satellite (space-to-Earth) 5.150 5.451 5.453 5.455 5.456	**5 830-5 850** RADIOLOCATION Amateur Amateur-satellite (space-to-Earth) 5.150 5.453 5.455		**5 830-5 850 (SHARED)** FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur Amateur-satellite (space-to-Earth) 5.150 5.453
5 850-5 925 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.150	**5 850-5 925** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Amateur Radiolocation 5.150	**5 850-5 925** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Radiolocation 5.150	**5 850-5 925 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.150
5 925-6 700 FIXED 5.457 FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B MOBILE 5.457C 5.149 5.440 5.458			**5 925-6 700 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B MOBILE 5.149 5.440 5.458
6 700-7 075 FIXED FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.441 MOBILE 5.458 5.458A 5.458B 5.458C			**6 700-7 075 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.441 MOBILE 5.458 5.458A 5.458B 5.458C
7 075-7 145 FIXED MOBILE 5.458 5.459			**7 075-7 145 (CIVIL)** FIXED MOBILE 5.458
7 145-7 235 FIXED MOBILE SPACE RESEARCH (Earth-to-space) 5.460 5.458 5.459			**7 145-7 235 (CIVIL)** FIXED MOBILE SPACE RESEARCH (Earth-to-space) 5.460 5.458
7 235-7 250 FIXED MOBILE 5.458			**7 235-7 250 (CIVIL)** FIXED MOBILE 5.458
7 250-7 300 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE 5.461			**7 250-7 300 (SHARED)** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE 5.461
7 300-7 450 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.461			**7 300-7 450 (SHARED)** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.461
7 450-7 550 FIXED FIXED-SATELLITE (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.461A			**7 450-7 550 (SHARED)** FIXED FIXED-SATELLITE (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.461A

7 550 – 8 650 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
7 550-7 750	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile		**7 550-7 750 (SHARED)** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile
7 750-7 900	FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) 5.461B MOBILE except aeronautical mobile		**7 750-7 900 (SHARED)** FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) 5.461B MOBILE except aeronautical mobile
7 900-8 025	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.461		**7 900-8 025 (SHARED)** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.461
8 025-8 175	EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.463 5.462A		**8 025-8 175 (SHARED)** EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.463 5.462A
8 175-8 215	EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) MOBILE 5.463 5.462A		**8 175-8 215 (SHARED)** EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) MOBILE 5.463 5.462A
8 215-8 400	EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.463 5.462A		**8 215-8 400 (MILITARY)** EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.463 5.462A
8 400-8 500	FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) 5.465 5.466		**8 400-8 500 (MILITARY)** FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) 5.465
8 500-8 550	RADIOLOCATION 5.468 5.469		**8 500-8 550 (SHARED)** FIXED MOBILE RADIOLOCATION
8 550-8 650	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.468 5.469 5.469A		**8 550-8 650 (SHARED)** EARTH EXPLORATION-SATELLITE (active) FIXED MOBILE RADIOLOCATION SPACE RESEARCH (active) 5.469A

8 650 – 10 000 MHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
8 650-8 750	RADIOLOCATION 5.468 5.469		**8 650-8 750 (SHARED)** FIXED MOBILE RADIOLOCATION
8 750-8 850	RADIOLOCATION AERONAUTICAL RADIONAVIGATION 5.470 5.471		**8 750-8 850 (SHARED)** RADIOLOCATION AERONAUTICAL RADIONAVIGATION 5.470
8 850-9 000	RADIOLOCATION MARITIME RADIONAVIGATION 5.472 5.473		**8 850-9 000 (SHARED)** RADIOLOCATION MARITIME RADIONAVIGATION 5.472
9 000-9 200	AERONAUTICAL RADIONAVIGATION 5.337 RADIOLOCATION 5.471 5.473A		**9 000-9 200 (SHARED)** AERONAUTICAL RADIONAVIGATION 5.337 RADIOLOCATION 5.473A
9 200-9 300	RADIOLOCATION MARITIME RADIONAVIGATION 5.472 5.473 5.474		**9 200-9 300 (SHARED)** RADIOLOCATION MARITIME RADIONAVIGATION 5.472 5.474
9 300-9 500	RADIONAVIGATION EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) RADIOLOCATION 5.427 5.474 5.475 5.475A 5.475B 5.476A		**9 300-9 500 (SHARED)** RADIONAVIGATION 5.476 EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) RADIOLOCATION 5.427 5.474 5.475 5.475A 5.475B 5.476A
9 500-9 800	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION SPACE RESEARCH (active) 5.476A		**9 500-9 800 (SHARED)** EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION SPACE RESEARCH (active) 5.476A
9 800-9 900	RADIOLOCATION Earth exploration-satellite (active) Space research (active) Fixed 5.477 5.478 5.478A 5.478B		**9 800-9 900 (SHARED)** FIXED RADIOLOCATION Earth exploration-satellite (active) Space research (active) 5.478A 5.478B
9 900-10 000	RADIOLOCATION Fixed 5.477 5.478 5.479		**9 900-10 000 (SHARED)** FIXED RADIOLOCATION 5.479

10 – 12.5 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
10-10.45 FIXED MOBILE RADIOLOCATION Amateur 5.479	**10-10.45** RADIOLOCATION Amateur 5.479 5.480	**10-10.45** FIXED MOBILE RADIOLOCATION Amateur 5.479	**10-10.45 (SHARED)** FIXED MOBILE RADIOLOCATION Amateur 5.479
10.45-10.5 RADIOLOCATION Amateur Amateur-satellite 5.481			**10.45-10.5 (SHARED)** FIXED MOBILE RADIOLOCATION Amateur Amateur-satellite
10.5-10.55 FIXED MOBILE Radiolocation	**10.5-10.55** FIXED MOBILE RADIOLOCATION		**10.5-10.55 (CIVIL)** FIXED MOBILE Radiolocation
10.55-10.6 FIXED MOBILE except aeronautical mobile Radiolocation			**10.55-10.6 (CIVIL)** FIXED MOBILE except aeronautical mobile Radiolocation
10.6-10.68 EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) Radiolocation 5.149 5.482 5.482A			**10.6-10.68 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) Radiolocation 5.149 5.482 5.482A
10.68-10.7 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.483			**10.68-10.7 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340
10.7-11.7 FIXED FIXED-SATELLITE (space-to-Earth) 5.441 5.484A (Earth-to-space) 5.484 MOBILE except aeronautical mobile	**10.7-11.7** FIXED FIXED-SATELLITE (space-to-Earth) 5.441 5.484A MOBILE except aeronautical mobile		**10.7-11.7 (CIVIL)** FIXED FIXED-SATELLITE (space-to-Earth) 5.441 5.484A (Earth-to-space) 5.484 MOBILE except aeronautical mobile
11.7-12.5 FIXED MOBILE except aeronautical mobile BROADCASTING BROADCASTING-SATELLITE 5.492 5.487 5.487A	**11.7-12.1** FIXED 5.486 FIXED-SATELLITE (space-to-Earth) 5.484A 5.488 Mobile except aeronautical mobile 5.485 **12.1-12.2** FIXED-SATELLITE (space-to-Earth) 5.484A 5.488 5.485 5.489	**11.7-12.2** FIXED MOBILE except aeronautical mobile BROADCASTING BROADCASTING-SATELLITE 5.492 5.487 5.487A	**11.7-12.5 (CIVIL)** FIXED MOBILE except aeronautical mobile BROADCASTING BROADCASTING-SATELLITE 5.492

12.2 – 14.25 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
	12.2-12.7 FIXED MOBILE except aeronautical mobile BROADCASTING BROADCASTING-SATELLITE 5.492	**12.2-12.5** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile BROADCASTING 5.484A 5.487	
12.5-12.75 FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.494 5.495 5.496	5.487A 5.488 5.490 **12.7-12.75** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE except aeronautical mobile	**12.5-12.75** FIXED FIXED-SATELLITE (space-to-Earth) 5.484A MOBILE except aeronautical mobile BROADCASTING-SATELLITE 5.493	**12.5-12.75 (CIVIL)** FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space)
12.75-13.25	FIXED FIXED-SATELLITE (Earth-to-space) 5.441 MOBILE Space research (deep space) (space-to-Earth)		**12.75-13.25 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) 5.441 MOBILE Space research (deep space) (space-to-Earth)
13.25-13.4	EARTH EXPLORATION-SATELLITE (active) AERONAUTICAL RADIONAVIGATION 5.497 SPACE RESEARCH (active) 5.498A 5.499		**13.25-13.4 (CIVIL)** EARTH EXPLORATION-SATELLITE (active) AERONAUTICAL RADIONAVIGATION 5.497 SPACE RESEARCH (active) 5.498A
13.4-13.75	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH 5.501A Standard frequency and time signal-satellite (Earth-to-space) 5.499 5.500 5.501 5.501B		**13.4-13.75 (SHARED)** EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH 5.501A Standard frequency and time signal-satellite (Earth-to-space) 5.501B
13.75-14	FIXED-SATELLITE (Earth-to-space) 5.484A RADIOLOCATION Earth exploration-satellite Standard frequency and time signal-satellite (Earth-to-space) Space research 5.499 5.500 5.501 5.502 5.503		**13.75-14 (SHARED)** FIXED-SATELLITE (Earth-to-space) 5.484A RADIOLOCATION Earth exploration-satellite Standard frequency and time signal-satellite (Earth-to-space) Space research 5.502 5.503
14-14.25	FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 5.506B RADIONAVIGATION 5.504 Mobile-satellite (Earth-to-space) 5.504B 5.504C 5.506A Space research 5.504A 5.505		**14-14.25 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 RADIONAVIGATION 5.504 Mobile-satellite (Earth-to-space) 5.504B 5.504C 5.506A Space research 5.504A

14.25 – 15.43 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
14.25-14.3	FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 5.506B RADIONAVIGATION 5.504 Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.508A Space research 5.504A 5.505 5.508		**14.25-14.3 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 RADIONAVIGATION 5.504 Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.508A Space research 5.504A
14.3-14.4 FIXED FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 5.506B MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.509A Radionavigation-satellite 5.504A	**14.3-14.4** FIXED-SATELLITE (Earth-to-space) 5.457A 5.484A 5.506 5.506B Mobile-satellite (Earth-to-space) 5.506A Radionavigation-satellite 5.504A	**14.3-14.4** FIXED FIXED-SATELLITE (Earth-to-space) 5.457A 5.484A 5.506 5.506B MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.509A Radionavigation-satellite 5.504A	**14.3-14.4 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.509A Radionavigation-satellite 5.504A
14.4-14.47	FIXED FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 5.506B MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.509A Space research (space-to-Earth) 5.504A		**14.4-14.47 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.509A Space research (space-to-Earth) 5.504A
14.47-14.5	FIXED FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 5.506B MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.509A Radio astronomy 5.149 5.504A		**14.47-14.5 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.509A Radio astronomy 5.149 5.504A
14.5-14.8	FIXED FIXED-SATELLITE (Earth-to-space) 5.510 MOBILE Space research		**14.5-14.8 (SHARED)** FIXED FIXED-SATELLITE (Earth-to-space) 5.510 MOBILE Space research
14.8-15.35	FIXED MOBILE Space research 5.339		**14.8-15.35 (SHARED)** FIXED MOBILE Space research 5.339
15.35-15.4	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.511		**15.35-15.4 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340
15.4-15.43	15.4-15.43 RADIOLOCATION 5.511E 5.511F AERONAUTICAL RADIONAVIGATION 5.511D		**15.4-15.43 (CIVIL)** RADIOLOCATION 5.511E 5.511F AERONAUTICAL RADIONAVIGATION 5.511D

15.43 – 18.4 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
15.43-15.63	FIXED-SATELLITE (Earth-to-space) 5.511A RADIOLOCATION 5.511E 5.511F AERONAUTICAL RADIONAVIGATION 5.511C		**15.43-15.63 (CIVIL)** FIXED-SATELLITE (Earth-to-space) 5.511A RADIOLOCATION 5.511E 5.511F AERONAUTICAL RADIONAVIGATION 5.511C
15.63-15.7	15.63-15.7 RADIOLOCATION 5.511E 5.511F AERONAUTICAL RADIONAVIGATION 5.511D		**15.63-15.7 (CIVIL)** RADIOLOCATION 5.511E 5.511F AERONAUTICAL RADIONAVIGATION 5.511D
15.7-16.6	RADIOLOCATION 5.512 5.513		**15.7-16.6 (MILITARY)** FIXED MOBILE RADIOLOCATION
16.6-17.1	RADIOLOCATION Space research (deep space) (Earth-to-space) 5.512 5.513		**16.6-17.1 (MILITARY)** FIXED MOBILE RADIOLOCATION Space research (deep space) (Earth-to-space)
17.1-17.2	RADIOLOCATION 5.512 5.513		**17.1-17.2 (SHARED)** FIXED MOBILE RADIOLOCATION
17.2-17.3	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.512 5.513 5.513A		**17.2-17.3 (SHARED)** EARTH EXPLORATION-SATELLITE (active) FIXED MOBILE RADIOLOCATION SPACE RESEARCH (active) 5.513A
17.3-17.7 FIXED-SATELLITE (Earth-to-space) 5.516 (space-to-Earth) 5.516A 5.516B Radiolocation 5.514	**17.3-17.7** FIXED-SATELLITE (Earth-to-space) 5.516 BROADCASTING-SATELLITE Radiolocation 5.514 5.515	**17.3-17.7** FIXED-SATELLITE (Earth-to-space) 5.516 Radiolocation 5.514	**17.3-17.7 (SHARED)** FIXED-SATELLITE (Earth-to-space) 5.516 (space-to-Earth) 5.516A 5.516B Fixed Mobile Radiolocation 5.514
17.7-18.1 FIXED FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516 MOBILE	**17.7-17.8** FIXED FIXED-SATELLITE (space-to-Earth) 5.517 (Earth-to-space) 5.516 BROADCASTING-SATELLITE Mobile 5.515 **17.8-18.1** FIXED FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516 MOBILE 5.519	**17.7-18.1** FIXED FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516 MOBILE	**17.7-18.1 (SHARED)** FIXED FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516 MOBILE
18.1-18.4	FIXED FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B (Earth-to-space) 5.520 MOBILE 5.519 5.521		**18.1-18.4 (MILITARY)** FIXED FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B (Earth-to-space) 5.520 MOBILE 5.519

18.4 – 22 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
18.4-18.6 FIXED FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B MOBILE			**18.4-18.6 (MILITARY)** FIXED FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B MOBILE
18.6-18.8 EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) 5.522B MOBILE except aeronautical mobile Space research (passive) 5.522A 5.522C	**18.6-18.8** EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) 5.516B 5.522B MOBILE except aeronautical mobile SPACE RESEARCH (passive) 5.522A	**18.6-18.8** EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) 5.522B MOBILE except aeronautical mobile Space research (passive) 5.522A	**18.6-18.8 (MILITARY)** EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) 5.522B MOBILE except aeronautical mobile Space research (passive) 5.522A 5.522C
18.8-19.3 FIXED FIXED-SATELLITE (space-to-Earth) 5.516.B 5.523A MOBILE			**18.8-19.3 (MILITARY)** FIXED FIXED-SATELLITE (space-to-Earth) 5.516.B 5.523A MOBILE
19.3-19.7 FIXED FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 5.523B 5.523C 5.523D 5.523E MOBILE			**19.3-19.7 (MILITARY)** FIXED FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 5.523B 5.523C 5.523D 5.523E MOBILE
19.7-20.1 FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B Mobile-satellite (space-to-Earth) 5.524	**19.7-20.1** FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B MOBILE-SATELLITE (space-to-Earth) 5.524 5.525 5.526 5.527 5.528 5.529	**19.7-20.1** FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B Mobile-satellite (space-to-Earth) 5.524	**19.7-20.1 (CIVIL)** FIXED MOBILE FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B Mobile-satellite (space-to-Earth) 5.524
20.1-20.2 FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B MOBILE-SATELLITE (space-to-Earth) 5.524 5.525 5.526 5.527 5.528			**20.1-20.2 (CIVIL)** FIXED MOBILE FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B MOBILE-SATELLITE (space-to-Earth) 5.524 5.525 5.526 5.527 5.528
20.2-21.2 FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) Standard frequency and time signal-satellite (space-to-Earth) 5.524			**20.2-21.2 (SHARED)** FIXED MOBILE FIXED-SATELLITE(space-to-Earth) MOBILE-SATELLITE (space-to-Earth) Standard frequency and time signal-satellite (space-to-Earth) 5.524
21.2-21.4 EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)			**21.2-21.4 (MILITARY)** EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)
21.4-22 FIXED MOBILE BROADCASTING-SATELLITE 5.208B 5.530A 5.530B 5.530C 5.530D	**21.4-22** FIXED MOBILE 5.530A 5.530C	**21.4-22** FIXED MOBILE BROADCASTING-SATELLITE 5.208B 5.530A 5.530B 5.530C 5.530D 5.531	**21.4-22 (CIVIL)** FIXED MOBILE BROADCASTING-SATELLITE 5.208B 5.530A 5.530B 5.530C 5.530D

22 – 25.25 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
22-22.21 FIXED MOBILE except aeronautical mobile 5.149			**22-22.21 (CIVIL)** FIXED MOBILE except aeronautical mobile 5.149
22.21-22.5 EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) 5.149 5.532			**22.21-22.5 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) 5.149 5.532
22.5-22.55 FIXED MOBILE			**22.5-22.55 (CIVIL)** FIXED MOBILE
22.55-23.15 FIXED INTER-SATELLITE 5.338A MOBILE SPACE RESEARCH (Earth-to-space) 5.532A 5.149			**22.55-22.6 (CIVIL)** FIXED INTER-SATELLITE 5.338A MOBILE SPACE RESEARCH (Earth-to-space) 5.532A **22.6-23 (MILITARY)** FIXED INTER-SATELLITE 5.338A MOBILE SPACE RESEARCH (Earth-to-space) 5.532A **23-23.15 (CIVIL)** FIXED INTER-SATELLITE 5.338A MOBILE SPACE RESEARCH (Earth-to-space) 5.532A 5.149
23.15-23.55 FIXED INTER-SATELLITE 5.338A MOBILE			**23.15-23.55 (CIVIL)** FIXED INTER-SATELLITE 5.338A MOBILE
23.55-23.6 FIXED MOBILE			**23.55-23.6 (CIVIL)** FIXED MOBILE
23.6-24 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340			**23.6-24 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340
24-24.05 AMATEUR AMATEUR-SATELLITE 5.150			**24-24.05 (CIVIL)** AMATEUR AMATEUR-SATELLITE 5.150
24.05-24.25 RADIOLOCATION Amateur Earth exploration-satellite (active) 5.150			**24.05-24.25 (SHARED)** RADIOLOCATION Amateur Earth exploration-satellite (active) 5.150
24.25-24.45 FIXED	**24.25-24.45** RADIONAVIGATION	**24.25-24.45** RADIONAVIGATION FIXED MOBILE	**24.25-24.45 (CIVIL)** FIXED
24.45-24.65 FIXED INTER-SATELLITE	**24.45-24.65** INTER-SATELLITE RADIONAVIGATION 5.533	**24.45-24.65** FIXED INTER-SATELLITE MOBILE RADIONAVIGATION 5.533	**24.45-24.65 (CIVIL)** FIXED INTER-SATELLITE
24.65-24.75 FIXED FIXED-SATELLITE (Earth-to-space) 5.532B INTER-SATELLITE	**24.65-24.75** INTER-SATELLITE RADIOLOCATION-SATELLITE (Earth-to-space)	**24.65-24.75** FIXED INTER-SATELLITE MOBILE 5.533	**24.65-24.75 (CIVIL)** FIXED INTER-SATELLITE
24.75-25.25 FIXED FIXED-SATELLITE (Earth-to-space) 5.532B	**24.75-25.25** FIXED-SATELLITE (Earth-to-space) 5.535	**24.75-25.25** FIXED FIXED-SATELLITE (Earth-to-space) 5.535 MOBILE	**24.75-25.25 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) 5.532B

25.25 – 29.5 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
25.25-25.5	FIXED INTER-SATELLITE 5.536 MOBILE Standard frequency and time signal-satellite (Earth-to-space)		**25.25-25.5 (CIVIL)** FIXED INTER-SATELLITE 5.536 MOBILE Standard frequency and time signal-satellite (Earth-to-space)
25.5-27	EARTH EXPLORATION-SATELLITE (space-to Earth) 5.536B FIXED INTER-SATELLITE 5.536 MOBILE SPACE RESEARCH (space-to-Earth) 5.536C Standard frequency and time signal-satellite (Earth-to-space) 5.536A		**25.5-26.5 (CIVIL)** EARTH EXPLORATION-SATELLITE (space-to Earth) 5.536B FIXED INTER-SATELLITE 5.536 MOBILE SPACE RESEARCH (space-to-Earth) 5.536C Standard frequency and time signal-satellite (Earth-to-space) 5.536A **26.5-27 (MILITARY)** EARTH EXPLORATION-SATELLITE (space-to Earth) 5.536A 5.536B FIXED INTER-SATELLITE 5.536 MOBILE SPACE RESEARCH (space-to-Earth) 5.536A 5.536C Standard frequency and time signal-satellite (Earth-to-space) 5.536A
27-27.5 FIXED INTER-SATELLITE 5.536 MOBILE	**27-27.5** FIXED FIXED-SATELLITE (Earth-to-space) INTER-SATELLITE 5.536 5.537 MOBILE		**27-27.5 (MILITARY)** FIXED INTER-SATELLITE 5.536 MOBILE
27.5-28.5	FIXED 5.537A FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539 MOBILE 5.538 5.540		**27.5-28.5 (CIVIL)** FIXED 5.537A FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539 MOBILE 5.538 5.540
28.5-29.1	FIXED FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.523A 5.539 MOBILE Earth exploration-satellite (Earth-to-space) 5.541 5.540		**28.5-29.1 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.523A 5.539 MOBILE Earth exploration-satellite (Earth-to-space) 5.541 5.540
29.1-29.5	FIXED FIXED-SATELLITE (Earth-to-space) 5.516B 5.523C 5.523E 5.535A 5.539 5.541A MOBILE Earth exploration-satellite (Earth-to-space) 5.541 5.540		**29.1-29.5 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) 5.516B 5.523C 5.523E 5.535A 5.539 5.541A MOBILE Earth exploration-satellite (Earth-to-space) 5.541 5.540

29.5 – 32.3 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
29.5-29.9 FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539 Earth exploration-satellite (Earth-to-space) 5.541 Mobile-satellite (Earth-to-space) 5.540 5.542	**29.5-29.9** FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539 MOBILE-SATELLITE (Earth-to-space) Earth exploration-satellite (Earth-to-space) 5.541 5.525 5.526 5.527 5.529 5.540 5.542	**29.5-29.9** FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539 Earth exploration-satellite (Earth-to-space) 5.541 Mobile-satellite (Earth-to-space) 5.540 5.542	**29.5-29.9 (CIVIL)** FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539 Earth exploration-satellite (Earth-to-space) 5.541 Mobile-satellite (Earth-to-space) Fixed 5.542 Mobile 5.542 5.540
29.9-30 FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539 MOBILE-SATELLITE (Earth-to-space) Earth exploration-satellite (Earth-to-space) 5.541 5.543 5.525 5.526 5.527 5.538 5.540 5.542			**29.9-30 (CIVIL)** FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539 MOBILE-SATELLITE (Earth-to-space) Earth exploration-satellite (Earth-to-space) 5.541 5.543 Fixed 5.542 Mobile 5.542 5.525 5.526 5.527 5.538 5.540
30-31 FIXED-SATELLITE (Earth-to-space) 5.338A MOBILE-SATELLITE (Earth-to-space) Standard frequency and time signal-satellite (space-to-Earth) 5.542			**30-31 (SHARED)** FIXED-SATELLITE (Earth-to-space) 5.338A MOBILE-SATELLITE (Earth-to-space) Standard frequency and time signal-satellite (space-to-Earth) Fixed 5.542 Mobile 5.542
31-31.3 FIXED 5.338A 5.543A MOBILE Standard frequency and time signal-satellite (space-to-Earth) Space research 5.544 5.545 5.149			**31-31.3 (CIVIL)** FIXED 5.338A MOBILE Standard frequency and time signal-satellite (space-to-Earth) Space research 5.544 5.149
31.3-31.5 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340			**31.3-31.5 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340
31.5-31.8 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149 5.546	**31.5-31.8** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	**31.5-31.8** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149	**31.5-31.8 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149
31.8-32 FIXED 5.547A RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth) 5.547 5.547B 5.548			**31.8-32 (CIVIL)** FIXED 5.547A RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth) 5.547 5.548
32-32.3 FIXED 5.547A RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth) 5.547 5.547C 5.548			**32-32.3 (CIVIL)** FIXED 5.547A RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth) 5.547 5.548

32.3 – 37.5 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
32.3-33	FIXED 5.547A INTER-SATELLITE RADIONAVIGATION 5.547 5.547D 5.548		**32.3-33 (CIVIL)** FIXED 5.547A INTER-SATELLITE RADIONAVIGATION 5.547 5.548
33-33.4	FIXED 5.547A RADIONAVIGATION 5.547 5.547E		**33-33.4 (CIVIL)** FIXED 5.547A RADIONAVIGATION 5.547
33.4-34.2	RADIOLOCATION 5.549		**33.4-34.2 (SHARED)** FIXED MOBILE RADIOLOCATION
34.2-34.7	RADIOLOCATION SPACE RESEARCH (deep space) (Earth-to-space) 5.549		**34.2-34.7 (SHARED)** FIXED MOBILE RADIOLOCATION SPACE RESEARCH (deep space) (Earth-to-space)
34.7-35.2	RADIOLOCATION Space research 5.550 5.549		**34.7-35.2 (SHARED)** FIXED MOBILE RADIOLOCATION Space research 5.550
35.2-35.5	METEOROLOGICAL AIDS RADIOLOCATION 5.549		**35.2-35.5 (SHARED)** FIXED METEOROLOGICAL AIDS MOBILE RADIOLOCATION
35.5-36	METEOROLOGICAL AIDS EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.549 5.549A		**35.5-36 (SHARED)** FIXED METEOROLOGICAL AIDS MOBILE EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.549A
36-37	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 5.149 5.550A		**36-37 (SHARED)** EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 5.149 5.550A
37-37.5	FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) 5.547		**37-37.5 (SHARED)** FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) 5.547

37.5 – 42.5 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
37.5-38 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) Earth exploration-satellite (space-to-Earth) 5.547			**37.5-38 (SHARED)** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) Earth exploration-satellite (space-to-Earth) 5.547
38-39.5 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Earth exploration-satellite (space-to-Earth) 5.547			**38-39.5 (SHARED)** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Earth exploration-satellite (space-to-Earth) 5.547
39.5-40 FIXED FIXED-SATELLITE (space-to-Earth) 5.516B MOBILE MOBILE-SATELLITE (space-to-Earth) Earth exploration-satellite (space-to-Earth) 5.547			**39.5-40 (SHARED)** FIXED FIXED-SATELLITE (space-to-Earth) 5.516B MOBILE MOBILE-SATELLITE (space-to-Earth) Earth exploration-satellite (space-to-Earth) 5.547
40-40.5 EARTH EXPLORATION-SATELLITE (Earth-to-space) FIXED FIXED-SATELLITE (space-to-Earth) 5.516B MOBILE MOBILE-SATELLITE (space-to-Earth) SPACE RESEARCH (Earth-to-space) Earth exploration-satellite (space-to-Earth)			**40-40.5 (SHARED)** EARTH EXPLORATION-SATELLITE (Earth-to-space) FIXED FIXED-SATELLITE (space-to-Earth) 5.516B MOBILE MOBILE-SATELLITE (space-to-Earth) SPACE RESEARCH (Earth-to-space) Earth exploration-satellite (space-to-Earth)
40.5-41 FIXED FIXED-SATELLITE (space-to-Earth) BROADCASTING BROADCASTING-SATELLITE Mobile 5.547	**40.5-41** FIXED FIXED-SATELLITE (space-to-Earth) 5.516B BROADCASTING BROADCASTING-SATELLITE Mobile Mobile-satellite (space-to-Earth) 5.547	**40.5-41** FIXED FIXED-SATELLITE (space-to-Earth) BROADCASTING BROADCASTING-SATELLITE Mobile 5.547	**40.5-41 (CIVIL)** FIXED FIXED-SATELLITE (space-to-Earth) BROADCASTING BROADCASTING-SATELLITE Mobile 5.547
41-42.5 FIXED FIXED-SATELLITE (space-to-Earth) 5.516B BROADCASTING BROADCASTING-SATELLITE Mobile 5.547 5.551F 5.551H 5.551I			**41-42.5 (CIVIL)** FIXED FIXED-SATELLITE (space-to-Earth) 5.516B BROADCASTING BROADCASTING-SATELLITE Mobile 5.547 5.551H 5.551I

42.5 – 50.2 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
42.5-43.5 FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149 5.547			**42.5-43.5 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149 5.547
43.5-47 MOBILE 5.553 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554			**43.5-45.5 (MILITARY)** MOBILE 5.553 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554
			45.5-47 (CIVIL) MOBILE 5.553 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554
47-47.2 AMATEUR AMATEUR-SATELLITE			**47-47.2 (CIVIL)** AMATEUR AMATEUR-SATELLITE
47.2-47.5 FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.552A			**47.2-47.5 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.552A
47.5-47.9 FIXED FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B 5.554A MOBILE	**47.5-47.9** FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE		**47.5-47.9 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B 5.554A MOBILE
47.9-48.2 FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.552A			**47.9-48.2 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.552A
48.2-48.54 FIXED FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B 5.554A 5.555B MOBILE	**48.2-50.2** FIXED FIXED-SATELLITE (Earth-to-space) 5.516B 5.338A 5.552 MOBILE		**48.2-48.54 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B 5.554A 5.555B MOBILE
48.54-49.44 FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.149 5.340 5.555			**48.54-49.44 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.149 5.340 5.555
49.44-50.2 FIXED FIXED-SATELLITE (Earth-to-space) 5.338A 5.552 (space-to-Earth) 5.516B 5.554A 5.555B MOBILE	5.149 5.340 5.555		**49.44-50.2 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) 5.338A 5.552 (space-to-Earth) 5.516B 5.554A 5.555B MOBILE

50.2 – 59 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
50.2-50.4	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340		**50.2-50.4 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340
50.4-51.4	FIXED FIXED-SATELLITE (Earth-to-space) 5.338A MOBILE Mobile-satellite (Earth-to-space)		**50.4-51.4 (SHARED)** FIXED FIXED-SATELLITE (Earth-to-space) 5.338A MOBILE Mobile-satellite (Earth-to-space)
51.4-52.6	FIXED 5.338A MOBILE 5.547 5.556		**51.4-52.6 (CIVIL)** FIXED 5.338A MOBILE 5.547 5.556
52.6-54.25	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340 5.556		**52.6-54.25 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340 5.556
54.25-55.78	EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.556A SPACE RESEARCH (passive) 5.556B		**54.25-55.78 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.556A SPACE RESEARCH (passive)
55.78-56.9	EARTH EXPLORATION-SATELLITE (passive) FIXED 5.557A INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (passive) 5.547 5.557		**55.78-56.9 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) FIXED 5.557A INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (passive) 5.547
56.9-57	EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.558A MOBILE 5.558 SPACE RESEARCH (passive) 5.547 5.557		**56.9-57 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.558A MOBILE 5.558 SPACE RESEARCH (passive) 5.547
57-58.2	EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (passive) 5.547 5.557		**57-58.2 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (passive) 5.547
58.2-59	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 5.547 5.556		**58.2-59 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 5.547 5.556

59 – 76 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
59-59.3	EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 RADIOLOCATION 5.559 SPACE RESEARCH (passive)		**59-59.3 (SHARED)** EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 RADIOLOCATION 5.559 SPACE RESEARCH (passive)
59.3-64	FIXED INTER-SATELLITE MOBILE 5.558 RADIOLOCATION 5.559 5.138		**59.3-64 (SHARED)** FIXED INTER-SATELLITE MOBILE 5.558 RADIOLOCATION 5.559 5.138
64-65	FIXED INTER-SATELLITE MOBILE except aeronautical mobile 5.547 5.556		**64-65 (CIVIL)** FIXED INTER-SATELLITE MOBILE except aeronautical mobile 5.547 5.556
65-66	EARTH EXPLORATION-SATELLITE FIXED INTER-SATELLITE MOBILE except aeronautical mobile SPACE RESEARCH 5.547		**65-66 (CIVIL)** EARTH EXPLORATION-SATELLITE FIXED INTER-SATELLITE MOBILE except aeronautical mobile SPACE RESEARCH 5.547
66-71	INTER-SATELLITE MOBILE 5.553 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554		**66-71 (CIVIL)** INTER-SATELLITE MOBILE 5.553 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554
71-74	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth)		**71-74 (SHARED)** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth)
74-76	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE BROADCASTING BROADCASTING-SATELLITE Space research (space-to-Earth) 5.561		**74-75.5 (CIVIL)** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE BROADCASTING BROADCASTING-SATELLITE Space research (space-to-Earth) 5.559A 5.561 **75.5-76 (SHARED)** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE BROADCASTING BROADCASTING-SATELLITE Space research (space-to-Earth) 5.561

76 – 94 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
76-77.5	RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite Space research (space-to-Earth) 5.149		**76-77.5 (SHARED)** RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite Space research (space-to-Earth) 5.149
77.5-78	AMATEUR AMATEUR-SATELLITE Radio astronomy Space research (space-to-Earth) 5.149		**77.5-78 (CIVIL)** AMATEUR AMATEUR-SATELLITE Radio astronomy Space research (space-to-Earth) 5.149
78-79	RADIOLOCATION Amateur Amateur-satellite Radio astronomy Space research (space-to-Earth) 5.149 5.560		**78-79 (CIVIL)** RADIOLOCATION Amateur Amateur-satellite Radio astronomy Space research (space-to-Earth) 5.149 5.560
79-81	RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite Space research (space-to-Earth) 5.149		**79-81 (SHARED)** RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite Space research (space-to-Earth) 5.149
81-84	FIXED 5.338A FIXED-SATELLITE (Earth-to-space) MOBILE MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY Space research (space-to-Earth) 5.149 5.561A		**81-84 (SHARED)** FIXED 5.338A FIXED-SATELLITE (Earth-to-space) MOBILE MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY Space research (space-to-Earth) 5.149 5.561A
84-86	FIXED 5.338A FIXED-SATELLITE (Earth-to-space) 5.561B MOBILE RADIO ASTRONOMY 5.149		**84-86 (CIVIL)** FIXED 5.338A FIXED-SATELLITE (Earth-to-space) 5.561B MOBILE RADIO ASTRONOMY 5.149
86-92	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340		**86-92 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340
92-94	FIXED 5.338A MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149		**92-94 (SHARED)** FIXED 5.338A MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149

94 – 116 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
94-94.1	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) Radio astronomy 5.562 5.562A		**94-94.1 (SHARED)** EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) Radio astronomy 5.562 5.562A
94.1-95	FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149		**94.1-95 (SHARED)** FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149
95-100	FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.554		**95-100 (SHARED)** FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.554
100-102	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341		**100-102 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341
102-105	FIXED MOBILE RADIO ASTRONOMY 5.149 5.341		**102-105 (CIVIL)** FIXED MOBILE RADIO ASTRONOMY 5.149 5.341
105-109.5	FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.341		**105-109.5 (CIVIL)** FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.341
109.5-111.8	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341		**109.5-111.8 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341
111.8-114.25	FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.341		**111.8-114.25 (CIVIL)** FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.341
114.25-116	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341		**114.25-116 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341

116 – 151.5 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
116-119.98	EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562C SPACE RESEARCH (passive) 5.341		**116-119.98 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562C SPACE RESEARCH (passive) 5.341
119.98-122.25	EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562C SPACE RESEARCH (passive) 5.138 5.341		**119.98-122.25 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562C SPACE RESEARCH (passive) 5.138 5.341
122.25-123	FIXED INTER-SATELLITE MOBILE 5.558 Amateur 5.138		**122.25-123 (CIVIL)** FIXED INTER-SATELLITE MOBILE 5.558 Amateur 5.138
123-130	FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) RADIONAVIGATION RADIONAVIGATION-SATELLITE Radio astronomy 5.562D 5.149 5.554		**123-130 (CIVIL)** FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) RADIONAVIGATION RADIONAVIGATION-SATELLITE Radio astronomy 5.149 5.554
130-134	EARTH EXPLORATION-SATELLITE (active) 5.562E FIXED INTER-SATELLITE MOBILE 5.558 RADIO ASTRONOMY 5.149 5.562A		**130-134 (CIVIL)** EARTH EXPLORATION-SATELLITE (active) 5.562E FIXED INTER-SATELLITE MOBILE 5.558 RADIO ASTRONOMY 5.149 5.562A
134-136	AMATEUR AMATEUR-SATELLITE Radio astronomy		**134-136 (CIVIL)** AMATEUR AMATEUR-SATELLITE Radio astronomy
136-141	RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite 5.149		**136-141 (CIVIL)** RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite 5.149
141-148.5	FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149		**141-148.5 (CIVIL)** FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149
148.5-151.5	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340		**148.5-151.5 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340

151.5 – 191.8 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
151.5-155.5	FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149		**151.5-155.5 (CIVIL)** FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149
155.5-158.5	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.562F 5.562G		**155.5-158.5 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.562G
158.5-164	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth)		**158.5-164 (CIVIL)** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth)
164-167	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340		**164-167 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340
167-174.5	FIXED FIXED-SATELLITE (space-to-Earth) INTER-SATELLITE MOBILE 5.558 5.149 5.562D		**167-174.5 (CIVIL)** FIXED FIXED-SATELLITE (space-to-Earth) INTER-SATELLITE MOBILE 5.558 5.149
174.5-174.8	FIXED INTER-SATELLITE MOBILE 5.558		**174.5-174.8 (CIVIL)** FIXED INTER-SATELLITE MOBILE 5.558
174.8-182	EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562H SPACE RESEARCH (passive)		**174.8-182 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562H SPACE RESEARCH (passive)
182-185	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340		**182-185 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340
185-190	EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562H SPACE RESEARCH (passive)		**185-190 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562H SPACE RESEARCH (passive)
190-191.8	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340		**190-191.8 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340

191.8 – 238 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
191.8-200	FIXED INTER-SATELLITE MOBILE 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.341 5.554		**191.8-200 (CIVIL)** FIXED INTER-SATELLITE MOBILE 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.341 5.554
200-202	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341 5.563A		**200-202 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341 5.563A
202-209	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341 5.563A		**202-209 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341 5.563A
209-217	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY 5.149 5.341		**209-217 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY 5.149 5.341
217-226	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.341		**217-226 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.341
226-231.5	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340		**226-231.5 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340
231.5-232	FIXED MOBILE Radiolocation		**231.5-232 (CIVIL)** FIXED MOBILE Radiolocation
232-235	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Radiolocation		**232-235 (CIVIL)** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Radiolocation
235-238	EARTH EXPLORATION-SATELLITE (passive) FIXED-SATELLITE (space-to-Earth) SPACE RESEARCH (passive) 5.563A 5.563B		**235-238 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) FIXED-SATELLITE (space-to-Earth) SPACE RESEARCH (passive) 5.563A 5.563B

238 – 3000 GHz

Allocation to services			
Region 1	**Region 2**	**Region 3**	**Sultanate of Oman**
238-240	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE		**238-240 (CIVIL)** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE
240-241	FIXED MOBILE RADIOLOCATION		**240-241 (CIVIL)** FIXED MOBILE RADIOLOCATION
241-248	RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite 5.138 5.149		**241-248 (CIVIL)** RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite 5.138 5.149
248-250	AMATEUR AMATEUR-SATELLITE Radio astronomy 5.149		**248-250 (CIVIL)** AMATEUR AMATEUR-SATELLITE Radio astronomy 5.149
250-252	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.563A		**250-252 (CIVIL)** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.563A
252-265	FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.554		**252-265 (CIVIL)** FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.554
265-275	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY 5.149 5.563A		**265-275 (CIVIL)** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY 5.149 5.563A
275-3 000	(Not allocated) 5.565		**275-3 000** (Not allocated) 5.565

2.4 Footnots

The footnotes referenced in the Regional columns (Regions 1, 2 and 3. See Figure 1) of table of national frequency allocation in the format "5.*nnn*" provided here from Article 5, Vol.1, ITU Radio Regulations. Therefore, same notation has been kept intact to ease for further investigation in ITU legal documents.

OMA 1 Additional allocation: The operation of the amateur stations in 50-52 MHz band in Sultanate of Oman is allowed subject to the application of the No. 4.4 of the RR; it shall not cause harmful interference to, and shall not claim protection from harmful interference caused by, a station of a primary and secondary services in this band, (Decision No. 4/2010 issued by the frequency spectrum allocation committe).

5.53 Administrations authorizing the use of frequencies below 8.3 kHz shall ensure that no harmful interference is caused to services to which the bands above 8.3 kHz are allocated. (WRC-12)

5.54 Administrations conducting scientific research using frequencies below 8.3 kHz are urged to advise other administrations that may be concerned in order that such research may be afforded all practicable protection from harmful interference. (WRC-12)

5.54A Use of the 8.3-11.3 kHz frequency band by stations in the meteorological aids service is limited to passive use only. In the band 9-11.3 kHz, meteorological aids stations shall not claim protection from stations of the radionavigation service submitted for notification to the Bureau prior to 1 January 2013. For sharing between stations of the meteorological aids service and stations in the radionavigation service submitted for notification after this date, the most recent version of Recommendation ITU-R RS.1881 should be applied. (WRC-12)

5.54B *Additional allocation*: in Algeria, Saudi Arabia, Egypt, the United Arab Emirates, the Russian Federation, Iraq, Lebanon, Morocco, Qatar, the Syrian Arab Republic, Sudan and Tunisia, the frequency band 8.3- 9 kHz is also allocated to the radionavigation, fixed and mobile services on a primary basis. (WRC-12)

5.54C *Additional allocation*: in China, the frequency band 8.3-9 kHz is also allocated to the maritime radionavigation and maritime mobile services on a primary basis. (WRC-12)

5.55 *Additional allocation:* in Armenia, Azerbaijan, the Russian Federation, Georgia, Kyrgyzstan, Tajikistan and Turkmenistan, the band 14-17 kHz is also allocated to the radionavigation service on a primary basis. (WRC-07)

5.56 The stations of services to which the bands 14-19.95 kHz and 20.05-70 kHz and in Region 1 also the bands 72-84 kHz and 86-90 kHz are allocated may transmit standard frequency and time signals. Such stations shall be afforded protection from harmful interference. In Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan, the frequencies 25 kHz and 50 kHz will be used for this purpose under the same conditions. (WRC-12)

5.57 The use of the bands 14-19.95 kHz, 20.05-70 kHz and 70-90 kHz (72-84 kHz and 86-90 kHz in Region 1) by the maritime mobile service is limited to coast radiotelegraph stations (A1A and F1B only). Exceptionally, the use of class J2B or J7B emissions is authorized subject to the necessary bandwidth not exceeding that normally used for class A1A or F1B emissions in the band concerned.

5.58 *Additional allocation:* in Armenia, Azerbaijan, the Russian Federation, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan, the band 67-70 kHz is also allocated to the radionavigation service on a primary basis. (WRC-2000)

5.59 *Different category of service:* in Bangladesh and Pakistan, the allocation of the bands 70-72 kHz and 84-86 kHz to the fixed and maritime mobile services is on a primary basis (see No. **5.33**). (WRC-2000)

5.60 In the bands 70-90 kHz (70-86 kHz in Region 1) and 110-130 kHz (112-130 kHz in Region 1), pulsed radionavigation systems may be used on condition that they do not cause harmful interference to other services to which these bands are allocated.

5.61 In Region 2, the establishment and operation of stations in the maritime radionavigation service in the bands 70-90 kHz and 110-130 kHz shall be subject to agreement obtained under No. **9.21** with administrations whose services, operating in accordance with the Table, may be affected. However, stations of the fixed, maritime mobile and radiolocation services shall not cause harmful interference to stations in the maritime radionavigation service established under such agreements.

5.62 Administrations which operate stations in the radionavigation service in the band 90-110 kHz are urged to coordinate technical and operating characteristics in such a way as to avoid harmful interference to the services provided by these stations.

5.63 (SUP - WRC-97)

5.64 Only classes A1A or F1B, A2C, A3C, F1C or F3C emissions are authorized for stations of the fixed service in the bands allocated to this service between 90 kHz and 160 kHz (148.5 kHz in Region 1) and for stations of the maritime mobile service in the bands allocated to this service between 110 kHz and 160 kHz (148.5 kHz in Region 1). Exceptionally, class J2B or J7B emissions are also authorized in the bands between 110 kHz and 160 kHz (148.5 kHz in Region 1) for stations of the maritime mobile service.

5.65 *Different category of service:* in Bangladesh, the allocation of the bands 112-117.6 kHz and 126-129 kHz to the fixed and maritime mobile services is on a primary basis (see No. **5.33**). (WRC-2000)

5.66 *Different category of service:* in Germany, the allocation of the band 115-117.6 kHz to the fixed and maritime mobile services is on a primary basis (see No. **5.33**) and to the radionavigation service on a secondary basis (see No. **5.32**).

5.67 *Additional allocation:* in Mongolia, Kyrgyzstan and Turkmenistan, the band 130-148.5 kHz is also allocated to the radionavigation service on a secondary basis. Within and between these countries this service shall have an equal right to operate. (WRC-07)

5.67A Stations in the amateur service using frequencies in the band 135.7-137.8 kHz shall not exceed a maximum radiated power of 1 W (e.i.r.p.) and shall not cause harmful interference to stations of the radionavigation service operating in countries listed in No. **5.67**. (WRC-07)

5.67B The use of the band 135.7-137.8 kHz in Algeria, Egypt, Iran (Islamic Republic of), Iraq, Lebanon, Syrian Arab Republic, Sudan South Sudan and Tunisia is limited to the fixed and maritime mobile services. The amateur service shall not be used in the above-mentioned countries in the band 135.7-137.8 kHz, and this should be taken into account by the countries authorizing such use. (WRC-12)

5.68 *Alternative allocation:* in Angola, Congo (Rep. of the), the Dem. Rep. of the Congo and South Africa, the band 160-200 kHz is allocated to the fixed service on a primary basis. (WRC-12)

5.69 *Additional allocation:* in Somalia, the band 200-255 kHz is also allocated to the aeronautical radionavigation service on a primary basis.

5.70 *Alternative allocation:* in Angola, Botswana, Burundi, the Central African Rep., Congo (Rep. of the), Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Nigeria, Oman, the Dem. Rep. of the Congo, South Africa, Swaziland, Tanzania, Chad, Zambia and Zimbabwe, the band 200-283.5 kHz is allocated to the aeronautical radionavigation service on a primary basis. (WRC-12)

5.71 *Alternative allocation:* in Tunisia, the band 255-283.5 kHz is allocated to the broadcasting service on a primary basis.

5.73 The band 285-325 kHz (283.5-325 kHz in Region 1) in the maritime radionavigation service may be used to transmit supplementary navigational information using narrow-band techniques, on condition that no harmful interference is caused to radiobeacon stations operating in the radionavigation service. (WRC-97)

5.74 *Additional Allocation:* in Region 1, the frequency band 285.3-285.7 kHz is also allocated to the maritime radionavigation service (other than radiobeacons) on a primary basis.

5.75 *Different category of service:* in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Moldova, Kyrgyzstan, Tajikistan, Turkmenistan, Ukraine and the Black Sea areas of Romania, the allocation of the band 315-325 kHz to the maritime radionavigation service is on a primary basis under the condition that in the Baltic Sea area, the assignment of frequencies in this band to new stations in the maritime or aeronautical radionavigation services shall be subject to prior consultation between the administrations concerned. (WRC-07)

5.76 The frequency 410 kHz is designated for radio direction-finding in the maritime radionavigation service. The other radionavigation services to which the band 405-415 kHz is allocated shall not cause harmful

interference to radio direction-finding in the band 406.5-413.5 kHz.

5.77 *Different category of service:* in Australia, China, the French Overseas Communities of Region 3, Korea (Rep. of), India, Iran (Islamic Republic of), Japan, Pakistan, Papua New Guinea and Sri Lanka, the allocation of the frequency band 415-495 kHz to the aeronautical radionavigation service is on a primary basis. In Armenia, Azerbaijan, Belarus, the Russian Federation, Kazakhstan, Latvia, Uzbekistan and Kyrgyzstan, the allocation of the frequency band 435-495 kHz to the aeronautical radionavigation service is on a primary basis. Administrations in all aforementioned countries shall take all practical steps necessary to ensure that aeronautical radionavigation stations in the band 435-495 kHz do not cause interference to reception by coast stations of transmissions from ship stations on frequencies designated for ship stations on a worldwide basis. (WRC-12)

5.78 *Different category of service:* in Cuba, the United States of America and Mexico, the allocation of the band 415-435 kHz to the aeronautical radionavigation service is on a primary basis.

5.79 The use of the bands 415-495 kHz and 505-526.5 kHz (505-510 kHz in Region 2) by the maritime mobile service is limited to radiotelegraphy.

5.79A When establishing coast stations in the NAVTEX service on the frequencies 490 kHz, 518 kHz and 4 209.5 kHz, administrations are strongly recommended to coordinate the operating characteristics in accordance with the procedures of the International Maritime Organization (IMO) (see Resolution **339 (Rev.WRC-07)**). (WRC-07)

5.80 In Region 2, the use of the band 435-495 kHz by the aeronautical radionavigation service is limited to non-directional beacons not employing voice transmission.

5.80A The maximum equivalent isotropically radiated power (e.i.r.p.) of stations in the amateur service using frequencies in the band 472-479 kHz shall not exceed 1 W. Administrations may increase this limit of e.i.r.p. to 5 W in portions of their territory which are at a distance of over 800 km from the borders of Algeria, Saudi Arabia, Azerbaijan, Bahrain, Belarus, China, Comoros, Djibouti, Egypt, United Arab Emirates, the Russian Federation, Iran (Islamic Republic of), Iraq, Jordan, Kazakhstan, Kuwait, Lebanon, Libya, Morocco, Mauritania, Oman, Uzbekistan, Qatar, Syrian Arab Republic, Kyrgyzstan, Somalia, Sudan, Tunisia, Ukraine and Yemen. In this frequency band, stations in the amateur service shall not cause harmful interference to, or claim protection from, stations of the aeronautical radionavigation service. (WRC-12)

5.80B The use of the frequency band 472-479 kHz in Algeria, Saudi Arabia, Azerbaijan, Bahrain, Belarus, China, Comoros, Djibouti, Egypt, United Arab Emirates, the Russian Federation, Iraq, Jordan, Kazakhstan, Kuwait, Lebanon, Libya, Mauritania, Oman, Uzbekistan, Qatar, Syrian Arab Republic, Kyrgyzstan, Somalia, Sudan, Tunisia and Yemen is limited to the maritime mobile and aeronautical radionavigation services. The amateur service shall not be used in the above-mentioned countries in this frequency band, and this should be taken into account by the countries authorizing such use. (WRC-12)

5.81 (SUP - WRC-2000)

5.82 In the maritime mobile service, the frequency 490 kHz is to be used exclusively for the transmission by coast stations of navigational and meteorological warnings and urgent information to ships, by means of narrow-band direct-printing telegraphy. The conditions for use of the frequency 490 kHz are prescribed in Articles **31** and **52**. In using the frequency band 415-495 kHz for the aeronautical radionavigation service, administrations are requested to ensure that no harmful interference is caused to the frequency 490 kHz. In using the frequency band 472-479 kHz for the amateur service, administrations shall ensure that no harmful interference is caused to the frequency 490 kHz. (WRC-12)

5.83 (SUP - WRC-07).

5.84 The conditions for the use of the frequency 518 kHz by the maritime mobile service are prescribed in Articles **31** and **52**. (WRC-07)

5.85 Not used.

5.86 In Region 2, in the band 525-535 kHz the carrier power of broadcasting stations shall not exceed 1 kW during the day and 250 W at night.

5.87 *Additional allocation:* in Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, Niger and Swaziland, the band 526.5-535 kHz is also allocated to the mobile service on a secondary basis. (WRC-12)

5.87A *Additional allocation:* in Uzbekistan, the band 526.5-1 606.5 kHz is also allocated to the radionavigation service on a primary basis. Such use is subject to agreement obtained under No. **9.21** with administrations concerned and limited to ground-based radiobeacons in operation on 27 October 1997 until the end of their lifetime. (WRC-97)

5.88 *Additional allocation:* in China, the band 526.5-535 kHz is also allocated to the aeronautical radionavigation service on a secondary basis.

5.89 In Region 2, the use of the band 1 605-1 705 kHz by stations of the broadcasting service is subject to the Plan established by the Regional Administrative Radio Conference (Rio de Janeiro, 1988).

The examination of frequency assignments to stations of the fixed and mobile services in the band 1 625-1 705 kHz shall take account of the allotments appearing in the Plan established by the Regional Administrative Radio Conference (Rio de Janeiro, 1988).

5.90 In the band 1 605-1 705 kHz, in cases where a broadcasting station of Region 2 is concerned, the service area of the maritime mobile stations in Region 1 shall be limited to that provided by ground-wave propagation.

5.91 *Additional allocation:* in the Philippines and Sri Lanka, the band 1 606.5-1 705 kHz is also allocated to the broadcasting service on a secondary basis. (WRC-97)

5.92 Some countries of Region 1 use radiodetermination systems in the bands 1 606.5-1 625 kHz, 1 635-1 800 kHz, 1 850-2 160 kHz, 2 194-2 300 kHz, 2 502-2 850 kHz and 3 500-3 800 kHz, subject to agreement obtained under No. **9.21**. The radiated mean power of these stations shall not exceed 50 W.

5.93 *Additional allocation:* in Angola, Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Hungary, Kazakhstan, Latvia, Lithuania, Mongolia, Nigeria, Uzbekistan, Poland, Kyrgyzstan, Slovakia, Tajikistan, Chad, Turkmenistan and Ukraine, the bands 1 625-1 635 kHz, 1 800-1 810 kHz and 2 160-2 170 kHz are also allocated to the fixed and land mobile services on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-12)

5.94 and **5.95** Not used.

5.96 In Germany, Armenia, Austria, Azerbaijan, Belarus, Denmark, Estonia, the Russian Federation, Finland, Georgia, Hungary, Ireland, Iceland, Israel, Kazakhstan, Latvia, Liechtenstein, Lithuania, Malta, Moldova, Norway, Uzbekistan, Poland, Kyrgyzstan, Slovakia, the Czech Rep., the United Kingdom, Sweden, Switzerland, Tajikistan, Turkmenistan and Ukraine, administrations may allocate up to 200 kHz to their amateur service in the bands 1 715-1 800 kHz and 1 850-2 000 kHz. However, when allocating the bands within this range to their amateur service, administrations shall, after prior consultation with administrations of neighbouring countries, take such steps as may be necessary to prevent harmful interference from their amateur service to the fixed and mobile services of other countries. The mean power of any amateur station shall not exceed 10 W. (WRC-03)

5.97 In Region 3, the Loran system operates either on 1 850 kHz or 1 950 kHz, the bands occupied being 1 825-1 875 kHz and 1 925-1 975 kHz respectively. Other services to which the band 1 800-2 000 kHz is allocated may use any frequency therein on condition that no harmful interference is caused to the Loran system operating on 1 850 kHz or 1 950 kHz.

5.98 *Alternative allocation:* in Angola, Armenia, Azerbaijan, Belarus, Belgium, Cameroon, Congo (Rep. of the), Denmark, Egypt, Eritrea, Spain, Ethiopia, the Russian Federation, Georgia, Greece, Italy, Kazakhstan, Lebanon, Lithuania, the Syrian Arab Republic, Kyrgyzstan, Somalia, Tajikistan, Tunisia, Turkmenistan, Turkey and Ukraine, the band 1 810-1 830 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.99 *Additional allocation:* in Saudi Arabia, Austria, Iraq, Libya, Uzbekistan, Slovakia, Romania, Slovenia, Chad, and Togo, the band 1 810-1 830 kHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.100 In Region 1, the authorization to use the band 1 810-1 830 kHz by the amateur service in countries situated totally or partially north of 40° N shall be given only after consultation with the countries mentioned in Nos. **5.98** and **5.99** to define the necessary steps to be taken to prevent harmful interference between amateur stations and stations of other services operating in accordance with Nos. **5.98** and **5.99**.

5.102 *Alternative allocation:* in Bolivia, Chile, Mexico, Paraguay, Peru and Uruguay, the band 1 850-2 000 kHz is allocated to the fixed, mobile except aeronautical mobile, radiolocation and radionavigation services on a primary basis. (WRC-07)

5.103 In Region 1, in making assignments to stations in the fixed and mobile services in the bands 1 850-2 045 kHz, 2 194-2 498 kHz, 2 502-2 625 kHz and 2 650-2 850 kHz, administrations should bear in mind the special requirements of the maritime mobile service.

5.104 In Region 1, the use of the band 2 025-2 045 kHz by the meteorological aids service is limited to oceanographic buoy stations.

5.105 In Region 2, except in Greenland, coast stations and ship stations using radiotelephony in the band 2 065-2 107 kHz shall be limited to class J3E emissions and to a peak envelope power not

exceeding 1 kW. Preferably, the following carrier frequencies should be used: 2 065.0 kHz, 2 079.0 kHz, 2 082.5 kHz, 2 086.0 kHz, 2 093.0 kHz, 2 096.5 kHz, 2 100.0 kHz and 2 103.5 kHz. In Argentina and Uruguay, the carrier frequencies 2 068.5 kHz and 2 075.5 kHz are also used for this purpose, while the frequencies within the band 2 072-2 075.5 kHz are used as provided in No. **52.165**.

5.106 In Regions 2 and 3, provided no harmful interference is caused to the maritime mobile service, the frequencies between 2 065 kHz and 2 107 kHz may be used by stations of the fixed service communicating only within national borders and whose mean power does not exceed 50 W. In notifying the frequencies, the attention of the Bureau should be drawn to these provisions.

5.107 *Additional allocation:* in Saudi Arabia, Eritrea, Ethiopia, Iraq, Libya, Somalia and Swaziland, the band 2 160-2 170 kHz is also allocated to the fixed and mobile, except aeronautical mobile (R), services on a primary basis. The mean power of stations in these services shall not exceed 50 W. (WRC-12)

5.108 The carrier frequency 2 182 kHz is an international distress and calling frequency for radiotelephony. The conditions for the use of the band 2 173.5-2 190.5 kHz are prescribed in Articles **31** and **52**. (WRC-07)

5.109 The frequencies 2 187.5 kHz, 4 207.5 kHz, 6 312 kHz, 8 414.5 kHz, 12 577 kHz and 16 804.5 kHz are international distress frequencies for digital selective calling. The conditions for the use of these frequencies are prescribed in Article **31**.

5.110 The frequencies 2 174.5 kHz, 4 177.5 kHz, 6 268 kHz, 8 376.5 kHz, 12 520 kHz and 16 695 kHz are international distress frequencies for narrow-band direct-printing telegraphy. The conditions for the use of these frequencies are prescribed in Article **31**.

5.111 The carrier frequencies 2 182 kHz, 3 023 kHz, 5 680 kHz, 8 364 kHz and the frequencies 121.5 MHz, 156.525 MHz, 156.8 MHz and 243 MHz may also be used, in accordance with the procedures in force for terrestrial radiocommunication services, for search and rescue operations concerning manned space vehicles. The conditions for the use of the frequencies are prescribed in Article **31**.

The same applies to the frequencies 10 003 kHz, 14 993 kHz and 19 993 kHz, but in each of these cases emissions must be confined in a band of ± 3 kHz about the frequency. (WRC-07)

5.112 *Alternative allocation:* in Denmark and Sri Lanka, the band 2 194-2 300 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.113 For the conditions for the use of the bands 2 300-2 495 kHz (2 498 kHz in Region 1), 3 200-3 400 kHz, 4 750-4 995 kHz and 5 005-5 060 kHz by the broadcasting service, see Nos. **5.16** to **5.20**, **5.21** and **23.3** to **23.10**.

5.114 *Alternative allocation:* in Denmark and, Iraq, the band 2 502-2 625 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.115 The carrier (reference) frequencies 3 023 kHz and 5 680 kHz may also be used, in accordance with Article **31**, by stations of the maritime mobile service engaged in coordinated search and rescue operations. (WRC-07)

5.116 Administrations are urged to authorize the use of the band 3 155-3 195 kHz to provide a common worldwide channel for low power wireless hearing aids. Additional channels for these devices may be assigned by administrations in the bands between 3 155 kHz and 3 400 kHz to suit local needs.

It should be noted that frequencies in the range 3 000 kHz to 4 000 kHz are suitable for hearing aid devices which are designed to operate over short distances within the induction field.

5.117 *Alternative allocation:* in Côte d'Ivoire, Denmark, Egypt, Liberia, Sri Lanka and Togo, the band 3 155-3 200 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.118 *Additional allocation:* in the United States, Mexico, Peru and Uruguay, the band 3 230-3 400 kHz is also allocated to the radiolocation service on a secondary basis. (WRC-03)

5.119 *Additional allocation:* in Honduras, Mexico and Peru, the band 3 500-3 750 kHz is also allocated to the fixed and mobile services on a primary basis. (WRC-07)

5.120 (SUP - WRC-2000)

5.121 Not used.

5.122 *Alternative allocation:* in Bolivia, Chile, Ecuador, Paraguay, Peru and Uruguay, the band 3 750-4 000 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-07)

5.123 *Additional allocation:* in Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe, the band 3 900-3 950 kHz is also allocated to the broadcasting service on a

primary basis, subject to agreement obtained under No. **9.21**.

5.124 (SUP - WRC-2000)

5.125 *Additional allocation:* in Greenland, the band 3 950-4 000 kHz is also allocated to the broadcasting service on a primary basis. The power of the broadcasting stations operating in this band shall not exceed that necessary for a national service and shall in no case exceed 5 kW.

5.126 In Region 3, the stations of those services to which the band 3 995-4 005 kHz is allocated may transmit standard frequency and time signals.

5.127 The use of the band 4 000-4 063 kHz by the maritime mobile service is limited to ship stations using radiotelephony (see No. **52.220** and Appendix **17**).

5.128 Frequencies in the bands 4 063-4 123 kHz and 4 130-4 438 kHz may be used exceptionally by stations in the fixed service, communicating only within the boundary of the country in which they are located, with a mean power not exceeding 50 W, on condition that harmful interference is not caused to the maritime mobile service. In addition, in Afghanistan, Argentina, Armenia, Azerbaijan, Belarus, Botswana, Burkina Faso, the Central African Rep., China, the Russian Federation, Georgia, India, Kazakhstan, Mali, Niger, Pakistan, Kyrgyzstan, Tajikistan, Chad, Turkmenistan and Ukraine, in the bands 4 063-4 123 kHz, 4 130-4 133 kHz and 4 408-4 438 kHz, stations in the fixed service, with a mean power not exceeding 1 kW, can be operated on condition that they are situated at least 600 km from the coast and that harmful interference is not caused to the maritime mobile service. (WRC-12)

5.130 The conditions for the use of the carrier frequencies 4 125 kHz and 6 215 kHz are prescribed in Articles **31** and **52**. (WRC-07)

5.131 The frequency 4 209.5 kHz is used exclusively for the transmission by coast stations of meteorological and navigational warnings and urgent information to ships by means of narrow-band direct-printing techniques. (WRC-97)

5.132 The frequencies 4 210 kHz, 6 314 kHz, 8 416.5 kHz, 12 579 kHz, 16 806.5 kHz, 19 680.5 kHz, 22 376 kHz and 26 100.5 kHz are the international frequencies for the transmission of maritime safety information (MSI) (see Appendix **17**).

5.132A Stations in the radiolocation service shall not cause harmful interference to, or claim protection from, stations operating in the fixed or mobile services. Applications of the radiolocation service are limited to oceanographic radars operating in accordance with Resolution 612 (Rev.WRC-12). (WRC-12)

5.132B *Alternative allocation*: in Armenia, Austria, Belarus, Moldova, Uzbekistan and Kyrgyzstan, the frequency band 4 438-4 488 kHz is allocated to the fixed and mobile, except aeronautical mobile (R), services on a primary basis. (WRC-12)

5.133 *Different category of service:* in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Latvia, Lithuania, Niger, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the allocation of the band 5 130-5 250 kHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. **5.33**). (WRC-12)

5.133A *Alternative allocation*: in Armenia, Austria, Belarus, Moldova, Uzbekistan and Kyrgyzstan, the frequency bands 5 250-5 275 kHz and 26 200-26 350 kHz are allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.134 The use of the bands 5 900-5 950 kHz, 7 300-7 350 kHz, 9 400-9 500 kHz, 11 600-11 650 kHz, 12 050-12 100 kHz, 13 570-13 600 kHz, 13 800-13 870 kHz, 15 600-15 800 kHz, 17 480-17 550 kHz and 18 900-19 020 kHz by the broadcasting service is subject to the application of the procedure of Article **12**. Administrations are encouraged to use these bands to facilitate the introduction of digitally modulated emissions in accordance with the provisions of Resolution **517 (Rev.WRC-07)**. (WRC-07)

5.135 (SUP - WRC-97)

5.136 *Additional allocation:* frequencies in the band 5 900-5 950 kHz may be used by stations in the following services, communicating only within the boundary of the country in which they are located: fixed service (in all three Regions), land mobile service (in Region 1), mobile except aeronautical mobile (R) service (in Regions 2 and 3), on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-07)

5.137 On condition that harmful interference is not caused to the maritime mobile service, the bands 6 200-6 213.5 kHz and 6 220.5-6 525 kHz may be used exceptionally by stations in the fixed service, communicating only within the boundary of the country in which they are located, with a mean power not exceeding 50 W. At the time of notification of these frequencies, the attention of the Bureau will be drawn

to the above conditions.

5.138 The following bands:

6 765-6 795 kHz	(centre frequency 6 780 kHz),
433.05-434.79 MHz	(centre frequency 433.92 MHz) in Region 1 except in the countries mentioned in No. **5.280**,
61-61.5 GHz	(centre frequency 61.25 GHz),
122-123 GHz	(centre frequency 122.5 GHz), and
244-246 GHz	(centre frequency 245 GHz)

are designated for industrial, scientific and medical (ISM) applications. The use of these frequency bands for ISM applications shall be subject to special authorization by the administration concerned, in agreement with other administrations whose radiocommunication services might be affected. In applying this provision, administrations shall have due regard to the latest relevant ITU-R Recommendations.

5.138A Until 29 March 2009, the band 6 765-7 000 kHz is allocated to the fixed service on a primary basis and to the land mobile service on a secondary basis. After this date, this band is allocated to the fixed and the mobile except aeronautical mobile (R) services on a primary basis. (WRC-03)

5.139 *Different category of service:* until 29 March 2009, in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Latvia, Lithuania, Mongolia, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the allocation of the band 6 765-7 000 kHz to the land mobile service is on a primary basis (see No. **5.33**). (WRC-07)

5.140 *Additional allocation:* in Angola, Iraq, Kenya, Somalia and Togo, the band 7 000-7 050 kHz is also allocated to the fixed service on a primary basis. (WRC-12)

5.141 *Alternative allocation:* in Egypt, Eritrea, Ethiopia, Guinea, Libya, Madagascar and Niger, the band 7 000-7 050 kHz is allocated to the fixed service on a primary basis. (WRC-12)

5.141A *Additional allocation:* in Uzbekistan and Kyrgyzstan, the bands 7 000-7 100 kHz and 7 100-7 200 kHz are also allocated to the fixed and land mobile services on a secondary basis. (WRC-03)

5.141B *Additional allocation:* after 29 March 2009, in Algeria, Saudi Arabia, Australia, Bahrain, Botswana, Brunei Darussalam, China, Comoros, Korea (Rep. of), Diego Garcia, Djibouti, Egypt, United Arab Emirates, Eritrea, Indonesia, Iran (Islamic Republic of), Japan, Jordan, Kuwait, Libya, Morocco, Mauritania, New Zealand, Oman, Papua New Guinea, Qatar, the Syrian Arab Republic, Singapore, Sudan, South Sudan, Tunisia, Viet Nam and Yemen, the band 7 100-7 200 kHz is also allocated to the fixed and the mobile, except aeronautical mobile (R), services on a primary basis. (WRC-12)

5.141C In Regions 1 and 3, the band 7 100-7 200 kHz is allocated to the broadcasting service until 29 March 2009 on a primary basis. (WRC-03)

5.142 Until 29 March 2009, the use of the band 7 100-7 300 kHz in Region 2 by the amateur service shall not impose constraints on the broadcasting service intended for use within Region 1 and Region 3. After 29 March 2009 the use of the band 7 200-7 300 kHz in Region 2 by the amateur service shall not impose constraints on the broadcasting service intended for use within Region 1 and Region 3. (WRC-03)

5.143 *Additional allocation:* frequencies in the band 7 300-7 350 kHz may be used by stations in the fixed service and in the land mobile service, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-07)

5.143A In Region 3, the band 7 350-7 450 kHz is allocated, until 29 March 2009, to the fixed service on a primary basis and to the land mobile service on a secondary basis. After 29 March 2009, frequencies in this band may be used by stations in the above-mentioned services, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-03)

5.143B In Region 1, the band 7 350-7 450 kHz is allocated, until 29 March 2009, to the fixed service on a primary basis and to the land mobile service on a secondary basis. After 29 March 2009, on condition that harmful interference is not caused to the broadcasting service, frequencies in the band 7 350-7 450 kHz may be used by stations in the fixed and land mobile services communicating only within the boundary of the country in which they are located, each station using a total radiated power that shall not exceed 24 dBW. (WRC-03)

5.143C *Additional allocation*: after 29 March 2009 in Algeria, Saudi Arabia, Bahrain, Comoros, Djibouti, Egypt, United Arab Emirates, Iran (Islamic Republic of), Jordan, Kuwait, Libya, Morocco, Mauritania, Niger, Oman, Qatar, the Syrian Arab Republic, Sudan, South Sudan, Tunisia and Yemen, the bands 7 350-7 400 kHz and 7 400-7 450 kHz are also allocated to the fixed service on a primary basis. (WRC-12)

5.143D In Region 2, the band 7 350-7 400 kHz is allocated, until 29 March 2009, to the fixed service on a primary basis and to the land mobile service on a secondary basis. After 29 March 2009, frequencies in this band may be used by stations in the above-mentioned services, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-03)

5.143E Until 29 March 2009, the band 7 450-8 100 kHz is allocated to the fixed service on a primary basis and to the land mobile service on a secondary basis. (WRC-03)

5.144 In Region 3, the stations of those services to which the band 7 995-8 005 kHz is allocated may transmit standard frequency and time signals.

5.145 The conditions for the use of the carrier frequencies 8 291 kHz, 12 290 kHz and 16 420 kHz are prescribed in Articles **31** and **52**. (WRC-07)

5.145A Stations in the radiolocation service shall not cause harmful interference to, or claim protection from, stations operating in the fixed service. Applications of the radiolocation service are limited to oceanographic radars operating in accordance with Resolution 612 (Rev.WRC-12). (WRC-12)

5.145B *Alternative allocation*: in Armenia, Austria, Belarus, Moldova, Uzbekistan and Kyrgyzstan, the frequency bands 9 305-9 355 kHz and 16 100-16 200 kHz are allocated to the fixed service on a primary basis. (WRC-12)

5.146 *Additional allocation:* frequencies in the bands 9 400-9 500 kHz, 11 600-11 650 kHz, 12 050-12 100 kHz, 15 600-15 800 kHz, 17 480-17 550 kHz and 18 900-19 020 kHz may be used by stations in the fixed service, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies in the fixed service, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-07)

5.147 On condition that harmful interference is not caused to the broadcasting service, frequencies in the bands 9 775-9 900 kHz, 11 650-11 700 kHz and 11 975-12 050 kHz may be used by stations in the fixed service communicating only within the boundary of the country in which they are located, each station using a total radiated power not exceeding 24 dBW.

5.148 (SUP - WRC-97)

5.149 In making assignments to stations of other services to which the bands:

13 360-13 410 kHz,	4 950-4 990 MHz,	102-109.5 GHz,
25 550-25 670 kHz,	4 990-5 000 MHz,	111.8-114.25 GHz,
37.5-38.25 MHz,	6 650-6 675.2 MHz,	128.33-128.59 GHz,
73-74.6 MHz in Regions 1 and 3,	10.6-10.68 GHz,	129.23-129.49 GHz,
150.05-153 MHz in Region 1,	14.47-14.5 GHz,	130-134 GHz,
322-328.6 MHz,	22.01-22.21 GHz,	136-148.5 GHz,
406.1-410 MHz,	22.21-22.5 GHz,	151.5-158.5 GHz,
608-614 MHz in Regions 1 and 3,	22.81-22.86 GHz,	168.59-168.93 GHz,
1 330-1 400 MHz,	23.07-23.12 GHz,	171.11-171.45 GHz,
1 610.6-1 613.8 MHz,	31.2-31.3 GHz,	172.31-172.65 GHz,
1 660-1 670 MHz,	31.5-31.8 GHz in Regions 1 and 3,	173.52-173.85 GHz,
1 718.8-1 722.2 MHz,	36.43-36.5 GHz,	195.75-196.15 GHz,
2 655-2 690 MHz,	42.5-43.5 GHz,	209-226 GHz,
3 260-3 267 MHz,	48.94-49.04 GHz,	241-250 GHz,
3 332-3 339 MHz,	76-86 GHz,	252-275 GHz
3 345.8-3 352.5 MHz,	92-94 GHz,	
4 825-4 835 MHz,	94.1-100 GHz,	

are allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from spaceborne or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. **4.5** and **4.6** and Article **29**). (WRC-07)

5.149A *Alternative allocation*: in Armenia, Austria, Belarus, Moldova, Uzbekistan and Kyrgyzstan, the frequency band 13 450-13 550 kHz is allocated to the fixed service on a primary basis and to the mobile, except aeronautical mobile (R), service on a secondary basis. (WRC-12)

5.150 The following bands:

13 553-13 567 kHz	(centre frequency 13 560 kHz),
26 957-27 283 kHz	(centre frequency 27 120 kHz),
40.66-40.70 MHz	(centre frequency 40.68 MHz),
902-928 MHz	in Region 2 (centre frequency 915 MHz),
2 400-2 500 MHz	(centre frequency 2 450 MHz),
5 725-5 875 MHz	(centre frequency 5 800 MHz), and
24-24.25 GHz	(centre frequency 24.125 GHz)

are also designated for industrial, scientific and medical (ISM) applications. Radiocommunication services operating within these bands must accept harmful interference which may be caused by these applications. ISM equipment operating in these bands is subject to the provisions of No. **15.13**.

5.151 *Additional allocation:* frequencies in the bands 13 570-13 600 kHz and 13 800-13 870 kHz may be used by stations in the fixed service and in the mobile except aeronautical mobile (R) service, communicating only within the boundary of the country in which they are located, on the condition that harmful interference is not caused to the broadcasting service. When using frequencies in these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-07)

5.152 *Additional allocation:* in Armenia, Azerbaijan, China, Côte d'Ivoire, the Russian Federation, Georgia, Iran (Islamic Republic of), Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the band 14 250-14 350 kHz is also allocated to the fixed service on a primary basis. Stations of the fixed service shall not use a radiated power exceeding 24 dBW. (WRC-03)

5.153 In Region 3, the stations of those services to which the band 15 995-16 005 kHz is allocated may transmit standard frequency and time signals.

5.154 *Additional allocation:* in Armenia, Azerbaijan, the Russian Federation, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the band 18 068-18 168 kHz is also allocated to the fixed service on a primary basis for use within their boundaries, with a peak envelope power not exceeding 1 kW. (WRC-03)

5.155 *Additional allocation:* in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan,

Moldova, Mongolia, Uzbekistan, Kyrgyzstan, Slovakia, Tajikistan, Turkmenistan and Ukraine, the band 21 850-21 870 kHz is also allocated to the aeronautical mobile (R) service on a primary basis. (WRC-07)

5.155A In Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Moldova, Mongolia, Uzbekistan, Kyrgyzstan, Slovakia, Tajikistan, Turkmenistan and Ukraine, the use of the band 21 850-21 870 kHz by the fixed service is limited to provision of services related to aircraft flight safety. (WRC-07)

5.155B The band 21 870-21 924 kHz is used by the fixed service for provision of services related to aircraft flight safety.

5.156 *Additional allocation:* in Nigeria, the band 22 720-23 200 kHz is also allocated to the meteorological aids service (radiosondes) on a primary basis.

5.156A The use of the band 23 200-23 350 kHz by the fixed service is limited to provision of services related to aircraft flight safety.

5.157 The use of the band 23 350-24 000 kHz by the maritime mobile service is limited to inter-ship radiotelegraphy.

5.158 *Alternative allocation*: in Armenia, Austria, Belarus, Moldova, Uzbekistan and Kyrgyzstan, the frequency band 24 450-24 600 kHz is allocated to the fixed and land mobile services on a primary basis. (WRC-12)

5.159 *Alternative allocation*: in Armenia, Austria, Belarus, Moldova, Uzbekistan and Kyrgyzstan, the frequency band 39-39.5 MHz is allocated to the fixed and mobile services on a primary basis. (WRC-12)

5.160 *Additional allocation:* in Botswana, Burundi, Dem. Rep. of the Congo and Rwanda, the band 41-44 MHz is also allocated to the aeronautical radionavigation service on a primary basis. (WRC-12)

5.161 *Additional allocation:* in Iran (Islamic Republic of) and Japan, the band 41-44 MHz is also allocated to the radiolocation service on a secondary basis.

5.161A *Additional allocation*: in Korea (Rep. of) and the United States, the frequency bands 41.015-41.665 MHz and 43.35-44 MHz are also allocated to the radiolocation service on a primary basis. Stations in the radiolocation service shall not cause harmful interference to, or claim protection from, stations operating in the fixed or mobile services. Applications of the radiolocation service are limited to oceanographic radars operating in accordance with Resolution 612 (Rev.WRC-12). (WRC-12)

5.161B *Alternative allocation*: in Albania, Germany, Armenia, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Cyprus, Vatican, Croatia, Denmark, Spain, Estonia, Finland, France, Greece, Hungary, Ireland, Iceland, Italy, Latvia, The Former Yugoslav Rep. of Macedonia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Monaco, Montenegro, Norway, Uzbekistan, Netherlands, Poland, Portugal, Kyrgyzstan, Slovakia, Czech Rep., Romania, United Kingdom, San Marino, Slovenia, Sweden, Switzerland, Turkey and Ukraine, the frequency band 42-42.5 MHz is allocated to the fixed and mobile services on a primary basis. (WRC-12)

5.162 *Additional allocation:* in Australia, the band 44-47 MHz is also allocated to the broadcasting service on a primary basis. (WRC-12)

5.162A *Additional allocation:* in Germany, Austria, Belgium, Bosnia and Herzegovina, China, Vatican, Denmark, Spain, Estonia, the Russian Federation, Finland, France, Ireland, Iceland, Italy, Latvia, The Former Yugoslav Republic of Macedonia, Liechtenstein, Lithuania, Luxembourg, Monaco, Montenegro, Norway, the Netherlands, Poland, Portugal, the Czech Rep., the United Kingdom, Serbia, Slovenia, Sweden and Switzerland the band 46-68 MHz is also allocated to the radiolocation service on a secondary basis. This use is limited to the operation of wind profiler radars in accordance with Resolution **217 (WRC-97)**. (WRC-12)

5.163 *Additional allocation:* in Armenia, Belarus, the Russian Federation, Georgia, Hungary, Kazakhstan, Latvia, Moldova, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the bands 47-48.5 MHz and 56.5-58 MHz are also allocated to the fixed and land mobile services on a secondary basis. (WRC-12)

5.164 *Additional allocation:* in Albania, Algeria, Germany, Austria, Belgium, Bosnia and Herzegovina, Botswana, Bulgaria, Côte d'Ivoire, Denmark, Spain, Estonia, Finland, France, Gabon, Greece, Ireland, Israel, Italy, Jordan, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Madagascar, Mali, Malta, Morocco, Mauritania, Monaco, Montenegro, Nigeria, Norway, the Netherlands, Poland, Syrian Arab Republic, Slovakia, Czech Rep., Romania, the United Kingdom, Serbia, Slovenia, Sweden, Switzerland, Swaziland, Chad, Togo, Tunisia and Turkey, the band 47-68 MHz, in South Africa the band 47-50 MHz, and in Latvia the band 48.5-56.5 MHz, are also allocated to the land mobile service on a primary basis. However, stations of the land mobile service in the countries mentioned in connection with each band referred to in this footnote shall not cause harmful interference to, or claim protection from, existing or planned

broadcasting stations of countries other than those mentioned in connection with the band. (WRC-12)

5.165 *Additional allocation:* in Angola, Cameroon, Congo (Rep. of the), Madagascar, Mozambique, Niger, Somalia, Sudan, Tanzania and Chad, the band 47-68 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.166 *Alternative allocation:* in New Zealand, the band 50-51 MHz is allocated to the fixed and mobile services on a primary basis; the band 53-54 MHz is allocated to the fixed and mobile services on a primary basis. (WRC-12)

5.167 *Alternative allocation:* in Bangladesh, Brunei Darussalam, India, Iran (Islamic Republic of), Pakistan, Singapore and Thailand, the band 50-54 MHz is allocated to the fixed, mobile and broadcasting services on a primary basis. (WRC-07)

5.167A *Additional allocation:* in Indonesia, the band 50-54 MHz is also allocated to the fixed, mobile and broadcasting services on a primary basis. (WRC-07)

5.168 *Additional allocation:* in Australia, China and the Dem. People's Rep. of Korea, the band 50-54 MHz is also allocated to the broadcasting service on a primary basis.

5.169 *Alternative allocation:* in Botswana, Lesotho, Malawi, Namibia, the Dem. Rep. of the Congo, Rwanda, South Africa, Swaziland, Zambia and Zimbabwe, the band 50-54 MHz is allocated to the amateur service on a primary basis. (WRC-12)

5.170 *Additional allocation:* in New Zealand, the band 51-53 MHz is also allocated to the fixed and mobile services on a primary basis.

5.171 *Additional allocation:* in Botswana, Lesotho, Malawi, Mali, Namibia, Dem. Rep. of the Congo, Rwanda, South Africa, Swaziland and Zimbabwe, the band 54-68 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.172 *Different category of service:* in the French Overseas Departments in Region 2, Guyana, Jamaica and Mexico, the allocation of the band 54-68 MHz to the fixed and mobile services is on a primary basis (see No. **5.33**).

5.173 *Different category of service:* in the French Overseas Departments in Region 2, Guyana, Jamaica and Mexico, the allocation of the band 68-72 MHz to the fixed and mobile services is on a primary basis (see No. **5.33**).

5.174 (SUP - WRC-07)

5.175 *Alternative allocation:* in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Moldova, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the bands 68-73 MHz and 76-87.5 MHz are allocated to the broadcasting service on a primary basis. In Latvia and Lithuania, the bands 68-73 MHz and 76-87.5 MHz are allocated to the broadcasting and mobile, except aeronautical mobile, services on a primary basis. The services to which these bands are allocated in other countries and the broadcasting service in the countries listed above are subject to agreements with the neighbouring countries concerned. (WRC-07)

5.176 *Additional allocation:* in Australia, China, Korea (Rep. of), the Philippines, the Dem. People's Rep. of Korea and Samoa, the band 68-74 MHz is also allocated to the broadcasting service on a primary basis. (WRC-07)

5.177 *Additional allocation:* in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the band 73-74 MHz is also allocated to the broadcasting service on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-07)

5.178 *Additional allocation:* in Colombia, Cuba, El Salvador, Guatemala, Guyana, Honduras and Nicaragua, the band 73-74.6 MHz is also allocated to the fixed and mobile services on a secondary basis. (WRC-12)

5.179 *Additional allocation:* in Armenia, Azerbaijan, Belarus, China, the Russian Federation, Georgia, Kazakhstan, Lithuania, Mongolia, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the bands 74.6-74.8 MHz and 75.2-75.4 MHz are also allocated to the aeronautical radionavigation service, on a primary basis, for ground-based transmitters only. (WRC-12)

5.180 The frequency 75 MHz is assigned to marker beacons. Administrations shall refrain from assigning frequencies close to the limits of the guardband to stations of other services which, because of their power or geographical position, might cause harmful interference or otherwise place a constraint on marker beacons.

Every effort should be made to improve further the characteristics of airborne receivers and to limit the power of transmitting stations close to the limits 74.8 MHz and 75.2 MHz.

5.181 *Additional allocation:* in Egypt, Israel and the Syrian Arab Republic, the band 74.8-75.2 MHz is also allocated to the mobile service on a secondary basis, subject to agreement obtained under No. **9.21**. In order to ensure that harmful interference is not caused to stations of the aeronautical radionavigation service, stations of the mobile service shall not be introduced in the band until it is no longer required for the aeronautical radionavigation service by any administration which may be identified in the application of the procedure invoked under No. **9.21**. (WRC-03)

5.182 *Additional allocation:* in Western Samoa, the band 75.4-87 MHz is also allocated to the broadcasting service on a primary basis.

5.183 *Additional allocation:* in China, Korea (Rep. of), Japan, the Philippines and the Dem. People's Rep. of Korea, the band 76-87 MHz is also allocated to the broadcasting service on a primary basis.

5.184 (SUP - WRC-07)

5.185 *Different category of service:* in the United States, the French Overseas Departments in Region 2, Guyana, Jamaica, Mexico and Paraguay, the allocation of the band 76-88 MHz to the fixed and mobile services is on a primary basis (see No. **5.33**).

5.186 (SUP - WRC-97)

5.187 *Alternative allocation:* in Albania, the band 81-87.5 MHz is allocated to the broadcasting service on a primary basis and used in accordance with the decisions contained in the Final Acts of the Special Regional Conference (Geneva, 1960).

5.188 *Additional allocation:* in Australia, the band 85-87 MHz is also allocated to the broadcasting service on a primary basis. The introduction of the broadcasting service in Australia is subject to special agreements between the administrations concerned.

5.189 Not used.

5.190 *Additional allocation:* in Monaco, the band 87.5-88 MHz is also allocated to the land mobile service on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-97)

5.191 Not used.

5.192 *Additional allocation:* in China and Korea (Rep. of), the band 100-108 MHz is also allocated to the fixed and mobile services on a primary basis. (WRC-97)

5.193 Not used.

5.194 *Additional allocation:* in Azerbaijan, Kyrgyzstan, Somalia and Turkmenistan, the band 104-108 MHz is also allocated to the mobile, except aeronautical mobile (R), service on a secondary basis. (WRC-07)

5.195 and **5.196** Not used.

5.197 *Additional allocation:* in the Syrian Arab Republic, the band 108-111.975 MHz is also allocated to the mobile service on a secondary basis, subject to agreement obtained under No. **9.21**. In order to ensure that harmful interference is not caused to stations of the aeronautical radionavigation service, stations of the mobile service shall not be introduced in the band until it is no longer required for the aeronautical radionavigation service by any administration which may be identified in the application of the procedures invoked under No. **9.21**. (WRC-12)

5.197A *Additional allocation:* the band 108-117.975 MHz is also allocated on a primary basis to the aeronautical mobile (R) service, limited to systems operating in accordance with recognized international aeronautical standards. Such use shall be in accordance with Resolution **413 (Rev.WRC-07)**. The use of the band 108-112 MHz by the aeronautical mobile (R) service shall be limited to systems composed of ground-based transmitters and associated receivers that provide navigational information in support of air navigation functions in accordance with recognized international aeronautical standards. (WRC-07)

5.198 (SUP - WRC-07)

5.199 (SUP – WRC-07).

5.200 In the band 117.975-137 MHz, the frequency 121.5 MHz is the aeronautical emergency frequency and, where required, the frequency 123.1 MHz is the aeronautical frequency auxiliary to 121.5 MHz. Mobile stations of the maritime mobile service may communicate on these frequencies under the conditions laid down in Article **31** for distress and safety purposes with stations of the aeronautical mobile service. (WRC-07)

5.201 *Additional allocation:* in Angola, Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, the Russian Federation, Georgia, Hungary, Iran (Islamic Republic of), Iraq, Japan, Kazakhstan, Latvia, Moldova, Mongolia, Mozambique, Uzbekistan, Papua New Guinea, Poland, Kyrgyzstan, Romania, Tajikistan, Turkmenistan and Ukraine, the band 132-136 MHz is also allocated to the aeronautical mobile (OR) service on a primary

basis. In assigning frequencies to stations of the aeronautical mobile (OR) service, the administration shall take account of the frequencies assigned to stations in the aeronautical mobile (R) service. (WRC-12)

5.202 *Additional allocation:* in Saudi Arabia, Armenia, Azerbaijan, Belarus, Bulgaria, the United Arab Emirates, the Russian Federation, Georgia, Iran (Islamic Republic of), Jordan, Latvia, Oman, Uzbekistan, Poland, the Syrian Arab Republic, Kyrgyzstan, Romania, Tajikistan, Turkmenistan and Ukraine, the band 136-137 MHz is also allocated to the aeronautical mobile (OR) service on a primary basis. In assigning frequencies to stations of the aeronautical mobile (OR) service, the administration shall take account of the frequencies assigned to stations in the aeronautical mobile (R) service. (WRC-12)

5.203 (SUP - WRC-07)

5.203A (SUP - WRC-07)

5.203B (SUP - WRC-07)

5.204 *Different category of service:* in Afghanistan, Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, China, Cuba, the United Arab Emirates, India, Indonesia, Iran (Islamic Republic of), Iraq, Kuwait, Montenegro, Oman, Pakistan, the Philippines, Qatar, Serbia, Singapore, Thailand and Yemen, the band 137-138 MHz is allocated to the fixed and mobile, except aeronautical mobile (R), services on a primary basis (see No. **5.33**). (WRC-07)

5.205 *Different category of service:* in Israel and Jordan, the allocation of the band 137-138 MHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis (see No. **5.33**).

5.206 *Different category of service:* in Armenia, Azerbaijan, Belarus, Bulgaria, Egypt, the Russian Federation, Finland, France, Georgia, Greece, Kazakhstan, Lebanon, Moldova, Mongolia, Uzbekistan, Poland, Kyrgyzstan, the Syrian Arab Republic, Slovakia, the Czech Rep., Romania, Tajikistan, Turkmenistan and Ukraine, the allocation of the band 137-138 MHz to the aeronautical mobile (OR) service is on a primary basis (see No. **5.33**). (WRC-2000)

5.207 *Additional allocation:* in Australia, the band 137-144 MHz is also allocated to the broadcasting service on a primary basis until that service can be accommodated within regional broadcasting allocations.

5.208 The use of the band 137-138 MHz by the mobile-satellite service is subject to coordination under No. **9.11A**. (WRC-97)

5.208A In making assignments to space stations in the mobile-satellite service in the bands 137-138 MHz, 387-390 MHz and 400.15-401 MHz, administrations shall take all practicable steps to protect the radio astronomy service in the bands 150.05-153 MHz, 322-328.6 MHz, 406.1-410 MHz and 608-614 MHz from harmful interference from unwanted emissions. The threshold levels of interference detrimental to the radio astronomy service are shown in the relevant ITU-R Recommendation. (WRC-07)

5.208B* In the bands:

137-138 MHz,
387-390 MHz,
400.15-401 MHz,
1 452-1 492 MHz,
1 525-1 610 MHz,
1 613.8-1 626.5 MHz,
2 655-2 690 MHz,
21.4-22 GHz,

Resolution **739 (Rev.WRC-07)** applies. (WRC-07)

5.209 The use of the bands 137-138 MHz, 148-150.05 MHz, 399.9-400.05 MHz, 400.15-401 MHz, 454-456 MHz and 459-460 MHz by the mobile-satellite service is limited to non-geostationary-satellite systems. (WRC-97)

5.210 *Additional allocation:* in Italy, the Czech Rep. and the United Kingdom, the bands 138-143.6 MHz and 143.65-144 MHz are also allocated to the space research service (space-to-Earth) on a secondary basis. (WRC-07)

5.211 *Additional allocation:* in Germany, Saudi Arabia, Austria, Bahrain, Belgium, Denmark, the United Arab Emirates, Spain, Finland, Greece, Ireland, Israel, Kenya, Kuwait, The Former Yugoslav Republic of Macedonia, Lebanon, Liechtenstein, Luxembourg, Mali, Malta, Montenegro, Norway, the Netherlands, Qatar, Slovakia, the United Kingdom, Serbia, Slovenia, Somalia, Sweden, Switzerland, Tanzania, Tunisia and Turkey, the band 138-144 MHz is also allocated to the maritime mobile and land mobile services on

* This provision was previously numbered as No. **5.347A**. It was renumbered to preserve the sequential order. Consequential modifications, if any, to other parts of the Table will be made in the 2008 Edition of the Radio Regulations.

a primary basis. (WRC-12)

5.212 *Alternative allocation:* in Angola, Botswana, Cameroon, the Central African Rep., Congo (Rep. of the), Gabon, Gambia, Ghana, Guinea, Iraq, Jordan, Lesotho, Liberia, Libya, Malawi, Mozambique, Namibia, Niger, Oman, Uganda, Syrian Arab Republic, the Dem. Rep. of the Congo, Rwanda, Sierra Leone, South Africa, Swaziland, Chad, Togo, Zambia and Zimbabwe, the band 138-144 MHz is allocated to the fixed and mobile services on a primary basis. (WRC-12)

5.213 *Additional allocation:* in China, the band 138-144 MHz is also allocated to the radiolocation service on a primary basis.

5.214 *Additional allocation:* in Eritrea, Ethiopia, Kenya, The Former Yugoslav Republic of Macedonia, Montenegro, Serbia, Somalia, Sudan, South Sudan and Tanzania, the band 138-144 MHz is also allocated to the fixed service on a primary basis. (WRC-12)

5.215 Not used.

5.216 *Additional allocation:* in China, the band 144-146 MHz is also allocated to the aeronautical mobile (OR) service on a secondary basis.

5.217 *Alternative allocation:* in Afghanistan, Bangladesh, Cuba, Guyana and India, the band 146-148 MHz is allocated to the fixed and mobile services on a primary basis.

5.218 *Additional allocation:* the band 148-149.9 MHz is also allocated to the space operation service (Earth-to-space) on a primary basis, subject to agreement obtained under No. **9.21**. The bandwidth of any individual transmission shall not exceed ± 25 kHz.

5.219 The use of the band 148-149.9 MHz by the mobile-satellite service is subject to coordination under No. **9.11A**. The mobile-satellite service shall not constrain the development and use of the fixed, mobile and space operation services in the band 148-149.9 MHz.

5.220 The use of the bands 149.9-150.05 MHz and 399.9-400.05 MHz by the mobile-satellite service is subject to coordination under No. **9.11A**. The mobile-satellite service shall not constrain the development and use of the radionavigation-satellite service in the bands 149.9-150.05 MHz and 399.9-400.05 MHz. (WRC-97)

5.221 Stations of the mobile-satellite service in the band 148-149.9 MHz shall not cause harmful interference to, or claim protection from, stations of the fixed or mobile services operating in accordance with the Table of Frequency Allocations in the following countries: Albania, Algeria, Germany, Saudi Arabia, Australia, Austria, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Benin, Bosnia and Herzegovina, Botswana, Brunei Darussalam, Bulgaria, Cameroon, China, Cyprus, Congo (Rep. of the), Korea (Rep. of), Côte d'Ivoire, Croatia, Cuba, Denmark, Djibouti, Egypt, the United Arab Emirates, Eritrea, Spain, Estonia, Ethiopia, the Russian Federation, Finland, France, Gabon, Ghana, Greece, Guinea, Guinea Bissau, Hungary, India, Iran (Islamic Republic of), Ireland, Iceland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, The Former Yugoslav Republic of Macedonia, Lesotho, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Malaysia, Mali, Malta, Mauritania, Moldova, Mongolia, Montenegro, Mozambique, Namibia, Norway, New Zealand, Oman, Uganda, Uzbekistan, Pakistan, Panama, Papua New Guinea, Paraguay, the Netherlands, the Philippines, Poland, Portugal, Qatar, the Syrian Arab Republic, Kyrgyzstan, Dem. People's Rep. of Korea, Slovakia, Romania, the United Kingdom, Senegal, Serbia, Sierra Leone, Singapore, Slovenia, Sudan, Sri Lanka, South Africa, Sweden, Switzerland, Swaziland, Tanzania, Chad, Thailand, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Ukraine, Viet Nam, Yemen, Zambia and Zimbabwe. (WRC-12)

5.222 Emissions of the radionavigation-satellite service in the bands 149.9-150.05 MHz and 399.9-400.05 MHz may also be used by receiving earth stations of the space research service.

5.223 Recognizing that the use of the band 149.9-150.05 MHz by the fixed and mobile services may cause harmful interference to the radionavigation-satellite service, administrations are urged not to authorize such use in application of No. **4.4**.

5.224 (SUP - WRC-97)

5.224A The use of the bands 149.9-150.05 MHz and 399.9-400.05 MHz by the mobile-satellite service (Earth-to-space) is limited to the land mobile-satellite service (Earth-to-space) until 1 January 2015. (WRC-97)

5.224B The allocation of the bands 149.9-150.05 MHz and 399.9-400.05 MHz to the radionavigation-satellite service shall be effective until 1 January 2015. (WRC-97)

5.225 *Additional allocation:* in Australia and India, the band 150.05-153 MHz is also allocated to the radio astronomy service on a primary basis.

5.225A *Additional allocation*: in Algeria, Armenia, Azerbaijan, Belarus, China, the Russian Federation, France, Iran (Islamic Republic of), Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan, Ukraine and

Viet Nam, the frequency band 154-156 MHz is also allocated to the radiolocation service on a primary basis. The usage of the frequency band 154-156 MHz by the radiolocation service shall be limited to space-object detection systems operating from terrestrial locations. The operation of stations in the radiolocation service in the frequency band 154-156 MHz shall be subject to agreement obtained under No. 9.21. For the identification of potentially affected administrations in Region 1, the instantaneous field-strength value of 12 dB(V/m) for 10% of the time produced at 10 m above ground level in the 25 kHz reference frequency band at the border of the territory of any other administration shall be used. For the identification of potentially affected administrations in Region 3, the interference-to-noise ratio (I/N) value of 6 dB (N = 161 dBW/4 kHz), or 10 dB for applications with greater protection requirements, such as public protection and disaster relief (PPDR (N = 161 dBW/4 kHz)), for 1% of the time produced at 60 m above ground level at the border of the territory of any other administration shall be used. In the frequency bands 156.7625-156.8375 MHz, 156.5125-156.5375 MHz, 161.9625-161.9875 MHz, 162.0125-162.0375 MHz, out-of-band e.i.r.p. of space surveillance radars shall not exceed 16 dBW. Frequency assignments to the radiolocation service under this allocation in Ukraine shall not be used without the agreement of Moldova. (WRC-12)

5.226 The frequency 156.525 MHz is the international distress, safety and calling frequency for the maritime mobile VHF radiotelephone service using digital selective calling (DSC). The conditions for the use of this frequency and the band 156.4875-156.5625 MHz are contained in Articles **31** and **52**, and in Appendix **18**.

The frequency 156.8 MHz is the international distress, safety and calling frequency for the maritime mobile VHF radiotelephone service. The conditions for the use of this frequency and the band 156.7625-156.8375 MHz are contained in Article **31** and Appendix **18**.

In the bands 156-156.4875 MHz, 156.5625-156.7625 MHz, 156.8375-157.45 MHz, 160.6-160.975 MHz and 161.475-162.05 MHz, each administration shall give priority to the maritime mobile service on only such frequencies as are assigned to stations of the maritime mobile service by the administration (see Articles **31** and **52**, and Appendix **18**).

Any use of frequencies in these bands by stations of other services to which they are allocated should be avoided in areas where such use might cause harmful interference to the maritime mobile VHF radiocommunication service.

However, the frequencies 156.8 MHz and 156.525 MHz and the frequency bands in which priority is given to the maritime mobile service may be used for radiocommunications on inland waterways subject to agreement between interested and affected administrations and taking into account current frequency usage and existing agreements. (WRC-07)

5.227 *Additional allocation:* the bands 156.4875-156.5125 MHz and 156.5375-156.5625 MHz are also allocated to the fixed and land mobile services on a primary basis. The use of these bands by the fixed and land mobile services shall not cause harmful interference to nor claim protection from the maritime mobile VHF radiocommunication service. (WRC-07)

5.228 The use of the frequency bands 156.7625-156.7875 MHz and 156.8125-156.8375 MHz by the mobilesatellite service (Earth-to-space) is limited to the reception of automatic identification system (AIS) emissions of longrange AIS broadcast messages (Message 27, see the most recent version of Recommendation ITU-R M.1371). With the exception of AIS emissions, emissions in these frequency bands by systems operating in the maritime mobile service for communications shall not exceed 1 W. (WRC-12)

5.228A The frequency bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz may be used by aircraft stations for the purpose of search and rescue operations and other safety-related communications. (WRC-12)

5.228B The use of the frequency bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz by the fixed and land mobile services shall not cause harmful interference to, or claim protection from, the maritime mobile service. (WRC-12)

5.228C The use of the frequency bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz by the maritime mobile service and the mobile-satellite (Earth-to-space) service is limited to the automatic identification system (AIS). The use of these frequency bands by the aeronautical mobile (OR) service is limited to AIS emissions from search and rescue aircraft operations. The AIS operations in these frequency bands shall not constrain the development and use of the fixed and mobile services operating in the adjacent frequency bands. (WRC-12)

5.228D The frequency bands 161.9625-161.9875 MHz (AIS 1) and 162.0125-162.0375 MHz (AIS 2) may continue to be used by the fixed and mobile services on a primary basis until 1 January 2025, at which time this allocation shall no longer be valid. Administrations are encouraged to make all practicable

efforts to discontinue the use of these bands by the fixed and mobile services prior to the transition date. During this transition period, the maritime mobile service in these frequency bands has priority over the fixed, land mobile and aeronautical mobile services. (WRC-12)

5.228E The use of the automatic identification system in the frequency bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz by the aeronautical mobile (OR) service is limited to aircraft stations for the purpose of search and rescue operations and other safety-related communications. (WRC-12)

5.228F The use of the frequency bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz by the mobilesatellite service (Earth-to-space) is limited to the reception of automatic identification system emissions from stations operating in the maritime mobile service. (WRC-12)

5.229 *Alternative allocation:* in Morocco, the band 162-174 MHz is allocated to the broadcasting service on a primary basis. The use of this band shall be subject to agreement with administrations having services, operating or planned, in accordance with the Table which are likely to be affected. Stations in existence on 1 January 1981, with their technical characteristics as of that date, are not affected by such agreement.

5.230 *Additional allocation:* in China, the band 163-167 MHz is also allocated to the space operation service (space-to-Earth) on a primary basis, subject to agreement obtained under No. **9.21**.

5.231 *Additional allocation:* in Afghanistan and China, the band 167-174 MHz is also allocated to the broadcasting service on a primary basis. The introduction of the broadcasting service into this band shall be subject to agreement with the neighbouring countries in Region 3 whose services are likely to be affected. (WRC-12)

5.232 *Additional allocation:* in Japan, the band 170-174 MHz is also allocated to the broadcasting service on a primary basis.

5.233 *Additional allocation:* in China, the band 174-184 MHz is also allocated to the space research (space-to-Earth) and the space operation (space-to-Earth) services on a primary basis, subject to agreement obtained under No. **9.21**. These services shall not cause harmful interference to, or claim protection from, existing or planned broadcasting stations.

5.234 *Different category of service:* in Mexico, the allocation of the band 174-216 MHz to the fixed and mobile services is on a primary basis (see No. **5.33**).

5.235 *Additional allocation:* in Germany, Austria, Belgium, Denmark, Spain, Finland, France, Israel, Italy, Liechtenstein, Malta, Monaco, Norway, the Netherlands, the United Kingdom, Sweden and Switzerland, the band 174-223 MHz is also allocated to the land mobile service on a primary basis. However, the stations of the land mobile service shall not cause harmful interference to, or claim protection from, broadcasting stations, existing or planned, in countries other than those listed in this footnote.

5.236 Not used.

5.237 *Additional allocation:* in Congo (Rep. of the), Egypt, Eritrea, Ethiopia, Gambia, Guinea, Libya, Malawi, Mali, Sierra Leone, Somalia and Chad, the band 174-223 MHz is also allocated to the fixed and mobile services on a secondary basis. (WRC-12)

5.238 *Additional allocation:* in Bangladesh, India, Pakistan and the Philippines, the band 200-216 MHz is also allocated to the aeronautical radionavigation service on a primary basis.

5.239 Not used.

5.240 *Additional allocation:* in China and India, the band 216-223 MHz is also allocated to the aeronautical radionavigation service on a primary basis and to the radiolocation service on a secondary basis.

5.241 In Region 2, no new stations in the radiolocation service may be authorized in the band 216-225 MHz. Stations authorized prior to 1 January 1990 may continue to operate on a secondary basis.

5.242 *Additional allocation:* in Canada, the band 216-220 MHz is also allocated to the land mobile service on a primary basis.

5.243 *Additional allocation:* in Somalia, the band 216-225 MHz is also allocated to the aeronautical radionavigation service on a primary basis, subject to not causing harmful interference to existing or planned broadcasting services in other countries.

5.244 (SUP - WRC-97)

5.245 *Additional allocation:* in Japan, the band 222-223 MHz is also allocated to the aeronautical radionavigation service on a primary basis and to the radiolocation service on a secondary basis.

5.246 *Alternative allocation:* in Spain, France, Israel and Monaco, the band 223-230 MHz is allocated to the broadcasting and land mobile services on a primary basis (see No. **5.33**) on the basis that, in the preparation of frequency plans, the broadcasting service shall have prior choice of frequencies; and allocated to the fixed and mobile, except land mobile, services on a secondary basis. However, the

stations of the land mobile service shall not cause harmful interference to, or claim protection from, existing or planned broadcasting stations in Morocco and Algeria.

5.247 *Additional allocation:* in Saudi Arabia, Bahrain, the United Arab Emirates, Jordan, Oman, Qatar and Syrian Arab Republic, the band 223-235 MHz is also allocated to the aeronautical radionavigation service on a primary basis.

5.248 and **5.249** Not used.

5.250 *Additional allocation*: in China, the band 225-235 MHz is also allocated to the radio astronomy service on a secondary basis.

5.251 *Additional allocation:* in Nigeria, the band 230-235 MHz is also allocated to the aeronautical radionavigation service on a primary basis, subject to agreement obtained under No. **9.21**.

5.252 *Alternative allocation:* in Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe, the bands 230-238 MHz and 246-254 MHz are allocated to the broadcasting service on a primary basis, subject to agreement obtained under No. **9.21**.

5.253 Not used.

5.254 The bands 235-322 MHz and 335.4-399.9 MHz may be used by the mobile-satellite service, subject to agreement obtained under No. **9.21**, on condition that stations in this service do not cause harmful interference to those of other services operating or planned to be operated in accordance with the Table of Frequency Allocations except for the additional allocation made in footnote No. **5.256A**. (WRC-03)

5.255 The bands 312-315 MHz (Earth-to-space) and 387-390 MHz (space-to-Earth) in the mobile-satellite service may also be used by non-geostationary-satellite systems. Such use is subject to coordination under No. **9.11A**.

5.256 The frequency 243 MHz is the frequency in this band for use by survival craft stations and equipment used for survival purposes. (WRC-07)

5.256A *Additional allocation:* in China, the Russian Federation, Kazakhstan and Ukraine, the band 258-261 MHz is also allocated to the space research service (Earth-to-space) and space operation service (Earth-to-space) on a primary basis. Stations in the space research service (Earth-to-space) and space operation service (Earth-to-space) shall not cause harmful interference to, nor claim protection from, nor constrain the use and development of the mobile service systems and mobile-satellite service systems operating in the band. Stations in space research service (Earth-to-space) and space operation service (Earth-to-space) shall not constrain the future development of fixed service systems of other countries. (WRC-03)

5.257 The band 267-272 MHz may be used by administrations for space telemetry in their countries on a primary basis, subject to agreement obtained under No. **9.21**.

5.258 The use of the band 328.6-335.4 MHz by the aeronautical radionavigation service is limited to Instrument Landing Systems (glide path).

5.259 *Additional allocation:* in Egypt and the Syrian Arab Republic, the band 328.6-335.4 MHz is also allocated to the mobile service on a secondary basis, subject to agreement obtained under No. **9.21**. In order to ensure that harmful interference is not caused to stations of the aeronautical radionavigation service, stations of the mobile service shall not be introduced in the band until it is no longer required for the aeronautical radionavigation service by any administration which may be identified in the application of the procedure invoked under No. **9.21**. (WRC-12)

5.260 Recognizing that the use of the band 399.9-400.05 MHz by the fixed and mobile services may cause harmful interference to the radionavigation satellite service, administrations are urged not to authorize such use in application of No. **4.4**.

5.261 Emissions shall be confined in a band of ± 25 kHz about the standard frequency 400.1 MHz.

5.262 *Additional allocation:* in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Botswana, Colombia, Cuba, Egypt, the United Arab Emirates, Ecuador, the Russian Federation, Georgia, Hungary, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kazakhstan, Kuwait, Liberia, Malaysia, Moldova, Oman, Uzbekistan, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, Kyrgyzstan, Singapore, Somalia, Tajikistan, Chad, Turkmenistan and Ukraine, the band 400.05-401 MHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)

5.263 The band 400.15-401 MHz is also allocated to the space research service in the space-to-space direction for communications with manned space vehicles. In this application, the space research service will not be regarded as a safety service.

5.264 The use of the band 400.15-401 MHz by the mobile-satellite service is subject to coordination under No. **9.11A**. The power flux-density limit indicated in Annex 1 of Appendix **5** shall apply until such time as

a competent world radiocommunication conference revises it.

5.265 Not used.

5.266 The use of the band 406-406.1 MHz by the mobile-satellite service is limited to low power satellite emergency position-indicating radiobeacons (see also Article **31**). (WRC-07)

5.267 Any emission capable of causing harmful interference to the authorized uses of the band 406-406.1 MHz is prohibited.

5.268 Use of the band 410-420 MHz by the space research service is limited to communications within 5 km of an orbiting, manned space vehicle. The power flux-density at the surface of the Earth produced by emissions from extra-vehicular activities shall not exceed –153 dB(W/m^2) for $0° \le \delta \le 5°$, $-153 + 0.077 (\delta - 5)$ dB(W/m^2) for $5° \le \delta \le 70°$ and –148 dB(W/m^2) for $70° \le \delta \le 90°$, where δ is the angle of arrival of the radio-frequency wave and the reference bandwidth is 4 kHz. No. **4.10** does not apply to extra-vehicular activities. In this frequency band the space research (space-to-space) service shall not claim protection from, nor constrain the use and development of, stations of the fixed and mobile services. (WRC-97)

5.269 *Different category of service:* in Australia, the United States, India, Japan and the United Kingdom, the allocation of the bands 420-430 MHz and 440-450 MHz to the radiolocation service is on a primary basis (see No. **5.33**).

5.270 *Additional allocation:* in Australia, the United States, Jamaica and the Philippines, the bands 420-430 MHz and 440-450 MHz are also allocated to the amateur service on a secondary basis.

5.271 *Additional allocation:* in Belarus, China, India, Kyrgyzstan and Turkmenistan, the band 420-460 MHz is also allocated to the aeronautical radionavigation service (radio altimeters) on a secondary basis. (WRC-07)

5.274 *Alternative allocation:* in Denmark, Norway, Sweden and Chad, the bands 430-432 MHz and 438-440 MHz are allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.275 *Additional allocation:* in Croatia, Estonia, Finland, Libyan Arab Jamahiriya, The Former Yugoslav Republic of Macedonia, Montenegro, Serbia and Slovenia, the bands 430-432 MHz and 438-440 MHz are also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-07)

5.276 *Additional allocation:* in Afghanistan, Algeria, Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Burkina Faso, Djibouti, Egypt, the United Arab Emirates, Ecuador, Eritrea, Ethiopia, Greece, Guinea, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Italy, Jordan, Kenya, Kuwait, Libya, Malaysia, Niger, Nigeria, Oman, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, the Dem. People's Rep. of Korea, Singapore, Somalia, Sudan, Switzerland, Tanzania, Thailand, Togo, Turkey and Yemen, the band 430-440 MHz is also allocated to the fixed service on a primary basis and the bands 430-435 MHz and 438-440 MHz are also allocated to the mobile, except aeronautical mobile, service on a primary basis. (WRC-12)

5.277 *Additional allocation:* in Angola, Armenia, Azerbaijan, Belarus, Cameroon, Congo (Rep. of the), Djibouti, the Russian Federation, Georgia, Hungary, Israel, Kazakhstan, Mali, Mongolia, Uzbekistan, Poland, the Dem. Rep. of the Congo, Kyrgyzstan, Slovakia, Romania, Rwanda, Tajikistan, Chad, Turkmenistan and Ukraine, the band 430-440 MHz is also allocated to the fixed service on a primary basis. (WRC-12)

5.278 *Different category of service:* in Argentina, Colombia, Costa Rica, Cuba, Guyana, Honduras, Panama and Venezuela, the allocation of the band 430-440 MHz to the amateur service is on a primary basis (see No. **5.33**).

5.279 *Additional allocation:* in Mexico, the bands 430-435 MHz and 438-440 MHz are also allocated on a primary basis to the land mobile service, subject to agreement obtained under No. **9.21**.

5.279A The use of this band by sensors in the Earth exploration-satellite service (active) shall be in accordance with Recommendation ITU-R SA.1260-1. Additionally, the Earth exploration-satellite service (active) in the band 432-438 MHz shall not cause harmful interference to the aeronautical radionavigation service in China. The provisions of this footnote in no way diminish the obligation of the Earth exploration-satellite service (active) to operate as a secondary service in accordance with Nos. **5.29** and **5.30**. (WRC-03)

5.280 In Germany, Austria, Bosnia and Herzegovina, Croatia, The Former Yugoslav Republic of Macedonia, Liechtenstein, Montenegro, Portugal, Serbia, Slovenia and Switzerland, the band 433.05-434.79 MHz (centre frequency 433.92 MHz) is designated for industrial, scientific and medical (ISM) applications. Radiocommunication services of these countries operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. **15.13**. (WRC-07)

5.281 *Additional allocation:* in the French Overseas Departments in Region 2 and India, the band 433.75-

434.25 MHz is also allocated to the space operation service (Earth-to-space) on a primary basis. In France and in Brazil, the band is allocated to the same service on a secondary basis.

5.282 In the bands 435-438 MHz, 1 260-1 270 MHz, 2 400-2 450 MHz, 3 400-3 410 MHz (in Regions 2 and 3 only) and 5 650-5 670 MHz, the amateur-satellite service may operate subject to not causing harmful interference to other services operating in accordance with the Table (see No. **5.43**). Administrations authorizing such use shall ensure that any harmful interference caused by emissions from a station in the amateur-satellite service is immediately eliminated in accordance with the provisions of No. **25.11**. The use of the bands 1 260-1 270 MHz and 5 650-5 670 MHz by the amateur-satellite service is limited to the Earth-to-space direction.

5.283 *Additional allocation:* in Austria, the band 438-440 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.

5.284 *Additional allocation:* in Canada, the band 440-450 MHz is also allocated to the amateur service on a secondary basis.

5.285 *Different category of service:* in Canada, the allocation of the band 440-450 MHz to the radiolocation service is on a primary basis (see No. **5.33**).

5.286 The band 449.75-450.25 MHz may be used for the space operation service (Earth-to-space) and the space research service (Earth-to-space), subject to agreement obtained under No. **9.21**.

5.286A The use of the bands 454-456 MHz and 459-460 MHz by the mobile-satellite service is subject to coordination under No. **9.11A**. (WRC-97)

5.286AA The band 450-470 MHz is identified for use by administrations wishing to implement International Mobile Telecommunications (IMT). See Resolution **224 (Rev.WRC-07)**. This identification does not preclude the use of this band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. (WRC-07)

5.286B The use of the band 454-455 MHz in the countries listed in No. **5.286D**, 455-456 MHz and 459-460 MHz in Region 2, and 454-456 MHz and 459-460 MHz in the countries listed in No. **5.286E**, by stations in the mobile-satellite service, shall not cause harmful interference to, or claim protection from, stations of the fixed or mobile services operating in accordance with the Table of Frequency Allocations. (WRC-97)

5.286C The use of the band 454-455 MHz in the countries listed in No. **5.286D**, 455-456 MHz and 459-460 MHz in Region 2, and 454-456 MHz and 459-460 MHz in the countries listed in No. **5.286E**, by stations in the mobile-satellite service, shall not constrain the development and use of the fixed and mobile services operating in accordance with the Table of Frequency Allocations. (WRC-97)

5.286D *Additional allocation:* in Canada, the United States and Panama, the band 454-455 MHz is also allocated to the mobile-satellite service (Earth-to-space) on a primary basis. (WRC-07)

5.286E *Additional allocation:* in Cape Verde, Nepal and Nigeria, the bands 454-456 MHz and 459-460 MHz are also allocated to the mobile-satellite (Earth-to-space) service on a primary basis. (WRC-07)

5.287 In the maritime mobile service, the frequencies 457.525 MHz, 457.550 MHz, 457.575 MHz, 467.525 MHz, 467.550 MHz and 467.575 MHz may be used by on-board communication stations. Where needed, equipment designed for 12.5 kHz channel spacing using also the additional frequencies 457.5375 MHz, 457.5625 MHz, 467.5375 MHz and 467.5625 MHz may be introduced for on-board communications. The use of these frequencies in territorial waters may be subject to the national regulations of the administration concerned. The characteristics of the equipment used shall conform to those specified in Recommendation ITU-R M.1174-2. (WRC-07)

5.288 In the territorial waters of the United States and the Philippines, the preferred frequencies for use by on-board communication stations shall be 457.525 MHz, 457.550 MHz, 457.575 MHz and 457.600 MHz paired, respectively, with 467.750 MHz, 467.775 MHz, 467.800 MHz and 467.825 MHz. The characteristics of the equipment used shall conform to those specified in Recommendation ITU-R M.1174-1. (WRC-03)

5.289 Earth exploration-satellite service applications, other than the meteorological-satellite service, may also be used in the bands 460-470 MHz and 1 690-1 710 MHz for space-to-Earth transmissions subject to not causing harmful interference to stations operating in accordance with the Table.

5.290 *Different category of service:* in Afghanistan, Azerbaijan, Belarus, China, the Russian Federation, Japan, Kyrgyzstan, Tajikistan and Turkmenistan, the allocation of the band 460-470 MHz to the meteorological-satellite service (space-to-Earth) is on a primary basis (see No. **5.33**), subject to agreement obtained under No. **9.21**. (WRC-12)

5.291 *Additional allocation:* in China, the band 470-485 MHz is also allocated to the space research (space-to-Earth) and the space operation (space-to-Earth) services on a primary basis subject to agreement

obtained under No. **9.21** and subject to not causing harmful interference to existing and planned broadcasting stations.

5.291A *Additional allocation:* in Germany, Austria, Denmark, Estonia, Finland, Liechtenstein, Norway, Netherlands, the Czech Rep. and Switzerland, the band 470-494 MHz is also allocated to the radiolocation service on a secondary basis. This use is limited to the operation of wind profiler radars in accordance with Resolution **217 (WRC-97)**. (WRC-97)

5.292 *Different category of service:* in Mexico, the allocation of the band 470-512 MHz to the fixed and mobile services, and in Argentina, Uruguay and Venezuela to the mobile service, is on a primary basis (see No. **5.33**), subject to agreement obtained under No. **9.21**. (WRC-07)

5.293 *Different category of service:* in Canada, Chile, Cuba, the United States, Guyana, Honduras, Jamaica, Mexico, Panama and Peru, the allocation of the bands 470-512 MHz and 614-806 MHz to the fixed service is on a primary basis (see No. **5.33**), subject to agreement obtained under No. **9.21**. In Canada, Chile, Cuba, the United States, Guyana, Honduras, Jamaica, Mexico, Panama and Peru, the allocation of the bands 470-512 MHz and 614-698 MHz to the mobile service is on a primary basis (see No. **5.33**), subject to agreement obtained under No. **9.21**. In Argentina and Ecuador, the allocation of the band 470-512 MHz to the fixed and mobile services is on a primary basis (see No. **5.33**), subject to agreement obtained under No. **9.21**. (WRC-12)

5.294 *Additional allocation:* in Saudi Arabia, Cameroon, Côte d'Ivoire, Egypt, Ethiopia, Israel, Kenya, Libya, the Syrian Arab Republic, South Sudan, Chad and Yemen, the band 470-582 MHz is also allocated to the fixed service on a secondary basis. (WRC-12)

5.295 Not used.

5.296 *Additional allocation:* in Albania, Germany, Saudi Arabia, Austria, Bahrain, Belgium, Benin, Bosnia and Herzegovina, Burkina Faso, Cameroon, Congo (Rep. of the), Côte d'Ivoire, Croatia, Denmark, Djibouti, Egypt, United Arab Emirates, Spain, Estonia, Finland, France, Gobon, Ghana, Iraq, Ireland, Iceland, Israel, Italy, Jordan, Kuwait, Latvia, The Former Yugoslav Republic of Macedonia, Libya, Liechtenstein, Lithuania, Luxembourg, Mali, Malta, Morocco, Moldovo, Monaco, Niger, Norway, Oman, the Netherlands, Poland, Portugal, Qatar, the Syrian Arab Republic, Slovakia, the Czech Republic, the United Kingdom, Sudan, Sweden, Switzerland, Swaziland, Chad, Togo, Tunisia and Turkey, the band 470-790 MHz, and in Angola, Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Nigeria, South Africa, Tanzania, Zambia and Zimbabwe, the band 470-698 MHz are also allocated on a secondary basis to the land mobile service, intended for applications ancillary to broadcasting. Stations of the land mobile service in the countries listed in this footnote shall not cause harmful interference to existing or planned stations operating in accordance with the Table in countries other than those listed in this footnote. (WRC-12)

5.297 *Additional allocation:* in Canada, Costa Rica, Cuba, El Salvador, the United States, Guatemala, Guyana, Honduras, Jamaica and Mexico, the band 512-608 MHz is also allocated to the fixed and mobile services on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-07)

5.298 *Additional allocation:* in India, the band 549.75-550.25 MHz is also allocated to the space operation service (space-to-Earth) on a secondary basis.

5.299 Not used.

5.300 *Additional allocation:* in Saudi Arabia, Cameroon, Egypt, United Arab Emirates, Israel, Jordan, Libya, Oman, Qatar, the Syrian Arab Republic, Sudan and South Sudan, the band 582-790 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a secondary basis. (WRC-12)

5.301 Not used.

5.303 Not used.

5.304 *Additional allocation:* in the African Broadcasting Area (see Nos. **5.10** to **5.13**), the band 606-614 MHz is also allocated to the radio astronomy service on a primary basis.

5.305 *Additional allocation:* in China, the band 606-614 MHz is also allocated to the radio astronomy service on a primary basis.

5.306 *Additional allocation:* in Region 1, except in the African Broadcasting Area (see Nos. **5.10** to **5.13**), and in Region 3, the band 608-614 MHz is also allocated to the radio astronomy service on a secondary basis.

5.307 *Additional allocation:* in India, the band 608-614 MHz is also allocated to the radio astronomy service on a primary basis.

5.308 Not used.

5.309 *Different category of service*: in Costa Rica, El Salvador and Honduras, the allocation of the band 614-806 MHz to the fixed service is on a primary basis (see No. **5.33**), subject to agreement obtained under

No. **9.21**.

5.310 (SUP - WRC-97)

5.311 (SUP - WRC-07)

5.311A For the frequency band 620-790 MHz, see also Resolution **549 (WRC-07)**. (WRC-07)

5.312 *Additional allocation*: in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the band 645-862 MHz, in Bulgaria the bands 646-686 MHz, 726-758 MHz, 766-814 MHz and 822-862 MHz, in Romania the band 830-862 MHz, and in Poland, the band 830-860 MHz until 31 December 2012 and the band 860-862 MHz until 31 December 2017, are also allocated to the aeronautical radionavigation service on a primary basis. (WRC-12)

5.312A In Region 1, the use of the band 694-790 MHz by the mobile, except aeronautical mobile, service is subject to the provisions of Resolution **232 (WRC-12)**. See also Resolution **224 (Rev.WRC-12)**. (WRC-12)

5.313 (SUP - WRC-97)

5.313A The band, or portions of the band 698-790 MHz, in Bangladesh, China, Korea (Rep. of), India, Japan, New Zealand, Pakistan, Papua New Guinea, Philippines and Singapore are identified for use by these administrations wishing to implement International Mobile Telecommunications (IMT). This identification does not preclude the use of these bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. In China, the use of IMT in this band will not start until 2015. (WRC-12)

5.313B *Different category of service:* in Brazil, the allocation of the band 698-806 MHz to the mobile service is on a secondary basis (see No. **5.32**). (WRC-07)

5.314 *Additional allocation*: in Austria, Italy, Moldova, Uzbekistan, Kyrgyzstan and the United Kingdom, the band 790-862 MHz is also allocated to the land mobile service on a secondary basis. (WRC-12)

5.315 *Alternative allocation*: in Greece the band 790-838 MHz is allocated to the broadcasting service on a primary basis. (WRC-12)

5.316 *Additional allocation:* in Germany, Saudi Arabia, Bosnia and Herzegovina, Burkina Faso, Cameroon, Côte d'Ivoire, Croatia, Denmark, Egypt, Finland, Greece, Israel, the Libyan Arab Jamahiriya, Jordan, Kenya, The Former Yugoslav Republic of Macedonia, Liechtenstein, Mali, Monaco, Montenegro, Norway, the Netherlands, Portugal, the United Kingdom, the Syrian Arab Republic, Serbia, Sweden and Switzerland, the band 790-830 MHz, and in these same countries and in Spain, France, Gabon and Malta, the band 830-862 MHz, are also allocated to the mobile, except aeronautical mobile, service on a primary basis. However, stations of the mobile service in the countries mentioned in connection with each band referred to in this footnote shall not cause harmful interference to, or claim protection from, stations of services operating in accordance with the Table in countries other than those mentioned in connection with the band. This allocation is effective until 16 June 2015. (WRC-07)

5.316A *Additional allocation:* in Spain, France, Gabon and Malta, the band 790-830 MHz, in Albania, Angola, Bahrain, Benin, Botswana, Burundi, Congo (Rep. of the), Egypt, United Arab Emirates, Estonia, Gambia, Ghana, Guinea, Guinea-Bissau, Hungary, Iraq, Kuwait, Lesotho, Latvia, Lebanon, Lithuania, Luxembourg, Malawi, Morocco, Mauritania, Mozambique, Namibia, Niger, Nigeria, Oman, Uganda, Poland, Qatar, Slovakia, Czech Rep., Romania, Rwanda, Senegal, Sudan, South Sudan, South Africa, Swaziland, Tanzania, Chad, Togo, Yemen, Zambia, Zimbabwe and French Overseas Departments and Communities of Region 1, the band 790-862 MHz, and in Georgia, the band 806-862 MHz are also allocated to the mobile, except aeronautical mobile, service on a primary basis subject to the agreement by the administrations concerned obtained under No. **9.21** and under the GE06 Agreement, as appropriate, including those administrations mentioned in No. **5.312** where appropriate. See Resolutions **224 (Rev. WRC-12)** and **749 (Rev. WRC-12)**. This allocation is effective until 16 June 2015. (WRC-12)

5.316B In Region 1, the allocation to the mobile, except aeronautical mobile, service on a primary basis in the frequency band 790-862 MHz shall come into effect from 17 June 2015 and shall be subject to agreement obtained under No. **9.21** with respect to the aeronautical radionavigation service in countries mentioned in No. **5.312**. For countries party to the GE06 Agreement, the use of stations of the mobile service is also subject to the successful application of the procedures of that Agreement. Resolutions **224 (Rev. WRC-12)** and **749 (Rev.WRC-12)** shall apply, as appropriate. (WRC-12)

5.317 *Additional allocation*: in Region 2 (except Brazil and the United States), the band 806-890 MHz is also allocated to the mobile-satellite service on a primary basis, subject to agreement obtained under No. **9.21**. The use of this service is intended for operation within national boundaries.

5.317A Those parts of the band 698-960 MHz in Region 2 and the band 790-960 MHz in Regions 1 and 3 which

are allocated to the mobile service on a primary basis are identified for use by administrations wishing to implement International Mobile Telecommunications (IMT) - see Resolutions **224 (Rev.WRC-12)** and **749 (Rev.WRC-12)** as appropriate. This identification does not preclude the use of these bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-12)

5.318 *Additional allocation*: in Canada, the United States and Mexico, the bands 849-851 MHz and 894-896 MHz are also allocated to the aeronautical mobile service on a primary basis, for public correspondence with aircraft. The use of the band 849-851 MHz is limited to transmissions from aeronautical stations and the use of the band 894-896 MHz is limited to transmissions from aircraft stations.

5.319 *Additional allocation*: in Belarus, the Russian Federation and Ukraine, the bands 806-840 MHz (Earth-to-space) and 856-890 MHz (space-to-Earth) are also allocated to the mobile-satellite, except aeronautical mobile-satellite (R), service. The use of these bands by this service shall not cause harmful interference to, or claim protection from, services in other countries operating in accordance with the Table of Frequency Allocations and is subject to special agreements between the administrations concerned.

5.320 *Additional allocation*: in Region 3, the bands 806-890 MHz and 942-960 MHz are also allocated to the mobile-satellite, except aeronautical mobile-satellite (R), service on a primary basis, subject to agreement obtained under No. **9.21**. The use of this service is limited to operation within national boundaries. In seeking such agreement, appropriate protection shall be afforded to services operating in accordance with the Table, to ensure that no harmful interference is caused to such services.

5.321 (SUP - WRC-07)

5.322 In Region 1, in the band 862-960 MHz, stations of the broadcasting service shall be operated only in the African Broadcasting Area (see Nos. **5.10** to **5.13**) excluding Algeria, Burundi, Egypt, Spain, Lesotho, Libya, Morocco, Malawi, Namibia, Nigeria, South Africa, Tanzania, Zimbabwe and Zambia, subject to agreement obtained under No. **9.21**. (WRC-12)

5.323 *Additional allocation:* in Armenia, Azerbaijan, Belarus, the Russian Federation, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the band 862-960 MHz, in Bulgaria the band 862-890.2 MHz and 900-935.2 MHz, in Poland the band 862-876 MHz until 31 December 2017, and in Romania the bands 862-880 MHz and 915-925 MHz, are also allocated to the aeronautical radionavigation service on a primary basis. Such use is subject to agreement obtained under No. **9.21** with administrations concerned and limited to ground-based radiobeacons in operation on 27 October 1997 until the end of their lifetime. (WRC-12)

5.324 Not used.

5.325 *Different category of service*: in the United States, the allocation of the band 890-942 MHz to the radiolocation service is on a primary basis (see No. **5.33**), subject to agreement obtained under No. **9.21**.

5.325A *Different category of service:* in Cuba, the allocation of the band 902-915 MHz to the land mobile service is on a primary basis. (WRC-2000)

5.326 *Different category of service*: in Chile, the band 903-905 MHz is allocated to the mobile, except aeronautical mobile, service on a primary basis, subject to agreement obtained under No. **9.21**.

5.327 *Different category of service*: in Australia, the allocation of the band 915-928 MHz to the radiolocation service is on a primary basis (see No. **5.33**).

5.327A The use of the frequency band 960-1 164 MHz by the aeronautical mobile (R) service is limited to systems that operate in accordance with recognized international aeronautical standards. Such use shall be in accordance with Resolution **417 (Rev.WRC-12)**. (WRC-12)

5.328 The use of the band 960-1 215 MHz by the aeronautical radionavigation service is reserved on a worldwide basis for the operation and development of airborne electronic aids to air navigation and any directly associated ground-based facilities. (WRC-2000)

5.328A Stations in the radionavigation-satellite service in the band 1 164-1 215 MHz shall operate in accordance with the provisions of Resolution **609 (Rev.WRC-07)** and shall not claim protection from stations in the aeronautical radionavigation service in the band 960-1 215 MHz. No. **5.43A** does not apply. The provisions of No. **21.18** shall apply. (WRC-07)

5.328B The use of the bands 1 164-1 300 MHz, 1 559-1 610 MHz and 5 010-5 030 MHz by systems and networks in the radionavigation-satellite service for which complete coordination or notification information, as appropriate, is received by the Radiocommunication Bureau after 1 January 2005 is subject to the application of the provisions of Nos. **9.12**, **9.12A** and **9.13**. Resolution **610 (WRC-03)** shall also apply; however, in the case of radionavigation-satellite service (space-to-space) networks and systems, Resolution **610 (WRC-03)** shall only apply to transmitting space stations. In accordance with

No. **5.329A**, for systems and networks in the radionavigation-satellite service (space-to-space) in the bands 1 215-1 300 MHz and 1 559-1 610 MHz, the provisions of Nos. **9.7**, **9.12**, **9.12A** and **9.13** shall only apply with respect to other systems and networks in the radionavigation-satellite service (space-to-space). (WRC-07)

5.329 Use of the radionavigation-satellite service in the band 1 215-1 300 MHz shall be subject to the condition that no harmful interference is caused to, and no protection is claimed from, the radionavigation service authorized under No. **5.331**. Furthermore, the use of the radionavigation-satellite service in the band 1 215-1 300 MHz shall be subject to the condition that no harmful interference is caused to the radiolocation service. No. **5.43** shall not apply in respect of the radiolocation service. Resolution **608 (WRC-03)** shall apply. (WRC-03)

5.329A Use of systems in the radionavigation-satellite service (space-to-space) operating in the bands 1 215-1 300 MHz and 1 559-1 610 MHz is not intended to provide safety service applications, and shall not impose any additional constraints on radionavigation-satellite service (space-to-Earth) systems or on other services operating in accordance with the Table of Frequency Allocations. (WRC-07)

5.330 *Additional allocation:* in Angola, Saudi Arabia, Bahrain, Bangladesh, Cameroon, China, Djibouti, Egypt, the United Arab Emirates, Eritrea, Ethiopia, Guyana, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kuwait, Nepal, Oman, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, Somalia, Sudan, South Sudan, Chad, Togo and Yemen, the band 1 215-1 300 MHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)

5.331 *Additional allocation:* in Algeria, Germany, Saudi Arabia, Australia, Austria, Bahrain, Belarus, Belgium, Benin, Bosnia and Herzegovina, Brazil, Burkina Faso, Burundi, Cameroon, China, Korea (Rep. of), Croatia, Denmark, Egypt, the United Arab Emirates, Estonia, the Russian Federation, Finland, France, Ghana, Greece, Guinea, Equatorial Guinea, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Ireland, Israel, Jordan, Kenya, Kuwait, The Former Yugoslav Republic of Macedonia, Lesotho, Latvia, Lebanon, Liechtenstein, Lithuania, Luxembourg, Madagascar, Mali, Mauritania, Montenegro, Nigeria, Norway, Oman, Pakistan, the Netherlands, Poland, Portugal, Qatar, the Syrian Arab Republic, Dem. People's Rep. of Korea, Slovakia, the United Kingdom, Serbia, Slovenia, Somalia, Sudan, South Sudan, Sri Lanka, South Africa, Sweden, Switzerland, Thailand, Togo, Turkey, Venezuela and Viet Nam, the band 1 215-1 300 MHz is also allocated to the radionavigation service on a primary basis. In Canada and the United States, the band 1 240-1 300 MHz is also allocated to the radionavigation service, and use of the radionavigation service shall be limited to the aeronautical radionavigation service. (WRC-12)

5.332 In the band 1 215-1 260 MHz, active spaceborne sensors in the Earth exploration-satellite and space research services shall not cause harmful interference to, claim protection from, or otherwise impose constraints on operation or development of the radiolocation service, the radionavigation-satellite service and other services allocated on a primary basis. (WRC-2000)

5.333 (SUP - WRC-97)

5.334 *Additional allocation:* in Canada and the United States, the band 1 350-1 370 MHz is also allocated to the aeronautical radionavigation service on a primary basis. (WRC-03)

5.335 In Canada and the United States in the band 1 240-1 300 MHz, active spaceborne sensors in the earth exploration-satellite and space research services shall not cause interference to, claim protection from, or otherwise impose constraints on operation or development of the aeronautical radionavigation service. (WRC-97)

5.335A In the band 1 260-1 300 MHz, active spaceborne sensors in the Earth exploration-satellite and space research services shall not cause harmful interference to, claim protection from, or otherwise impose constraints on operation or development of the radiolocation service and other services allocated by footnotes on a primary basis. (WRC-2000)

5.336 Not used.

5.337 The use of the bands 1 300-1 350 MHz, 2 700-2 900 MHz and 9 000-9 200 MHz by the aeronautical radionavigation service is restricted to ground-based radars and to associated airborne transponders which transmit only on frequencies in these bands and only when actuated by radars operating in the same band.

5.337A The use of the band 1 300-1 350 MHz by earth stations in the radionavigation-satellite service and by stations in the radiolocation service shall not cause harmful interference to, nor constrain the operation and development of, the aeronautical-radionavigation service. (WRC-2000)

5.338 In Kyrgyzstan, Slovakia and Turkmenistan, existing installations of the radionavigation service may continue to operate in the band 1 350-1 400 MHz. (WRC-12)

5.338A In the bands 1 350-1 400 MHz, 1 427-1 452 MHz, 22.55-23.55 GHz, 30-31.3 GHz, 49.7-50.2 GHz, 50.4-

50.9 GHz, 51.4-52.6 GHz, 81-86 GHz and 92-94 GHz, Resolution **750 (Rev.WRC-12)** applies. (WRC-12)

5.339 The bands 1 370-1 400 MHz, 2 640-2 655 MHz, 4 950-4 990 MHz and 15.20-15.35 GHz are also allocated to the space research (passive) and Earth exploration-satellite (passive) services on a secondary basis.

5.339A (SUP - WRC-07)

5.340 All emissions are prohibited in the following bands:

1 400-1 427 MHz,
2 690-2 700 MHz, except those provided for by No. **5.422**,
10.68-10.7 GHz, except those provided for by No. **5.483**,
15.35-15.4 GHz, except those provided for by No. **5.511**,
23.6-24 GHz,
31.3-31.5 GHz,
31.5-31.8 GHz, in Region 2,
48.94-49.04 GHz, from airborne stations
50.2-50.4 GHz[(2)],
52.6-54.25 GHz,
86-92 GHz,
100-102 GHz,
109.5-111.8 GHz,
114.25-116 GHz,
148.5-151.5 GHz,
164-167 GHz,
182-185 GHz,
190-191.8 GHz,
200-209 GHz,
226-231.5 GHz,
250-252 GHz. (WRC-03)

5.341 In the bands 1 400-1 727 MHz, 101-120 GHz and 197-220 GHz, passive research is being conducted by some countries in a programme for the search for intentional emissions of extraterrestrial origin.

5.342 *Additional allocation:* in Armenia, Azerbaijan, Belarus, the Russian Federation, Uzbekistan, Kyrgystan and Ukraine, the band 1 429-1 535 MHz, and in Bulgaria the band 1 525-1 535 MHz, are also allocated to the aeronautical mobile service on a primary basis exclusively for the purposes of aeronautical telemetry within the national territory. As of 1 April 2007, the use of the band 1 452-1 492 MHz is subject to agreement between the administrations concerned. (WRC-12)

5.343 In Region 2, the use of the band 1 435-1 535 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile service.

5.344 *Alternative allocation:* in the United States, the band 1 452-1 525 MHz is allocated to the fixed and mobile services on a primary basis (see also No. **5.343**).

5.345 Use of the band 1 452-1 492 MHz by the broadcasting-satellite service, and by the broadcasting service, is limited to digital audio broadcasting and is subject to the provisions of Resolution **528 (WARC-92)***.

5.346 Not used.

5.347 (SUP - WRC-07)

5.347A (SUP - WRC-07)

5.348 The use of the band 1 518-1 525 MHz by the mobile-satellite service is subject to coordination under No. **9.11A**. In the band 1 518-1 525 MHz stations in the mobile-satellite service shall not claim protection from the stations in the fixed service. No. **5.43A** does not apply. (WRC-03)

5.348A In the band 1 518-1 525 MHz, the coordination threshold in terms of the power flux-density levels at the surface of the Earth in application of No. **9.11A** for space stations in the mobile-satellite (space-to-Earth)

5.340.1 The allocation to the Earth exploration-satellite service (passive) and the space research service (passive) in the band 50.2-50.4 GHz should not impose undue constraints on the use of the adjacent bands by the primary allocated services in those bands. (WRC-97)

**Note by the Secretariat:* This Resolution was revised by WRC-03.

service, with respect to the land mobile service use for specialized mobile radios or used in conjunction with public switched telecommunication networks (PSTN) operating within the territory of Japan, shall be –150 dB(W/m^2) in any 4 kHz band for all angles of arrival, instead of those given in Table 5-2 of Appendix **5**. In the band 1 518-1 525 MHz stations in the mobile-satellite service shall not claim protection from stations in the mobile service in the territory of Japan. No. **5.43A** does not apply. (WRC-03)

5.348B In the band 1 518-1 525 MHz, stations in the mobile-satellite service shall not claim protection from aeronautical mobile telemetry stations in the mobile service in the territory of the United States (see Nos. **5.343** and **5.344**) and in the countries listed in No. **5.342**. No. **5.43A** does not apply. (WRC-03)

5.348C (SUP - WRC-07)

5.349 *Different category of service:* in Saudi Arabia, Azerbaijan, Bahrain, Cameroon, Egypt, France, Iran (Islamic Republic of), Iraq, Israel, Kazakhstan, Kuwait, The Former Yugoslav Republic of Macedonia, Lebanon, Morocco, Qatar, Syrian Arab Republic, Kyrgyzstan, Turkmenistan and Yemen, the allocation of the band 1 525-1 530 MHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. **5.33**). (WRC-07)

5.350 *Additional allocation:* in Azerbaijan, Kyrgyzstan and Turkmenistan, the band 1 525-1 530 MHz is also allocated to the aeronautical mobile service on a primary basis. (WRC-2000)

5.351 The bands 1 525-1 544 MHz, 1 545-1 559 MHz, 1 626.5-1 645.5 MHz and 1 646.5-1 660.5 MHz shall not be used for feeder links of any service. In exceptional circumstances, however, an earth station at a specified fixed point in any of the mobile-satellite services may be authorized by an administration to communicate via space stations using these bands.

5.351A For the use of the bands 1 518-1 544 MHz, 1 545-1 559 MHz, 1 610-1 645.5 MHz, 1 646.5-1 660.5 MHz, 1 668-1 675 MHz, 1 980-2 010 MHz, 2 170-2 200 MHz, 2 483.5-2 520 MHz and 2 670-2 690 MHz by the mobile-satellite service, see Resolutions **212 (Rev.WRC-07)** and **225 (Rev.WRC-07)**. (WRC-07)

5.352 (SUP - WRC-97)

5.352A In the band 1 525-1 530 MHz, stations in the mobile-satellite service, except stations in the maritime mobile-satellite service, shall not cause harmful interference to, or claim protection from, stations of the fixed service in France and French overseas communities of Region 3, Algeria, Saudi Arabia, Egypt, Guinea, India, Israel, Italy, Jordan, Kuwait, Mali, Morocco, Mauritania, Nigeria, Oman, Pakistan, the Philippines, Qatar, Syrian Arab Republic, Tanzania, Viet Nam and Yemen notified prior to 1 April 1998. (WRC-12)

5.353 (SUP - WRC-97)

5.353A In applying the procedures of Section II of Article **9** to the mobile-satellite service in the bands 1 530-1 544 MHz and 1 626.5-1 645.5 MHz, priority shall be given to accommodating the spectrum requirements for distress, urgency and safety communications of the Global Maritime Distress and Safety System (GMDSS). Maritime mobile-satellite distress, urgency and safety communications shall have priority access and immediate availability over all other mobile satellite communications operating within a network. Mobile-satellite systems shall not cause unacceptable interference to, or claim protection from, distress, urgency and safety communications of the GMDSS. Account shall be taken of the priority of safety-related communications in the other mobile-satellite services. (The provisions of Resolution **222 (WRC-2000)** shall apply.) (WRC-2000)

5.354 The use of the bands 1 525-1 559 MHz and 1 626.5-1 660.5 MHz by the mobile-satellite services is subject to coordination under No. **9.11A**.

5.355 *Additional allocation:* in Bahrain, Bangladesh, Congo (Rep. of the), Djibouti, Egypt, Eritrea, Iraq, Israel, Kuwait, Qatar, Syrian Arab Republic, Somalia, Sudan, South Sudan, Chad, Togo and Yemen, the bands 1 540-1 559 MHz, 1 610-1 645.5 MHz and 1 646.5-1 660 MHz are also allocated to the fixed service on a secondary basis. (WRC-12)

5.356 The use of the band 1 544-1 545 MHz by the mobile-satellite service (space-to-Earth) is limited to distress and safety communications (see Article **31**).

5.357 Transmissions in the band 1 545-1 555 MHz from terrestrial aeronautical stations directly to aircraft stations, or between aircraft stations, in the aeronautical mobile (R) service are also authorized when such transmissions are used to extend or supplement the satellite-to-aircraft links.

5.357A In applying the procedures of Section II of Article **9** to the mobile-satellite service in the frequency bands 1 545-1 555 MHz and 1 646.5-1 656.5 MHz, priority shall be given to accommodating the spectrum requirements of the aeronautical mobile-satellite (R) service providing transmission of messages with priority 1 to 6 in Article **44**. Aeronautical mobile-satellite (R) service communications with priority 1 to 6 in Article **44** shall have priority access and immediate availability, by pre-emption if necessary, over all other mobile-satellite communications operating within a network. Mobile-satellite systems shall not

cause unacceptable interference to, or claim protection from, aeronautical mobile-satellite (R) service communications with priority 1 to 6 in Article **44**. Account shall be taken of the priority of safety-related communications in the other mobile-satellite services. (The provisions of Resolution **222 (WRC-12)** shall apply.) (WRC-12)

5.358 (SUP - WRC-97)

5.359 *Additional allocation:* in Germany, Saudi Arabia, Armenia, Austria, Azerbaijan, Belarus, Benin, Cameroon, the Russian Federation, France, Georgia, Greece, Guinea, Guinea-Bissau, Jordan, Kazakhstan, Kuwait, Lithuania, Mauritania, Uganda, Uzbekistan, Pakistan, Poland, the Syrian Arab Republic, Kyrgyzstan, the Dem. People's Rep. of Korea, Romania, Tajikistan, Tanzania, Tunisia, Turkmenistan and Ukraine, the bands 1 550-1 559 MHz, 1 610-1 645.5 MHz and 1 646.5-1 660 MHz are also allocated to the fixed service on a primary basis. Administrations are urged to make all practicable efforts to avoid the implementation of new fixed-service stations in these bands. (WRC-12)

5.360 to **5.362** (SUP - WRC-97)

5.362A In the United States, in the bands 1 555-1 559 MHz and 1 656.5-1 660.5 MHz, the aeronautical mobile-satellite (R) service shall have priority access and immediate availability, by pre-emption if necessary, over all other mobile-satellite communications operating within a network. Mobile-satellite systems shall not cause unacceptable interference to, or claim protection from, aeronautical mobile-satellite (R) service communications with priority 1 to 6 in Article **44**. Account shall be taken of the priority of safety-related communications in the other mobile-satellite services. (WRC-97)

5.362B *Additional allocation:* The band 1 559-1 610 MHz is also allocated to the fixed service on a primary basis until 1 January 2010 in Algeria, Saudi Arabia, Cameroon, Jordan, Mali, Mauritania, Syrian Arab Republic and Tunisia. After this date, the fixed service may continue to operate on a secondary basis until 1 January 2015, at which time this allocation shall no longer be valid. The band 1 559-1 610 MHz is also allocated to the fixed service on a secondary basis in Algeria, Armenia, Azerbaijan, Belarus, Benin, Russian Federation, Gabon, Georgia, Guinea, Kazakhstan, Lithuania, Nigeria, Uzbekistan, Pakistan, Poland, Kyrgyzstan, Dem. People's Rep. of Korea, Romania, Senegal, Tajikistan, Tanzania, Turkmenistan and Ukraine until 1 January 2015, at which time this allocation shall no longer be valid. Administrations are urged to take all practicable steps to protect the radionavigation-satellite service and the aeronautical radionavigation service and not authorize new frequency assignments to fixed-service systems in this band. (WRC-12)

5.362C *Additional allocation:* in Congo (Rep. of the), Eritrea, Iraq, Israel, Jordan, Qatar, the Syrian Arab Republic, Somalia, Sudan, South Sudan, Chad, Togo and Yemen, the band 1 559-1 610 MHz is also allocated to the fixed service on a secondary basis until 1 January 2015, at which time this allocation shall no longer be valid. Administrations are urged to take all practicable steps to protect the radionavigation-satellite service and not authorize new frequency assignments to fixed-service systems in this band. (WRC-12)

5.363 (SUP - WRC-07)

5.364 The use of the band 1 610-1 626.5 MHz by the mobile-satellite service (Earth-to-space) and by the radiodetermination-satellite service (Earth-to-space) is subject to coordination under No. **9.11A**. A mobile earth station operating in either of the services in this band shall not produce a peak e.i.r.p. density in excess of -15 dB(W/4 kHz)in the part of the band used by systems operating in accordance with the provisions of No. **5.366** (to which No. **4.10** applies), unless otherwise agreed by the affected administrations. In the part of the band where such systems are not operating, the mean e.i.r.p. density of a mobile earth station shall not exceed –3 dB(W/4 kHz). Stations of the mobile-satellite service shall not claim protection from stations in the aeronautical radionavigation service, stations operating in accordance with the provisions of No. **5.366** and stations in the fixed service operating in accordance with the provisions of No. **5.359**. Administrations responsible for the coordination of mobile-satellite networks shall make all practicable efforts to ensure protection of stations operating in accordance with the provisions of No. **5.366**.

5.365 The use of the band 1 613.8-1 626.5 MHz by the mobile-satellite service (space-to-Earth) is subject to coordination under No. **9.11A**.

5.366 The band 1 610-1 626.5 MHz is reserved on a worldwide basis for the use and development of airborne electronic aids to air navigation and any directly associated ground-based or satellite-borne facilities. Such satellite use is subject to agreement obtained under No. **9.21**.

5.367 *Additional allocation*: The frequency band 1 610-1 626.5 MHz is also allocated to the aeronautical mobile-satellite (R) service on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-12)

5.368 With respect to the radiodetermination-satellite and mobile-satellite services the provisions of No. **4.10** do not apply in the band 1 610-1 626.5 MHz, with the exception of the aeronautical radionavigation-

satellite service.

5.369 *Different category of service:* in Angola, Australia, China, Eritrea, Ethiopia, India, Iran (Islamic Republic of), Israel, Lebanon, Liberia, Madagascar, Mali, Pakistan, Papua New Guinea, Syrian Arab Republic, the Dem. Rep. of the Congo, Sudan, South Sudan, Togo and Zambia, the allocation of the band 1 610-1 626.5 MHz to the radiodetermination-satellite service (Earth-to-space) is on a primary basis (see No. **5.33**), subject to agreement obtained under No. **9.21** from countries not listed in this provision. (WRC-12)

5.370 *Different category of service:* in Venezuela, the allocation to the radiodetermination-satellite service in the band 1 610-1 626.5 MHz (Earth-to-space) is on a secondary basis.

5.371 *Additional allocation:* in Region 1, the band 1 610-1 626.5 MHz (Earth-to-space) is also allocated to the radiodetermination-satellite service on a secondary basis, subject to agreement obtained under No. **9.21**. (WRC-12)

5.372 Harmful interference shall not be caused to stations of the radio astronomy service using the band 1 610.6-1 613.8 MHz by stations of the radiodetermination-satellite and mobile-satellite services (No. **29.13** applies).

5.373 Not used.

5.373A (SUP - WRC-97)

5.374 Mobile earth stations in the mobile-satellite service operating in the bands 1 631.5-1 634.5 MHz and 1 656.5-1 660 MHz shall not cause harmful interference to stations in the fixed service operating in the countries listed in No. **5.359**. (WRC-97)

5.375 The use of the band 1 645.5-1 646.5 MHz by the mobile-satellite service (Earth-to-space) and for inter-satellite links is limited to distress and safety communications (see Article **31**).

5.376 Transmissions in the band 1 646.5-1 656.5 MHz from aircraft stations in the aeronautical mobile (R) service directly to terrestrial aeronautical stations, or between aircraft stations, are also authorized when such transmissions are used to extend or supplement the aircraft-to-satellite links.

5.376A Mobile earth stations operating in the band 1 660-1 660.5 MHz shall not cause harmful interference to stations in the radio astronomy service. (WRC-97)

5.377 (SUP - WRC-03)

5.378 Not used.

5.379 *Additional allocation:* in Bangladesh, India, Indonesia, Nigeria and Pakistan, the band 1 660.5-1 668.4 MHz is also allocated to the meteorological aids service on a secondary basis.

5.379A Administrations are urged to give all practicable protection in the band 1 660.5-1 668.4 MHz for future research in radio astronomy, particularly by eliminating air-to-ground transmissions in the meteorological aids service in the band 1 664.4-1 668.4 MHz as soon as practicable.

5.379B The use of the band 1 668-1 675 MHz by the mobile-satellite service is subject to coordination under No. **9.11A**. In the band 1 668-1 668.4 MHz, Resolution **904 (WRC-07)** shall apply. (WRC-07)

5.379C In order to protect the radio astronomy service in the band 1 668-1 670 MHz, the aggregate power flux-density values produced by mobile earth stations in a network of the mobile-satellite service operating in this band shall not exceed –181 dB(W/m^2) in 10 MHz and −194 dB(W/m^2) in any 20 kHz at any radio astronomy station recorded in the Master International Frequency Register, for more than 2% of integration periods of 2 000 s. (WRC-03)

5.379D For sharing of the band 1 668.4-1 675 MHz between the mobile-satellite service and the fixed and mobile services, Resolution **744 (Rev.WRC-07)** shall apply. (WRC-07)

5.379E In the band 1 668.4-1 675 MHz, stations in the mobile-satellite service shall not cause harmful interference to stations in the meteorological aids service in China, Iran (Islamic Republic of), Japan and Uzbekistan. In the band 1 668.4-1 675 MHz, administrations are urged not to implement new systems in the meteorological aids service and are encouraged to migrate existing meteorological aids service operations to other bands as soon as practicable. (WRC-03)

5.380 (SUP - WRC-07)

5.380A In the band 1 670-1 675 MHz, stations in the mobile-satellite service shall not cause harmful interference to, nor constrain the development of, existing earth stations in the meteorological-satellite service notified before 1 January 2004. Any new assignment to these earth stations in this band shall also be protected from harmful interference from stations in the mobile-satellite service. (WRC-07)

5.381 *Additional allocation:* in Afghanistan, Cuba, India, Iran (Islamic Republic of) and Pakistan, the band 1 690-1 700 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.382 *Different category of service:* in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Congo (Rep. of the), Egypt, the United Arab Emirates, Eritrea, Ethiopia, the Russian Federation, Guinea, Iraq, Israel, Jordan, Kazakhstan, Kuwait, the Former Yugoslav Republic of Macedonia, Lebanon, Mauritania, Moldova, Mongolia, Oman, Uzbekistan, Poland, Qatar, the Syrian Arab Republic, Kyrgyzstan, Somalia, Tajikistan, Tanzania, Turkmenistan, Ukraine and Yemen, the allocation of the band 1 690-1 700 MHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis (see No. **5.33**), and in the Dem. People's Rep. of Korea, the allocation of the band 1 690-1 700 MHz to the fixed service is on a primary basis (see No. **5.33**) and to the mobile, except aeronautical mobile, service on a secondary basis. (WRC-12)

5.383 Not used.

5.384 *Additional allocation:* in India, Indonesia and Japan, the band 1 700-1 710 MHz is also allocated to the space research service (space-to-Earth) on a primary basis. (WRC-97)

5.384A The bands, or portions of the bands, 1 710-1 885 MHz, 2 300-2 400 MHz and 2 500-2 690 MHz, are identified for use by administrations wishing to implement International Mobile Telecommunications (IMT) in accordance with Resolution **223 (Rev.WRC-07)**. This identification does not preclude the use of these bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-07)

5.385 *Additional allocation:* the band 1 718.8-1 722.2 MHz is also allocated to the radio astronomy service on a secondary basis for spectral line observations. (WRC-2000)

5.386 *Additional allocation:* the band 1 750-1 850 MHz is also allocated to the space operation (Earth-to-space) and space research (Earth-to-space) services in Region 2, in Australia, Guam, India, Indonesia and Japan on a primary basis, subject to agreement obtained under No. **9.21**, having particular regard to troposcatter systems. (WRC-03)

5.387 *Additional allocation:* in Belarus, Georgia, Kazakhstan, Kyrgyzstan, Romania, Tajikistan and Turkmenistan, the band 1 770-1 790 MHz is also allocated to the meteorological-satellite service on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-12)

5.388 The bands 1 885-2 025 MHz and 2 110-2 200 MHz are intended for use, on a worldwide basis, by administrations wishing to implement International Mobile Telecommunications-2000 (IMT-2000). Such use does not preclude the use of these bands by other services to which they are allocated. The bands should be made available for IMT-2000 in accordance with Resolution **212 (Rev.WRC-97)**. (See also Resolution **223 (WRC-2000)**.) (WRC-2000)

5.388A In Regions 1 and 3, the bands 1 885-1 980 MHz, 2 010-2 025 MHz and 2 110-2 170 MHz and, in Region 2, the bands 1 885-1 980 MHz and 2 110-2 160 MHz may be used by high altitude platform stations as base stations to provide International Mobile Telecommunications-2000 (IMT-2000), in accordance with Resolution **221 (Rev.WRC-03)**. Their use by IMT-2000 applications using high altitude platform stations as base stations does not preclude the use of these bands by any station in the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-03)

5.388B In Algeria, Saudi Arabia, Bahrain, Benin, Burkina Faso, Cameroon, Comoros, Côte d'Ivoire, China, Cuba, Djibouti, Egypt, United Arab Emirates, Eritrea, Ethiopia, Gabon, Ghana, India, Iran (Islamic Republic of), Israel, Jordan, Kenya, Kuwait, Libya, Mali, Morocco, Mauritania, Nigeria, Oman, Uganda, Pakistan, Qatar, the Syrian Arab Republic, Senegal, Singapore, Sudan, South Sudan, Tanzania, Chad, Togo, Tunisia, Yemen, Zambia and Zimbabwe, for the purpose of protecting fixed and mobile services, including IMT-2000 mobile stations, in their territories from co-channel interference, a high altitude platform station (HAPS) operating as an IMT-2000 base station in neighbouring countries, in the bands referred to in No. **5.388A**, shall not exceed a co-channel power flux-density of -127 dB(W/(m^2 · MHz)) at the Earth's surface outside a country's borders unless explicit agreement of the affected administration is provided at the time of the notification of HAPS. (WRC-12)

5.389 Not used.

5.389A The use of the bands 1 980-2 010 MHz and 2 170-2 200 MHz by the mobile-satellite service is subject to coordination under No. **9.11A** and to the provisions of Resolution **716 (Rev.WRC-2000)**. (WRC-07)

5.389B The use of the band 1 980-1 990 MHz by the mobile-satellite service shall not cause harmful interference to or constrain the development of the fixed and mobile services in Argentina, Brazil, Canada, Chile, Ecuador, the United States, Honduras, Jamaica, Mexico, Peru, Suriname, Trinidad and Tobago, Uruguay and Venezuela.

5.389C The use of the bands 2 010-2 025 MHz and 2 160-2 170 MHz in Region 2 by the mobile-satellite service is subject to coordination under No. **9.11A** and to the provisions of Resolution **716 (Rev.WRC-2000)**. (WRC-07)

5.389D (SUP - WRC-03)

5.389E The use of the bands 2 010-2 025 MHz and 2 160-2 170 MHz by the mobile-satellite service in Region 2 shall not cause harmful interference to or constrain the development of the fixed and mobile services in Regions 1 and 3.

5.389F In Algeria, Benin, Cape Verde, Egypt, Iran (Islamic Republic of), Mali, Syrian Arab Republic and Tunisia, the use of the bands 1 980-2 010 MHz and 2 170-2 200 MHz by the mobile-satellite service shall neither cause harmful interference to the fixed and mobile services, nor hamper the development of those services prior to 1 January 2005, nor shall the former service request protection from the latter services. (WRC-2000)

5.390 (SUP - WRC-07)

5.391 In making assignments to the mobile service in the bands 2 025-2 110 MHz and 2 200-2 290 MHz, administrations shall not introduce high-density mobile systems, as described in Recommendation ITU-R SA.1154, and shall take that Recommendation into account for the introduction of any other type of mobile system. (WRC-97)

5.392 (SUP RRB04/35)

5.392A (SUP - WRC-07)

5.393 *Additional allocation:* in Canada, the United States, India and Mexico, the band 2 310-2 360 MHz is also allocated to the broadcasting-satellite service (sound) and complementary terrestrial sound broadcasting service on a primary basis. Such use is limited to digital audio broadcasting and is subject to the provisions of Resolution **528 (Rev.WRC-03)**, with the exception of *resolves* 3 in regard to the limitation on broadcasting-satellite systems in the upper 25 MHz. (WRC-07)

5.394 In the United States, the use of the band 2 300-2 390 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile services. In Canada, the use of the band 2 360-2 400 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile services. (WRC-07)

5.395 In France and Turkey, the use of the band 2 310-2 360 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile service. (WRC-03)

5.396 Space stations of the broadcasting-satellite service in the band 2 310-2 360 MHz operating in accordance with No. **5.393** that may affect the services to which this band is allocated in other countries shall be coordinated and notified in accordance with Resolution **33 (Rev.WRC-97)**[*]. Complementary terrestrial broadcasting stations shall be subject to bilateral coordination with neighbouring countries prior to their bringing into use.

5.398 In respect of the radiodetermination-satellite service in the band 2 483.5-2 500 MHz, the provisions of No. **4.10** do not apply.

5.398A *Different category of service*: In Armenia, Azerbaijan, Belarus, the Russian Federation, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan and Ukraine, the band 2 483.5-2 500 MHz is allocated on a primary basis to the radiolocation service. The radiolocation stations in these countries shall not cause harmful interference to, or claim protection from, stations of the fixed, mobile and mobile-satellite services operating in accordance with the Radio Regulations in the frequency band 2 483.5-2 500 MHz. (WRC-12)

5.399 Except for cases referred to in No. **5.401**, stations of the radiodetermination-satellite service operating in the frequency band 2 483.5-2 500 MHz for which notification information is received by the Bureau after 17 February 2012, and the service area of which includes Armenia, Azerbaijan, Belarus, the Russian Federation, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan and Ukraine shall not cause harmful interference to, and shall not claim protection from stations of the radiolocation service operating in these countries in accordance with No. **5.398A**. (WRC-12)

5.401 In Angola, Australia, Bangladesh, Burundi, China, Eritrea, Ethiopia, India, Iran (Islamic Republic of), Lebanon, Liberia, Libya, Madagascar, Mali, Pakistan, Papua New Guinea, Syrian Arab Republic, Dem. Rep. of the Congo, Sudan, Swaziland, Togo and Zambia, the band 2 483.5-2 500 MHz was already allocated on a primary basis to the radiodetermination-satellite service before WRC-12, subject to agreement obtained under No. 9.21 from countries not listed in this provision. Systems in the radiodetermination-satellite service for which complete coordination information has been received by the Radiocommunication Bureau before 18 February 2012 will retain their regulatory status, as of the date of receipt of the coordination request information. (WRC-12)

5.402 The use of the band 2 483.5-2 500 MHz by the mobile-satellite and the radiodetermination-satellite services is subject to the coordination under No. **9.11A**. Administrations are urged to take all practicable steps to prevent harmful interference to the radio astronomy service from emissions in the 2 483.5-2 500

MHz band, especially those caused by second-harmonic radiation that would fall into the 4 990-5 000 MHz band allocated to the radio astronomy service worldwide.

5.403 Subject to agreement obtained under No. **9.21**, the band 2 520-2 535 MHz may also be used for the mobile-satellite (space-to-Earth), except aeronautical mobile-satellite, service for operation limited to within national boundaries. The provisions of No. **9.11A** apply. (WRC-07)

5.404 *Additional allocation:* in India and Iran (Islamic Republic of), the band 2 500-2 516.5 MHz may also be used for the radiodetermination-satellite service (space-to-Earth) for operation limited to within national boundaries, subject to agreement obtained under No. **9.21**.

5.406 Not used.

5.407 In the band 2 500-2 520 MHz, the power flux-density at the surface of the Earth from space stations operating in the mobile-satellite (space-to-Earth) service shall not exceed –152 dB(W/(m^2. 4 kHz)) in Argentina, unless otherwise agreed by the administrations concerned.

5.408 (SUP - WRC-2000)

5.409 (SUP - WRC-07)

5.410 The band 2 500-2 690 MHz may be used for tropospheric scatter systems in Region 1, subject to agreement obtained under No. **9.21**. No. **9.21** does not apply to tropospheric scatter links situated entirely outside Region 1. Administrations shall make all practicable efforts to avoid developing new tropospheric scatter systems in this band. When planning new tropospheric scatter radio-relay links in this band, all possible measures shall be taken to avoid directing the antennas of these links towards the geostationary-satellite orbit. (WRC-12)

5.411 (SUP - WRC-07)

5.412 *Alternative allocation:* in Kyrgyzstan and Turkmenistan, the band 2 500-2 690 MHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.413 In the design of systems in the broadcasting-satellite service in the bands between 2 500 MHz and 2 690 MHz, administrations are urged to take all necessary steps to protect the radio astronomy service in the band 2 690-2 700 MHz.

5.414 The allocation of the frequency band 2 500-2 520 MHz to the mobile-satellite service (space-to-Earth) is subject to coordination under No. **9.11A**. (WRC-07)

5.414A In Japan and India, the use of the bands 2 500-2 520 MHz and 2 520-2 535 MHz, under No. **5.403**, by a satellite network in the mobile-satellite service (space-to-Earth) is limited to operation within national boundaries and subject to the application of No. **9.11A**. The following pfd values shall be used as a threshold for coordination under No. **9.11A**, for all conditions and for all methods of modulation, in an area of 1 000 km around the territory of the administration notifying the mobile-satellite service network:

−136 dB(W/(m^2 · MHz))	for	$0° \le \theta \le 5°$
−136 + 0.55 (θ − 5) dB(W/(m^2 · MHz))	for	$5° < \theta \le 25°$
−125 dB(W/(m^2 · MHz))	for	$25° < \theta \le 90°$

where θ is the angle of arrival of the incident wave above the horizontal plane, in degrees. Outside this area Table **21-4** of Article **21** shall apply. Furthermore, the coordination thresholds in Table 5-2 of Annex 1 to Appendix **5** of the Radio Regulations (Edition of 2004), in conjunction with the applicable provisions of Articles **9** and **11** associated with No. **9.11A**, shall apply to systems for which complete notification information has been received by the Radicommunication Bureau by 14 November 2007 and that have been brought into use by that date. (WRC-07)

5.415 The use of the bands 2 500-2 690 MHz in Region 2 and 2 500-2 535 MHz and 2 655-2 690 MHz in Region 3 by the fixed-satellite service is limited to national and regional systems, subject to agreement obtained under No. **9.21**, giving particular attention to the broadcasting-satellite service in Region 1. (WRC-07)

5.415A *Additional allocation*: in India and Japan, subject to agreement obtained under No. **9.21**, the band 2 515-2 535 MHz may also be used for the aeronautical mobile-satellite service (space-to-Earth) for operation limited to within their national boundaries. (WRC-2000)

5.416 The use of the band 2 520-2 670 MHz by the broadcasting-satellite service is limited to national and regional systems for community reception, subject to agreement obtained under No. **9.21**. The provisions of No. **9.19** shall be applied by administrations in this band in their bilateral and multilateral negotiations. (WRC-07)

5.417 (SUP - WRC-2000)

5.417A In applying provision No. **5.418**, in Korea (Rep. of) and Japan, *resolves* 3 of Resolution **528 (Rev.**

WRC-03) is relaxed to allow the broadcasting-satellite service (sound) and the complementary terrestrial broadcasting service to additionally operate on a primary basis in the band 2 605-2 630 MHz. This use is limited to systems intended for national coverage. An administration listed in this provision shall not have simultaneously two overlapping frequency assignments, one under this provision and the other under No. **5.416**. The provisions of No. **5.416** and Table **21-4** of Article **21** do not apply. Use of non-geostationary-satellite systems in the broadcasting-satellite service (sound) in the band 2 605-2 630 MHz is subject to the provisions of Resolution **539 (Rev.WRC-03)**. The power flux-density at the Earth's surface produced by emissions from a geostationary broadcasting-satellite service (sound) space station operating in the band 2 605-2 630 MHz for which complete Appendix **4** coordination information, or notification information, has been received after 4 July 2003, for all conditions and for all methods of modulation, shall not exceed the following limits:

-130 dB(W/(m^2 · MHz))	for $0° \le \theta \le 5°$
$-130 + 0.4\ (\theta - 5)$ dB(W/(m^2 · MHz))	for $5° < \theta \le 25°$
-122 dB(W/(m^2 · MHz))	for $25° < \theta \le 90°$

where θ is the angle of arrival of the incident wave above the horizontal plane, in degrees. These limits may be exceeded on the territory of any country whose administration has so agreed. In the case of the broadcasting-satellite service (sound) networks of Korea (Rep. of), as an exception to the limits above, the power flux-density value of -122 dB(W/(m^2 · MHz)) shall be used as a threshold for coordination under No. **9.11** in an area of 1 000 km around the territory of the administration notifying the broadcasting-satellite service (sound) system, for angles of arrival greater than 35°. (WRC-03)

5.417B In Korea (Rep. of) and Japan, use of the band 2 605-2 630 MHz by non-geostationary-satellite systems in the broadcasting-satellite service (sound), pursuant to No. **5.417A**, for which complete Appendix **4** coordination information, or notification information, has been received after 4 July 2003, is subject to the application of the provisions of No. **9.12A**, in respect of geostationary-satellite networks for which complete Appendix **4** coordination information, or notification information, is considered to have been received after 4 July 2003, and No. **22.2** does not apply. No. **22.2** shall continue to apply with respect to geostationary-satellite networks for which complete Appendix **4** coordination information, or notification information, is considered to have been received before 5 July 2003. (WRC-03)

5.417C Use of the band 2 605-2 630 MHz by non-geostationary-satellite systems in the broadcasting-satellite service (sound), pursuant to No. **5.417A**, for which complete Appendix **4** coordination information, or notification information, has been received after 4 July 2003, is subject to the application of the provisions of No. **9.12**. (WRC-03)

5.417D Use of the band 2 605-2 630 MHz by geostationary-satellite networks for which complete Appendix **4** coordination information, or notification information, has been received after 4 July 2003 is subject to the application of the provisions of No. **9.13** with respect to non-geostationary-satellite systems in the broadcasting-satellite service (sound), pursuant to No. **5.417A**, and No. **22.2** does not apply. (WRC-03)

5.418 *Additional allocation:* in Korea (Rep. of), India, Japan and Thailand, the band 2 535-2 655 MHz is also allocated to the broadcasting-satellite service (sound) and complementary terrestrial broadcasting service on a primary basis. Such use is limited to digital audio broadcasting and is subject to the provisions of Resolution **528 (Rev.WRC-03)**. The provisions of No. **5.416** and Table **21-4** of Article **21**, do not apply to this additional allocation. Use of non-geostationary-satellite systems in the broadcasting-satellite service (sound) is subject to Resolution **539 (Rev.WRC-03)**. Geostationary broadcasting-satellite service (sound) systems for which complete Appendix **4** coordination information has been received after 1 June 2005 are limited to systems intended for national coverage. The power flux-density at the Earth's surface produced by emissions from a geostationary broadcasting-satellite service (sound) space station operating in the band 2 630-2 655 MHz, and for which complete Appendix **4** coordination information has been received after 1 June 2005, shall not exceed the following limits, for all conditions and for all methods of modulation:

-130 dB(W/(m^2 · MHz))	for $0° \le \theta \le 5°$
$-130 + 0.4\ (\theta - 5)$ dB(W/(m^2 · MHz))	for $5° < \theta \le 25°$
-122 dB(W/(m^2 · MHz))	for $25° < \theta \le 90°$

where θ is the angle of arrival of the incident wave above the horizontal plane, in degrees. These limits may be exceeded on the territory of any country whose administration has so agreed. As an exception to the limits above, the pfd value of –122 dB(W/(m^2 · MHz)) shall be used as a threshold for coordination under No. **9.11** in an area of 1 500 km around the territory of the administration notifying the broadcasting-satellite service (sound) system.

In addition, an administration listed in this provision shall not have simultaneously two overlapping frequency assignments, one under this provision and the other under No. **5.416** for systems for which complete Appendix **4** coordination information has been received after 1 June 2005. (WRC-12)

5.418A In certain Region 3 countries listed in No. **5.418**, use of the band 2 630-2 655 MHz by non-geostationary-satellite systems in the broadcasting-satellite service (sound) for which complete Appendix **4** coordination information, or notification information, has been received after 2 June 2000, is subject to the application of the provisions of No. **9.12A**, in respect of geostationary-satellite networks for which complete Appendix **4** coordination information, or notification information, is considered to have been received after 2 June 2000, and No. **22.2** does not apply. No. **22.2** shall continue to apply with respect to geostationary-satellite networks for which complete Appendix **4** coordination information, or notification information, is considered to have been received before 3 June 2000. (WRC-03)

5.418B Use of the band 2 630-2 655 MHz by non-geostationary-satellite systems in the broadcasting-satellite service (sound), pursuant to No. **5.418**, for which complete Appendix **4** coordination information, or notification information, has been received after 2 June 2000, is subject to the application of the provisions of No. **9.12**. (WRC-03)

5.418C Use of the band 2 630-2 655 MHz by geostationary-satellite networks for which complete Appendix **4** coordination information, or notification information, has been received after 2 June 2000 is subject to the application of the provisions of No. **9.13** with respect to non-geostationary-satellite systems in the broadcasting-satellite service (sound), pursuant to No. **5.418** and No. **22.2** does not apply. (WRC-03)

5.419 When introducing systems of the mobile-satellite service in the band 2 670-2 690 MHz, administrations shall take all necessary steps to protect the satellite systems operating in this band prior to 3 March 1992. The coordination of mobile-satellite systems in the band shall be in accordance with No. **9.11A**. (WRC-07)

5.420 The band 2 655-2 670 MHz may also be used for the mobile-satellite (Earth-to-space), except aeronautical mobile-satellite, service for operation limited to within national boundaries, subject to agreement obtained under No. **9.21**. The coordination under No. **9.11A** applies. (WRC-07)

5.420A (SUP - WRC-07)

5.421 (SUP - WRC-03)

5.422 *Additional allocation:* in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Brunei Darussalam, Congo (Rep. of the), Côte d'Ivoire, Cuba, Djibouti, Egypt, the United Arab Emirates, Eritrea, Ethiopia, Gabon, Georgia, Guinea, Guinea-Bissau, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kuwait, Lebanon, Mauritania, Mongolia, Montenegro, Nigeria, Oman, Pakistan, the Philippines, Qatar, Syrian Arab Republic, Kyrgyzstan, the Dem. Rep. of the Congo, Romania, Somalia, Tajikistan, Tunisia, Turkmenistan, Ukraine and Yemen, the band 2 690-2 700 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. Such use is limited to equipment in operation by 1 January 1985. (WRC-12)

5.423 In the band 2 700-2 900 MHz, ground-based radars used for meteorological purposes are authorized to operate on a basis of equality with stations of the aeronautical radionavigation service.

5.424 *Additional allocation:* in Canada, the band 2 850-2 900 MHz is also allocated to the maritime radionavigation service, on a primary basis, for use by shore-based radars.

5.424A In the band 2 900-3 100 MHz, stations in the radiolocation service shall not cause harmful interference to, nor claim protection from, radar systems in the radionavigation service. (WRC-03)

5.425 In the band 2 900-3 100 MHz, the use of the shipborne interrogator-transponder (SIT) system shall be confined to the sub-band 2 930 -2 950 MHz.

5.426 The use of the band 2 900-3 100 MHz by the aeronautical radionavigation service is limited to ground-based radars.

5.427 In the bands 2 900-3 100 MHz and 9 300-9 500 MHz, the response from radar transponders shall not be capable of being confused with the response from radar beacons (racons) and shall not cause interference to ship or aeronautical radars in the radionavigation service, having regard, however, to No. **4.9**.

5.428 *Additional allocation:* in Azerbaijan, Mongolia, Kyrgyzstan and Turkmenistan, the band 3 100-3 300 MHz is also allocated to the radionavigation service on a primary basis. (WRC-12)

5.429 *Additional allocation:* in Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, China, Congo (Rep. of the), Korea (Rep. of), Côte d'Ivoire, the United Arab Emirates, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kenya, Kuwait, Lebanon, Libya, Malaysia, Oman, Uganda, Pakistan, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, the Dem. People's

Rep. of Korea and Yemen, the band 3 300-3 400 MHz is also allocated to the fixed and mobile services on a primary basis. The countries bordering the Mediterranean shall not claim protection for their fixed and mobile services from the radiolocation service. (WRC-12)

5.430 *Additional allocation:* in Azerbaijan, Mongolia, Kyrgyzstan and Turkmenistan, the band 3 300-3 400 MHz is also allocated to the radionavigation service on a primary basis. (WRC-12)

5.430A *Different category of service:* in Albania, Algeria, Germany, Andorra, Saudi Arabia, Austria, Azerbaijan, Bahrain, Belgium, Benin, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Cameroon, Cyprus, Vatican, Congo (Rep. of the), Côte d'Ivoire, Croatia, Denmark, Egypt, Spain, Estonia, Finland, France and French overseas departments and communities in Region 1, Gabon, Georgia, Greece, Guinea, Hungary, Ireland, Iceland, Israel, Italy, Jordan, Kuwait, Lesotho, Latvia, The Former Yugoslav Republic of Macedonia, Liechtenstein, Lithuania, Malawi, Mali, Malta, Morocco, Mauritania, Moldova, Monaco, Mongolia, Montenegro, Mozambique, Namibia, Niger, Norway, Oman, Netherlands, Poland, Portugal, Qatar, the Syrian Arab Republic, the Dem. Rep, of the Congo, Slovakia, Czech Rep., Romania, United Kingdom, San Marino, Senegal, Serbia, Sierra Leone, Slovenia, South Africa, Sweden, Switzerland, Swaziland, Chad, Togo, Tunisia, Turkey, Ukraine, Zambia and Zimbabwe, the band 3 400-3 600 MHz is allocated to the mobile, except aeronautical mobile, service on a primary basis subject to agreement obtained under No. **9.21** with other administrations and is identified for International Mobile Telecommunications (IMT). This identification does not preclude the use of this band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. At the stage of coordination the provisions of Nos. **9.17** and **9.18** also apply. Before an administration brings into use a (base or mobile) station of the mobile service in this band, it shall ensure that the power flux-density (pfd) produced at 3 m above ground does not exceed −154.5 dB(W/(m^2. 4 kHz)) for more than 20% of time at the border of the territory of any other administration. This limit may be exceeded on the territory of any country whose administration has so agreed. In order to ensure that the pfd limit at the border of the territory of any other administration is met, the calculations and verification shall be made, taking into account all relevant information, with the mutual agreement of both administrations (the administration responsible for the terrestrial station and the administration responsible for the earth station), with the assistance of the Bureau if so requested. In case of disagreement, the calculation and verification of the pfd shall be made by the Bureau, taking into account the information referred to above. Stations of the mobile service in the band 3 400-3 600 MHz shall not claim more protection from space stations than that provided in Table **21-4** of the Radio Regulations (Edition of 2004). This allocation is effective from 17 November 2010. (WRC-12)

5.431 *Additional allocation:* in Germany, Israel and the United Kingdom, the band 3 400-3 475 MHz is also allocated to the amateur service on a secondary basis. (WRC-03)

5.431A *Different category of service:* in Argentina, Brazil, Chile, Costa Rica, Cuba, Dominican Republic, El Salvador, Guatemala, Mexico, Paraguay, Suriname, Uruguay, Venezuela and French Overseas Departments and Communities in Region 2, the band 3 400-3 500 MHz is allocated to the mobile, except aeronautical mobile, service on a primary basis, subject to agreement obtained under No. **9.21**. Stations of the mobile service in the band 3 400-3 500 MHz shall not claim more protection from space stations than that provided in Table **21-4** of the Radio Regulations (Edition of 2004). (WRC-07)

5.432 *Different category of service:* in Korea (Rep. of), Japan and Pakistan, the allocation of the band 3 400-3 500 MHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. **5.33**). (WRC-2000)

5.432A In Korea (Rep. of), Japan and Pakistan, the band 3 400-3 500 MHz is identified for International Mobile Telecommunications (IMT). This identification does not preclude the use of this band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. At the stage of coordination the provisions of Nos. **9.17** and **9.18** also apply. Before an administration brings into use a (base or mobile) station of the mobile service in this band it shall ensure that the power flux-density (pfd) produced at 3 m above ground does not exceed −154.5 dB(W/(m^2. 4 kHz)) for more than 20% of time at the border of the territory of any other administration. This limit may be exceeded on the territory of any country whose administration has so agreed. In order to ensure that the pfd limit at the border of the territory of any other administration is met, the calculations and verification shall be made, taking into account all relevant information, with the mutual agreement of both administrations (the administration responsible for the terrestrial station and the administration responsible for the earth station), with the assistance of the Bureau if so requested. In case of disagreement, the calculation and verification of the pfd shall be made by the Bureau, taking into account the information referred to above. Stations of the mobile service in the band 3 400-3 500 MHz shall not claim more protection from space stations than that provided in Table **21-4** of the Radio Regulations (Edition of 2004). (WRC-07)

5.432B *Different category of service:* in Bangladesh, China, India, Iran (Islamic Republic of), New Zealand,

Singapore and French Overseas Communities in Region 3, the band 3 400-3 500 MHz is allocated to the mobile, except aeronautical mobile, service on a primary basis, subject to agreement obtained under No. **9.21** with other administrations and is identified for International Mobile Telecommunications (IMT). This identification does not preclude the use of this band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. At the stage of coordination the provisions of Nos. **9.17** and **9.18** also apply. Before an administration brings into use a (base or mobile) station of the mobile service in this band it shall ensure that the power flux-density (pfd) produced at 3 m above ground does not exceed −154.5 dB(W/(m^2 . 4 kHz)) for more than 20% of time at the border of the territory of any other administration. This limit may be exceeded on the territory of any country whose administration has so agreed. In order to ensure that the pfd limit at the border of the territory of any other administration is met, the calculations and verification shall be made, taking into account all relevant information, with the mutual agreement of both administrations (the administration responsible for the terrestrial station and the administration responsible for the earth station) with the assistance of the Bureau if so requested. In case of disagreement, the calculation and verification of the pfd shall be made by the Bureau, taking into account the information referred to above. Stations of the mobile service in the band 3 400-3 500 MHz shall not claim more protection from space stations than that provided in Table **21-4** of the Radio Regulations (Edition of 2004). This allocation is effective from 17 November 2010. (WRC-07)

5.433 In Regions 2 and 3, in the band 3 400-3 600 MHz the radiolocation service is allocated on a primary basis. However, all administrations operating radiolocation systems in this band are urged to cease operations by 1985. Thereafter, administrations shall take all practicable steps to protect the fixed-satellite service and coordination requirements shall not be imposed on the fixed-satellite service.

5.433A In Bangladesh, China, Korea (Rep. of), India, Iran (Islamic Republic of), Japan, New Zealand, Pakistan and French Overseas Communities in Region 3, the band 3 500-3 600 MHz is identified for International Mobile Telecommunications (IMT). This identification does not preclude the use of this band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. At the stage of coordination the provisions of Nos. **9.17** and **9.18** also apply. Before an administration brings into use a (base or mobile) station of the mobile service in this band it shall ensure that the power flux-density (pfd) produced at 3 m above ground does not exceed −154.5 dB(W/(m^2. 4 kHz)) for more than 20% of time at the border of the territory of any other administration. This limit may be exceeded on the territory of any country whose administration has so agreed. In order to ensure that the pfd limit at the border of the territory of any other administration is met, the calculations and verification shall be made, taking into account all relevant information, with the mutual agreement of both administrations (the administration responsible for the terrestrial station and the administration responsible for the earth station), with the assistance of the Bureau if so requested. In case of disagreement, the calculation and verification of the pfd shall be made by the Bureau, taking into account the information referred to above. Stations of the mobile service in the band 3 500-3 600 MHz shall not claim more protection from space stations than that provided in Table **21-4** of the Radio Regulations (Edition of 2004). (WRC-07)

5.434 (SUP - WRC-97)

5.435 In Japan, in the band 3 620-3 700 MHz, the radiolocation service is excluded.

5.436 Not used.

5.437 (SUP - WRC-2000)

5.438 Use of the band 4 200-4 400 MHz by the aeronautical radionavigation service is reserved exclusively for radio altimeters installed on board aircraft and for the associated transponders on the ground. However, passive sensing in the Earth exploration-satellite and space research services may be authorized in this band on a secondary basis (no protection is provided by the radio altimeters).

5.439 *Additional allocation:* in Iran (Islamic Republic of), the band 4 200-4 400 MHz is also allocated to the fixed service on a secondary basis. (WRC-12)

5.440 The standard frequency and time signal-satellite service may be authorized to use the frequency 4 202 MHz for space-to-Earth transmissions and the frequency 6 427 MHz for Earth-to-space transmissions. Such transmissions shall be confined within the limits of ± 2 MHz of these frequencies, subject to agreement obtained under No. **9.21**.

5.440A In Region 2 (except Brazil, Cuba, French Overseas Departments and Communities, Guatemala, Paraguay, Uruguay and Venezuela), and in Australia, the band 4 400-4 940 MHz may be used for aeronautical mobile telemetry for flight testing by aircraft stations (see No. **1.83**). Such use shall be in accordance with Resolution **416 (WRC-07)** and shall not cause harmful interference to, nor claim protection from, the fixed-satellite and fixed services. Any such use does not preclude the use of these bands by other mobile service applications or by other services to which these bands are allocated on a co-primary basis and

does not establish priority in the Radio Regulations. (WRC-07)

5.441 The use of the bands 4 500-4 800 MHz (space-to-Earth), 6 725-7 025 MHz (Earth-to-space) by the fixed-satellite service shall be in accordance with the provisions of Appendix **30B**. The use of the bands 10.7-10.95 GHz (space-to-Earth), 11.2-11.45 GHz (space-to-Earth) and 12.75-13.25 GHz (Earth-to-space) by geostationary-satellite systems in the fixed-satellite service shall be in accordance with the provisions of Appendix **30B**. The use of the bands 10.7-10.95 GHz (space-to-Earth), 11.2-11.45 GHz (space-to-Earth) and 12.75-13.25 GHz (Earth-to-space) by a non-geostationary-satellite system in the fixed-satellite service is subject to application of the provisions of No. **9.12** for coordination with other non-geostationary-satellite systems in the fixed-satellite service. Non-geostationary-satellite systems in the fixed-satellite service shall not claim protection from geostationary-satellite networks in the fixed-satellite service operating in accordance with the Radio Regulations, irrespective of the dates of receipt by the Bureau of the complete coordination or notification information, as appropriate, for the non-geostationary-satellite systems in the fixed-satellite service and of the complete coordination or notification information, as appropriate, for the geostationary-satellite networks, and No. **5.43A** does not apply. Non-geostationary-satellite systems in the fixed-satellite service in the above bands shall be operated in such a way that any unacceptable interference that may occur during their operation shall be rapidly eliminated. (WRC-2000)

5.442 In the bands 4 825-4 835 MHz and 4 950-4 990 MHz, the allocation to the mobile service is restricted to the mobile, except aeronautical mobile, service. In Region 2 (except Brazil, Cuba, Guatemala, Paraguay, Uruguay and Venezuela), and in Australia, the band 4 825-4 835 MHz is also allocated to the aeronautical mobile service, limited to aeronautical mobile telemetry for flight testing by aircraft stations. Such use shall be in accordance with Resolution **416 (WRC-07)** and shall not cause harmful interference to the fixed service. (WRC-07)

5.443 *Different category of service:* in Argentina, Australia and Canada, the allocation of the bands 4 825-4 835 MHz and 4 950-4 990 MHz to the radio astronomy service is on a primary basis (see No. **5.33**).

5.443AA In the frequency bands 5 000-5 030 MHz and 5 091-5 150 MHz, the aeronautical mobile-satellite (R) service is subject to agreement obtained under No. 9.21. The use of these bands by the aeronautical mobile-satellite (R) service is limited to internationally standardized aeronautical systems. (WRC-12)

5.443B In order not to cause harmful interference to the microwave landing system operating above 5 030 MHz, the aggregate power flux-density produced at the Earth's surface in the band 5 030-5 150 MHz by all the space stations within any radionavigation-satellite service system (space-to-Earth) operating in the band 5 010-5 030 MHz shall not exceed –124.5 dB(W/m^2) in a 150 kHz band. In order not to cause harmful interference to the radio astronomy service in the band 4 990-5 000 MHz, radionavigation-satellite service systems operating in the band 5 010-5 030 MHz shall comply with the limits in the band 4 990-5 000 MHz defined in Resolution **741 (Rev.WRC-03)**. (WRC-12)

5.443C The use of the frequency band 5 030-5 091 MHz by the aeronautical mobile (R) service is limited to internationally standardized aeronautical systems. Unwanted emissions from the aeronautical mobile (R) service in the frequency band 5 030-5 091 MHz shall be limited to protect RNSS system downlinks in the adjacent 5 010-5 030 MHz band. Until such time that an appropriate value is established in a relevant ITU-R Recommendation, the e.i.r.p. density limit of 75 dBW/MHz in the frequency band 5 010-5 030 MHz for any AM(R)S station unwanted emission should be used. (WRC-12)

5.443D In the frequency band 5 030-5 091 MHz, the aeronautical mobile-satellite (R) service is subject to coordination under No. 9.11A. The use of this frequency band by the aeronautical mobile-satellite (R) service is limited to internationally standardized aeronautical systems. (WRC-12)

5.444 The frequency band 5 030-5 150 MHz is to be used for the operation of the international standard system (microwave landing system) for precision approach and landing. In the frequency band 5 030-5 091 MHz, the requirements of this system shall have priority over other uses of this band. For the use of the frequency band 5 091-5 150 MHz, No. **5.444A** and Resolution **114 (Rev.WRC-12)** apply. (WRC-12)

5.444A *Additional allocation:* the band 5 091-5 150 MHz is also allocated to the fixed-satellite service (Earth-to-space) on a primary basis. This allocation is limited to feeder links of non-geostationary satellite systems in the mobile-satellite service and is subject to coordination under No. **9.11A**.

In the band 5 091-5 150 MHz, the following conditions also apply:

- prior to 1 January 2018, the use of the band 5 091-5 150 MHz by feeder links of non-geostationary-satellite systems in the mobile-satellite service shall be made in accordance with Resolution **114 (Rev. WRC-03)**;
- after 1 January 2016, no new assignments shall be made to earth stations providing feeder links of

non-geostationary mobile-satellite systems;

- after 1 January 2018, the fixed-satellite service will become secondary to the aeronautical radio-navigation service. (WRC-07)

5.444B The use of the frequency band 5 091-5 150 MHz by the aeronautical mobile service is limited to:

- systems operating in the aeronautical mobile (R) service and in accordance with international aeronautical standards, limited to surface applications at airports. Such use shall be in accordance with Resolution **748 (Rev.WRC-12)**;
- aeronautical telemetry transmissions from aircraft stations (see No. **1.83**) in accordance with Resolution **418 (Rev.WRC-12)**;(WRC-12)

5.445 Not used.

5.446 *Additional allocation:* in the countries listed in No. **5.369**, the band 5 150-5 216 MHz is also allocated to the radiodetermination-satellite service (space-to-Earth) on a primary basis, subject to agreement obtained under No. **9.21**. In Region 2, the band is also allocated to the radiodetermination-satellite service (space-to-Earth) on a primary basis. In Regions 1 and 3, except those countries listed in No. **5.369 and Bangladesh**, the band is also allocated to the radiodetermination-satellite service (space-to-Earth) on a secondary basis. The use by the radiodetermination-satellite service is limited to feeder links in conjunction with the radiodetermination-satellite service operating in the bands 1 610-1 626.5 MHz and/or 2 483.5-2 500 MHz. The total power flux-density at the Earth's surface shall in no case exceed –159 dB(W/m^2) in any 4 kHz band for all angles of arrival. (WRC-12)

5.446A The use of the bands 5 150-5 350 MHz and 5 470-5 725 MHz by the stations in the mobile, except aeronautical mobile, service shall be in accordance with Resolution **229 (Rev.WRC-12)**. (WRC-12)

5.446B In the band 5 150-5 250 MHz, stations in the mobile service shall not claim protection from earth stations in the fixed-satellite service. No. **5.43A** does not apply to the mobile service with respect to fixed-satellite service earth stations. (WRC-03)

5.446C *Additional allocation:* in Region 1 (except in Algeria, Saudi Arabia, Bahrain, Egypt, United Arab Emirates, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, Syrian Arab Republic, Sudan South Sudan and Tunisia) and in Brazil, the band 5 150-5 250 MHz is also allocated to the aeronautical mobile service on a primary basis, limited to aeronautical telemetry transmissions from aircraft stations (see No. **1.83**), in accordance with Resolution **418 (WRC-07)**. These stations shall not claim protection from other stations operating in accordance with Article **5**. No. **5.43A** does not apply. (WRC-12)

5.447 *Additional allocation:* in Côte d'Ivoire, Egypt, Israel, Lebanon, the Syrian Arab Republic and Tunisia, the band 5 150-5 250 MHz is also allocated to the mobile service, on a primary basis, subject to agreement obtained under No. **9.21**. In this case, the provisions of Resolution **229 (Rev.WRC-12)** do not apply. (WRC-12)

5.447A The allocation to the fixed-satellite service (Earth-to-space) is limited to feeder links of non-geostationary-satellite systems in the mobile-satellite service and is subject to coordination under No. **9.11A**.

5.447B *Additional allocation*: the band 5 150-5 216 MHz is also allocated to the fixed-satellite service (space-to-Earth) on a primary basis. This allocation is limited to feeder links of non-geostationary-satellite systems in the mobile-satellite service and is subject to provisions of No. **9.11A**. The power flux-density at the Earth's surface produced by space stations of the fixed-satellite service operating in the space-to-Earth direction in the band 5 150-5 216 MHz shall in no case exceed –164 dB(W/m^2) in any 4 kHz band for all angles of arrival.

5.447C Administrations responsible for fixed-satellite service networks in the band 5 150-5 250 MHz operated under Nos. **5.447A** and **5.447B** shall coordinate on an equal basis in accordance with No. **9.11A** with administrations responsible for non-geostationary-satellite networks operated under No. **5.446** and brought into use prior to 17 November 1995. Satellite networks operated under No. **5.446** brought into use after 17 November 1995 shall not claim protection from, and shall not cause harmful interference to, stations of the fixed-satellite service operated under Nos. **5.447A** and **5.447B**.

5.447D The allocation of the band 5 250-5 255 MHz to the space research service on a primary basis is limited to active spaceborne sensors. Other uses of the band by the space research service are on a secondary basis. (WRC-97)

5.447E *Additional allocation:* The band 5 250-5 350 MHz is also allocated to the fixed service on a primary basis in the following countries in Region 3: Australia, Korea (Rep. of), India, Indonesia, Iran (Islamic Republic of), Japan, Malaysia, Papua New Guinea, the Philippines, Dem. People's Rep. of Korea, Sri Lanka, Thailand and Viet Nam. The use of this band by the fixed service is intended for the implementation of fixed wireless access systems and shall comply with Recommendation ITU-R F.1613. In addition, the fixed service shall not claim protection from the radiodetermination, Earth exploration-satellite

(active) and space research (active) services, but the provisions of No. **5.43A** do not apply to the fixed service with respect to the Earth exploration-satellite (active) and space research (active) services. After implementation of fixed wireless access systems in the fixed service with protection for the existing radiodetermination systems, no more stringent constraints should be imposed on the fixed wireless access systems by future radiodetermination implementations. (WRC-07)

5.447F In the band 5 250-5 350 MHz, stations in the mobile service shall not claim protection from the radiolocation service, the Earth exploration-satellite service (active) and the space research service (active). These services shall not impose on the mobile service more stringent protection criteria, based on system characteristics and interference criteria, than those stated in Recommendations ITU-R M.1638 and ITU-R SA.1632. (WRC-03)

5.448 *Additional allocation:* in Azerbaijan, Kyrgyzstan, Romania and Turkmenistan, the band 5 250-5 350 MHz is also allocated to the radionavigation service on a primary basis. (WRC-12)

5.448A The Earth exploration-satellite (active) and space research (active) services in the frequency band 5 250-5 350 MHz shall not claim protection from the radiolocation service. No. **5.43A** does not apply. (WRC-03)

5.448B The Earth exploration-satellite service (active) operating in the band 5 350-5 570 MHz and space research service (active) operating in the band 5 460-5 570 MHz shall not cause harmful interference to the aeronautical radionavigation service in the band 5 350-5 460 MHz, the radionavigation service in the band 5 460-5 470 MHz and the maritime radionavigation service in the band 5 470-5 570 MHz. (WRC-03)

5.448C The space research service (active) operating in the band 5 350-5 460 MHz shall not cause harmful interference to nor claim protection from other services to which this band is allocated. (WRC-03)

5.448D In the frequency band 5 350-5 470 MHz, stations in the radiolocation service shall not cause harmful interference to, nor claim protection from, radar systems in the aeronautical radionavigation service operating in accordance with No. **5.449**. (WRC-03)

5.449 The use of the band 5 350-5 470 MHz by the aeronautical radionavigation service is limited to airborne radars and associated airborne beacons.

5.450 *Additional allocation:* in Austria, Azerbaijan, Iran (Islamic Republic of), Kyrgyzstan, Romania, Turkmenistan and Ukraine, the band 5 470-5 650 MHz is also allocated to the aeronautical radionavigation service on a primary basis. (WRC-12)

5.450A In the band 5 470-5 725 MHz, stations in the mobile service shall not claim protection from radiodetermination services. Radiodetermination services shall not impose on the mobile service more stringent protection criteria, based on system characteristics and interference criteria, than those stated in Recommendation ITU-R M.1638. (WRC-03)

5.450B In the frequency band 5 470-5 650 MHz, stations in the radiolocation service, except ground-based radars used for meteorological purposes in the band 5 600-5 650 MHz, shall not cause harmful interference to, nor claim protection from, radar systems in the maritime radionavigation service. (WRC-03)

5.451 *Additional allocation:* in the United Kingdom, the band 5 470-5 850 MHz is also allocated to the land mobile service on a secondary basis. The power limits specified in Nos. **21.2**, **21.3**, **21.4** and **21.5** shall apply in the band 5 725-5 850 MHz.

5.452 Between 5 600 MHz and 5 650 MHz, ground-based radars used for meteorological purposes are authorized to operate on a basis of equality with stations of the maritime radionavigation service.

5.453 *Additional allocation:* in Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, China, Congo (Rep. of the), Korea (Rep. of), Côte d'Ivoire, Djibouti, Egypt, the United Arab Emirates, Gabon, Guinea, Equatorial Guinea, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kenya, Kuwait, Lebanon, Libya, Madagascar, Malaysia, Niger, Nigeria, Oman, Uganda, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, the Dem. People's Rep. of Korea, Singapore, Sri Lanka, Swaziland, Tanzania, Chad, Thailand, Togo, Viet Nam and Yemen, the band 5 650-5 850 MHz is also allocated to the fixed and mobile services on a primary basis. In this case, the provisions of Resolution **229 (Rev.WRC-12)** do not apply. (WRC-12)

5.454 *Different category of service:* in Azerbaijan, the Russian Federation, Georgia, Kyrgyzstan, Tajikistan and Turkmenistan, the allocation of the band 5 670-5 725 MHz to the space research service is on a primary basis (see No. **5.33**). (WRC-12)

5.455 *Additional allocation:* in Armenia, Azerbaijan, Belarus, Cuba, the Russian Federation, Georgia, Hungary, Kazakhstan, Moldova, Mongolia, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the band 5 670-5 850 MHz is also allocated to the fixed service on a primary basis. (WRC-07)

5.456 *Additional allocation:* in Cameroon, the band 5 755-5 850 MHz is also allocated to the fixed service on a primary basis. (WRC-03)

5.457 In Australia, Burkina Faso, Cote d'Ivoire, Mali and Nigeria, the allocation to the fixed service in the bands 6 440-6 520 MHz (HAPS-to-ground direction) and 6 560-6 640 MHz (ground-to-HAPS direction) may also be used by gateway links for high-altitude platform stations (HAPS) within the territory of these countries. Such use is limited to operation in HAPS gateway links and shall not cause harmful interference to, and shall not claim protection from, existing services, and shall be in compliance with Resolution 150 (WRC-12). Existing services shall not be constrained in future development by HAPS gateway links. The use of HAPS gateway links in these bands requires explicit agreement with other administrations whose territories are located within 1 000 kilometres from the border of an administration intending to use the HAPS gateway links. (WRC-12)

5.457A In the bands 5 925-6 425 MHz and 14-14.5 GHz, earth stations located on board vessels may communicate with space stations of the fixed-satellite service. Such use shall be in accordance with Resolution **902 (WRC-03)**. (WRC-03)

5.457B In the bands 5 925-6 425 MHz and 14-14.5 GHz, earth stations located on board vessels may operate with the characteristics and under the conditions contained in Resolution **902 (WRC-03)** in Algeria, Saudi Arabia, Bahrain, Comoros, Djibouti, Egypt, United Arab Emirates, Jordan, Kuwait, Libya, Morocco, Mauritania, Oman, Qatar, the Syrian Arab Republic, Sudan, South Sudan, Tunisia and Yemen, in the maritime mobile-satellite service on a secondary basis. Such use shall be in accordance with Resolution **902 (WRC-03)**. (WRC-12)

5.457C In Region 2 (except Brazil, Cuba, French Overseas Departments and Communities, Guatemala, Paraguay, Uruguay and Venezuela), the band 5 925-6 700 MHz may be used for aeronautical mobile telemetry for flight testing by aircraft stations (see No. **1.83**). Such use shall be in accordance with Resolution **416 (WRC-07)** and shall not cause harmful interference to, nor claim protection from, the fixed-satellite and fixed services. Any such use does not preclude the use of these bands by other mobile service applications or by other services to which these bands are allocated on a co-primary basis and does not establish priority in the Radio Regulations. (WRC-07)

5.458 In the band 6 425-7 075 MHz, passive microwave sensor measurements are carried out over the oceans. In the band 7 075-7 250 MHz, passive microwave sensor measurements are carried out. Administrations should bear in mind the needs of the Earth exploration-satellite (passive) and space research (passive) services in their future planning of the bands 6 425-7 025 MHz and 7 075-7 250 MHz.

5.458A In making assignments in the band 6 700-7 075 MHz to space stations of the fixed-satellite service, administrations are urged to take all practicable steps to protect spectral line observations of the radio astronomy service in the band 6 650-6 675.2 MHz from harmful interference from unwanted emissions.

5.458B The space-to-Earth allocation to the fixed-satellite service in the band 6 700-7 075 MHz is limited to feeder links for non-geostationary satellite systems of the mobile-satellite service and is subject to coordination under No. **9.11A**. The use of the band 6 700-7 075 MHz (space-to-Earth) by feeder links for non-geostationary satellite systems in the mobile-satellite service is not subject to No. **22.2**.

5.458C Administrations making submissions in the band 7 025-7 075 MHz (Earth-to-space) for geostationary-satellite systems in the fixed-satellite service after 17 November 1995 shall consult on the basis of relevant ITU-R Recommendations with the administrations that have notified and brought into use non-geostationary-satellite systems in this frequency band before 18 November 1995 upon request of the latter administrations. This consultation shall be with a view to facilitating shared operation of both geostationary-satellite systems in the fixed-satellite service and non-geostationary-satellite systems in this band.

5.459 *Additional allocation:* in the Russian Federation, the frequency bands 7 100-7 155 MHz and 7 190-7 235 MHz are also allocated to the space operation service (Earth-to-space) on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-97)

5.460 The use of the band 7 145-7 190 MHz by the space research service (Earth-to-space) is restricted to deep space; no emissions to deep space shall be effected in the band 7 190-7 235 MHz. Geostationary satellites in the space research service operating in the band 7 190-7 235 MHz shall not claim protection from existing and future stations of the fixed and mobile services and No. **5.43A** does not apply. (WRC-03)

5.461 *Additional allocation:* the bands 7 250-7 375 MHz (space-to-Earth) and 7 900-8 025 MHz (Earth-to-space) are also allocated to the mobile-satellite service on a primary basis, subject to agreement obtained under No. **9.21**.

5.461A The use of the band 7 450-7 550 MHz by the meteorological-satellite service (space-to-Earth) is limited

to geostationary-satellite systems. Non-geostationary meteorological-satellite systems in this band notified before 30 November 1997 may continue to operate on a primary basis until the end of their lifetime. (WRC-97)

5.461B The use of the band 7 750-7 900 MHz by the meteorological-satellite service (space-to-Earth) is limited to non-geostationary satellite systems. (WRC-12)

5.462 (SUP - WRC-97)

5.462A In Regions 1 and 3 (except for Japan), in the band 8 025-8 400 MHz, the Earth exploration-satellite service using geostationary satellites shall not produce a power flux-density in excess of the following values for angles of arrival (θ), without the consent of the affected administration:

- 135 dB(W/m2) in a 1 MHz band for $0° \le \theta < 5°$
- 135 + 0.5 (θ – 5) dB(W/m2) in a 1 MHz band for $5° \le \theta < 25°$
- 125 dB(W/m2) in a 1 MHz band for $25° \le \theta \le 90°$

(WRC-12)

5.463 Aircraft stations are not permitted to transmit in the band 8 025-8 400 MHz. (WRC-97)

5.464 (SUP - WRC-97)

5.465 In the space research service, the use of the band 8 400-8 450 MHz is limited to deep space.

5.466 *Different category of service:* in Singapore and Sri Lanka, the allocation of the band 8 400-8 500 MHz to the space research service is on a secondary basis (see No. **5.32**). (WRC-12)

5.467 (SUP - WRC-03)

5.468 *Additional allocation:* in Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Burundi, Cameroon, China, Congo (Rep. of the), Costa Rica, Djibouti, Egypt, the United Arab Emirates, Gabon, Guyana, Indonesia, Iran (Islamic Republic of), Iraq, Jamaica, Jordan, Kenya, Kuwait, Lebanon, Libya, Malaysia, Mali, Morocco, Mauritania, Nepal, Nigeria, Oman, Uganda, Pakistan, Qatar, Syrian Arab Republic, the Dem. People's Rep. of Korea, Senegal, Singapore, Somalia, Sudan, Swaziland, Tanzania, Chad, Togo, Tunisia and Yemen, the band 8 500-8 750 MHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)

5.469 *Additional allocation:* in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Hungary, Lithuania, Mongolia, Uzbekistan, Poland, Kyrgyzstan, the Czech Rep., Romania, Tajikistan, Turkmenistan and Ukraine, the band 8 500-8 750 MHz is also allocated to the land mobile and radionavigation services on a primary basis. (WRC-12)

5.469A In the band 8 550-8 650 MHz, stations in the Earth exploration-satellite service (active) and space research service (active) shall not cause harmful interference to, or constrain the use and development of, stations of the radiolocation service. (WRC-97)

5.470 The use of the band 8 750-8 850 MHz by the aeronautical radionavigation service is limited to airborne Doppler navigation aids on a centre frequency of 8 800 MHz.

5.471 *Additional allocation:* in Algeria, Germany, Bahrain, Belgium, China, Egypt, the United Arab Emirates, France, Greece, Indonesia, Iran (Islamic Republic of), Libya, the Netherlands, Qatar Sudan and South Sudan, the bands 8 825-8 850 MHz and 9 000-9 200 MHz are also allocated to the maritime radionavigation service, on a primary basis, for use by shore-based radars only. (WRC-12)

5.472 In the bands 8 850-9 000 MHz and 9 200-9 225 MHz, the maritime radionavigation service is limited to shore-based radars.

5.473 *Additional allocation:* in Armenia, Austria, Azerbaijan, Belarus, Cuba, the Russian Federation, Georgia, Hungary, Mongolia, Uzbekistan, Poland, Kyrgyzstan, Romania, Tajikistan, Turkmenistan and Ukraine, the bands 8 850-9 000 MHz and 9 200-9 300 MHz are also allocated to the radionavigation service on a primary basis. (WRC-07)

5.473A In the band 9 000-9 200 MHz, stations operating in the radiolocation service shall not cause harmful interference to, nor claim protection from, systems identified in No. **5.337** operating in the aeronautical radionavigation service, or radar systems in the maritime radionavigation service operating in this band on a primary basis in the countries listed in No. **5.471**. (WRC-07)

5.474 In the band 9 200-9 500 MHz, search and rescue transponders (SART) may be used, having due regard to the appropriate ITU-R Recommendation (see also Article **31**).

5.475 The use of the band 9 300-9 500 MHz by the aeronautical radionavigation service is limited to airborne weather radars and ground-based radars. In addition, ground-based radar beacons in the aeronautical radionavigation service are permitted in the band 9 300-9 320 MHz on condition that harmful interference is not caused to the maritime radionavigation service. (WRC-07)

5.475A The use of the band 9 300-9 500 MHz by the Earth exploration-satellite service (active) and the space research service (active) is limited to systems requiring necessary bandwidth greater than 300 MHz that cannot be fully accommodated within the 9 500-9 800 MHz band. (WRC-07)

5.475B In the band 9 300-9 500 MHz, stations operating in the radiolocation service shall not cause harmful interference to, nor claim protection from, radars operating in the radionavigation service in conformity with the Radio Regulations. Ground-based radars used for meteorological purposes have priority over other radiolocation uses. (WRC-07)

5.476 (SUP - WRC-07)

5.476A In the band 9 300-9 800 MHz, stations in the Earth exploration-satellite service (active) and space research service (active) shall not cause harmful interference to, nor claim protection from, stations of the radionavigation and radiolocation services. (WRC-07)

5.477 *Different category of service:* in Algeria, Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, Djibouti, Egypt, the United Arab Emirates, Eritrea, Ethiopia, Guyana, India, Indonesia, Iran (Islamic Republic of), Iraq, Jamaica, Japan, Jordan, Kuwait, Lebanon, Liberia, Malaysia, Nigeria, Oman, Pakistan, Qatar, Syrian Arab Republic, the Dem. People's Rep. of Korea, Singapore, Somalia, Sudan, South Sudan, Trinidad and Tobago, and Yemen, the allocation of the band 9 800-10 000 MHz to the fixed service is on a primary basis (see No. **5.33**). (WRC-12)

5.478 *Additional allocation:* in Azerbaijan, Mongolia, Kyrgyzstan, Romania, Turkmenistan and Ukraine, the band 9 800-10 000 MHz is also allocated to the radionavigation service on a primary basis. (WRC-07)

5.478A The use of the band 9 800-9 900 MHz by the Earth exploration-satellite service (active) and the space research service (active) is limited to systems requiring necessary bandwidth greater than 500 MHz that cannot be fully accommodated within the 9 300-9 800 MHz band. (WRC-07)

5.478B In the band 9 800-9 900 MHz, stations in the Earth exploration-satellite service (active) and space research service (active) shall not cause harmful interference to, nor claim protection from stations of the fixed service to which this band is allocated on a secondary basis. (WRC-07)

5.479 The band 9 975-10 025 MHz is also allocated to the meteorological-satellite service on a secondary basis for use by weather radars.

5.480 *Additional allocation:* in Argentina, Brazil, Chile, Costa Rica, Cuba, El Salvador, Ecuador, Guatemala, Honduras, Mexico, Paraguay, the Netherlands Antilles, Peru and Uruguay, the band 10-10.45 GHz is also allocated to the fixed and mobile services on a primary basis. In Venezuela, the band 10-10.45 GHz is also allocated to the fixed service on a primary basis. (WRC-07)

5.481 *Additional allocation:* in Germany, Angola, Brazil, China, Costa Rica, Côte d'Ivoire, El Salvador, Ecuador, Spain, Guatemala, Hungary, Japan, Kenya, Morocco, Nigeria, Oman, Uzbekistan, Pakistan, Paraguay, Peru, the Dem. People's Rep. of Korea, Romania, Tanzania, Thailand and Uruguay, the band 10.45-10.5 GHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)

5.482 In the band 10.6-10.68 GHz, the power delivered to the antenna of stations of the fixed and mobile, except aeronautical mobile, services shall not exceed −3 dBW. This limit may be exceeded, subject to agreement obtained under No. **9.21**. However, in Algeria, Saudi Arabia, Armenia, Azerbaijan, Bahrain, Bangladesh, Belarus, Egypt, United Arab Emirates, Georgia, India, Indonesia, Iran (Islamic Republic of), Iraq, Jordan, Libyan Arab Jamahiriya, Kazakhstan, Kuwait, Lebanon, Morocco, Mauritania, Moldova, Nigeria, Oman, Uzbekistan, Pakistan, Philippines, Qatar, Syrian Arab Republic, Kyrgyzstan, Singapore, Tajikistan, Tunisia, Turkmenistan and Viet Nam, this restriction on the fixed and mobile, except aeronautical mobile, service is not applicable. (WRC-07)

5.482A For sharing of the band 10.6-10.68 GHz between the Earth exploration-satellite (passive) service and the fixed and mobile, except aeronautical mobile, services, Resolution **751 (WRC-07)** applies. (WRC-07)

5.483 *Additional allocation:* in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, China, Colombia, Korea (Rep. of), Costa Rica, Egypt, the United Arab Emirates, Georgia, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kazakhstan, Kuwait, Lebanon, Mongolia, Qatar, Kyrgyzstan, the Dem. People's Rep. of Korea, Tajikistan, Turkmenistan and Yemen, the band 10.68-10.7 GHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. Such use is limited to equipment in operation by 1 January 1985. (WRC-12)

5.484 In Region 1, the use of the band 10.7-11.7 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service.

5.484A The use of the bands 10.95-11.2 GHz (space-to-Earth), 11.45-11.7 GHz (space-to-Earth), 11.7-12.2 GHz (space-to-Earth) in Region 2, 12.2-12.75 GHz (space-to-Earth) in Region 3, 12.5-12.75 GHz (space-to-Earth) in Region 1, 13.75-14.5 GHz (Earth-to-space), 17.8-18.6 GHz (space-to-Earth), 19.7-20.2

GHz (space-to-Earth), 27.5-28.6 GHz (Earth-to-space), 29.5-30 GHz (Earth-to-space) by a non-geostationary-satellite system in the fixed-satellite service is subject to application of the provisions of No. **9.12** for coordination with other non-geostationary-satellite systems in the fixed-satellite service. Non-geostationary-satellite systems in the fixed-satellite service shall not claim protection from geostationary-satellite networks in the fixed-satellite service operating in accordance with the Radio Regulations, irrespective of the dates of receipt by the Bureau of the complete coordination or notification information, as appropriate, for the non-geostationary-satellite systems in the fixed-satellite service and of the complete coordination or notification information, as appropriate, for the geostationary-satellite networks, and No. **5.43A** does not apply. Non-geostationary-satellite systems in the fixed-satellite service in the above bands shall be operated in such a way that any unacceptable interference that may occur during their operation shall be rapidly eliminated. (WRC-2000)

5.485 In Region 2, in the band 11.7-12.2 GHz, transponders on space stations in the fixed-satellite service may be used additionally for transmissions in the broadcasting-satellite service, provided that such transmissions do not have a maximum e.i.r.p. greater than 53 dBW per television channel and do not cause greater interference or require more protection from interference than the coordinated fixed-satellite service frequency assignments. With respect to the space services, this band shall be used principally for the fixed-satellite service.

5.486 *Different category of service:* in Mexico and the United States, the allocation of the band 11.7-12.1 GHz to the fixed service is on a secondary basis (see No. **5.32**).

5.487 In the band 11.7-12.5 GHz in Regions 1 and 3, the fixed, fixed-satellite, mobile, except aeronautical mobile, and broadcasting services, in accordance with their respective allocations, shall not cause harmful interference to, or claim protection from, broadcasting-satellite stations operating in accordance with the Regions 1 and 3 Plan in Appendix **30**. (WRC-03)

5.487A *Additional allocation:* in Region 1, the band 11.7-12.5 GHz, in Region 2, the band 12.2-12.7 GHz and, in Region 3, the band 11.7-12.2 GHz, are also allocated to the fixed-satellite service (space-to-Earth) on a primary basis, limited to non-geostationary systems and subject to application of the provisions of No. **9.12** for coordination with other non-geostationary-satellite systems in the fixed-satellite service. Non-geostationary-satellite systems in the fixed-satellite service shall not claim protection from geostationary-satellite networks in the broadcasting-satellite service operating in accordance with the Radio Regulations, irrespective of the dates of receipt by the Bureau of the complete coordination or notification information, as appropriate, for the non-geostationary-satellite systems in the fixed-satellite service and of the complete coordination or notification information, as appropriate, for the geostationary-satellite networks, and No. **5.43A** does not apply. Non-geostationary-satellite systems in the fixed-satellite service in the above bands shall be operated in such a way that any unacceptable interference that may occur during their operation shall be rapidly eliminated. (WRC-03)

5.488 The use of the band 11.7-12.2 GHz by geostationary-satellite networks in the fixed-satellite service in Region 2 is subject to application of the provisions of No. **9.14** for coordination with stations of terrestrial services in Regions 1, 2 and 3. For the use of the band 12.2-12.7 GHz by the broadcasting-satellite service in Region 2, see Appendix **30**. (WRC-03)

5.489 *Additional allocation:* in Peru, the band 12.1-12.2 GHz is also allocated to the fixed service on a primary basis.

5.490 In Region 2, in the band 12.2-12.7 GHz, existing and future terrestrial radiocommunication services shall not cause harmful interference to the space services operating in conformity with the broadcasting-satellite Plan for Region 2 contained in Appendix **30**.

5.491 (SUP - WRC-03)

5.492 Assignments to stations of the broadcasting-satellite service which are in conformity with the appropriate regional Plan or included in the Regions 1 and 3 List in Appendix **30** may also be used for transmissions in the fixed-satellite service (space-to-Earth), provided that such transmissions do not cause more interference, or require more protection from interference, than the broadcasting-satellite service transmissions operating in conformity with the Plan or the List, as appropriate. (WRC-2000)

5.493 The broadcasting-satellite service in the band 12.5-12.75 GHz in Region 3 is limited to a power flux-density not exceeding –111 dB(W/(m^2 . 27 MHz)) for all conditions and for all methods of modulation at the edge of the service area. (WRC-97)

5.494 *Additional allocation:* in Algeria, Angola, Saudi Arabia, Bahrain, Cameroon, the Central African Rep., Congo (Rep. of the), Côte d'Ivoire, Djibouti, Egypt, the United Arab Emirates, Eritrea, Ethiopia, Gabon, Ghana, Guinea, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Madagascar, Mali, Morocco, Mongolia, Nigeria, Oman, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, Somalia, Sudan, South Sudan, Chad, Togo and Yemen, the band 12.5-12.75 GHz is also allocated to the fixed and mobile,

except aeronautical mobile, services on a primary basis. (WRC-12)

5.495 *Additional allocation:* in France, Greece, Monaco, Montenegro, Uganda, Romania, Tanzania and Tunisia, the band 12.5-12.75 GHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a secondary basis. (WRC-12)

5.496 *Additional allocation:* in Austria, Azerbaijan, Kyrgyzstan and Turkmenistan, the band 12.5-12.75 GHz is also allocated to the fixed service and the mobile, except aeronautical mobile, service on a primary basis. However, stations in these services shall not cause harmful interference to fixed-satellite service earth stations of countries in Region 1 other than those listed in this footnote. Coordination of these earth stations is not required with stations of the fixed and mobile services of the countries listed in this footnote. The power flux-density limit at the Earth's surface given in Table **21-4** of Article **21**, for the fixed-satellite service shall apply on the territory of the countries listed in this footnote. (WRC-2000)

5.497 The use of the band 13.25-13.4 GHz by the aeronautical radionavigation service is limited to Doppler navigation aids.

5.498 (SUP - WRC-97)

5.498A The Earth exploration-satellite (active) and space research (active) services operating in the band 13.25-13.4 GHz shall not cause harmful interference to, or constrain the use and development of, the aeronautical radionavigation service. (WRC-97)

5.499 *Additional allocation:* in Bangladesh and India, the band 13.25-14 GHz is also allocated to the fixed service on a primary basis. In Pakistan, the band 13.25-13.75 GHz is allocated to the fixed service on a primary basis. (WRC-12)**5.500** *Additional allocation:* in Algeria, Angola, Saudi Arabia, Bahrain, Brunei Darussalam, Cameroon, Egypt, the United Arab Emirates, Gabon, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kuwait, Lebanon, Madagascar, Malaysia, Mali, Morocco, Mauritania, Niger, Nigeria, Oman, Qatar, the Syrian Arab Republic, Singapore, Sudan, South Sudan, Chad and Tunisia, the band 13.4-14 GHz is also allocated to the fixed and mobile services on a primary basis. In Pakistan, the band 13.4-13.75 GHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)

5.501 *Additional allocation:* in Azerbaijan, Hungary, Japan, Kyrgyzstan, Romania and Turkmenistan, the band 13.4-14 GHz is also allocated to the radionavigation service on a primary basis. (WRC-12)

5.501A The allocation of the band 13.4-13.75 GHz to the space research service on a primary basis is limited to active spaceborne sensors. Other uses of the band by the space research service are on a secondary basis. (WRC-97)

5.501B In the band 13.4-13.75 GHz, the Earth exploration-satellite (active) and space research (active) services shall not cause harmful interference to, or constrain the use and development of, the radiolocation service. (WRC-97)

5.502 In the band 13.75-14 GHz, an earth station of a geostationary fixed-satellite service network shall have a minimum antenna diameter of 1.2 m and an earth station of a non-geostationary fixed-satellite service system shall have a minimum antenna diameter of 4.5 m. In addition, the e.i.r.p., averaged over one second, radiated by a station in the radiolocation or radionavigation services shall not exceed 59 dBW for elevation angles above 2° and 65 dBW at lower angles. Before an administration brings into use an earth station in a geostationary-satellite network in the fixed-satellite service in this band with an antenna diameter smaller than 4.5 m, it shall ensure that the power flux-density produced by this earth station does not exceed:

- 115 dB(W/(m^2 · 10 MHz)) for more than 1% of the time produced at 36 m above sea level at the low water mark, as officially recognized by the coastal State;
- 115 dB(W/(m^2 · 10 MHz)) for more than 1% of the time produced 3 m above ground at the border of the territory of an administration deploying or planning to deploy land mobile radars in this band, unless prior agreement has been obtained.

For earth stations within the fixed-satellite service having an antenna diameter greater than or equal to 4.5 m, the e.i.r.p. of any emission should be at least 68 dBW and should not exceed 85 dBW. (WRC-03)

5.503 In the band 13.75-14 GHz, geostationary space stations in the space research service for which information for advance publication has been received by the Bureau prior to 31 January 1992 shall operate on an equal basis with stations in the fixed-satellite service; after that date, new geostationary space stations in the space research service will operate on a secondary basis. Until those geostationary space stations in the space research service for which information for advance publication has been received by the Bureau prior to 31 January 1992 cease to operate in this band:

- in the band 13.77-13.78 GHz, the e.i.r.p. density of emissions from any earth station in the fixed-satellite

service operating with a space station in geostationary-satellite orbit shall not exceed:

i) 4.7*D* + 28 dB(W/40 kHz), where *D* is the fixed-satellite service earth station antenna diameter (m) for antenna diameters equal to or greater than 1.2 m and less than 4.5 m;

ii) 49.2 + 20 log(*D*/4.5) dB(W/40 kHz), where *D* is the fixed-satellite service earth station antenna diameter (m) for antenna diameters equal to or greater than 4.5 m and less than 31.9 m;

iii) 66.2 dB(W/40 kHz) for any fixed-satellite service earth station for antenna diameters (m) equal to or greater than 31.9 m;

iv) 56.2 dB(W/4 kHz) for narrow-band (less than 40 kHz of necessary bandwidth) fixed-satellite service earth station emissions from any fixed-satellite service earth station having an antenna diameter of 4.5 m or greater;

- the e.i.r.p. density of emissions from any earth station in the fixed-satellite service operating with a space station in non-geostationary-satellite orbit shall not exceed 51 dBW in the 6 MHz band from 13.772 to 13.778 GHz.

Automatic power control may be used to increase the e.i.r.p. density in these frequency ranges to compensate for rain attenuation, to the extent that the power flux-density at the fixed-satellite service space station does not exceed the value resulting from use by an earth station of an e.i.r.p. meeting the above limits in clear-sky conditions. (WRC-03)

5.503A (SUP - WRC-03)

5.504 The use of the band 14-14.3 GHz by the radionavigation service shall be such as to provide sufficient protection to space stations of the fixed-satellite service.

5.504A In the band 14-14.5 GHz, aircraft earth stations in the secondary aeronautical mobile-satellite service may also communicate with space stations in the fixed-satellite service. The provisions of Nos. **5.29**, **5.30** and **5.31** apply. (WRC-03)

5.504B Aircraft earth stations operating in the aeronautical mobile-satellite service in the band 14-14.5 GHz shall comply with the provisions of Annex 1, Part C of Recommendation ITU-R M.1643, with respect to any radio astronomy station performing observations in the 14.47-14.5 GHz band located on the territory of Spain, France, India, Italy, the United Kingdom and South Africa. (WRC-03)

5.504C In the band 14-14.25 GHz, the power flux-density produced on the territory of the countries of Saudi Arabia, Botswana, Côte d'Ivoire, Egypt, Guinea, India, Iran (Islamic Republic of), Kuwait, Nigeria, Oman, the Syrian Arab Republic and Tunisia by any aircraft earth station in the aeronautical mobile-satellite service shall not exceed the limits given in Annex 1, Part B of Recommendation ITU-R M.1643, unless otherwise specifically agreed by the affected administration(s). The provisions of this footnote in no way derogate the obligations of the aeronautical mobile-satellite service to operate as a secondary service in accordance with No. **5.29**. (WRC-12)

5.505 *Additional allocation:* in Algeria, Angola, Saudi Arabia, Bahrain, Botswana, Brunei Darussalam, Cameroon, China, Congo (Rep. of the), Korea (Rep. of), Djibouti, Egypt, the United Arab Emirates, Gabon, Guinea, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kuwait, Lebanon, Malaysia, Mali, Morocco, Mauritania, Oman, the Philippines, Qatar, the Syrian Arab Republic, the Dem. People's Rep. of Korea, Singapore, Somalia, Sudan, South Sudan, Swaziland, Tanzania, Chad, Viet Nam and Yemen, the band 14-14.3 GHz is also allocated to the fixed service on a primary basis. (WRC-12)

5.506 The band 14-14.5 GHz may be used, within the fixed-satellite service (Earth-to-space), for feeder links for the broadcasting-satellite service, subject to coordination with other networks in the fixed-satellite service. Such use of feeder links is reserved for countries outside Europe.

5.506A In the band 14-14.5 GHz, ship earth stations with an e.i.r.p. greater than 21 dBW shall operate under the same conditions as earth stations located on board vessels, as provided in Resolution **902 (WRC-03)**. This footnote shall not apply to ship earth stations for which the complete Appendix **4** information has been received by the Bureau prior to 5 July 2003. (WRC-03)

5.506B Earth stations located on board vessels communicating with space stations in the fixed-satellite service may operate in the frequency band 14-14.5 GHz without the need for prior agreement from Cyprus, Greece and Malta, within the minimum distance given in Resolution **902 (WRC-03)** from these countries. (WRC-03)

5.507 Not used.

5.508 *Additional allocation:* in Germany, France, Italy, Libya, The Former Yugoslav Rep. of Macedonia and the United Kingdom, the band 14.25-14.3 GHz is also allocated to the fixed service on a primary basis. (WRC-12)

5.508A In the band 14.25-14.3 GHz, the power flux-density produced on the territory of the countries of Saudi

Arabia, Botswana, China, Côte d'Ivoire, Egypt, France, Guinea, India, Iran (Islamic Republic of), Italy, Kuwait, Nigeria, Oman, the Syrian Arab Republic, the United Kingdom and Tunisia by any aircraft earth station in the aeronautical mobile-satellite service shall not exceed the limits given in Annex 1, Part B of Recommendation ITU-R M.1643, unless otherwise specifically agreed by the affected administration(s). The provisions of this footnote in no way derogate the obligations of the aeronautical mobile-satellite service to operate as a secondary service in accordance with No. **5.29**. (WRC-12)

5.509 (SUP - WRC-07)

5.509A In the band 14.3-14.5 GHz, the power flux-density produced on the territory of the countries of Saudi Arabia, Botswana, Cameroon, China, Côte d'Ivoire, Egypt, France, Gabon, Guinea, India, Iran (Islamic Republic of), Italy, Kuwait, Morocco, Nigeria, Oman, the Syrian Arab Republic, the United Kingdom, Sri Lanka, Tunisia and Viet Nam by any aircraft earth station in the aeronautical mobile-satellite service shall not exceed the limits given in Annex 1, Part B of Recommendation ITU-R M.1643, unless otherwise specifically agreed by the affected administration(s). The provisions of this footnote in no way derogate the obligations of the aeronautical mobile-satellite service to operate as a secondary service in accordance with No. **5.29**. (WRC-12)

5.510 The use of the band 14.5-14.8 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service. This use is reserved for countries outside Europe.

5.511 *Additional allocation:* in Saudi Arabia, Bahrain, Cameroon, Egypt, the United Arab Emirates, Guinea, Iran (Islamic Republic of), Iraq, Israel, Kuwait, Lebanon, Oman, Pakistan, Qatar, the Syrian Arab Republic and Somalia, the band 15.35-15.4 GHz is also allocated to the fixed and mobile services on a secondary basis. (WRC-12)

5.511A The band 15.43-15.63 GHz is also allocated to the fixed-satellite service (space-to-Earth) on a primary basis. Use of the band 15.43-15.63 GHz by the fixed-satellite service (space-to-Earth and Earth-to-space) is limited to feeder links of non-geostationary systems in the mobile-satellite service, subject to coordination under No. **9.11A**. The use of the frequency band 15.43-15.63 GHz by the fixed-satellite service (space-to-Earth) is limited to feeder links of non-geostationary systems in the mobile-satellite service for which advance publication information has been received by the Bureau prior to 2 June 2000. In the space-to-Earth direction, the minimum earth station elevation angle above and gain towards the local horizontal plane and the minimum coordination distances to protect an earth station from harmful interference shall be in accordance with Recommendation ITU-R S.1341. In order to protect the radio astronomy service in the band 15.35-15.4 GHz, the aggregate power flux-density radiated in the 15.35-15.4 GHz band by all the space stations within any feeder-link of a non-geostationary system in the mobile-satellite service (space-to-Earth) operating in the 15.43-15.63 GHz band shall not exceed the level of −156 dB(W/m^2) in a 50 MHz bandwidth, into any radio astronomy observatory site for more than 2% of the time. (WRC-2000)

5.511B (SUP - WRC-97)

5.511C Stations operating in the aeronautical radionavigation service shall limit the effective e.i.r.p. in accordance with Recommendation ITU-R S.1340. The minimum coordination distance required to protect the aeronautical radionavigation stations (No. **4.10** applies) from harmful interference from feeder-link earth stations and the maximum e.i.r.p. transmitted towards the local horizontal plane by a feeder-link earth station shall be in accordance with Recommendation ITU-R S.1340. (WRC-97)

5.511D Fixed-satellite service systems for which complete information for advance publication has been received by the Bureau by 21 November 1997 may operate in the bands 15.4-15.43 GHz and 15.63-15.7 GHz in the space-to-Earth direction and 15.63-15.65 GHz in the Earth-to-space direction. In the bands 15.4-15.43 GHz and 15.65-15.7 GHz, emissions from a non-geostationary space station shall not exceed the power flux-density limits at the Earth's surface of –146 dB(W/(m^2 . MHz)) for any angle of arrival. In the band 15.63-15.65 GHz, where an administration plans emissions from a non-geostationary space station that exceed –146 dB(W/(m^2 . MHz)) for any angle of arrival, it shall coordinate under No. **9.11A** with the affected administrations. Stations in the fixed-satellite service operating in the band 15.63-15.65 GHz in the Earth-to-space direction shall not cause harmful interference to stations in the aeronautical radionavigation service (No. **4.10** applies). (WRC-97)

5.511E In the frequency band 15.4-15.7 GHz, stations operating in the radiolocation service shall not cause harmful interference to, or claim protection from, stations operating in the aeronautical radionavigation service. (WRC-12)

5.511F In order to protect the radio astronomy service in the frequency band 15.35-15.4 GHz, radiolocation stations operating in the frequency band 15.4-15.7 GHz shall not exceed the power flux-density level of 156 dB(W/m^2) in a 50 MHz bandwidth in the frequency band 15.35-15.4 GHz, at any radio astronomy observatory site for more than 2 per cent of the time. (WRC-12)

5.512 *Additional allocation:* in Algeria, Angola, Saudi Arabia, Austria, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, Congo (Rep. of the), Costa Rica, Egypt, El Salvador, the United Arab Emirates, Eritrea, Finland, Guatemala, India, Indonesia, Iran (Islamic Republic of), Jordan, Kenya, Kuwait, Lebanon, Libya, Malaysia, Mali, Morocco, Mauritania, Montenegro, Nepal, Nicaragua, Niger, Oman, Pakistan, Qatar, Syrian Arab Republic, the Dem. Rep. of the Congo, Serbia, Singapore, Somalia, Sudan, South Sudan, Tanzania, Chad, Togo and Yemen, the band 15.7-17.3 GHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)

5.513 *Additional allocation:* in Israel, the band 15.7-17.3 GHz is also allocated to the fixed and mobile services on a primary basis. These services shall not claim protection from or cause harmful interference to services operating in accordance with the Table in countries other than those included in No. **5.512**.

5.513A Spaceborne active sensors operating in the band 17.2-17.3 GHz shall not cause harmful interference to, or constrain the development of, the radiolocation and other services allocated on a primary basis. (WRC-97)

5.514 *Additional allocation:* in Algeria, Angola, Saudi Arabia, Bahrain, Bangladesh, Cameroon, El Salvador, the United Arab Emirates, Guatemala, India, Iran (Islamic Republic of), Iraq, Israel, Italy, Japan, Jordan, Kuwait, Libya, Lithuania, Nepal, Nicaragua, Nigeria, Oman, Uzbekistan, Pakistan, Qatar, Kyrgyzstan, Sudan and South Sudan, the band 17.3-17.7 GHz is also allocated to the fixed and mobile services on a secondary basis. The power limits given in Nos. **21.3** and **21.5** shall apply. (WRC-12)

5.515 In the band 17.3-17.8 GHz, sharing between the fixed-satellite service (Earth-to-space) and the broadcasting-satellite service shall also be in accordance with the provisions of § 1 of Annex 4 of Appendix **30A**.

5.516 The use of the band 17.3-18.1 GHz by geostationary-satellite systems in the fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service. The use of the band 17.3-17.8 GHz in Region 2 by systems in the fixed-satellite service (Earth-to-space) is limited to geostationary satellites. For the use of the band 17.3-17.8 GHz in Region 2 by feeder links for the broadcasting-satellite service in the band 12.2-12.7 GHz, see Article **11**. The use of the bands 17.3-18.1 GHz (Earth-to-space) in Regions 1 and 3 and 17.8-18.1 GHz (Earth-to-space) in Region 2 by non-geostationary-satellite systems in the fixed-satellite service is subject to application of the provisions of No. **9.12** for coordination with other non-geostationary-satellite systems in the fixed-satellite service. Non-geostationary-satellite systems in the fixed-satellite service shall not claim protection from geostationary-satellite networks in the fixed-satellite service operating in accordance with the Radio Regulations, irrespective of the dates of receipt by the Bureau of the complete coordination or notification information, as appropriate, for the non-geostationary-satellite systems in the fixed-satellite service and of the complete coordination or notification information, as appropriate, for the geostationary-satellite networks, and No. **5.43A** does not apply. Non-geostationary-satellite systems in the fixed-satellite service in the above bands shall be operated in such a way that any unacceptable interference that may occur during their operation shall be rapidly eliminated. (WRC-2000)

5.516A In the band 17.3-17.7 GHz, earth stations of the fixed-satellite service (space-to-Earth) in Region 1 shall not claim protection from the broadcasting-satellite service feeder-link earth stations operating under Appendix **30A**, nor put any limitations or restrictions on the locations of the broadcasting-satellite service feeder-link earth stations anywhere within the service area of the feeder link. (WRC-03)

5.516B The following bands are identified for use by high-density applications in the fixed-satellite service:

17.3-17.7 GHz	(space-to-Earth) in Region 1,
18.3-19.3 GHz	(space-to-Earth) in Region 2,
19.7-20.2 GHz	(space-to-Earth) in all Regions,
39.5-40 GHz	(space-to-Earth) in Region 1,
40-40.5 GHz	(space-to-Earth) in all Regions,
40.5-42 GHz	(space-to-Earth) in Region 2,
47.5-47.9 GHz	(space-to-Earth) in Region 1,
48.2-48.54 GHz	(space-to-Earth) in Region 1,
49.44-50.2 GHz	(space-to-Earth) in Region 1,
and	
27.5-27.82 GHz	(Earth-to-space) in Region 1,
28.35-28.45 GHz	(Earth-to-space) in Region 2,
28.45-28.94 GHz	(Earth-to-space) in all Regions,

28.94-29.1 GHz (Earth-to-space) in Region 2 and 3,

29.25-29.46 GHz (Earth-to-space) in Region 2,

29.46-30 GHz (Earth-to-space) in all Regions,

48.2-50.2 GHz (Earth-to-space) in Region 2.

This identification does not preclude the use of these bands by other fixed-satellite service applications or by other services to which these bands are allocated on a co-primary basis and does not establish priority in these Radio Regulations among users of the bands. Administrations should take this into account when considering regulatory provisions in relation to these bands. See Resolution **143 (WRC-03)**. (WRC-03)

5.517 In Region 2, use of the fixed-satellite (space-to-Earth) service in the band 17.7-17.8 GHz shall not cause harmful interference to nor claim protection from assignments in the broadcasting-satellite service operating in conformity with the Radio Regulations. (WRC-07)

5.518 (SUP - WRC-07)

5.519 *Additional allocation:* the bands 18-18.3 GHz in Region 2 and 18.1-18.4 GHz in Regions 1 and 3 are also allocated to the meteorological-satellite service (space-to-Earth) on a primary basis. Their use is limited to geostationary satellites. (WRC-07)

5.520 The use of the band 18.1-18.4 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links of geostationary-satellite systems in the broadcasting-satellite service. (WRC-2000)

5.521 *Alternative allocation:* in Germany, Denmark, the United Arab Emirates and Greece, the band 18.1-18.4 GHz is allocated to the fixed, fixed-satellite (space-to-Earth) and mobile services on a primary basis (see No. **5.33**). The provisions of No. **5.519** also apply. (WRC-03)

5.522 (SUP - WRC-2000)

5.522A The emissions of the fixed service and the fixed-satellite service in the band 18.6-18.8 GHz are limited to the values given in Nos. **21.5A** and **21.16.2**, respectively. (WRC-2000)

5.522B The use of the band 18.6-18.8 GHz by the fixed-satellite service is limited to geostationary systems and systems with an orbit of apogee greater than 20 000 km. (WRC-2000)

5.522C In the band 18.6-18.8 GHz, in Algeria, Saudi Arabia, Bahrain, Egypt, the United Arab Emirates, the Libyan Arab Jamahiriya, Jordan, Lebanon, Morocco, Oman, Qatar, the Syrian Arab Republic, Tunisia and Yemen, fixed-service systems in operation at the date of entry into force of the Final Acts of WRC-2000 are not subject to the limits of No. **21.5A**. (WRC-2000)

5.523 (SUP - WRC-2000)

5.523A The use of the bands 18.8-19.3 GHz (space-to-Earth) and 28.6-29.1 GHz (Earth-to-space) by geostationary and non-geostationary fixed-satellite service networks is subject to the application of the provisions of No. **9.11A** and No. **22.2** does not apply. Administrations having geostationary-satellite networks under coordination prior to 18 November 1995 shall cooperate to the maximum extent possible to coordinate pursuant to No. **9.11A** with non-geostationary-satellite networks for which notification information has been received by the Bureau prior to that date, with a view to reaching results acceptable to all the parties concerned. Non-geostationary-satellite networks shall not cause unacceptable interference to geostationary fixed-satellite service networks for which complete Appendix **4** notification information is considered as having been received by the Bureau prior to 18 November 1995. (WRC-97)

5.523B The use of the band 19.3-19.6 GHz (Earth-to-space) by the fixed-satellite service is limited to feeder links for non-geostationary-satellite systems in the mobile-satellite service. Such use is subject to the application of the provisions of No. **9.11A**, and No. **22.2** does not apply.

5.523C No. **22.2** shall continue to apply in the bands 19.3-19.6 GHz and 29.1-29.4 GHz, between feeder links of non-geostationary mobile-satellite service networks and those fixed-satellite service networks for which complete Appendix **4** coordination information, or notification information, is considered as having been received by the Bureau prior to 18 November 1995. (WRC-97)

5.523D The use of the band 19.3-19.7 GHz (space-to-Earth) by geostationary fixed-satellite service systems and by feeder links for non-geostationary-satellite systems in the mobile-satellite service is subject to the application of the provisions of No. **9.11A**, but not subject to the provisions of No. **22.2**. The use of this band for other non-geostationary fixed-satellite service systems, or for the cases indicated in Nos. **5.523C** and **5.523E**, is not subject to the provisions of No. **9.11A** and shall continue to be subject to Articles **9** (except No. **9.11A**) and **11** procedures, and to the provisions of No. **22.2**. (WRC-97)

5.523E No. **22.2** shall continue to apply in the bands 19.6-19.7 GHz and 29.4-29.5 GHz, between feeder links of non-geostationary mobile-satellite service networks and those fixed-satellite service networks for which

complete Appendix **4** coordination information, or notification information, is considered as having been received by the Bureau by 21 November 1997. (WRC-97)

5.524 *Additional allocation:* in Afghanistan, Algeria, Angola, Saudi Arabia, Bahrain, Brunei Darussalam, Cameroon, China, Congo (Rep. of the), Costa Rica, Egypt, the United Arab Emirates, Gabon, Guatemala, Guinea, India, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kuwait, Lebanon, Malaysia, Mali, Morocco, Mauritania, Nepal, Nigeria, Oman, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, the Dem. People's Rep. of Korea, Singapore, Somalia, Sudan, South Sudan, Tanzania, Chad, Togo and Tunisia, the band 19.7-21.2 GHz is also allocated to the fixed and mobile services on a primary basis. This additional use shall not impose any limitation on the power flux-density of space stations in the fixed-satellite service in the band 19.7-21.2 GHz and of space stations in the mobile-satellite service in the band 19.7-20.2 GHz where the allocation to the mobile-satellite service is on a primary basis in the latter band. (WRC-12)

5.525 In order to facilitate interregional coordination between networks in the mobile-satellite and fixed-satellite services, carriers in the mobile-satellite service that are most susceptible to interference shall, to the extent practicable, be located in the higher parts of the bands 19.7-20.2 GHz and 29.5-30 GHz.

5.526 In the bands 19.7-20.2 GHz and 29.5-30 GHz in Region 2, and in the bands 20.1-20.2 GHz and 29.9-30 GHz in Regions 1 and 3, networks which are both in the fixed-satellite service and in the mobile-satellite service may include links between earth stations at specified or unspecified points or while in motion, through one or more satellites for point-to-point and point-to-multipoint communications.

5.527 In the bands 19.7-20.2 GHz and 29.5-30 GHz, the provisions of No. **4.10** do not apply with respect to the mobile-satellite service.

5.528 The allocation to the mobile-satellite service is intended for use by networks which use narrow spot-beam antennas and other advanced technology at the space stations. Administrations operating systems in the mobile-satellite service in the band 19.7-20.1 GHz in Region 2 and in the band 20.1-20.2 GHz shall take all practicable steps to ensure the continued availability of these bands for administrations operating fixed and mobile systems in accordance with the provisions of No. **5.524**.

5.529 The use of the bands 19.7-20.1 GHz and 29.5-29.9 GHz by the mobile-satellite service in Region 2 is limited to satellite networks which are both in the fixed-satellite service and in the mobile-satellite service as described in No. **5.526**.

5.530A Unless otherwise agreed between the administrations concerned, any station in the fixed or mobile services of an administration shall not produce a power flux-density in excess of 120.4 dB(W/(m^2 · MHz)) at 3 m above the ground of any point of the territory of any other administration in Regions 1 and 3 for more than 20% of the time. In conducting the calculations, administrations should use the most recent version of Recommendation ITU-R P.452 (see Recommendation ITU-R BO.1898). (WRC-12)

5.530B In the band 21.4-22 GHz, in order to facilitate the development of the broadcasting-satellite service, administrations in Regions 1 and 3 are encouraged not to deploy stations in the mobile service and are encouraged to limit the deployment of stations in the fixed service to point-to-point links. (WRC-12)

5.530C The use of the band 21.4-22 GHz is subject to the provisions of Resolution 755 (WRC-12). (WRC-12)

5.530D See Resolution 555 (WRC-12). (WRC-12)

5.531 *Additional allocation:* in Japan, the band 21.4-22 GHz is also allocated to the broadcasting service on a primary basis.

5.532 The use of the band 22.21-22.5 GHz by the Earth exploration-satellite (passive) and space research (passive) services shall not impose constraints upon the fixed and mobile, except aeronautical mobile, services.

5.532A The location of earth stations in the space research service shall maintain a separation distance of at least 54 km from the respective border(s) of neighbouring countries to protect the existing and future deployment of fixed and mobile services unless a shorter distance is otherwise agreed between the corresponding administrations. Nos. 9.17 and 9.18 do not apply. (WRC-12)

5.532B Use of the band 24.65-25.25 GHz in Region 1 and the band 24.65-24.75 GHz in Region 3 by the fixedsatellite service (Earth-to-space) is limited to earth stations using a minimum antenna diameter of 4.5 m. (WRC-12)

5.533 The inter-satellite service shall not claim protection from harmful interference from airport surface detection equipment stations of the radionavigation service.

5.534 (SUP - WRC-03)

5.535 In the band 24.75-25.25 GHz, feeder links to stations of the broadcasting-satellite service shall have priority over other uses in the fixed-satellite service (Earth-to-space). Such other uses shall protect and

shall not claim protection from existing and future operating feeder-link networks to such broadcasting satellite stations.

5.535A The use of the band 29.1-29.5 GHz (Earth-to-space) by the fixed-satellite service is limited to geostationary-satellite systems and feeder links to non-geostationary-satellite systems in the mobile-satellite service. Such use is subject to the application of the provisions of No. **9.11A**, but not subject to the provisions of No. **22.2**, except as indicated in Nos. **5.523C** and **5.523E** where such use is not subject to the provisions of No. **9.11A** and shall continue to be subject to Articles **9** (except No. **9.11A**) and **11** procedures, and to the provisions of No. **22.2**. (WRC-97)

5.536 Use of the 25.25-27.5 GHz band by the inter-satellite service is limited to space research and Earth exploration-satellite applications, and also transmissions of data originating from industrial and medical activities in space.

5.536A Administrations operating earth stations in the Earth exploration-satellite service or the space research service shall not claim protection from stations in the fixed and mobile services operated by other administrations. In addition, earth stations in the Earth exploration-satellite service or in the space research service should be operated taking into account the most recent version of Recommendations ITU-R SA.1862. (WRC-12)

5.536B In Saudi Arabia, Austria, Belgium, Brazil, Bulgaria, China, Korea (Rep. of), Denmark, Egypt, United Arab Emirates, Estonia, Finland, Hungary, India, Iran (Islamic Republic of), Ireland, Israel, Italy, Jordan, Kenya, Kuwait, Lebanon, Libya, Liechtenstein, Lithuania, Moldova, Norway, Oman, Uganda, Pakistan, the Philippines, Poland, Portugal, the Syrian Arab Republic, Dem. People's Rep. of Korea, Slovakia, the Czech Rep., Romania, the United Kingdom, Singapore, Sweden, Switzerland, Tanzania, Turkey, Viet Nam and Zimbabwe, earth stations operating in the Earth exploration-satellite service in the band 25.5-27 GHz shall not claim protection from, or constrain the use and deployment of, stations of the fixed and mobile services. (WRC-12)

5.536C In Algeria, Saudi Arabia, Bahrain, Botswana, Brazil, Cameroon, Comoros, Cuba, Djibouti, Egypt, United Arab Emirates, Estonia, Finland, Iran (Islamic Republic of), Israel, Jordan, Kenya, Kuwait, Lithuania, Malaysia, Morocco, Nigeria, Oman, Qatar, Syrian Arab Republic, Somalia, Sudan, South Sudan, Tanzania, Tunisia, Uruguay, Zambia and Zimbabwe, earth stations operating in the space research service in the band 25.5-27 GHz shall not claim protection from, or constrain the use and deployment of, stations of the fixed and mobile services. (WRC-12)

5.537 Space services using non-geostationary satellites operating in the inter-satellite service in the band 27-27.5 GHz are exempt from the provisions of No. **22.2**.

5.537A In Bhutan, Cameroon, Korea (Rep. of), the Russian Federation, India, Indonesia, Iran (Islamic Republic of), Iraq, Japan, Kazakhstan, Malaysia, Maldives, Mongolia, Myanmar, Uzbekistan, Pakistan, the Philippines, Kyrgyzstan, the Dem. People's Rep. of Korea, Sudan, Sri Lanka, Thailand and Viet Nam, the allocation to the fixed service in the band 27.9-28.2 GHz may also be used by high altitude platform stations (HAPS) within the territory of these countries. Such use of 300 MHz of the fixed-service allocation by HAPS in the above countries is further limited to operation in the HAPS-to-ground direction and shall not cause harmful interference to, nor claim protection from, other types of fixed-service systems or other co-primary services. Furthermore, the development of these other services shall not be constrained by HAPS. See Resolution **145 (Rev.WRC-12)**. (WRC-12)

5.538 *Additional allocation:* the bands 27.500-27.501 GHz and 29.999-30.000 GHz are also allocated to the fixed-satellite service (space-to-Earth) on a primary basis for the beacon transmissions intended for up-link power control. Such space-to-Earth transmissions shall not exceed an equivalent isotropically radiated power (e.i.r.p.) of +10 dBW in the direction of adjacent satellites on the geostationary-satellite orbit. (WRC-07)

5.539 The band 27.5-30 GHz may be used by the fixed-satellite service (Earth-to-space) for the provision of feeder links for the broadcasting-satellite service.

5.540 *Additional allocation:* the band 27.501-29.999 GHz is also allocated to the fixed-satellite service (space-to-Earth) on a secondary basis for beacon transmissions intended for up-link power control.

5.541 In the band 28.5-30 GHz, the earth exploration-satellite service is limited to the transfer of data between stations and not to the primary collection of information by means of active or passive sensors.

5.541A Feeder links of non-geostationary networks in the mobile-satellite service and geostationary networks in the fixed-satellite service operating in the band 29.1-29.5 GHz (Earth-to-space) shall employ uplink adaptive power control or other methods of fade compensation, such that the earth station transmissions shall be conducted at the power level required to meet the desired link performance while reducing the level of mutual interference between both networks. These methods shall apply to networks for which

Appendix **4** coordination information is considered as having been received by the Bureau after 17 May 1996 and until they are changed by a future competent world radiocommunication conference. Administrations submitting Appendix **4** information for coordination before this date are encouraged to utilize these techniques to the extent practicable. (WRC-2000)

5.542 *Additional allocation:* in Algeria, Saudi Arabia, Bahrain, Brunei Darussalam, Cameroon, China, Congo (Rep. of the), Egypt, the United Arab Emirates, Eritrea, Ethiopia, Guinea, India, Iran (Islamic Republic of), Iraq, Japan, Jordan, Kuwait, Lebanon, Malaysia, Mali, Morocco, Mauritania, Nepal, Oman, Pakistan, Philippines, Qatar, the Syrian Arab Republic, the Dem. People's Rep. of Korea, Somalia, Sudan, South Sudan, Sri Lanka and Chad, the band 29.5-31 GHz is also allocated to the fixed and mobile services on a secondary basis. The power limits specified in Nos. **21.3** and **21.5** shall apply. (WRC-12)

5.543 The band 29.95-30 GHz may be used for space-to-space links in the Earth exploration-satellite service for telemetry, tracking, and control purposes, on a secondary basis.

5.543A In Bhutan, Cameroon, Korea (Rep. of), the Russian Federation, India, Indonesia, Iran (Islamic Republic of), Iraq, Japan, Kazakhstan, Malaysia, Maldives, Mongolia, Myanmar, Uzbekistan, Pakistan, the Philippines, Kyrgyzstan, the Dem. People's Rep. of Korea, Sudan, Sri Lanka, Thailand and Viet Nam, the allocation to the fixed service in the band 31-31.3 GHz may also be used by systems using high altitude platform stations (HAPS) in the ground-to-HAPS direction. The use of the band 31-31.3 GHz by systems using HAPS is limited to the territory of the countries listed above and shall not cause harmful interference to, nor claim protection from, other types of fixed-service systems, systems in the mobile service and systems operated under No. **5.545**. Furthermore, the development of these services shall not be constrained by HAPS. Systems using HAPS in the band 31-31.3 GHz shall not cause harmful interference to the radio astronomy service having a primary allocation in the band 31.3-31.8 GHz, taking into account the protection criterion as given in Recommendation ITU-R RA.769. In order to ensure the protection of satellite passive services, the level of unwanted power density into a HAPS ground station antenna in the band 31.3-31.8 GHz shall be limited to −106 dB(W/MHz) under clear-sky conditions, and may be increased up to −100 dB(W/MHz) under rainy conditions to mitigate fading due to rain, provided the effective impact on the passive satellite does not exceed the impact under clear-sky conditions. See Resolution **145 (Rev.WRC-12)**. (WRC-12)

5.544 In the band 31-31.3 GHz the power flux-density limits specified in Article **21**, Table **21-4** shall apply to the space research service.

5.545 *Different category of service:* in Armenia, Georgia, Kyrgyzstan, Tajikistan and Turkmenistan, the allocation of the band 31-31.3 GHz to the space research service is on a primary basis (see No. **5.33**). (WRC-12)

5.546 *Different category of service:* in Saudi Arabia, Armenia, Azerbaijan, Belarus, Egypt, the United Arab Emirates, Spain, Estonia, the Russian Federation, Georgia, Hungary, Iran (Islamic Republic of), Israel, Jordan, Lebanon, Moldova, Mongolia, Oman, Uzbekistan, Poland, the Syrian Arab Republic, Kyrgyzstan, Romania, the United Kingdom, South Africa, Tajikistan, Turkmenistan and Turkey, the allocation of the band 31.5-31.8 GHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis (see No. **5.33**). (WRC-12)

5.547 The bands 31.8-33.4 GHz, 37-40 GHz, 40.5-43.5 GHz, 51.4-52.6 GHz, 55.78-59 GHz and 64-66 GHz are available for high-density applications in the fixed service (see Resolution **75 (WRC-2000)**). Administrations should take this into account when considering regulatory provisions in relation to these bands. Because of the potential deployment of high-density applications in the fixed-satellite service in the bands 39.5-40 GHz and 40.5-42 GHz (see No. **5.516B**), administrations should further take into account potential constraints to high-density applications in the fixed service, as appropriate. (WRC-07)

5.547A Administrations should take practical measures to minimize the potential interference between stations in the fixed service and airborne stations in the radionavigation service in the 31.8-33.4 GHz band, taking into account the operational needs of the airborne radar systems. (WRC-2000)

5.547B *Alternative allocation*: in the United States, the band 31.8-32 GHz is allocated to the radionavigation and space research (deep space) (space-to-Earth) services on a primary basis. (WRC-97)

5.547C *Alternative allocation*: in the United States, the band 32-32.3 GHz is allocated to the radionavigation and space research (deep space) (space-to-Earth) services on a primary basis. (WRC-03)

5.547D *Alternative allocation*: in the United States, the band 32.3-33 GHz is allocated to the inter-satellite and radionavigation services on a primary basis. (WRC-97)

5.547E *Alternative allocation*: in the United States, the band 33-33.4 GHz is allocated to the radionavigation service on a primary basis. (WRC-97)

5.548 In designing systems for the inter-satellite service in the band 32.3-33 GHz, for the radionavigation service

in the band 32-33 GHz, and for the space research service (deep space) in the band 31.8-32.3 GHz, administrations shall take all necessary measures to prevent harmful interference between these services, bearing in mind the safety aspects of the radionavigation service (see Recommendation **707**). (WRC-03)

5.549 *Additional allocation:* in Saudi Arabia, Bahrain, Bangladesh, Egypt, the United Arab Emirates, Gabon, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Malaysia, Mali, Morocco, Mauritania, Nepal, Nigeria, Oman, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, Singapore, Somalia, Sudan, South Sudan, Sri Lanka, Togo, Tunisia and Yemen, the band 33.4-36 GHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)

5.549A In the band 35.5-36.0 GHz, the mean power flux-density at the Earth's surface, generated by any spaceborne sensor in the Earth exploration-satellite service (active) or space research service (active), for any angle greater than 0.8° from the beam centre shall not exceed −73.3 dB(W/m^2) in this band. (WRC-03)

5.550 *Different category of service:* in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kyrgyzstan, Tajikistan and Turkmenistan, the allocation of the band 34.7-35.2 GHz to the space research service is on a primary basis (see No. **5.33**). (WRC-12)

5.550A For sharing of the band 36-37 GHz between the Earth exploration-satellite (passive) service and the fixed and mobile services, Resolution **752 (WRC-07)** shall apply. (WRC-07)

5.551 (SUP - WRC-97)

5.551A (SUP - WRC-03)

5.551AA (SUP - WRC-03)

5.551B (SUP - WRC-2000)

5.551C (SUP - WRC-2000)

5.551D (SUP - WRC-2000)

5.551E (SUP - WRC-2000)

5.551F *Different category of service*: in Japan, the allocation of the band 41.5-42.5 GHz to the mobile service is on a primary basis (see No. **5.33**). (WRC-97)

5.551G (SUP - WRC-03)

5.551H The equivalent power flux-density (epfd) produced in the band 42.5-43.5 GHz by all space stations in any non-geostationary-satellite system in the fixed-satellite service (space-to-Earth), or in the broadcasting-satellite service operating in the 42-42.5 GHz band, shall not exceed the following values at the site of any radio astronomy station for more than 2% of the time:

- 230 dB(W/m^2) in 1 GHz and –246 dB(W/m^2) in any 500 kHz of the 42.5-43.5 GHz band at the site of any radio astronomy station registered as a single-dish telescope; and
- 209 dB(W/m^2) in any 500 kHz of the 42.5-43.5 GHz band at the site of any radio astronomy station registered as a very long baseline interferometry station.

These epfd values shall be evaluated using the methodology given in Recommendation ITU-R S.1586-1 and the reference antenna pattern and the maximum gain of an antenna in the radio astronomy service given in Recommendation ITU-R RA.1631 and shall apply over the whole sky and for elevation angles higher than the minimum operating angle θ_{min} of the radiotelescope (for which a default value of 5° should be adopted in the absence of notified information).

These values shall apply at any radio astronomy station that either:

- was in operation prior to 5 July 2003 and has been notified to the Bureau before 4 January 2004; or
- was notified before the date of receipt of the complete Appendix **4** information for coordination or notification, as appropriate, for the space station to which the limits apply.

Other radio astronomy stations notified after these dates may seek an agreement with administrations that have authorized the space stations. In Region 2, Resolution **743 (WRC-03)** shall apply. The limits in this footnote may be exceeded at the site of a radio astronomy station of any country whose administration so agreed. (WRC-07)

5.551I The power flux-density in the band 42.5-43.5 GHz produced by any geostationary space station in the fixed-satellite service (space-to-Earth), or the broadcasting-satellite service operating in the 42-42.5 GHz band, shall not exceed the following values at the site of any radio astronomy station:

–137 dB(W/m^2) in 1 GHz and –153 dB(W/m^2) in any 500 kHz of the 42.5-43.5 GHz band at the site of any radio astronomy station registered as a single-dish telescope; and

- 116 dB(W/m^2) in any 500 kHz of the 42.5-43.5 GHz band at the site of any radio astronomy station registered as a very long baseline interferometry station.

These values shall apply at the site of any radio astronomy station that either:

- was in operation prior to 5 July 2003 and has been notified to the Bureau before 4 January 2004; or
- was notified before the date of receipt of the complete Appendix **4** information for coordination or notification, as appropriate, for the space station to which the limits apply.

Other radio astronomy stations notified after these dates may seek an agreement with administrations that have authorized the space stations. In Region 2, Resolution **743 (WRC-03)** shall apply. The limits in this footnote may be exceeded at the site of a radio astronomy station of any country whose administration so agreed. (WRC-03)

5.552 The allocation of the spectrum for the fixed-satellite service in the bands 42.5-43.5 GHz and 47.2-50.2 GHz for Earth-to-space transmission is greater than that in the band 37.5-39.5 GHz for space-to-Earth transmission in order to accommodate feeder links to broadcasting satellites. Administrations are urged to take all practicable steps to reserve the band 47.2-49.2 GHz for feeder links for the broadcasting-satellite service operating in the band 40.5-42.5 GHz.

5.552A The allocation to the fixed service in the bands 47.2-47.5 GHz and 47.9-48.2 GHz is designated for use by high altitude platform stations. The use of the bands 47.2-47.5 GHz and 47.9-48.2 GHz is subject to the provisions of Resolution **122 (Rev.WRC-07)**. (WRC-07)

5.553 In the bands 43.5-47 GHz and 66-71 GHz, stations in the land mobile service may be operated subject to not causing harmful interference to the space radiocommunication services to which these bands are allocated (see No. **5.43**). (WRC-2000)

5.554 In the bands 43.5-47 GHz, 66-71 GHz, 95-100 GHz, 123-130 GHz, 191.8-200 GHz and 252-265 GHz, satellite links connecting land stations at specified fixed points are also authorized when used in conjunction with the mobile-satellite service or the radionavigation-satellite service. (WRC-2000)

5.554A The use of the bands 47.5-47.9 GHz, 48.2-48.54 GHz and 49.44-50.2 GHz by the fixed-satellite service (space-to-Earth) is limited to geostationary satellites. (WRC-03)

5.555 *Additional allocation:* the band 48.94-49.04 GHz is also allocated to the radio astronomy service on a primary basis. (WRC-2000)

5.555A (SUP - WRC-03)

5.555B The power flux-density in the band 48.94-49.04 GHz produced by any geostationary space station in the fixed-satellite service (space-to-Earth) operating in the bands 48.2-48.54 GHz and 49.44-50.2 GHz shall not exceed –151.8 dB(W/m^2) in any 500 kHz band at the site of any radio astronomy station. (WRC-03)

5.556 In the bands 51.4-54.25 GHz, 58.2-59 GHz and 64-65 GHz, radio astronomy observations may be carried out under national arrangements. (WRC-2000)

5.556A Use of the bands 54.25-56.9 GHz, 57-58.2 GHz and 59-59.3 GHz by the inter-satellite service is limited to satellites in the geostationary-satellite orbit. The single-entry power flux-density at all altitudes from 0 km to 1 000 km above the Earth's surface produced by a station in the inter-satellite service, for all conditions and for all methods of modulation, shall not exceed -147 dB(W/(m^2 . 100 MHz)) for all angles of arrival. (WRC-97)

5.556B *Additional allocation:* in Japan, the band 54.25-55.78 GHz is also allocated to the mobile service on a primary basis for low-density use. (WRC-97)

5.557 *Additional allocation:* in Japan, the band 55.78-58.2 GHz is also allocated to the radiolocation service on a primary basis. (WRC-97)

5.557A In the band 55.78-56.26 GHz, in order to protect stations in the Earth exploration-satellite service (passive), the maximum power density delivered by a transmitter to the antenna of a fixed service station is limited to -26 dB(W/MHz). (WRC-2000)

5.558 In the bands 55.78-58.2 GHz, 59-64 GHz, 66-71 GHz, 122.25-123 GHz, 130-134 GHz, 167-174.8 GHz and 191.8-200 GHz, stations in the aeronautical mobile service may be operated subject to not causing harmful interference to the inter-satellite service (see No. **5.43**). (WRC-2000)

5.558A Use of the band 56.9-57 GHz by inter-satellite systems is limited to links between satellites in geostationary-satellite orbit and to transmissions from non-geostationary satellites in high-Earth orbit to those in low-Earth orbit. For links between satellites in the geostationary-satellite orbit, the single entry power flux-density at all altitudes from 0 km to 1 000 km above the Earth's surface, for all conditions and for all methods of modulation, shall not exceed –147 dB(W/(m^2. 100 MHz)) for all angles of arrival. (WRC-97)

5.559 In the band 59-64 GHz, airborne radars in the radiolocation service may be operated subject to not causing harmful interference to the inter-satellite service (see No. **5.43**). (WRC-2000)

5.559A (SUP - WRC-07)

5.560 In the band 78-79 GHz radars located on space stations may be operated on a primary basis in the Earth exploration-satellite service and in the space research service.

5.561 In the band 74-76 GHz, stations in the fixed, mobile and broadcasting services shall not cause harmful interference to stations of the fixed-satellite service or stations of the broadcasting-satellite service operating in accordance with the decisions of the appropriate frequency assignment planning conference for the broadcasting-satellite service. (WRC-2000)

5.561A The 81-81.5 GHz band is also allocated to the amateur and amateur-satellite services on a secondary basis. (WRC-2000)

5.561B In Japan, use of the band 84-86 GHz, by the fixed-satellite service (Earth-to-space) is limited to feeder links in the broadcasting-satellite service using the geostationary-satellite orbit. (WRC-2000)

5.562 The use of the band 94-94.1 GHz by the Earth exploration-satellite (active) and space research (active) services is limited to spaceborne cloud radars. (WRC-97)

5.562A In the bands 94-94.1 GHz and 130-134 GHz, transmissions from space stations of the Earth exploration-satellite service (active) that are directed into the main beam of a radio astronomy antenna have the potential to damage some radio astronomy receivers. Space agencies operating the transmitters and the radio astronomy stations concerned should mutually plan their operations so as to avoid such occurrences to the maximum extent possible. (WRC-2000)

5.562B In the bands 105-109.5 GHz, 111.8-114.25 GHz, 155.5-158.5 GHz and 217-226 GHz, the use of this allocation is limited to space-based radio astronomy only. (WRC-2000)

5.562C Use of the band 116-122.25 GHz by the inter-satellite service is limited to satellites in the geostationary-satellite orbit. The single-entry power flux-density produced by a station in the inter-satellite service, for all conditions and for all methods of modulation, at all altitudes from 0 km to 1 000 km above the Earth's surface and in the vicinity of all geostationary orbital positions occupied by passive sensors, shall not exceed −148 dB(W/(m^2 . MHz)) for all angles of arrival. (WRC-2000)

5.562D *Additional allocation*: In Korea (Rep. of), the bands 128-130 GHz, 171-171.6 GHz, 172.2-172.8 GHz and 173.3-174 GHz are also allocated to the radio astronomy service on a primary basis until 2015. (WRC-2000)

5.562E The allocation to the Earth exploration-satellite service (active) is limited to the band 133.5-134 GHz. (WRC-2000)

5.562F In the band 155.5-158.5 GHz, the allocation to the Earth exploration-satellite (passive) and space research (passive) services shall terminate on 1 January 2018. (WRC-2000)

5.562G The date of entry into force of the allocation to the fixed and mobile services in the band 155.5-158.5 GHz shall be 1 January 2018. (WRC-2000)

5.562H Use of the bands 174.8-182 GHz and 185-190 GHz by the inter-satellite service is limited to satellites in the geostationary-satellite orbit. The single-entry power flux-density produced by a station in the inter-satellite service, for all conditions and for all methods of modulation, at all altitudes from 0 to 1 000 km above the Earth's surface and in the vicinity of all geostationary orbital positions occupied by passive sensors, shall not exceed -144 dB(W/(m^2 . MHz)) for all angles of arrival. (WRC-2000)

5.563 (SUP - WRC-03)

5.563A In the bands 200-209 GHz, 235-238 GHz, 250-252 GHz and 265-275 GHz, ground-based passive atmospheric sensing is carried out to monitor atmospheric constituents. (WRC-2000)

5.563B The band 237.9-238 GHz is also allocated to the Earth exploration-satellite service (active) and the space research service (active) for spaceborne cloud radars only. (WRC-2000)

5.564 (SUP - WRC-2000)

5.565 The following frequency bands in the range 275-1 000 GHz are identified for use by administrations for passive service applications:

- radio astronomy service: 275-323 GHz, 327-371 GHz, 388-424 GHz, 426-442 GHz, 453-510 GHz, 623-711 GHz, 795-909 GHz and 926-945 GHz;
- Earth exploration-satellite service (passive) and space research service (passive): 275-286 GHz, 296-306 GHz, 313-356 GHz, 361-365 GHz, 369-392 GHz, 397-399 GHz, 409-411 GHz, 416-434 GHz, 439-467 GHz, 477-502 GHz, 523-527 GHz, 538-581 GHz, 611-630 GHz, 634-654 GHz, 657-692 GHz, 713-718 GHz, 729-733 GHz, 750-754 GHz, 771-776 GHz, 823-846 GHz, 850-854 GHz, 857-862 GHz,

866-882 GHz, 905-928 GHz, 951-956 GHz, 968-973 GHz and 985-990 GHz.

The use of the range 275-1 000 GHz by the passive services does not preclude use of this range by active services. Administrations wishing to make frequencies in the 275-1 000 GHz range available for active service applications are urged to take all practicable steps to protect these passive services from harmful interference until the date when the Table of Frequency Allocations is established in the above-mentioned 275-1 000 GHz frequency range. All frequencies in the range 1 000-3 000 GHz may be used by both active and passive services. (WRC-12)

3
National Frequency Assignment Table

National Frequency Assignment Table

3.1 Introduction

Following the adoption of the National Frequency Allocation Table of Sultanate of Oman (hereinafter as Allocation table) the Telecommunications Regulatory Authority (TRA) has issued the National Frequency Assignment Table (hereinafter as Assignment table) in 2005. While the Allocation table provides the general plan for spectrum use and the basic structure to ensure effective utilization of the spectrum and the prevention of radio frequency interference between services, the Assignment table provides more detail information about how each band in Allocation table is actually planned and sub-divided to accommodate particular radio technologies and references to corresponding regulations. Thus, the Assignment table is used by the TRA primarily for efficient band planning and spectrum utilization. Another aim of the document is to assist radio spectrum users, investors and telecom dealers in the Sultanate in production, import and purchasing of telecommunication equipment, planning and deployment of telecommunication networks.

The information regarding to major utilization shows only systems and technologies that are capable to share and utilize the spectrum efficiently. Furthermore, these are systems/technologies mostly supported in the region in the given bands. The column 'Notes' indicates further limits on bands and frequencies, specific radio technologies and systems and relevant regulations applied to corresponding systems/technologies in column 'Major utilization'.

The order of systems/technologies in column 'Major utilization' is listed under certain radio services they belong to. The essential regulatory requirements stated in the ITU Radio Regulations imposed to radio services in specific bands are also applied to subsequent systems and technologies.

Use of frequency spectrum for military purposes in exclusive military bands is not shown for security reasons but utilization must be in accordance with the ITU Radio Regulations, national regulations, world and regional agreements where the Sultanate is a part. Conformity of existing and planned services and systems with the National Frequency Allocations Table of Sultanate of Oman is a must.

For the convenience of users of the Assignment table, the ITU Region 1 frequency allocations are stated together with the National Frequency Allocations Table of the Sultanate .

3.2 Concerns on 3rd revision

This (4th) edition of the Assignment table editorially updates the previously issued 3rd edition. In this edition (4th), the Assignment table has been revised with taking into consideration the decisions taken by the National Spectrum Allocation Committee .

3.3 Future revision

Nowadays telecommunication is growing very rapidly. Regulations in telecom must be as neutral and minimum as necessary to promote the deployment of spectrum efficient and advanced technologies and networks. These circumstances impose that the Assignment table shall be a dynamic document to reflect all these rapid changes. Therefore, the Assignment table will be revised and amended very often to reflect national and international regulations, at least, after each Regional and World Radiocommunication Conferences and as it was mentioned earlier (see Disclaimer) , TRA may , without prior notice, amend the content of this document.

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
Below 8.3 kHz	**Below 8.3 kHz**		
(Not allocated)	(Not allocated)		
5.53 5.54			
8.3-9 kHz	**8.3-9 kHz (SHARED)**		
METEOROLOGICAL AIDS 5.54A 5.54B 5.54C	METEOROLOGICAL AIDS 5.54A		
9-11.3 kHz	**9-11.3 kHz (SHARED)**		
METEOROLOGICAL AIDS 5.54A 5.54B 5.54C	METEOROLOGICAL AIDS 5.54A		
RADIONAVIGATION	RADIONAVIGATION		
11.3-14 kHz	**11.3-14 kHz (SHARED)**		
RADIONAVIGATION	RADIONAVIGATION	Radionavigation aid	
		SRD	9-135 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
14-19.95 kHz	**14-19.95 kHz (SHARED)**		
FIXED	FIXED		
MARITIME MOBILE 5.57	MARITIME MOBILE 5.57		
5.55 5.56	5.56	SRD	9-135 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
19.95-20.05 kHz	**19.95-20.05 kHz (SHARED)**		
STANDARD FREQUENCY AND TIME SIGNAL (20 kHz)	STANDARD FREQUENCY AND TIME SIGNAL (20 kHz)	Standard Frequency and Time Signal	Art. 26 ITU RR
20.05-70 KHz	**20.05-70 (SHARED)**		
FIXED	FIXED		
MARITIME MOBILE 5.57	MARITIME MOBILE 5.57		
5.56 5.58	5.56		
70-72 kHz	**70-72 kHz (SHARED)**		
RADIONAVIGATION 5.60	RADIONAVIGATION 5.60		
		SRD	9-135 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
72-84 kHz	**72-84 kHz (SHARED)**		
FIXED	FIXED		
MARITIME MOBILE 5.57	MARITIME MOBILE 5.57		
RADIONAVIGATION 5.60	RADIONAVIGATION 5.60		
5.56	5.56	SRD	9-135 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
84-86 kHz	**84-86 kHz (SHARED)**		
RADIONAVIGATION 5.60	RADIONAVIGATION 5.60		
		SRD	9-135 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
86-90 kHz	**86-90 kHz (SHARED)**		
FIXED	FIXED		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
MARITIME MOBILE 5.57	MARITIME MOBILE 5.57		
RADIONAVIGATION	RADIONAVIGATION		
5.56	5.56	SRD	9-135 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
90-110 kHz	**90-110 kHz (SHARED)**		
RADIONAVIGATION 5.62	RADIONAVIGATION 5.62	Loran C	
Fixed	Fixed		
5.64	5.64	SRD	9-135 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
110-112 kHz	**110-112 kHz (SHARED)**		
FIXED	FIXED		
MARITIME MOBILE	MARITIME MOBILE		
RADIONAVIGATION	RADIONAVIGATION		
5.64	5.64	SRD	9-135 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
112-115 kHz	**112-115 kHz (SHARED)**		
RADIONAVIGATION 5.60	RADIONAVIGATION 5.60		
		SRD	9-135 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
115-117.6 kHz	**115-117.6 kHz (SHARED)**		
RADIONAVIGATION 5.60	RADIONAVIGATION 5.60		
Fixed	Fixed		
Maritime mobile	Maritime mobile		
5.64 5.66	5.64	SRD	9-135 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
117.6-126 kHz	**117.6-126 kHz (SHARED)**		
FIXED	FIXED		
MARITIME MOBILE	MARITIME MOBILE		
RADIONAVIGATION 5.60	RADIONAVIGATION 5.60		
5.64	5.64	SRD	Decision of TRA No 133/2008 of 28-Oct-08
126-129 kHz	**126-129 kHz (SHARED)**		
RADIONAVIGATION 5.60	RADIONAVIGATION 5.60		
		SRD	9-135 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
129-130 kHz	**129-130 kHz (SHARED)**		
FIXED	FIXED		
MARITIME MOBILE	MARITIME MOBILE		
RADIONAVIGATION 5.60	RADIONAVIGATION 5.60		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
5.64	5.64	SRD	9-135 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
130-135.7 kHz	**130-135.7 kHz (SHARED)**		
FIXED	FIXED		
MARITIME MOBILE	MARITIME MOBILE		
5.64 5.67	5.64	SRD	9-135 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
135.7-137.8 kHz	**135.7-137.8 kHz (SHARED)**		
FIXED	FIXED		
MARITIME MOBILE	MARITIME MOBILE		
Amateur 5.67A	Amateur 5.67A		
5.64 5.67 5.67B	5.64	SRD	9-135 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
137.8-148.5 kHz	**137.8-148.5 kHz (SHARED)**		
FIXED	FIXED		
MARITIME MOBILE	MARITIME MOBILE		
5.64 5.67	5.64	SRD	9-135 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
148.5-255 kHz	**148.5-200 kHz (CIVIL)**		
BROADCASTING	BROADCASTING	Broadcasting	Regional agreement GE75
	200-255 kHz (SHARED)		
	AERONAUTICAL RADIONAVIGATION	Beacons (aeronautical)	
5.68 5.69 5.70			
255-283.5 kHz	**255-283.5 kHz (SHARED)**		
BROADCASTING	AERONAUTICAL RADIONAVIGATION	Beacons (aeronautical)	
AERONAUTICAL RADIONAVIGATION			
5.70 5.71			
283.5-315 kHz	**283.5-315 kHz (SHARED)**		
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION	Beacons (aeronautical)	Regional agreement GE85-EMA
MARITIME RADIONAVIGATION (radiobeacons) 5.73	MARITIME RADIONAVIGATION (radiobeacons) 5.73	Beacons (maritime)	Regional agreement GE85-EMA
5.72 5.74	5.74		
315-325 kHz	**315-325 kHz (SHARED)**		
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION	Beacons (aeronautical)	Regional agreement GE85-EMA
Maritime radionavigation (radiobeacons) 5.73	Maritime radionavigation (radiobeacons) 5.73	Beacons (maritime)	Regional agreement GE85-EMA
5.72 5.75			
325-405 kHz	**325-405 kHz (SHARED)**		
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION	Beacons (aeronautical)	
5.72			

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
405-415 kHz	**405-415 kHz (SHARED)**		
RADIONAVIGATION 5.76	RADIONAVIGATION 5.76	Beacons (aeronautical)	
		Beacons (maritime)	
5.72			
415-435 kHz	**415-435 kHz (SHARED)**		
MARITIME MOBILE 5.79	MARITIME MOBILE 5.79	Maritime	Regional agreement GE85-MM-R1
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION	Beacons (aeronautical)	Regional agreement GE85-MM-R1
435-472 kHz	**435-472 kHz (SHARED)**		
MARITIME MOBILE 5.79 5.79A	MARITIME MOBILE 5.79	Maritime	Regional agreement GE85-MM-R1
		Maritime safety information, NAVTEX	490 kHz using NBDP
Aeronautical radionavigation 5.77	Aeronautical radionavigation		
5.82	5.82	SRD	457 kHz: Detection of avalanche victims. Decision of TRA No 133/2008 of 28-Oct-08
472-479 kHz	**472-479 kHz (SHARED)**		
MARITIME MOBILE 5.79	MARITIME MOBILE 5.79	Maritime	Regional agreement GE85-MM-R1
		Maritime safety information, NAVTEX	490 kHz using NBDP
Amateur 5.80A	Amateur 5.80A		
Aeronautical radionavigation 5.77 5.80	Aeronautical radionavigation 5.77		
5.80B 5.82	5.80B 5.82		
479-495 kHz	**479-495 kHz (SHARED)**		
MARITIME MOBILE 5.79 5.5.79A	MARITIME MOBILE 5.79 5.79A	Maritime	Regional agreement GE85-MM-R1
		Maritime safety information, NAVTEX	490 kHz using NBDP
Aeronautical radionavigation 5.77 5.82	Aeronautical radionavigation 5.77 5.82		
495-505 kHz	**495-505 kHz (SHARED)**		
MARITIME MOBILE	MARITIME MOBILE	GMDSS. International distress and calling	500 kHz using Morse radiotelegraphy. Art. 31, 52 & App. 13 ITU-RR
505-526.5 kHz	**505-526.5 kHz (SHARED)**		
MARITIME MOBILE 5.79 5.79A 5.84	MARITIME MOBILE 5.79 5.79A 5.84	Maritime	Regional agreement GE85-MM-R1
		NAVTEX transmission International	518 kHz
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION	Beacons (aeronautical)	Regional agreement GE85-MM-R1
5.72			
526.5-1 606.5 kHz	**526.5-1 606.5 kHz (CIVIL)**		
BROADCASTING	BROADCASTING	Broadcasting	Regional agreement GE75
5.87 5.87A			
1 606.5-1 625 kHz	**1 606.5-1 625 kHz (SHARED)**		
FIXED	FIXED		
MARITIME MOBILE 5.90	MARITIME MOBILE 5.90	Maritime	Regional agreement GE85-MM-R1
LAND MOBILE	LAND MOBILE		
5.92			

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
1 625-1 635 kHz	**1 625-1 635 kHz (SHARED)**		
RADIOLOCATION	RADIOLOCATION	Radiodetermination applications	
5.93			
1 635-1 800 kHz	**1 635-1 800 kHz (SHARED)**		
FIXED	FIXED	Fixed links	Art. 6 of GE85-MM-R1 applied
MARITIME MOBILE 5.90	MARITIME MOBILE 5.90	Maritime	Regional agreement GE85-MM-R1
LAND MOBILE	LAND MOBILE		
5.92 5.96	5.92		
1 800-1 810 kHz	**1 800-1 810 kHz (SHARED)**		
RADIOLOCATION	RADIOLOCATION	Radiodetermination applications	
5.93			
1 810-1 850 kHz	**1 810-1 850 kHz (CIVIL)**		
AMATEUR	AMATEUR	Amateur	
5.98 5.99 5.100 5.101			
1 850-2 000 kHz	**1 850-2 000 kHz (SHARED)**		
FIXED	FIXED		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	Maritime	Art. 52 ITU RR
5.92 5.96 5.103	5.92 5.103		
2 000-2 025 kHz	**2 000-2 025 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	Maritime	Art. 52 ITU RR
		Mobile applications	
5.92 5.103	5.92 5.103		
2 025-2 045 kHz	**2 025-2 045 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	Maritime	Art. 52 ITU RR
		Mobile applications	
Meteorological aids 5.104	Meteorological aids 5.104	Oceanographic meteorological buoys	
5.92 5.103	5.92 5.103		
2 045-2 160 kHz	**2 045-2 160 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MARITIME MOBILE	MARITIME MOBILE	Maritime	Regional agreement GE85-MM-R1
LAND MOBILE	LAND MOBILE	Mobile applications	
5.92	5.92		
2 160-2 170 kHz	**2 160-2 170 kHz (SHARED)**		
RADIOLOCATION	RADIOLOCATION	Radiodetermination applications	
5.93 5.107			
2 170-2 173.5 kHz	**2 170-2 173.5 kHz (SHARED)**		
MARITIME MOBILE	MARITIME MOBILE	Maritime	
2 173.5-2 190.5 kHz	**2 173.5-2 190.5 kHz (SHARED)**		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
MOBILE (distress and calling)	MOBILE (distress and calling)	DSC for distress and calling	2187.5 kHz
		Maritime GMDSS distress and calling	2182 kHz
		Telex distress traffic	2174.5 kHz
5.108 5.109 5.110 5.111	5.108 5.109 5.110 5.111		
2 190.5-2 194 kHz	**2 190.5-2 194 kHz (SHARED)**		
MARITIME MOBILE	MARITIME MOBILE	Maritime	
2 194-2 300 kHz	**2 194-2 300 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	Maritime	Art. 52 ITU RR
		Mobile applications	
5.92 5.103 5.112	5.92 5.103		
2 300-2 498 kHz	**2 300-2 498 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	Maritime	Art. 52 ITU RR
		Mobile applications	
BROADCASTING 5.113	BROADCASTING 5.113	Broadcasting (tropical zones)	Subject to coordination (Art. 23 ITU RR)
5.103	5.103		
2 498-2 501 kHz	**2 498-2 501 kHz (SHARED)**		
STANDARD FREQUENCY AND TIME SIGNAL (2 500 kHz)	STANDARD FREQUENCY AND TIME SIGNAL (2 500 kHz)	Standard Frequency and Time Signal	2 500 kHz. Art. 26 ITU RR
2 501-2 502 kHz	**2 501-2 502 kHz (SHARED)**		
STANDARD FREQUENCY AND TIME SIGNAL	STANDARD FREQUENCY AND TIME SIGNAL	Standard Frequency and Time Signal	Art. 26 ITU RR
Space Research	Space Research		
2 502-2 625 kHz	**2 502-2 625 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	Maritime	Art. 52 ITU RR
		Mobile applications	
5.92 5.103 5.114	5.92 5.103		
2 625-2 650 kHz	**2 625-2 650 kHz (SHARED)**		
MARITIME MOBILE	MARITIME MOBILE	Maritime	Art. 52 ITU RR
MARITIME RADIONAVIGATION	MARITIME RADIONAVIGATION		
5.92	5.92		
2 650-2 850 kHz	**2 650-2 850 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	Maritime	Art. 52 ITU RR
		Mobile applications	
5.92 5.103	5.92 5.103		
2 850-3 025 kHz	**2 850-3 025 kHz (SHARED)**		
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)	Aeronautical mobile (R)	App. 27 ITU RR. Allotment plan
5.111 5.115	5.111 5.115	Telephony distress traffic and calling by Rescue centers	3 023 kHz

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
3 025-3 155 kHz	**3 025-3 155 kHz (SHARED)**		
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR)	App. 26 ITU RR. Allotment plan
3 155-3 200 kHz	**3 155-3 200 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	Maritime	Art. 52 ITU RR
		Mobile applications	
5.116 5.117	5.116	SRD	3155-3400 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
3 200-3 230 kHz	**3 200-3 230 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	Maritime	Art. 52 ITU RR
		Mobile applications	
BROADCASTING 5.113	BROADCASTING 5.113	Broadcasting (tropical zones)	Subject to coordination (Art. 23 ITU RR)
		SRD	3155-3400 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
5.116	5.116		
3 230-3 400 kHz	**3 230-3 400 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	Maritime	Art. 52 ITU RR
		Mobile applications	
BROADCASTING 5.113	BROADCASTING 5.113	Broadcasting (tropical zones)	Subject to coordination (Art. 23 ITU RR)
		SRD	3155-3400 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
5.116 5.118	5.116		
3 400-3 500 kHz	**3 400-3 500 kHz (SHARED)**		
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)	Aeronautical mobile (R)	App. 27 ITU RR. Allotment plan
3 500-3 800 kHz	**3 500-3 800 kHz (SHARED)**		
AMATEUR	AMATEUR	Amateur	
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	Maritime	Art. 52 ITU RR
		Mobile applications	
5.92	5.92		
3 800-3 900 kHz	**3 800-3 900 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR)	
LAND MOBILE	LAND MOBILE	Mobile applications	
3 900-3 950 kHz	**3 900-3 950 kHz (SHARED)**		
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR)	App. 26 ITU RR. Allotment plan
5.123			

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
3 950-4 000 kHz	**3 950-4 000 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
BROADCASTING	BROADCASTING	Broadcasting	Introduction of digital systems is encouraged
4 000-4 063 kHz	**4 000-4 063 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MARITIME MOBILE 5.127	MARITIME MOBILE 5.127	Maritime	App. 25 ITU RR. Allotment plan
5.126			
4 063-4 438 kHz	**4 063-4 438 kHz (SHARED)**		
MARITIME MOBILE 5.79A 5.109 5.110 5.130 5.131 5.132	MARITIME MOBILE 5.79A 5.109 5.110 5.130 5.131 5.132	Maritime	App. 25 ITU RR. Allotment plan
		DSC calling	4208, 4208.5, 4209, 4219.5, 4220, 4220.5 kHz
		DCS distress and traffic	4207.5 kHz
		Meteorological and navigational warnings	4209.5 kHz
		Maritime Safety Information	4210 kHz
		Telephony distress traffic and calling by rescue centers	4225 kHz
		Telex distress traffic	4177.5 kHz
5.128			
4 438-4 488 kHz	**4 438-4 488 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	Mobile applications	
Radiolocation 5.132A	Radiolocation 5.132A		
4 488-4 650 kHz	**4 488-4 650 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	Mobile applications	
4 650-4 700 kHz	**4 650-4 700 kHz (SHARED)**		
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)	Aeronautical mobile (R)	App. 27 ITU RR. Allotment plan
4 700-4 750 kHz	**4 700-4 750 kHz (SHARED)**		
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR)	App. 26 ITU RR. Allotment plan
4 750-4 850 kHz	**4 750-4 850 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR)	
LAND MOBILE	LAND MOBILE	Mobile applications	
BROADCASTING 5.113	BROADCASTING 5.113		
4 850-4 995 kHz	**4 850-4 995 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
LAND MOBILE	LAND MOBILE	Mobile applications	
BROADCASTING 5.113	BROADCASTING 5.113	Broadcasting (tropical zones)	Subject to coordination (Art. 23 ITU RR)

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
4 995-5 003 kHz	**4 995-5 003 kHz (SHARED)**		
STANDARD FREQUENCY AND TIME SIGNAL (5 000 kHz)	STANDARD FREQUENCY AND TIME SIGNAL (5 000 kHz)	Standard Frequency and Time Signal	5 000 kHz. Art. 26 ITU RR
5 003-5 005 kHz	**5 003-5 005 kHz (SHARED)**		
STANDARD FREQUENCY AND TIME SIGNAL	STANDARD FREQUENCY AND TIME SIGNAL	Standard Frequency and Time Signal	Art. 26 ITU RR
Space research	Space research		
5 005-5 060 kHz	**5 005-5 060 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
BROADCASTING 5.113	BROADCASTING 5.113	Broadcasting (tropical zones)	Subject to coordination (Art. 23 ITU RR)
5 060-5 250 kHz	**5 060-5 250 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
Mobile except aeronautical mobile	Mobile except aeronautical mobile		
5.133			
5 250-5 275 kHz	**5 250-5 275 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	Mobile applications	
Radiolocation 5.132A	Radiolocation 5.132A		
5.133A			
5 275-5 450 kHz	**5 275-5 450 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	Mobile applications	
5 450-5 480 kHz	**5 450-5 480 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR)	
LAND MOBILE	LAND MOBILE		
5 480-5 680 kHz	**5 480-5 680 kHz (SHARED)**		
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)	Aeronautical mobile (R)	App. 27 ITU RR. Allotment plan
		Telephony distress traffic and calling by rescue centers	5 680 kHz
5.111 5.115	5.111 5.115		
5 680-5 730 kHz	**5 680-5 730 kHz (SHARED)**		
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR)	App. 26 ITU RR. Allotment plan
		Telephony distress traffic and calling by rescue centers	5 680 kHz
5.111 5.115	5.111 5.115		
5 730-5 900 kHz	**5 730-5 900 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
LAND MOBILE	LAND MOBILE	Mobile applications	
5 900-5 950 kHz	**5 900-5 950 kHz (CIVIL)**		
BROADCASTING 5.134	BROADCASTING 5.134	Broadcasting	Art. 12 ITU RR
5.136	5.136		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
5 950-6 200 kHz	**5 950-6 200 kHz (CIVIL)**		
BROADCASTING	BROADCASTING	Broadcasting	Art. 12 ITU RR
6 200-6 525 kHz	**6 200-6 525 kHz (SHARED)**		
MARITIME MOBILE 5.109 5.110 5.130 5.132	MARITIME MOBILE 5.109 5.110 5.130 5.132	Maritime	App. 25 ITU RR. Allotment plan
		DSC calling	6312.5, 6313, 6313.5, 6331, 6331.5, 6332 kHz
		DCS distress traffic	6312 kHz
		Maritime Safety Information	6314 kHz
		Telephony distress traffic and calling by rescue centers	6215 kHz
		Telex distress traffic	6268 kHz
5.137	5.137		
6 525-6 685 kHz	**6 525-6 685 kHz (CIVIL)**		
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)	Aeronautical mobile (R)	App. 27 ITU RR. Allotment plan
6 685-6 765 kHz	**6 685-6 765 kHz (SHARED)**		
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR)	App. 26 ITU RR. Allotment plan
6 765-7 000 kHz	**6 765-7 000 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R) 5.138A	Mobile applications	
	Land mobile 5.138A		
5.138 5.138A 5.139	5.138	ISM	6765-6795 kHz
7 000-7 100 kHz	**7 000-7 100 kHz (CIVIL)**		
AMATEUR	AMATEUR	Amateur	
AMATEUR-SATELLITE	AMATEUR-SATELLITE		
5.140 5.141 5.141A			
7 100-7 200 kHz	**7 100-7 200 kHz (CIVIL)**		
AMATEUR	AMATEUR	Amateur	
	FIXED 5.141B		
	MOBILE except aeronautical mobile (R) 5.141B		
5.141A 5.141B 5.141C 5.142	5.141C 5.142		
7 200-7 300 kHz	**7 200-7 300 kHz (CIVIL)**		
BROADCASTING	BROADCASTING	Broadcasting	Art. 12 ITU RR
7 300-7 400 kHz	**7 300-7 350 kHz (CIVIL)**		
BROADCASTING 5.134	BROADCASTING 5.134	Broadcasting	Art. 12 ITU RR
	5.143 5.143B		
	7 350-7 400 kHz (CIVIL)		
	BROADCASTING 5.134	Broadcasting	Art. 12 ITU RR
	FIXED 5.143C	Fixed links	Priority is given to Broadcasting
5.143 5.143A 5.143B 5.143C 5.143D	5.143 5.143B		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
7 400-7 450 kHz	**7 400-7 450 kHz (CIVIL)**		
BROADCASTING	BROADCASTING	Broadcasting	Art. 12 ITU RR
	FIXED 5.143C	Fixed links	Priority is given to Broadcasting
5.143B 5.143C	5.143B	SRD	7400 – 8800 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
7 450-8 100 kHz	**7 450-8 100 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	Mobile applications	
5.143E 5.144	5.143E	SRD	7400 – 8800 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
8 100-8 195 kHz	**8 100-8 195 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MARITIME MOBILE	MARITIME MOBILE	Maritime	App. 17 ITU RR. Channeling plan
		SRD	7400 – 8800 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
8 195-8 815 kHz	**8 195-8 815 kHz (SHARED)**		
MARITIME MOBILE 5.109 5.110 5.132 5.145	MARITIME MOBILE 5.109 5.110 5.132 5.145	Maritime	App. 25 ITU RR. Allotment plan
		DSC calling	8415, 8415.5, 8416, 8436.5, 8437, 8437.5 kHz
		DSC distress traffic	8414.5 kHz
		Maritime Safety Information	8416.5 kHz
		Telephony distress traffic and calling by rescue centers	8291 kHz
		Telex distress traffic	8376.5 kHz
5.111	5.111	SRD	7400 – 8800 kHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
8 815-8 965 kHz	**8 815-8 965 kHz (CIVIL)**		
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)	Aeronautical mobile (R)	App. 27 ITU RR. Allotment plan
8 965-9 040 kHz	**8 965-9 040 kHz (MILITARY)**		
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR)	App. 26 ITU RR. Allotment plan
9 040-9 305 kHz	**9 040-9 305 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
9 305-9 355 kHz	**9 305-9 355 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
Radiolocation 5.145A	Radiolocation 5.145A		
9 355-9 4000 kHz	**9 355-9 400 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
9 400-9 500 kHz	**9 400-9 500 kHz (CIVIL)**		
BROADCASTING 5.134	BROADCASTING 5.134	Broadcasting	Art. 12 ITU RR. Introduction of digital systems is encouraged

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
5.146	5.146		
9 500-9 900 kHz	**9 500-9 900 kHz (CIVIL)**		
BROADCASTING	BROADCASTING	Broadcasting	Art. 12 ITU RR. Introduction of digital systems is encouraged
5.147	5.147		
9 900-9 995 kHz	**9 900-9 995 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
9 995-10 003 kHz	**9 995-10 003 kHz (SHARED)**		
STANDARD FREQUENCY AND TIME SIGNAL (10 000 kHz)	STANDARD FREQUENCY AND TIME SIGNAL (10 000 kHz)	Standard Frequency and Time Signal	10 000 kHz. Art. 26 ITU RR
5.111	5.111	SAR (communications)	10003 kHz (±3 kHz) concerning manned space vehicles
10 003-10 005 kHz	**10 003-10 005 kHz (SHARED)**		
STANDARD FREQUENCY AND TIME SIGNAL	STANDARD FREQUENCY AND TIME SIGNAL	Standard Frequency and Time Signal	Art. 26 ITU RR
Space research	Space research		
5.111	5.111	SAR (communications)	10003 kHz (±3 kHz) concerning manned space vehicles
10 005-10 100 kHz	**10 005-10 100 kHz (CIVIL)**		
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)	Aeronautical mobile (R)	App. 27 ITU RR. Allotment plan
5.111	5.111	SAR (communications)	10003 kHz (±3 kHz) concerning manned space vehicles
10 100-10 150 kHz	**10 100-10 150 kHz (SHARED)**		
FIXED	FIXED		
Amateur	Amateur	Amateur	
10 150-11 175 kHz	**10 150-11 175 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
Mobile except aeronautical mobile (R)	Mobile except aeronautical mobile (R)		
		SRD	10.2 – 11 MHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
11 175-11 275 kHz	**11 175-11 275 kHz (SHARED)**		
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR)	App. 26 ITU RR. Allotment plan
11 275-11 400 kHz	**11 275-11 400 kHz (SHARED)**		
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)	Aeronautical mobile (R)	App. 27 ITU RR. Allotment plan
11 400-11 600 kHz	**11 400-11 600 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
11 600-11 650 kHz	**11 600-11 650 kHz (CIVIL)**		
BROADCASTING 5.134	BROADCASTING 5.134	Broadcasting	Art. 12 ITU RR. Introduction of digital systems is encouraged
5.146	5.146		
11 650-12 050 kHz	**11 650-12 050 kHz (CIVIL)**		
BROADCASTING	BROADCASTING	Broadcasting	Art. 12 ITU RR. Introduction of digital systems is encouraged
5.147	5.147		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
12 050-12 100 kHz	**12 050-12 100 kHz (CIVIL)**		
BROADCASTING 5.134	BROADCASTING 5.134	Broadcasting	Art. 12 ITU RR. Introduction of digital systems is encouraged
5.146	5.146		
12 100-12 230 kHz	**12 100-12 230 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
12 230-13 200 kHz	**12 230-13 200 kHz (SHARED)**		
MARITIME MOBILE 5.109 5.110 5.132 5.145	MARITIME MOBILE 5.109 5.110 5.132 5.145	Maritime	App. 25 ITU RR. Allotment plan
		DSC calling	12577.5, 12578, 12578.5, 12657, 12657.5, 12658 kHz
		DCS distress traffic	12577 kHz
		Maritime Safety Information	12579 kHz
		Telephony distress traffic and calling by rescue centers	12290 kHz
		Telex distress traffic	12520 kHz
13 200-13 260 kHz	**13 200-13 260 kHz (SHARED)**		
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR)	App. 26 ITU RR. Allotment plan
13 260-13 360 kHz	**13 260-13 360 kHz (SHARED)**		
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)	Aeronautical mobile (R)	App. 27 ITU RR. Allotment plan
13 360-13 410 kHz	**13 360-13 410 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
RADIO ASTRONOMY	RADIO ASTRONOMY		
5.149	5.149		
13 410-13 450 kHz	**13 410-13 450 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
Mobile except aeronautical mobile (R)	Mobile except aeronautical mobile (R)		
13 450-13 550 kHz	**13 450-13 550 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
Mobile except aeronautical mobile (R)	Mobile except aeronautical mobile (R)		
Radiolocation 5.132A	Radiolocation 5.132A		
5.149A			
13 550-13 570 kHz	**13 550-13 570 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
Mobile except aeronautical mobile (R)	Mobile except aeronautical mobile (R)		
5.150		ISM	13553 – 13567 kHz
13 570-13 600 kHz	**13 570-13 600 kHz (CIVIL)**		
BROADCASTING 5.134	BROADCASTING 5.134	Broadcasting	Art. 12 ITU RR. Introduction of digital systems is encouraged
5.151	5.151		
13 600-13 800 kHz	**13 600-13 800 kHz (CIVIL)**		
BROADCASTING	BROADCASTING	Broadcasting	Art. 12 ITU RR. Introduction of digital systems is encouraged

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
13 800-13 870 kHz	**13 800-13 870 kHz (CIVIL)**		
BROADCASTING 5.134	BROADCASTING 5.134	Broadcasting	Art. 12 ITU RR. Introduction of digital systems is encouraged
5.151	5.151		
13 870-14 000 kHz	**13 870-14 000 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
Mobile except aeronautical mobile (R)	Mobile except aeronautical mobile (R)		
14 000-14 250 kHz	**14 000-14 250 kHz (CIVIL)**		
AMATEUR	AMATEUR	Amateur	
AMATEUR-SATELLITE	AMATEUR-SATELLITE	Amateur Satellite	
14 250-14 350 kHz	**14 250-14 350 kHz (CIVIL)**		
AMATEUR	AMATEUR	Amateur	
5.152			
14 350-14 990 kHz	**14 350-14 990 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
Mobile except aeronautical mobile (R)	Mobile except aeronautical mobile (R)		
14 990-15 005 kHz	**14 990-15 005 kHz (SHARED)**		
STANDARD FREQUENCY AND TIME SIGNAL (15 000 kHz)	STANDARD FREQUENCY AND TIME SIGNAL (15 000 kHz)	Standard Frequency and Time Signal	15 000 kHz. Art. 26 ITU RR
5.111	5.111	SAR (communications)	14993 kHz (±3 kHz) concerning manned space vehicles
15 005-15 010 kHz	**15 005-15 010 kHz (SHARED)**		
STANDARD FREQUENCY AND TIME SIGNAL	STANDARD FREQUENCY AND TIME SIGNAL	Standard Frequency and Time Signal	Art. 26 ITU RR
Space research	Space research		
15 010-15 100 kHz	**15 010-15 100 kHz (SHARED)**		
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR)	App. 26 ITU RR. Allotment plan
15 100-15 600 kHz	**15 100-15 600 kHz (CIVIL)**		
BROADCASTING	BROADCASTING	Broadcasting	Art. 12 ITU RR. Introduction of digital systems is encouraged
15 600-15 800 kHz	**15 600-15 800 kHz (CIVIL)**		
BROADCASTING 5.134	BROADCASTING 5.134	Broadcasting	Art. 12 ITU RR. Introduction of digital systems is encouraged
5.146	5.146		
15 800-16 100 kHz	**15 800-16 100 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
5.153			
16 100-16 200 kHz	**16 100-16 200 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
Radiolocation 5.145A	Radiolocation 5.145A		
5.145B			
16 200-16 360 kHz	**16 200-16 360 kHz (SHARED)**		
FIXED	FIXED	Fixed links	

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
16 360-17 410 kHz	**16 360-17 410 kHz (SHARED)**		
MARITIME MOBILE 5.109 5.110 5.132 5.145	MARITIME MOBILE 5.109 5.110 5.132 5.145	Maritime	App. 25 ITU RR. Allotment plan
		DSC calling	16805, 16805.5, 16806, 16903, 16903.5, 16904 kHz
		DCS distress traffic	16804.5 kHz
		Maritime Safety Information	16806.5 kHz
		Telephony distress traffic and calling by rescue centers	16420 kHz
		Telex distress traffic	16695 kHz
17 410-17 480 kHz	**17 410-17 480 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
17 480-17 550 kHz	**17 480-17 550 kHz (CIVIL)**		
BROADCASTING 5.134	BROADCASTING 5.134	Broadcasting	Art. 12 ITU RR. Introduction of digital systems is encouraged
5.146	5.146		
17 550-17 900 kHz	**17 550-17 900 kHz (CIVIL)**		
BROADCASTING	BROADCASTING	Broadcasting	Art. 12 ITU RR. Introduction of digital systems is encouraged
17 900-17 970 kHz	**17 900-17 970 kHz (SHARED)**		
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)	Aeronautical mobile (R)	App. 27 ITU RR. Allotment plan
17 970-18 030 kHz	**17 970-18 030 kHz (SHARED)**		
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR)	App. 26 ITU RR. Allotment plan
18 030-18 052 kHz	**18 030-18 052 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
18 052-18 068 kHz	**18 052-18 068 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
Space research	Space research		
18 068-18 168 kHz	**18 068-18 168 kHz (CIVIL)**		
AMATEUR	AMATEUR	Amateur	
AMATEUR-SATELLITE	AMATEUR-SATELLITE	Amateur Satellite	
5.154			
18 168-18 780 kHz	**18 168-18 780 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
Mobile except aeronautical mobile	Mobile except aeronautical mobile	DSC calling	18898.5, 18899. 18899.5 kHz
18 780-18 900 kHz	**18 780-18 900 kHz (SHARED)**		
MARITIME MOBILE	MARITIME MOBILE	Maritime	App. 25 ITU RR. Allotment plan
18 900-19 020 kHz	**18 900-19 020 kHz (CIVIL)**		
BROADCASTING 5.134	BROADCASTING 5.134	Broadcasting	Art. 12 ITU RR. Introduction of digital systems is encouraged
5.146	5.146		
19 020-19 680 kHz	**19 020-19 680 kHz (SHARED)**		
FIXED	FIXED	Fixed links	

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
19 680-19 800 kHz	**19 680-19 800 kHz (SHARED)**		
MARITIME MOBILE 5.132	MARITIME MOBILE 5.132	Maritime	App. 25 ITU RR. Allotment plan
		DSC calling	19703.5, 19704, 19704.5 kHz
		Maritime Safety Information	19680.5 kHz
19 800-19 990 kHz	**19 800-19 990 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
19 990-19 995 kHz	**19 990-19 995 kHz (SHARED)**		
STANDARD FREQUENCY AND TIME SIGNAL	STANDARD FREQUENCY AND TIME SIGNAL	Standard Frequency and Time Signal	Art. 26 ITU RR
Space research	Space research		
5.111	5.111	SAR (communications)	19993 kHz (±3 kHz) concerning manned space vehicles
19 995-20 010 kHz	**19 995-20 010 kHz (SHARED)**		
STANDARD FREQUENCY AND TIME SIGNAL (20 000 kHz)	STANDARD FREQUENCY AND TIME SIGNAL (20 000 kHz)	Standard Frequency and Time Signal	20 000 kHz. Art. 26 ITU RR
5.111	5.111		
20 010-21 000 kHz	**20 010-21 000 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
Mobile	Mobile		
21 000-21 450 kHz	**21 000-21 450 kHz (CIVIL)**		
AMATEUR	AMATEUR	Amateur	
AMATEUR-SATELLITE	AMATEUR-SATELLITE	Amateur Satellite	
21 450-21 850 kHz	**21 450-21 850 kHz (CIVIL)**		
BROADCASTING	BROADCASTING	Broadcasting	Art. 12 ITU RR. Introduction of digital systems is encouraged
21 850-21 870 kHz	**21 850-21 870 kHz (SHARED)**		
FIXED 5.155A	FIXED	Fixed links	
5.155			
21 870-21 924 kHz	**21 870-21 924 kHz (SHARED)**		
FIXED 5.155B	FIXED 5.155B	Fixed links	Only for provision of services related to aircraft flight safety
21 924-22 000 kHz	**21 924-22 000 kHz (SHARED)**		
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)	Aeronautical mobile (R)	App. 27 ITU RR. Allotment plan
22 000-22 855 kHz	**22 000-22 855 kHz (SHARED)**		
MARITIME MOBILE 5.132	MARITIME MOBILE 5.132	Maritime	App. 25 ITU RR. Allotment plan
		DSC calling	22374.5, 22375, 22375.5, 22444, 22444.5, 22445 kHz
		Maritime Safety Information	22376 kHz
5.156			
22 855-23 000 kHz	**22 855-23 000 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
5.156			
23 000-23 200 kHz	**23 000-23 200 kHz (SHARED)**		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
FIXED	FIXED	Fixed links	
Mobile except aeronautical mobile (R)	Mobile except aeronautical mobile (R)		
5.156			
23 200-23 350 kHz	**23 200-23 350 kHz (SHARED)**		
FIXED 5.156A	FIXED 5.156A	Fixed links	Only for provision of services related to aircraft flight safety
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)	Aeronautical mobile (OR)	
23 350-24 000 kHz	**23 350-24 000 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile 5.157	MOBILE except aeronautical mobile 5.157	Maritime mobile	Limited to inter-ship radiotelegraphy only
24 000-24 450 kHz	**24 000-24 450 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
LAND MOBILE	LAND MOBILE	Mobile applications	
24 450-24 600 kHz	**24 450-24 600 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
LAND MOBILE	LAND MOBILE	Mobile applications	
Radiolocation 5.132A	Radiolocation 5.132A		
5.158			
24 600-24 890 kHz	**24 600-24 890 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
LAND MOBILE	LAND MOBILE	Mobile applications	
24 890-24 990 kHz	**24 890-24 990 kHz (CIVIL)**		
AMATEUR	AMATEUR	Amateur	
AMATEUR-SATELLITE	AMATEUR-SATELLITE	Amateur Satellite	
24 990-25 005 kHz	**24 990-25 005 kHz (SHARED)**		
STANDARD FREQUENCY AND TIME SIGNAL (25 000 kHz)	STANDARD FREQUENCY AND TIME SIGNAL (25 000 kHz)	Standard Frequency and Time Signal	25 000 kHz. Art. 26 ITU RR
25 005-25 010 kHz	**25 005-25 010 kHz (SHARED)**		
STANDARD FREQUENCY AND TIME SIGNAL	STANDARD FREQUENCY AND TIME SIGNAL	Standard Frequency and Time Signal	Art. 26 ITU RR
Space research	Space research		
25 010-25 070 kHz	**25 010-25 070 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	Mobile applications	
25 070-25 210 kHz	**25 070-25 210 kHz (SHARED)**		
MARITIME MOBILE	MARITIME MOBILE	Maritime	App. 25 ITU RR. Allotment plan
		DSC calling	25208.5, 25209, 25209.5 kHz
25 210-25 550 kHz	**25 210-25 550 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	Mobile applications	
25 550-25 670 kHz	**25 550-25 670 kHz (SHARED)**		
RADIO ASTRONOMY	RADIO ASTRONOMY	Radio astronomy	
5.149	5.149		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
25 670-26 100 kHz	**25 670-26 100 kHz (CIVIL)**		
BROADCASTING	BROADCASTING	Broadcasting	Art. 12 ITU RR. Introduction of digital systems is encouraged
26 100-26 175 kHz	**26 100-26 175 kHz (SHARED)**		
MARITIME MOBILE 5.132	MARITIME MOBILE 5.132	Maritime	App. 25 ITU RR. Allotment plan
		DSC calling	26121, 26121.5ϐ, 26122 kHz
		Maritime Safety Information	26100.5 kHz
26 175-26 200 kHz	**26 175-26 200 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	Mobile applications	
26 200-26 350 kHz	**26 200-26 350 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	Mobile applications	
Radiolocation 5.132A	Radiolocation 5.132A		
5.133A			
26 350-27 500 kHz	**26 350-27 500 kHz (SHARED)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	CB Radio	Within the band: 26.960-27.410 MHz
		Mobile applications	
		ISM	26.975-27.283 MHz
		SRD	26.957 – 27.283 MHz: Non-specific applications. Decision of TRA No 133/2008 of 28-Oct-08
			26.995 MHz, 27.045 MHz, 27.095 MHz, 27.145 MHz and 27.195 MHz: Model control. Decision of TRA No 133/2008 of 28-Oct-08
			26.957 – 27.283 MHz: Inductive applications. Decision of TRA No 133/2008 of 28-Oct-08
5.150	5.150		
27.5-28 MHz	**27.5-28 MHz (SHARED)**		
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS		
FIXED	FIXED	Fixed links	
MOBILE	MOBILE	Mobile applications	
28-29.7 MHz	**28-29.7 MHz (CIVIL)**		
AMATEUR	AMATEUR	Amateur	
AMATEUR-SATELLITE	AMATEUR-SATELLITE	Amateur Satellite	
29.7-30.005 MHz	**29.7-30.005 MHz (MILITARY)**		
FIXED	FIXED		
MOBILE	MOBILE		
		Military systems	

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
30.005-30.01 MHz	**30.005-30.01 MHz (MILITARY)**		
SPACE OPERATION (satellite identification)	SPACE OPERATION (satellite identification)		
FIXED	FIXED		
MOBILE	MOBILE		
SPACE RESEARCH	SPACE RESEARCH		
		Military systems	
30.01-37.5 MHz	**30.01-37.5 MHz (MILITARY)**		
FIXED	FIXED		
MOBILE	MOBILE		
		Military systems	
		SRD	34.995-35.225 MHz: Model control. Decision of TRA No 133/2008 of 28-Oct-08
37.5-38.25 MHz	**37.5-38.25 MHz (SHARED)**		
FIXED	FIXED		
MOBILE	MOBILE	PMR	
		Paging	
Radio astronomy	Radio astronomy		
5.149	5.149		
38.25-39 MHz	**38.25-39 MHz (SHARED)**		
FIXED	FIXED		
MOBILE	MOBILE	PMR	
39-39.5 MHz	**39-39.5 MHz (SHARED)**		
FIXED	FIXED		
MOBILE	MOBILE	PMR	
Radiolocation 5.132A	Radiolocation 5.132A		
5.159	5.159		
39.5-39.986 MHz	**39.5-39.986 MHz (SHARED)**		
FIXED	FIXED		
MOBILE	MOBILE	PMR	
39.986-40.02 MHz	**39.986-40.02 MHz (SHARED)**		
FIXED	FIXED		
MOBILE	MOBILE	PMR	
Space research	Space research		
40.02-40.98 MHz	**40.02-40.98 MHz (SHARED)**		
FIXED	FIXED		
MOBILE	MOBILE	PMR	40.02-40.66 MHz and 40.7-40.98 MHz
		ISM	40.66 – 40.70 MHz
		SRD	40.66 – 40.7 MHz: Non-specific applications. Decision of TRA No 133/2008 of 28-Oct-08

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
			40.66 MHz, 40.675 MHz, 40.685 MHz and 40.695 MHz: Model control. Decision of TRA No 133/2008 of 28-Oct-08
5.150	5.150		
40.98-41.015 MHz	**40.98-41.015 MHz (SHARED)**		
FIXED	FIXED		
MOBILE	MOBILE	PMR	
Space research	Space research		
5.160 5.161			
41.015-42 MHz	**41.015-42 MHz (MILITARY)**		
FIXED	FIXED		
MOBILE	MOBILE		
5.160 5.161 5.161A		Military systems	
42-42.5 MHz	**42-42.5 MHz (MILITARY)**		
FIXED	FIXED		
MOBILE	MOBILE		
Radiolocation 5.132A	Radiolocation 5.132A		
5.160 5.161B		Military systems	
42.5-44 MHz	**42.55-44 MHz (MILITARY)**		
FIXED	FIXED		
MOBILE	MOBILE		
5.160 5.161 5.161A		Military systems	
44-47 MHz	**44-47 MHz (MILITARY)**		
FIXED	FIXED		
MOBILE	MOBILE		
5.162 5.162A		Military systems	
47-68 MHz	**47-68 MHz (CIVIL)**		
BROADCASTING	BROADCASTING		
	OMA 1	Amateur	50-52 MHz Subject to application of No. 4.4 of the RR
5.162A 5.163 5.164 5.165 5.169 5.171		PMR/PAMR	On permitted basis
68-74.8 MHz	**68-74.8 MHz (SHARED)**		
FIXED	FIXED		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	PMR/PAMR	
5.149 5.175 5.177 5.179	5.149		
74.8-75.2 MHz	**74.8-75.2 MHz (SHARED)**		
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION	ILS/marker beacons	75 MHz ± 0.005%. ICAO Regulations (Annex 10, volume1, chapter 3, sections 3.1.7 and 3.6)
5.180 5.181	5.180		
75.2-87.5 MHz	**75.2-77.8 MHz (MILITARY)**		
FIXED	FIXED		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
		Military systems	
	77.8-84.6 MHz (SHARED)		
	FIXED		
	MOBILE except aeronautical mobile	PMR/PAMR	
	84.6-87.5 MHz (MILITARY)		
	FIXED		
	MOBILE except aeronautical mobile		
5.175 5.179 5.187		Military systems	
87.5-100 MHz	**87.5-100 MHz (CIVIL)**		
BROADCASTING	BROADCASTING	Broadcasting	FM sound. Regional agreement GE84
5.190		SRD	87.5-108 MHz: Wireless Audio Applications. Decision of TRA No 133/2008 of 28-Oct-08
100-108 MHz	**100-108 MHz (CIVIL)**		
BROADCASTING	BROADCASTING	Broadcasting	FM sound. Regional agreement GE84
5.192 5.194		SRD	87.5-108 MHz: Wireless Audio Applications. Decision of TRA No 133/2008 of 28-Oct-08
108-117.975 MHz	**108-117.975 MHz (CIVIL)**		
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION	ILS/Localizer	108-112 MHz
		VOR	112-117.975 MHz
5.197 5.197A	5.197A		
117.975-137 MHz	**117.975-137 MHz (CIVIL)**		
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)	Aeronautical mobile	117.975-121.45 MHz. Safety and regularity of flights. ICAO Regulations (Annex 10, volume III, Part II, Chapter 2)
		EPIRB	121.45-121.55 MHz band only for distress and safety
		Aeronautical mobile	121.55-136 MHz
		Aeronautical mobile distress communication	123.1 MHz
		Aeronautical communication	136-137 MHz
5.111 5.200 5.201 5.202	5.111 5.200 5.202		
137-137.025 MHz	**137-137.025 MHz (CIVIL)**		
SPACE OPERATION (space-to-Earth)	FIXED		
METEOROLOGICAL-SATELLITE (space-to-Earth)	MOBILE except aeronautical mobile (R)	Mobile applications	Restricted to Aeronautical Mobile (OR), including air sport
MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209	SPACE OPERATION (space-to-Earth)		
SPACE RESEARCH (space-to-Earth)	METEOROLOGICAL-SATELLITE (space-to-Earth)	Meteorological satellites	
Fixed	MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209	Low earth orbit satellites	
Mobile except aeronautical mobile (R)	SPACE RESEARCH (space-to-Earth)		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
5.204 5.205 5.206 5.207 5.208	5.208		
137.025-137.175 MHz	**137.025-137.175 MHz (CIVIL)**		
SPACE OPERATION (space-to-Earth)	FIXED	Fixed links	Priority to mobile and satellite applications
METEOROLOGICAL-SATELLITE (space-to-Earth)	MOBILE except aeronautical mobile (R)	Mobile applications	Restricted to Aeronautical Mobile (OR), including air sport
SPACE RESEARCH (space-to-Earth)	SPACE OPERATION (space-to-Earth)		
Fixed	METEOROLOGICAL-SATELLITE (space-to-Earth)	Meteorological satellites	
Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.209	SPACE RESEARCH (space-to-Earth)		
Mobile except aeronautical mobile (R)	Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.209	Low earth orbit satellites	
5.204 5.205 5.206 5.207 5.208	5.208		
137.175-137.825 MHz	**137.175-137.825 MHz (CIVIL)**		
SPACE OPERATION (space-to-Earth)	FIXED	Fixed links	Priority to mobile and satellite applications
METEOROLOGICAL-SATELLITE (space-to-Earth)	MOBILE except aeronautical mobile (R)	Mobile applications	Restricted to Aeronautical Mobile (OR), including air sport
MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209	SPACE OPERATION (space-to-Earth)		
SPACE RESEARCH (space-to-Earth)	METEOROLOGICAL-SATELLITE (space-to-Earth)	Meteorological satellites	
Fixed	MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209	Low earth orbit satellites	
Mobile except aeronautical mobile (R)	SPACE RESEARCH (space-to-Earth)		
5.204 5.205 5.206 5.207 5.208	5.208		
137.825-138 MHz	**137.825-138 MHz (CIVIL)**		
SPACE OPERATION (space-to-Earth)	FIXED	Fixed links	Priority to mobile and satellite applications
METEOROLOGICAL-SATELLITE (space-to-Earth)	MOBILE except aeronautical mobile (R)	Mobile applications	Restricted to Aeronautical Mobile (OR), including air sport
SPACE RESEARCH (space-to-Earth)	SPACE OPERATION (space-to-Earth)		
Fixed	METEOROLOGICAL-SATELLITE (space-to-Earth)	Meteorological satellites	
Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.209	SPACE RESEARCH (space-to-Earth)		
Mobile except aeronautical mobile (R)	Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.209	Low earth orbit satellites	
5.204 5.205 5.206 5.207 5.208	5.208		
138-143.6 MHz	**138-144 MHz (SHARED)**		
AERONAUTICAL MOBILE (OR)	FIXED	Fixed links	
	MOBILE	Mobile applications	Including air operation control
5.210 5.211 5.212 5.214			
143.6-143.65 MHz			
AERONAUTICAL MOBILE (OR)			
SPACE RESEARCH (space-to-Earth)			
5.211 5.212 5.214			
143.65-144 MHz			
AERONAUTICAL MOBILE (OR)			
5.210 5.211 5.212 5.214			
144-146 MHz	**144-146 MHz (CIVIL)**		
AMATEUR	AMATEUR	Amateur	

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
AMATEUR-SATELLITE	AMATEUR-SATELLITE	Amateur Satellite	
5.216			
146-148 MHz	**146-148 MHz (CIVIL)**		
FIXED	FIXED	Fixed links	Priority to PMR/PAMR
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	PMR/PAMR	
148-149.9 MHz	**148-149.9 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	PMR/PAMR	
MOBILE-SATELLITE (Earth-to-space) 5.209	MOBILE-SATELLITE (Earth-to-space) 5.209	Low earth orbit satellites	
5.218 5.219 5.221	5.218 5.219 5.221		
149.9-150.05 MHz	**149.9-150.05 MHz (CIVIL)**		
MOBILE-SATELLITE (Earth-to-space) 5.209 5.224A	MOBILE-SATELLITE (Earth-to-space) 5.209 5.224A	Low earth orbit satellites	
RADIONAVIGATION-SATELLITE 5.224B	RADIONAVIGATION-SATELLITE 5.224B		
5.220 5.222 5.223	5.220 5.222 5.223		
150.05-153 MHz	**150.05-153 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	PMR/PAMR	
RADIO ASTRONOMY	RADIO ASTRONOMY		
5.149	5.149		
153-154 MHz	**153-154 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	PMR/PAMR	
Meteorological Aids	Meteorological Aids		
154-156.4875 MHz	**154-156 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	PMR/PAMR	
	156-156.4875 MHz (SHARED)		
	FIXED		
	MOBILE except aeronautical mobile (R)	Maritime	App. 18 ITU RR
5.226	5.226		
156.4875-156.5625 MHz	**156.4875-156.5625 MHz (SHARED)**		
MARITIME MOBILE (distress and calling via DSC)	MARITIME MOBILE (distress and calling via DSC)	DSC for distress and calling	156.525 MHz. App. 18 ITU RR
5.111 5.226 5.227	5.111 5.226 5.227		
156.5625-156.7625 MHz	**156.5625-156.7625 MHz (SHARED)**		
FIXED	FIXED		
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	Maritime	App. 18 ITU RR
5.226	5.226		
156.7625-156.7875 MHz	**156.7625-156.7875 MHz (CIVIL)**		
MARITIME MOBILE	MARITIME MOBILE	Maritime	App. 18 ITU RR
Mobile-satellite (Earh-to-space)	Mobile-satellite (Earh-to-space)		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
5.111 5.226 5.228	5.111 5.226 5.228		
156.7875-156.8125 MHz	**156.7875-156.8125 MHz (CIVIL)**		
MARITIME MOBILE (distress and calling)	MARITIME MOBILE (distress and calling)	Distress, safety and calling	156.8 MHz. App. 18 ITU RR
5.111 5.226			
156.8125-156.8375 MHz	**156.8125-156.8375 MHz (CIVIL)**		
MARITIME MOBILE	MARITIME MOBILE	Maritime	App. 18 ITU RR
Mobile-satellite (Earh-to-space)	Mobile-satellite (Earh-to-space)		
5.111 5.226 5.228	5.111 5.226 5.288		
156.8375-161.9625	**156.8375-157.45 MHz (SHARED)**		
FIXED	MARITIME MOBILE	Maritime	App. 18 ITU RR
MOBILE except aeronautical mobile			
	157.45-160.6 MHz (CIVIL)		
	FIXED	Fixed links	Priority to PMR/PAMR
	MOBILE except aeronautical mobile	PMR/PAMR	
	160.6-160.975 MHz (SHARED)		
	MARITIME MOBILE	Maritime	App. 18 ITU RR
	160.975-161.475 MHz (CIVIL)		
	FIXED	Fixed links	Priority to PMR/PAMR
	MOBILE except aeronautical mobile	PMR/PAMR	
	161.475-161.9625 MHz (SHARED)		
	MARITIME MOBILE	Maritime	App. 18 ITU RR
5.226	5.226		
161.9625-161.9875 MHz	**161.9625-161.9875 MHz (SHARED)**		
FIXED			
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	Shipborne AIS	161.975 MHz and 162.025 MHz
Mobile-satellite (Earh-to-space) 5.228F	Mobile-satellite (Earh-to-space) 5.228F		
5.226 5.228A 5.228B	5.226 5.228A 5.228B		
161.9875-162.0125 MHz	**161.9875-162.0125 MHz (SHARED)**		
FIXED			
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	Maritime	App. 18 ITU RR
5.226 5.229	5.226		
162.0125-162.0375 MHz	**162.0125-162.0375 MHz (SHARED)**		
FIXED			
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	Maritime	App. 18 ITU RR
Mobile-satellite (Earh-to-space) 5.228F	Mobile-satellite (Earh-to-space) 5.228F		
5.226 5.228A 5.228B 5.229	5.226 5.228A 5.228B		
162.0375-174 MHz	**162.0375-162.05 MHz (SHARED)**		
FIXED			
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	Maritime	App. 18 ITU RR
	5.226		
	162.05-174 MHz (CIVIL)		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
	FIXED	Fixed links	Priority to PMR/PAMR
	MOBILE except aeronautical mobile	PMR/PAMR	
		SRD	169.4-169.475 MHz: Meter reading and Asset tracking and tracing systems. Decision of TRA No 133/2008 of 28-Oct-08
			169.4875-169.5875 MHz: Aids for hearing impairment. Decision of TRA No 133/2008 of 28-Oct-08
			169.48125 MHz and 169.59375 MHz: Social alarms, alarms for security and safety. Decision of TRA No 133/2008 of 28-Oct-08
5.226 5.229			
174-223 MHz	**174-223 MHz (CIVIL)**		
BROADCASTING	BROADCASTING	Broadcasting	174-230 MHz: Analog TV (B/PAL). Regional agreement GE06
			174-216 MHz: DVB-T. Regional agreement GE06
5.235 5.237 5.243			216-230 MHz: T-DAB. Regional agreement GE06
223-230 MHz	**223-230 MHz (CIVIL)**		
BROADCASTING	BROADCASTING	Broadcasting	174-230 MHz: Analog TV (B/PAL). Regional agreement GE06
Fixed	Fixed		216-230 MHz: T-DAB. Regional agreement GE06
Mobile	Mobile		
5.243 5.246 5.247			
230-235 MHz	**230-235 MHz (MILITARY)**		
FIXED	AERONAUTICAL RADIONAVIGATION		
MOBILE	FIXED		
	MOBILE		
5.247 5.251 5.252		Military systems	
235-267 MHz	**235-242.95 MHz (MILITARY)**		
FIXED	FIXED		
MOBILE	MOBILE		
	5.254	Military systems	
	242.95-243.05 MHz (SHARED)		
	MOBILE 5.256		
	MOBILE-SATELLITE 5.199		
	5.111	EPIRB	Band only available for distress and safety purposes 243 MHz
	243.05-267 MHz (MILITARY)		
	FIXED		
	MOBILE		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
5.111 5.199 5.252 5.254 5.256 5.256A	5.254	Military systems	
267-272 MHz	**267-272 MHz (MILITARY)**		
FIXED	FIXED		
MOBILE	MOBILE		
Space operation (space-to-Earth)	Space operation (space-to-Earth)		
5.254 5.257	5.254 5.257	Military systems	
272-273 MHz	**272-273 MHz (MILITARY)**		
SPACE OPERATION (space-to-Earth)	SPACE OPERATION (space-to-Earth)		
FIXED	FIXED		
MOBILE	MOBILE		
5.254	5.254	Military systems	
273-312 MHz	**273-312 MHz (MILITARY)**		
FIXED	FIXED		
MOBILE	MOBILE		
5.254	5.254	Military systems	
312-315 MHz	**312-315 MHz (MILITARY)**		
FIXED	FIXED		
MOBILE	MOBILE		
Mobile-satellite (Earth-to-space) 5.254 5.255	Mobile-satellite (Earth-to-space) 5.254 5.255		
		Military systems	
315-322 MHz	**315-322 MHz (MILITARY)**		
FIXED	FIXED		
MOBILE	MOBILE		
5.254	5.254	Military systems	
322-328.6 MHz	**322-328.6 MHz (SHARED)**		
FIXED	FIXED		
MOBILE	MOBILE	Mobile applications	including AGA communication
RADIO ASTRONOMY	RADIO ASTRONOMY		
5.149	5.149		
328.6-335.4 MHz	**328.6-335.4 MHz (SHARED)**		
AERONAUTICAL RADIONAVIGATION 5.258	AERONAUTICAL RADIONAVIGATION 5.258	ILS/Glide path	ICAO Regulations (Annex 10, Volume 1, Chapter 3)
5.259			
335.4-387 MHz	**335.4-380 MHz (MILITARY)**		
FIXED	FIXED		
MOBILE	MOBILE		
	5.254	Military systems	
	380-387 MHz (MILITARY)		
	MOBILE	Military systems	TETRA military
5.254	5.254		
387-390 MHz	**387-390 MHz (MILITARY)**		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
FIXED	MOBILE	Military systems	TETRA military
MOBILE	Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.254 5.255		
Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.254 5.255			
390-399.9 MHz	**390-399.9 MHz (MILITARY)**		
FIXED	MOBILE	Military systems	TETRA military
MOBILE			
5.254	5.254		
399.9-400.05 MHz	**399.9-400.05 MHz (CIVIL)**		
MOBILE-SATELLITE (Earth-to-space) 5.209 5.224A	MOBILE-SATELLITE (Earth-to-space) 5.209 5.224A	Mobile satellite applications	Subject to coordination: Use of this band limited to the land MSS and RNS until 1.1.2015
RADIONAVIGATION-SATELLITE 5.222 5.224B 5.260	RADIONAVIGATION-SATELLITE 5.222 5.224B 5.260		
5.220	5.220		
400.05-400.15 MHz	**400.05-400.15 MHz (SHARED)**		
STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE (400.1 MHz)	STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE (400.1 MHz)	Standard Frequency and Time Signal	400.1 MHz. Art. 26 ITU RR
5.261 5.262	5.261		
400.15-401 MHz	**400.15-401 MHz (SHARED)**		
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS	Meteorological radiosondes	
METEOROLOGICAL-SATELLITE (space-to-Earth)	METEOROLOGICAL-SATELLITE (space-to-Earth)	Meteorological satellites	
MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209	MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209	Low earth orbit satellites	
SPACE RESEARCH (space-to-Earth) 5.263	SPACE RESEARCH (space-to-Earth) 5.263		
Space operation (space-to-Earth)	Space operation (space-to-Earth)		
5.262 5.264	5.264		
401-402 MHz	**401-402 MHz (SHARED)**		
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS	Meteorological radiosondes	
SPACE OPERATION (space-to-Earth)	SPACE OPERATION (space-to-Earth)		
EARTH EXPLORATION-SATELLITE (Earth-to-space)	EARTH EXPLORATION-SATELLITE (Earth-to-space)		
METEOROLOGICAL-SATELLITE (Earth-to-space)	METEOROLOGICAL-SATELLITE (Earth-to-space)	Meteorological satellites	Data collection platform telemetry
Fixed	Fixed		
Mobile except aeronautical mobile	Mobile except aeronautical mobile		
402-403 MHz	**402-403 MHz (SHARED)**		
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS	Meteorological radiosondes	
EARTH EXPLORATION-SATELLITE (Earth-to-space)	EARTH EXPLORATION-SATELLITE (Earth-to-space)		
METEOROLOGICAL-SATELLITE (Earth-to-space)	METEOROLOGICAL-SATELLITE (Earth-to-space)	Meteorological satellites	
Fixed	Fixed		
Mobile except aeronautical mobile	Mobile except aeronautical mobile		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
		SRD	402 – 405 MHz: Ultra low power active medical implants. Decision of TRA No 133/2008 of 28-Oct-08
403-406 MHz	**403-406 MHz (SHARED)**		
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS	Meteorological radiosondes	
Fixed	Fixed		
Mobile except aeronautical mobile	Mobile except aeronautical mobile		
		SRD	402 – 405 MHz: Ultra low power active medical implants. Decision of TRA No 133/2008 of 28-Oct-08
406-406.1 MHz	**406-406.1 MHz (SHARED)**		
MOBILE-SATELLITE (Earth-to-space)	MOBILE-SATELLITE (Earth-to-space)	Satellite EPIRB	Band only available for distress and safety purposes. Art. 31, App. 13 and 15 ITU RR
5.266 5.267	5.266 5.267		
406.1-410 MHz	**406.1-410 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	PMR/PAMR	
RADIO ASTRONOMY	RADIO ASTRONOMY		
5.149	5.149		
410-420 MHz	**410-420 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	PMR/PAMR	TETRA
SPACE RESEARCH (space-to-space) 5.268	SPACE RESEARCH (space-to-space) 5.268		
420-430 MHz	**420-430 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	PMR/PAMR	TETRA
Radiolocation	Radiolocation		
5.269 5.270 5.271			
430-432 MHz	**430-432 MHz (CIVIL)**		
AMATEUR	AMATEUR		on coordination basis
RADIOLOCATION	FIXED	Fixed links	
	MOBILE except aeronautical mobile	PMR/PAMR	
	RADIOLOCATION		
5.271 5.272 5.273 5.274			
5.275 5.276 5.277			
432-438 MHz	**432-435 MHz (CIVIL)**		
AMATEUR	AMATEUR		on coordination basis
RADIOLOCATION	FIXED		
Earth exploration-satellite (active) 5.279A	MOBILE except aeronautical mobile	PMR/PAMR	
	RADIOLOCATION		
	Earth exploration-satellite (active) 5.279A		
		ISM	433.05 – 434.79 MHz

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
	5.138	SRD	433.05 – 434.79 MHz: Non-specific applications. Decision of TRA No 133/2008 of 28-Oct-08
			434.040-434.790 MHz: Non-specific applications. Decision of TRA No 133/2008 of 28-Oct-08
	435-438 MHz (CIVIL)		
	AMATEUR	Amateur	
	FIXED		
	RADIOLOCATION		
	Earth exploration-satellite (active) 5.279A		
5.138 5.271 5.272 5.276			
5.277 5.280 5.281 5.282			
438-440 MHz	**438-440 MHz (CIVIL)**		
AMATEUR	AMATEUR		on coordination basis
RADIOLOCATION	FIXED		
	MOBILE except aeronautical mobile	PMR/PAMR	
	RADIOLOCATION		
5.271 5.273 5.274 5.275			
5.276 5.277 5.283			
440-450 MHz	**440-450 MHz (CIVIL)**		
FIXED	FIXED	Fixed links	Priority to PMR/PAMR
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	PMR/PAMR	Paging: 443.5-443.75 MHz
Radiolocation	Radiolocation		
5.269 5.270 5.271 5.284 5.285 5.286	5.286	PMR446	446-446.2 MHz. Decision of TRA No 133/2008 of 28-Oct-08
450-455 MHz	**450-455 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE 5.286AA	MOBILE 5.286AA	IMT	CDMA450/3G
5.209 5.271 5.286 5.286A 5.286B 5.286C 5.286D 5.286E	5.209 5.286 5.286A		
455-456 MHz	**455-456 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE 5.286AA	MOBILE 5.286AA	IMT	CDMA450/3G
5.209 5.271 5.286A 5.286B	5.209 5.286A		
5.286C 5.286E			
456-459 MHz	**456-459 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE 5.286AA	MOBILE 5.286AA	IMT	CDMA450/3G
5.271 5.287 5.288	5.287		
459-460 MHz	**459-460 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE 5.286AA	MOBILE 5.286AA	IMT	CDMA450/3G

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
5.209 5.271 5.286A 5.286B 5.286C 5.286E	5.209 5.286A		
460-470 MHz	**460-470 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE 5.286AA	MOBILE 5.286AA	IMT	CDMA450/3G
Meteorological-Satellite (space-to-Earth)	Meteorological-Satellite (space-to-Earth)		
5.287 5.288 5.289 5.290	5.287 5.289		
470-790 MHz	**470-790 MHz (CIVIL)**		
BROADCASTING	BROADCASTING	Broadcasting	Analog TV (G/PAL). Regional agreement GE06
			DVB-T. Regional agreement GE06
	Fixed 5.300		
	Land mobile 5.296		
	Mobile except aeronautical mobile 5.300		
5.149 5.291A 5.294 5.296			
5.300 5.304 5.306			
5.311A 5.312 5.312A	5.149 5.311A	SRD	470-790 MHz: Wireless Audio Applications. Decision of TRA No 133/2008 of 28-Oct-08
790-862 MHz	**790-862 MHz (CIVIL)**		
FIXED	FIXED		
BROADCASTING	BROADCASTING	Broadcasting	Analog TV (G/PAL). Regional agreement GE06
MOBILE except aeronautical mobile 5.316B 5.317A			DVB-T. Regional agreement GE06
	MOBILE except aeronautical mobile 5.316B 5.317A		Allocation is effective from 17 June 2015
5.312 5.314 5.315 5.316 5.316A 5.319	5.316A		
862-890 MHz	**862-870 MHz (CIVIL)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile 5.317A	MOBILE except aeronautical mobile 5.317A	PMR/PAMR	
BROADCASTING 5.322			
		SRD	863-870 MHz, 868-868.6 MHz, 868.7-869.2 MHz, 869.4-869.65 MHz and 869.7-870 MHz: Non-specific applications. Decision of TRA No 133/2008 of 28-Oct-08
			868.6-868.7 MHz, 869.2-869.25 MHz, 869.25-869.3 MHz, 869.3-869.4 MHz, 869.65-869.7 MHz: Social alarms, alarms for security and safety. Decision of TRA No 133/2008 of 28-Oct-08
			863-865 MHz: wireless audio applications. Decision of TRA No 133/2008 of 28-Oct-08

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
			865-868 MHz: Radio Frequency Identification (RFID) Applications. Decision of TRA No 133/2008 of 28-Oct-08
	870-876 MHz (MILITARY)		
	FIXED		
	MOBILE except aeronautical mobile 5.317A	Military systems	Future TETRA military
	876-915 MHz (CIVIL)		
5.319 5.323	LAND MOBILE 5.317A	EGSM	880-890 MHz paired with 925-935 MHz
890-942 MHz		GSM-900/UMTS900	890-915 MHz paired with 935-960 MHz
FIXED		GSM-R	876-880 MHz paired with 921-925 MHz
MOBILE except aeronautical mobile 5.317A			
BROADCASTING 5.322	**915-921 MHz (MILITARY)**		
Radiolocation	FIXED		
	MOBILE except aeronautical mobile 5.317A	Military systems	Future TETRA military
	921-960 MHz (CIVIL)		
	LAND MOBILE 5.317A	EGSM	925-935 MHz paired with 880-890 MHz
5.323		GSM-900/UMTS900	935-960 MHz paired with 890-915 MHz
942-960 MHz		GSM-R	876-880 MHz paired with 921-925 MHz
FIXED			
MOBILE except aeronautical mobile 5.317A			
BROADCASTING 5.322			
5.323			
960-1 164 MHz	**960-1 164 MHz (SHARED)**		
AERONAUTICAL RADIONAVIGATION 5.328	AERONAUTICAL RADIONAVIGATION 5.328	Navigation systems	960-1215 MHz: DME with 1 MHz channel bandwidth
AERONAUTICAL MOBILE (R) 5.327A			962-1214 MHz: DME/TACAN with 252 channels (126X and 126Y) and 1 MHz channel bandwidth
			1025-1035 MHz paired with 1085 – 1095 MHz: SSR
			960-1215 MHz: JTIDS/MIDS terminals
			ACAS supplementing SSR
	AERONAUTICAL MOBILE (R) 5.327A		
1 164-1 215 MHz	**1 164-1 215 MHz (SHARED)**		
AERONAUTICAL RADIONAVIGATION 5.328	AERONAUTICAL RADIONAVIGATION 5.328	Navigation systems	960-1215 MHz: DME with 1 MHz channel bandwidth
RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B			962-1214 MHz: DME/TACAN with 252 channels (126X and 126Y) and 1 MHz channel bandwidth
			960-1215 MHz: JTIDS/MIDS terminals
			ACAS supplementing SSR
	RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B	Galileo	1164-1214 MHz

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
		GLONASS	1190.3-1213.8 MHz
		GPS	L5 link
5.328A	5.328A		
1 215-1 240 MHz	**1 215-1 240 MHz (SHARED)**		
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		
RADIOLOCATION	RADIOLOCATION	Radiolocation systems	1215 – 1300 MHz
RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329 5.329A	RADIONAVIGATION	Radar and Radionavigation systems	
SPACE RESEARCH (active)	RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329 5.329A	GPS	1215.6-1239.6 MHz
		GLONASS	1237.8-1253.8 MHz
	SPACE RESEARCH (active)		
5.330 5.331 5.332	5.332		
1 240-1 300 MHz	**1 240-1 300 MHz (SHARED)**		
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		
RADIOLOCATION	RADIOLOCATION	Radiolocation systems	1215 – 1300 MHz
RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329 5.329A	RADIONAVIGATION	Radar and Radionavigation systems	
SPACE RESEARCH (active)		Wind profiler radars	1270-1295 MHz
Amateur	RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329 5.329A	GLONASS	1237.8-1253.8 MHz
		Galileo	1260 – 1300 MHz
	SPACE RESEARCH (active)		
	Amateur		
5.282 5.330 5.331 5.332 5.335 5.335A	5.282 5.332 5.335A		
1 300-1 350 MHz	**1 300-1 350 MHz (CIVIL)**		
AERONAUTICAL RADIONAVIGATION 5.337	AERONAUTICAL RADIONAVIGATION 5.337	Radar and Radionavigation systems	
RADIOLOCATION	RADIOLOCATION		
RADIONAVIGATION SATELLITE (Earth-to-space)	RADIONAVIGATION SATELLITE (Earth-to-space)	Satellite navigation systems	
5.149 5.337A	5.149 5.337A		
1 350-1 400 MHz	**1 350-1 400 MHz (SHARED)**		
FIXED	FIXED	Fixed links	Low capacity
MOBILE	MOBILE	PMR/PAMR	
RADIOLOCATION	RADIOLOCATION		
5.149 5.338 5.338A 5.339	5.149 5.338A		
1 400-1 427 MHz	**1 400-1 427 MHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)	Passive sensors (satellite)	
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340 5.341	5.340 5.341		
1 427-1 429 MHz	**1 427-1 429 MHz (SHARED)**		
SPACE OPERATION (Earth-to-space)	SPACE OPERATION (Earth-to-space)		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
FIXED	FIXED	Fixed links	Low capacity
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
5.338A 5.341	5.338A 5.341		
1 429-1 452 MHz	**1 429-1 452 MHz (SHARED)**		
FIXED	FIXED	Fixed links	Low capacity
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
5.338A 5.341 5.342	5.338A 5.341		
1 452-1 492 MHz	**1 452-1 492 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
BROADCASTING 5.345	BROADCASTING 5.345	T-DAB	1452-1479.5 MHz
BROADCASTING-SATELLITE 5.208B 5.345	BROADCASTING-SATELLITE 5.208B 5.345	S-DAB	1479.5-1492 MHz
5.341 5.342	5.341		
1 492-1 518 MHz	**1 492-1 518 MHz (SHARED)**		
FIXED	FIXED	Fixed links	Low capacity
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
5.341 5.342	5.341		
1 518-1 525 MHz	**1 518-1 525 MHz (CIVIL)**		
FIXED	FIXED	Fixed links	Unidirectional
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
MOBILE-SATELLITE (space-to-Earth) 5.348 5.348A 5.348B 5.351A	MOBILE-SATELLITE (space-to-Earth) 5.348 5.348A 5.351A	Mobile satellite applications (S/E)	Including IMT satellite component
5.341 5.342	5.341		
1 525-1 530 MHz	**1 525-1 530 MHz (CIVIL)**		
SPACE OPERATION (space-to-Earth)	SPACE OPERATION (space-to-Earth)		
FIXED	FIXED		
MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A	MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A	Mobile satellite applications (S/E)	
Earth exploration-satellite	Earth exploration-satellite		
Mobile except aeronautical mobile 5.349	Mobile except aeronautical mobile		
5.341 5.342 5.350 5.351 5.352A 5.354	5.341 5.351 5.352A 5.354		
1 530-1 535 MHz	**1 530-1 535 MHz (CIVIL)**		
SPACE OPERATION (space-to-Earth)	SPACE OPERATION (space-to-Earth)		
MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A 5.353A	MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A 5.353A	Mobile satellite applications (S/E)	Priority for GMDSS Distress and safety communications in the band 1530 – 1544 MHz. App. 15 ITU RR
Earth exploration-satellite	Earth exploration-satellite		
Fixed	Fixed		
Mobile except aeronautical mobile	Mobile except aeronautical mobile		
5.341 5.342 5.351 5.354	5.341 5.351 5.354		
1 535-1 559 MHz	**1 535-1 559 MHz (CIVIL)**		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A	MOBILE-SATELLITE (space-to-Earth) 5.208B 5.351A	Mobile satellite applications (S/E)	1544-1545 MHz band is limited to distress and safety communications. Priority for GMDSS Distress and safety communications in the band 1530-1544 MHz. App. 15 ITU RR
		Distress and safety communications (including GMDSS)	1530-1544 MHz. Art. 31 ITU RR
5.341 5.351 5.353A 5.354 5.355 5.356 5.357 5.357A 5.359 5.362A	5.341 5.351 5.353A 5.354 5.356 5.357 5.357A		
1 559-1 610 MHz	**1 559-1 610 MHz (SHARED)**		
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		
RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.208B 5.328B 5.329A	RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.208B 5.328B 5.329A	GPS	1563.42-1587.42 MHz
		GLONASS	1592.9-1610.5 MHz
		Galileo	1559.42 – 1591.42 MHz
5.341 5.362B 5.362C	5.341		
1 610-1 610.6 MHz	**1 610-1 610.6 MHz (CIVIL)**		
MOBILE-SATELLITE (Earth-to-space) 5.351A	MOBILE-SATELLITE (Earth-to-space) 5.351A	Mobile satellite applications (E/S)	
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		
5.341 5.355 5.359 5.364 5.366 5.367 5.368 5.369 5.371 5.372	5.341 5.364 5.366 5.367 5.368 5.371 5.372	GLONASS	1592.9-1610.5 MHz
1 610.6-1 613.8 MHz	**1 610.6-1 613.8 MHz (CIVIL)**		
MOBILE-SATELLITE (Earth-to-space) 5.351A	MOBILE-SATELLITE (Earth-to-space) 5.351A	Mobile satellite applications (E/S)	
RADIO ASTRONOMY	RADIO ASTRONOMY		
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		
5.149 5.341 5.355 5.359 5.364 5.366 5.367 5.368 5.369 5.371 5.372	5.149 5.341 5.364 5.366 5.367 5.368 5.371 5.372		
1 613.8-1 626.5 MHz	**1 613.8-1 626.5 MHz (CIVIL)**		
MOBILE-SATELLITE (Earth-to-space) 5.351A	MOBILE-SATELLITE (Earth-to-space) 5.351A	Mobile satellite applications (E/S)	
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		
Mobile-satellite (space-to-Earth) 5.208B	Mobile-satellite (space-to-Earth) 5.208B		
5.341 5.355 5.359 5.364 5.365 5.366 5.367 5.368 5.369 5.371 5.372	5.341 5.364 5.365 5.366 5.367 5.368 5.371 5.372		
1 626.5-1 660 MHz	**1 626.5-1 660 MHz (CIVIL)**		
MOBILE-SATELLITE (Earth-to-space) 5.351A	MOBILE-SATELLITE (Earth-to-space) 5.351A	Mobile satellite applications (E/S)	1645.5-1646.5 MHz band is limited to distress and safety communications. Priority for GMDSS Distress and safety communications in the band 1626.5-1645.5 MHz
5.341 5.351 5.353A 5.354 5.355 5.357A 5.359 5.362A 5.374 5.375 5.376	5.341 5.351 5.353A 5.354 5.357A 5.374 5.375 5.376	Distress and safety communications (including GMDSS)	1645.5-1646.5 MHz. Art. 31 and App. 15 ITU RR
1 660-1 660.5 MHz	**1 660-1 660.5 MHz (CIVIL)**		
MOBILE-SATELLITE (Earth-to-space) 5.351A	MOBILE-SATELLITE (Earth-to-space) 5.351A	Mobile satellite applications (E/S)	
RADIO ASTRONOMY	RADIO ASTRONOMY		
5.149 5.341 5.351 5.354 5.362A 5.376A	5.149 5.341 5.351 5.354 5.376A		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
1 660.5-1 668 MHz	**1 660.5-1 668 MHz (CIVIL)**		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
Fixed	Fixed		
Mobile except aeronautical mobile	Mobile except aeronautical mobile		
5.149 5.341 5.379 5.379A	5.149 5.341 5.379A		Passive band
1 668-1 668.4 MHz	**1 668-1 668.4 MHz (CIVIL)**		
MOBILE-SATELLITE (Earth-to-space) 5.351A 5.379B 5.379C	MOBILE-SATELLITE (Earth-to-space) 5.351A 5.379B 5.379C	Mobile satellite applications (E/S)	Including IMT satellite component
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
Fixed	Fixed		
Mobile except aeronautical mobile	Mobile except aeronautical mobile		
5.149 5.341 5.379 5.379A	5.149 5.341 5.379A		
1 668.4-1 670 MHz	**1 668.4-1 670 MHz (CIVIL)**		
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS	Meteorology	
FIXED	FIXED		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
MOBILE-SATELLITE (Earth-to-space) 5.351A 5.379B 5.379C	MOBILE-SATELLITE (Earth-to-space) 5.351A 5.379B 5.379C	Mobile satellite applications (E/S)	Including IMT satellite component
RADIO ASTRONOMY	RADIO ASTRONOMY		
5.149 5.341 5.379D 5.379E	5.149 5.341 5.379D 5.379E		
1 670-1 675 MHz	**1 670-1 675 MHz (CIVIL)**		
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS		
FIXED	FIXED		
METEOROLOGICAL-SATELLITE (space-to-Earth)	METEOROLOGICAL-SATELLITE (space-to-Earth)	Meteorological satellites	
MOBILE	MOBILE		
MOBILE-SATELLITE (Earth-to-space) 5.351A 5.379B	MOBILE-SATELLITE (Earth-to-space) 5.351A 5.379B	Mobile satellite applications (E/S)	Including IMT satellite component
5.341 5.379D 5.379E 5.380A	5.341 5.379D 5.379E 5.380A		
1 675-1 690 MHz	**1 675-1 690 MHz (SHARED)**		
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS	Meteorological radiosondes	
FIXED	FIXED		
METEOROLOGICAL-SATELLITE (space-to-Earth)	METEOROLOGICAL-SATELLITE (space-to-Earth)	Meteorological satellites	Data collection platform
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
5.341	5.341		
1 690-1 700 MHz	**1 690-1 700 MHz (SHARED)**		
METEOROLOGICAL AIDS	FIXED		
METEOROLOGICAL-SATELLITE (space-to-Earth)	METEOROLOGICAL AIDS		
Fixed	METEOROLOGICAL-SATELLITE (space-to-Earth)	Meteorological satellites	Data collection platform
Mobile except aeronautical mobile	MOBILE except aeronautical mobile		
5.289 5.341 5.382	5.289 5.341		
1 700-1 710 MHz	**1 700-1 710 MHz (CIVIL)**		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
FIXED	FIXED		
METEOROLOGICAL-SATELLITE (space-to-Earth)	METEOROLOGICAL-SATELLITE (space-to-Earth)	Meteorological satellites	Data collection platform
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
5.289 5.341	5.289 5.341		
1 710-1 930 MHz	**1 710-1 785 MHz (CIVIL)**		
FIXED	LAND MOBILE 5.384A	GSM-1800	1710-1785 MHz paired with 1805-1880 MHz
MOBILE 5.384A 5.388A 5.388B		IMT	1710-1785 MHz paired with 1805-1880 MHz
	5.149 5.341 5.385	MCA	1805-1880 MHz paired with 1710-1785 MHz. Decision of TRA No 133/2008 of 28-Oct-08
	1 785-1 800 MHz (CIVIL)		
	FIXED	FWA	1785-1805 MHz: iBurst
	MOBILE 5.384A		
	1 800-1 880 MHz (CIVIL)		
	MOBILE 5.384A	GSM-1800	1805-1880 MHz paired with 1710-1785 MHz
		IMT	1805-1880 MHz paired with 1710-1785 MHz
		FWA	1785-1805 MHz: iBurst
		MCA	1805-1880 MHz paired with 1710-1785 MHz. Decision of TRA No 133/2008 of 28-Oct-08
	1 880-1 885 MHz (CIVIL)		
	FIXED		
	LAND MOBILE 5.384A	Cordless telephone system	1880-1900 MHz: DECT
	1 885-1 980 MHz (CIVIL)		
5.149 5.341 5.385 5.386 5.387 5.388	LAND MOBILE 5.388A 5.388B	Cordless telephone system	1880-1900 MHz: DECT
1 930-1 970 MHz		IMT	1900-1980 MHz: UMTS
FIXED			
MOBILE 5.388A 5.388B			
5.388			
1 970-1 980 MHz			
FIXED			
MOBILE 5.388A 5.388B			
5.388	5.388		
1 980-2 010 MHz	**1 980-2 010 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE	MOBILE		
MOBILE-SATELLITE (Earth-to-space) 5.351A	MOBILE-SATELLITE (Earth-to-space) 5.351A	IMT satellite component	
		Mobile satellite applications	

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
5.388 5.389A 5.389B 5.389F	5.388 5.389A		
2 010-2 025 MHz	**2 010-2 025 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE 5.388A 5.388B	MOBILE 5.388A 5.388B	IMT	UMTS
5.388	5.388		
2 025-2 110 MHz	**2 025-2 070 MHz (MILITARY)**		
SPACE OPERATION (Earth-to-space) (space-to-space)	SPACE OPERATION (Earth-to-space) (space-to-space)		
EARTH EXPLORATION-SATELLITE (Earth-to-space) (space-to-space)	EARTH EXPLORATION-SATELLITE (Earth-to-space) (space-to-space)		
FIXED	FIXED	Fixed links	Tactical radio relay systems in the band 2025-2070 MHz can be paired with the band 2200-2245 MHz
MOBILE 5.391	MOBILE 5.391		
SPACE RESEARCH (Earth-to-space) (space-to-space)	SPACE RESEARCH (Earth-to-space) (space-to-space)		
	5.392		
	2 070-2 110 MHz (CIVIL)		
	SPACE OPERATION (Earth-to-space) (space-to-space)		
	EARTH EXPLORATION-SATELLITE (Earth-to-space) (space-to-space)		
	FIXED	Fixed links	
	MOBILE 5.391		
	SPACE RESEARCH (Earth-to-space) (space-to-space)		
5.392	5.392		
2 110-2 120 MHz	**2 110-2 120 MHz (CIVIL)**		
FIXED	LAND MOBILE 5.388A 5.388B	IMT	UMTS
MOBILE 5.388A 5.388B	SPACE RESEARCH (deep space) (Earth-to-space)		
SPACE RESEARCH (deep space) (Earth-to-space)			
5.388	5.388		
2 120-2 160 MHz	**2 120-2 170 MHz (CIVIL)**		
FIXED	LAND MOBILE 5.388A 5.388B	IMT	UMTS
MOBILE 5.388A 5.388B			
5.388			
2 160-2 170 MHz			
FIXED			
MOBILE 5.388A 5.388B			
5.388	5.388		
2 170-2 200 MHz	**2 170-2 200 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE	MOBILE		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
MOBILE-SATELLITE (space-to-Earth) 5.351A	MOBILE-SATELLITE (space-to-Earth) 5.351A	IMT satellite component	
		Mobile satellite applications	
5.388 5.389A 5.389F	5.388 5.389A		
2 200-2 290 MHz	**2 200-2 245 MHz (MILITARY)**		
SPACE OPERATION (space-to-Earth) (space-to-space)	SPACE OPERATION (space-to-Earth) (space-to-space)		
EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space)	EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space)		
FIXED	FIXED	Fixed links	Tactical radio relay systems in the band 2200-2245 MHz can be paired with the band 2025-2070 MHz
MOBILE 5.391	MOBILE 5.391		
SPACE RESEARCH (space-to-Earth) (space-to-space)	SPACE RESEARCH (space-to-Earth) (space-to-space)		
	5.392		
	2 245-2 290 MHz (CIVIL)		
	SPACE OPERATION (space-to-Earth) (space-to-space)		
	EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space)		
	FIXED	Fixed links	
	MOBILE 5.391		
	SPACE RESEARCH (space-to-Earth) (space-to-space)		
5.392	5.392		
2 290-2 300 MHz	**2 290-2 300 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	Mobile applications	
SPACE RESEARCH (deep space) (space-to-Earth)	SPACE RESEARCH (deep space) (space-to-Earth)		
2 300-2 450 MHz	**2 300-2 400 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE 5.384A	MOBILE	IMT	
Amateur	Amateur		
Radiolocation	Radiolocation		
	5.395		
	2 400-2 450 MHz (CIVIL)		
	FIXED		
	MOBILE		
	Amateur	Amateur	
	Radiolocation		
		ISM	2400-2500 MHz
		SRD	2400 – 2483.5 MHz: Movement detection and alert. Decision of TRA No 133/2008 of 28-Oct-08
			2400 – 2483.5 MHz: Non-specific Short Range Devices. Decision of TRA No 133/2008 of 28-Oct-08

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
			2446-2454 MHz: Radio Frequency Identification (RFID) Applications. Decision of TRA No 133/2008 of 28-Oct-08
5.150 5.282 5.395	5.150 5.282	WAS/RLAN	2400-2483.5 MHz. Decision of TRA No 133/2008 of 28-Oct-08
2 450-2 483.5 MHz	**2 450-2 483.5 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE	MOBILE		
Radiolocation	Radiolocation		
		ISM	2400-2500 MHz
		SRD	2400 – 2483.5 MHz: Movement detection and alert. Decision of TRA No 133/2008 of 28-Oct-08
			2446-2454 MHz: Radio Frequency Identification (RFID) Applications. Decision of TRA No 133/2008 of 28-Oct-08
5.150 5.397	5.150	WAS/RLAN	2400-2483.5 MHz. Decision of TRA No 133/2008 of 28-Oct-08
2 483.5-2 500 MHz	**2 483.5-2 500 MHz (CIVIL)**		
FIXED	FIXED		
MOBILE	MOBILE	Mobile applications	
MOBILE-SATELLITE (space-to-Earth) 5.351A	MOBILE-SATELLITE (space-to-Earth) 5.351A	Mobile satellite applications	
RADIODETERMINATION-SATELLITE (space-to-Earth) 5.398	RADIODETERMINATION-SATELLITE (space-to-Earth) 5.398		
Radiolocation 5.398A	Radiolocation		
5.150 5.399 5.401 5.402	5.150 5.402	ISM	2400-2500 MHz
2 500-2 520 MHz	**2 500-2 520 MHz (CIVIL)**		
FIXED 5.410	FIXED 5.410		
MOBILE except aeronautical mobile 5.384A	MOBILE except aeronautical mobile 5.384A	IMT	UMTS
5.405 5.412			
2 520-2 655 MHz	**2 520-2 655 MHz (CIVIL)**		
FIXED 5.410	FIXED 5.410		
MOBILE except aeronautical mobile 5.384A	MOBILE except aeronautical mobile 5.384A	IMT	UMTS
BROADCASTING-SATELLITE 5.413 5.416	BROADCASTING-SATELLITE 5.413 5.416		
5.339 5.405 5.412 5.417C 5.417D 5.418B 5.418C	5.339 5.417C 5.417D 5.418B 5.418C		
2 655-2 670 MHz	**2 655-2 670 MHz (CIVIL)**		
FIXED 5.410	FIXED 5.410		
MOBILE except aeronautical mobile 5.384A	MOBILE except aeronautical mobile 5.384A	IMT	UMTS
BROADCASTING-SATELLITE 5.208B 5.413 5.416	BROADCASTING-SATELLITE 5.208B 5.413 5.416		
Earth exploration-satellite (passive)	Earth exploration-satellite (passive)		
Radio astronomy	Radio astronomy		
Space research (passive)	Space research (passive)		
5.149 5.412	5.149		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
2 670-2 690 MHz	**2 670-2 690 MHz (CIVIL)**		
FIXED 5.410	FIXED 5.410		
MOBILE except aeronautical mobile 5.384A	MOBILE except aeronautical mobile 5.384A	IMT	UMTS
Earth exploration-satellite (passive)	Earth exploration-satellite (passive)		
Radio astronomy	Radio astronomy		
Space research (passive)	Space research (passive)		
5.149 5.412	5.149		
2 690-2 700 MHz	**2 690-2 700 MHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340 5.422	5.340 5.422		Passive band. No frequency assignment for transmitting stations is permitted in this band
2 700-2 900 MHz	**2 700-2 900 MHz (SHARED)**		
AERONAUTICAL RADIONAVIGATION 5.337	AERONAUTICAL RADIONAVIGATION 5.337	Radar and Radionavigation systems	
Radiolocation		Meteorological radars	
	Radiolocation		
5.423 5.424	5.423		
2 900-3 100 MHz	**2 900-3 100 MHz (SHARED)**		
RADIOLOCATION 5.424A	RADIOLOCATION 5.424A		
RADIONAVIGATION 5.426	RADIONAVIGATION 5.426	Radar and Radionavigation systems	
5.425 5.427	5.425 5.427		
3 100-3 300 MHz	**3 100-3 300 MHz (SHARED)**		
RADIOLOCATION	RADIOLOCATION	Radiodetermination applications	
Earth exploration-satellite (active)	Earth exploration-satellite (active)		
Space research (active)	Space research (active)		
5.149 5.428	5.149		
3 300-3 400 MHz	**3 300-3 400 MHz (SHARED)**		
RADIOLOCATION	FIXED	BWA	
	MOBILE		
	RADIOLOCATION		
5.149 5.429 5.430	5.149		
3 400-3 600 MHz	**3 400-3 600 MHz (CIVIL)**		
FIXED	FIXED	BWA	
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)		
Mobile 5.430A	MOBILE except aeronautical mobile 5.430A		The band might be redefined for IMT in the future
Radiolocation	Radiolocation		
5.431			
3 600-4 200 MHz	**3 600-4 200 MHz (CIVIL)**		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
FIXED	FIXED	BWA	3600 – 3800 MHz. Priority for FSS networks
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)	FSS (S/E)	
Mobile	Mobile	Fixed links	Medium/high capacity. Priority for FSS networks
4 200-4 400 MHz	**4 200-4 400 MHz (CIVIL)**		
AERONAUTICAL RADIONAVIGATION 5.438	AERONAUTICAL RADIONAVIGATION 5.438	Altimeters	
5.439 5.440	5.440		
4 400-4 500 MHz	**4 400-4 500 MHz (MILITARY)**		
FIXED	FIXED		
MOBILE 5.440A	MOBILE	BWA	
4 500-4 800 MHz	**4 500-4 800 MHz (SHARED)**		
FIXED	FIXED		
FIXED-SATELLITE (space-to-Earth) 5.441	FIXED-SATELLITE (space-to-Earth) 5.441	FSS (S/E)	App. 30B ITU RR. Oman has a national allotment (OMA00000)
MOBILE 5.440A	MOBILE		The band can also be used for coordinated SAP/SAB applications (occasional use only). Priority for FSS networks
4 800-4 990 MHz	**4 800-4 990 MHz (MILITARY)**		
FIXED	FIXED		
MOBILE 5.440A 5.442	MOBILE 5.442	BWA	
Radio astronomy	Radio astronomy		
5.149 5.339 5.443	5.149		
4 990-5 000 MHz	**4 990-5 000 MHz (MILITARY)**		
FIXED	FIXED		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	BWA	
RADIO ASTRONOMY	RADIO ASTRONOMY		
Space research (passive)	Space research (passive)		
5.149	5.149		
5 000-5 010 MHz	**5 000-5 010 MHz (CIVIL)**		
AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA	AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA		
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		
RADIONAVIGATION-SATELLITE (Earth-to-space)	RADIONAVIGATION-SATELLITE (Earth-to-space)	Galileo	For future use
		Satellite navigation systems	
5 010-5 030 MHz	**5 010-5 030 MHz (CIVIL)**		
AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA	AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA		
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		
RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.443B	RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.443B	Galileo	C1
		Satellite navigation systems	

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
5 030-5 091 MHz	**5 030-5 091 MHz (CIVIL)**		
AERONAUTICAL MOBILE (R) 5.443C	AERONAUTICAL MOBILE (R) 5.443C		
AERONAUTICAL MOBILE-SATELLITE (R) 5.443D	AERONAUTICAL MOBILE-SATELLITE (R) 5.443D		
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION	MLS	
5.444	5.444		
5 091-5 150	**5 091-5 150 MHz (CIVIL)**		
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION	MLS	
AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA	AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA		
AERONAUTICAL MOBILE 5.444B	AERONAUTICAL MOBILE 5.444B	Airport surface applications	Res. 748
		Aircraft telemetry	Res. 418
		Aeronautical security	Res. 419
5.444 5.444A	5.444 5.444A		
5 150-5 250 MHz	**5 150-5 250 MHz (CIVIL)**		
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		
FIXED-SATELLITE (Earth-to-space) 5.447A	AERONAUTICAL MOBILE 5.446C		
MOBILE except aeronautical mobile 5.446A 5.446B	FIXED-SATELLITE (Earth-to-space) 5.447A	Feeder links for MSS	
	MOBILE except aeronautical mobile 5.446A 5.446B		
5.446 5.446C 5.447 5.447B 5.447C	5.446 5.447B 5.447C	WAS/RLAN	5150 – 5350 MHz. Decision of TRA No 133/2008 of 28-Oct-08
5 250-5 255 MHz	**5 250-5 255 MHz (SHARED)**		
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		
RADIOLOCATION	RADIOLOCATION	Radars	Tactical and weapon system radars
SPACE RESEARCH 5.447D		Position fixing	
MOBILE except aeronautical mobile 5.446A 5.447F		Shipborne and VTS radars	
		Weather radars	Ground based and airborne
	SPACE RESEARCH 5.447D		
	MOBILE except aeronautical mobile 5.446A 5.447F		
5.447E 5.448 5.448A	5.448A	WAS/RLAN	5150 – 5350 MHz. Decision of TRA No 133/2008 of 28-Oct-08
5 255- 5 350 MHz	**5 255- 5 350 MHz (SHARED)**		
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		
RADIOLOCATION	RADIOLOCATION	Radars	Tactical and weapon system radars
		Position fixing	
		Shipborne and VTS radars	
		Weather radars	Ground based and airborne
SPACE RESEARCH (active)	SPACE RESEARCH (active)		
MOBILE except aeronautical mobile 5.446A 5.447F	MOBILE except aeronautical mobile 5.446A 5.447F		
5.447E 5.448 5.448A	5.448A	WAS/RLAN	5150 – 5350 MHz. Decision of TRA No 133/2008 of 28-Oct-08
5 350-5 460 MHz	**5 350-5 460 MHz (SHARED)**		
EARTH EXPLORATION-SATELLITE (active) 5.448B	EARTH EXPLORATION-SATELLITE (active) 5.448B		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
SPACE RESEARCH (active) 5.448C	SPACE RESEARCH (active) 5.448C		
AERONAUTICAL RADIONAVIGATION 5.449	AERONAUTICAL RADIONAVIGATION 5.449		
RADIOLOCATION 5.448D	RADIOLOCATION 5.448D	Radars	Tactical and weapon system radars
		Position fixing	
		Shipborne and VTS radars	
		Weather radars	Ground based and airborne
5 460-5 470 MHz	**5 460-5 470 MHz (SHARED)**		
RADIONAVIGATION 5.449	RADIONAVIGATION 5.449		
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		
SPACE RESEARCH (active)	SPACE RESEARCH (active)		
RADIOLOCATION 5.448D	RADIOLOCATION 5.448D	Radars	Tactical and weapon system radars
		Position fixing	
		Shipborne and VTS radars	
		Weather radars	Ground based and airborne
5.448B	5.448B		
5 470-5 570 MHz	**5 470-5 570 MHz (SHARED)**		
MARITIME RADIONAVIGATION	MARITIME RADIONAVIGATION		
MOBILE except aeronautical mobile 5.446A 5.450A	MOBILE except aeronautical mobile 5.446A 5.450A		
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		
SPACE RESEARCH (active)	SPACE RESEARCH (active)		
RADIOLOCATION 5.450B	RADIOLOCATION 5.450B	Radars	Tactical and weapon system radars
		Position fixing	
		Shipborne and VTS radars	
		Weather radars	Ground based and airborne
5.448B 5.450 5.451	5.448B	WAS/RLAN	5470 – 5725 MHz. Decision of TRA No 133/2008 of 28-Oct-08
5 570-5 650 MHz	**5 570-5 650 MHz (SHARED)**		
MARITIME RADIONAVIGATION	MARITIME RADIONAVIGATION		
MOBILE except aeronautical mobile 5.446A 5.450A	MOBILE except aeronautical mobile 5.446A 5.450A		
RADIOLOCATION 5.450B	RADIOLOCATION 5.450B	Radars	Tactical and weapon system radars
		Position fixing	
		Shipborne and VTS radars	
		Weather radars	Ground based and airborne
5.450 5.451 5.452	5.452	WAS/RLAN	5470 – 5725 MHz. Decision of TRA No 133/2008 of 28-Oct-08
5 650-5 725 MHz	**5 650-5 725 MHz (SHARED)**		
RADIOLOCATION	FIXED		
MOBILE except aeronautical mobile 5.446A 5.450A	MOBILE 5.450A		
Amateur	RADIOLOCATION	Radars	Tactical and weapon system radars
Space research (deep space)		Position fixing	
		Shipborne and VTS radars	
		Weather radars	Ground based and airborne

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
	Amateur		
	Space research (deep space)		
5.282 5.451 5.453 5.454 5.455	5.282	WAS/RLAN	5470 – 5725 MHz. Decision of TRA No 133/2008 of 28-Oct-08
5 725-5 830 MHz	**5 725-5 830 MHz (SHARED)**		
FIXED-SATELLITE (Earth-to-space)	FIXED		
RADIOLOCATION	MOBILE		
Amateur	FIXED-SATELLITE (Earth-to-space)		
	RADIOLOCATION	Radars	Tactical and weapon system radars
		Weather radars	Ground based and airborne
	Amateur		
		SRD	5725-5875 MHz: Non-specific applications. Decision of TRA No 133/2008 of 28-Oct-08
		ISM	5725 – 5875 MHz
5.150 5.451 5.453 5.455 5.456	5.150	WAS/RLAN	5725 – 5850 MHz: Decision of TRA No 133/2008 of 28-Oct-08
5 830-5 850 MHz	**5 830-5 850 MHz (SHARED)**		
FIXED-SATELLITE (Earth-to-space)	FIXED-SATELLITE (Earth-to-space)		
RADIOLOCATION	RADIOLOCATION	Radars	Tactical and weapon system radars
Amateur		Weather radars	Ground based and airborne
Amateur-satellite (space-to-Earth)	Amateur		
	Amateur-satellite (space-to-Earth)		
		ISM	5725 – 5875 MHz
5.150 5.451 5.453 5.455 5.456	5.150 5.453	FWA	5725 – 5850 MHz: Decision of TRA No 133/2008 of 28-Oct-08
5 850-5 925 MHz	**5 850-5 925 MHz (CIVIL)**		
FIXED	FIXED	Fixed links	Priority for FSS networks
FIXED-SATELLITE (Earth-to-space)	FIXED-SATELLITE (Earth-to-space)	FSS	
MOBILE	MOBILE		
5.150	5.150	ISM	5725 – 5875 MHz
5 925-6 700 MHz	**5 925-6 700 MHz (CIVIL)**		
FIXED 5.457	FIXED	Fixed links	Priority for FSS networks
FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B	FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B	FSS	
		ESV	5925-6425 MHz: Decision of TRA No 15/2012 of 27-August-2012
MOBILE 5.457C	MOBILE		
5.149 5.440 5.458	5.149 5.440 5.458		
6 700-7 075 MHz	**6 700-7 075 MHz (CIVIL)**		
FIXED	FIXED	Fixed links	Priority for FSS networks
FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.441	FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.441	FSS (E/S)	Band 6725-7025 MHz is regulated by App. 30B ITU RR. Oman has a national allotment (OMA00000)

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
MOBILE	MOBILE		
5.458 5.458A 5.458B 5.458C	5.458 5.458A 5.458B 5.458C		
7 075-7 145 MHz	**7 075-7 145 MHz (CIVIL)**		
FIXED	FIXED	Fixed links	
MOBILE	MOBILE		
5.458 5.459	5.458		
7 145-7 235 MHz	**7 145-7 235 MHz (CIVIL)**		
FIXED	FIXED	Fixed links	
MOBILE	MOBILE		
SPACE RESEARCH (Earth-to-space) 5.460	SPACE RESEARCH (Earth-to-space) 5.460		
5.458 5.459	5.458		
7 235-7 250 MHz	**7 235-7 250 MHz (CIVIL)**		
FIXED	FIXED	Fixed links	
MOBILE	MOBILE		
5.458	5.458		
7 250-7 300 MHz	**7 250-7 300 MHz (SHARED)**		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)		
MOBILE	MOBILE		
5.461	5.461	Mobile satellite applications	7250-7375 MHz. Subject to coordination under No 9.21 ITU RR
7 300-7 450 MHz	**7 300-7 450 MHz (SHARED)**		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
5.461	5.461	Mobile satellite applications	7250-7375 MHz. Subject to coordination under No 9.21 ITU RR
7 450-7 550 MHz	**7 450-7 550 MHz (SHARED)**		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)		
METEOROLOGICAL-SATELLITE (space-to-Earth)	METEOROLOGICAL-SATELLITE (space-to-Earth)	Meteorological satellites	Limited to non-GSO satellite systems
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
5.461A	5.461A		
7 550-7 750 MHz	**7 550-7 750 MHz (SHARED)**		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)		Military satellite operations
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
7 750-7 900 MHz	**7 750-7 900 MHz (SHARED)**		
FIXED	FIXED	Fixed links	Including transportable radio relay systems

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
METEOROLOGICAL-SATELLITE (space-to-Earth) 5.461B	METEOROLOGICAL-SATELLITE (space-to-Earth) 5.461B		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
7 900-8 025 MHz	**7 900-8 025 MHz (SHARED)**		
FIXED	FIXED	Fixed links	Including transportable radio relay systems
FIXED-SATELLITE (Earth-to-space)	FIXED-SATELLITE (Earth-to-space)		
MOBILE	MOBILE		
5.461	5.461		
8 025-8 175 MHz	**8 025-8 175 MHz (SHARED)**		
EARTH EXPLORATION-SATELLITE (space-to-Earth)	EARTH EXPLORATION-SATELLITE (space-to-Earth)		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (Earth-to-space)	FIXED-SATELLITE (Earth-to-space)		Military satellite operations
MOBILE 5.463	MOBILE 5.463	Mobile applications	8025 – 8200 MHz
5.462A	5.462A		
8 175-8 215 MHz	**8 175-8 215 MHz (SHARED)**		
EARTH EXPLORATION-SATELLITE (space-to-Earth)	EARTH EXPLORATION-SATELLITE (space-to-Earth)		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (Earth-to-space)	FIXED-SATELLITE (Earth-to-space)		Military satellite operations
METEOROLOGICAL-SATELLITE (Earth-to-space)	METEOROLOGICAL-SATELLITE (Earth-to-space)		
MOBILE 5.463	MOBILE 5.463	Mobile applications	8025 – 8200 MHz
5.462A	5.462A		
8 215-8 400 MHz	**8 215-8 400 MHz (MILITARY)**		
EARTH EXPLORATION-SATELLITE (space-to-Earth)	EARTH EXPLORATION-SATELLITE (space-to-Earth)		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (Earth-to-space)	FIXED-SATELLITE (Earth-to-space)		Military satellite operations
MOBILE 5.463	MOBILE 5.463		
5.462A	5.462A		
8 400-8 500 MHz	**8 400-8 500 MHz (MILITARY)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
SPACE RESEARCH (space-to-Earth) 5.465 5.466	SPACE RESEARCH (space-to-Earth) 5.465		
8 500-8 550 MHz	**8 500-8 550 MHz (SHARED)**		
RADIOLOCATION	FIXED		
	MOBILE		
	RADIOLOCATION	Aeronautical radionavigation	Airfield approach
5.468 5.469		Radars	Shipborne, land and airborne surveillance and weapon
8 550-8 650 MHz	**8 550-8 650 MHz (SHARED)**		
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		
RADIOLOCATION	FIXED		
SPACE RESEARCH (active)	MOBILE		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
	RADIOLOCATION	Aeronautical radionavigation	Airfield approach
		Radars	Shipborne, land and airborne surveillance and weapon
	SPACE RESEARCH (active)		
5.468 5.469 5.469A	5.469A		
8 650-8 750 MHz	**8 650-8 750 MHz (SHARED)**		
RADIOLOCATION	FIXED		
	MOBILE		
	RADIOLOCATION	Aeronautical radionavigation	Airfield approach
5.468 5.469		Radars	Shipborne, land and airborne surveillance and weapon
8 750-8 850 MHz	**8 750-8 850 MHz (SHARED)**		
RADIOLOCATION	RADIOLOCATION	Radars	Shipborne, land and airborne surveillance and weapon
AERONAUTICAL RADIONAVIGATION 5.470	AERONAUTICAL RADIONAVIGATION 5.470	Aeronautical radionavigation	Airfield approach
5.471			
8 850-9 000 MHz	**8 850-9 000 MHz (SHARED)**		
RADIOLOCATION	RADIOLOCATION	Radars	Shipborne, land and airborne surveillance and weapon
		Aeronautical radionavigation	Airfield approach
MARITIME RADIONAVIGATION 5.472	MARITIME RADIONAVIGATION 5.472		
5.473			
9 000-9 200 MHz	**9 000-9 200 MHz (SHARED)**		
AERONAUTICAL RADIONAVIGATION 5.337	AERONAUTICAL RADIONAVIGATION 5.337	Aeronautical radionavigation	Airfield approach. ICAO Regulations (Annex 10, Volume 1, chapter 3)
RADIOLOCATION	RADIOLOCATION	Radars	Shipborne, land and airborne surveillance and weapon
5.471 5.473A	5.473A		
9 200-9 300 MHz	**9 200-9 300 MHz (SHARED)**		
RADIOLOCATION	RADIOLOCATION	Aeronautical radionavigation	Airfield approach
		Radars	Shipborne, land and airborne surveillance and weapon
		Search and rescue radar transponders	9200-9500 MHz. Art. 31 and App. 15 ITU RR
MARITIME RADIONAVIGATION 5.472	MARITIME RADIONAVIGATION 5.472		
5.473 5.474	5.474		
9 300-9 500 MHz	**9 300-9 500 MHz (SHARED)**		
RADIONAVIGATION	RADIONAVIGATION 5.476	Aeronautical radionavigation	Airfield approach
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		
SPACE RESEARCH (active)	SPACE RESEARCH (active)		
RADIOLOCATION	RADIOLOCATION	Radars	Shipborne, land and airborne surveillance and weapon
		Search and rescue radar transponders	9200-9500 MHz. Art. 31 and App. 15 ITU RR

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
		Weather radars	Ground based and airborne
5.427 5.474 5.475 5.475A 5.475B 5.476A	5.427 5.474 5.475 5.475A 5.475B 5.476A		
9 500-9 800 MHz	**9 500-9 800 MHz (SHARED)**		
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		
RADIOLOCATION	RADIOLOCATION	Radars	Shipborne, land and airborne surveillance and weapon
RADIONAVIGATION	RADIONAVIGATION	Aeronautical radionavigation	Airfield approach
SPACE RESEARCH (active)	SPACE RESEARCH (active)		
5.476A	5.476A		
9 800-9 900 MHz	**9 800-9 900 MHz (SHARED)**		
RADIOLOCATION	FIXED		
Earth exploration-satellite (active)	RADIOLOCATION	Radars	Shipborne, land and airborne surveillance and weapon
Space research (active)		Aeronautical radionavigation	Airfield approach
Fixed	Earth exploration-satellite (active)		
	Space research (active)		
5.477 5.478 5.478A 5.478B	5.478A 5.478B		
9 900-10 000 MHz	**9 900-10 000 MHz (SHARED)**		
RADIOLOCATION	FIXED		
Fixed	RADIOLOCATION	Radars	Shipborne, land and airborne surveillance and weapon
		Aeronautical radionavigation	Airfield approach
5.477 5.478 5.479	5.479		
10-10.45 GHz	**10-10.45 GHz (SHARED)**		
FIXED	FIXED	FWA	10.15-10.30 GHz paired with 10.50-10.65 GHz
		Fixed links	
MOBILE	MOBILE		
RADIOLOCATION	RADIOLOCATION		
Amateur	Amateur		
5.479	5.479		
10.45-10.5 GHz	**10.45-10.5 GHz (SHARED)**		
RADIOLOCATION	FIXED		
Amateur	MOBILE		
Amateur-satellite	RADIOLOCATION	Radars	
	Amateur		
	Amateur-satellite		
5.481			
10.5-10.55 GHz	**10.5-10.55 GHz (CIVIL)**		
FIXED	FIXED	FWA	10.50-10.65 GHz paired with 10.15-10.30 GHz
		Fixed links	

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
MOBILE	MOBILE		
Radiolocation	Radiolocation		
10.55-10.6 GHz	**10.55-10.6 GHz (CIVIL)**		
FIXED	FIXED	FWA	10.50-10.65 GHz paired with 10.15-10.30 GHz
		Fixed links	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
Radiolocation	Radiolocation		
10.6-10.68 GHz	**10.6-10.68 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
FIXED	FIXED	FWA	10.50-10.65 GHz paired with 10.15-10.30 GHz
		Fixed links	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
Radiolocation	Radiolocation		
5.149 5.482 5.482A	5.149 5.482 5.482A		
10.68-10.7 GHz	**10.68-10.7 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340 5.483	5.340		Passive band. All emissions prohibited in this band
10.7-11.7 GHz	**10.7-11.7 GHz (CIVIL)**		
FIXED	FIXED		
FIXED-SATELLITE (space-to-Earth) 5.441 5.484A (Earth-to-space) 5.484	FIXED-SATELLITE (space-to-Earth) 5.441 5.484A (Earth-to-space) 5.484	FSS	Band 10.7-10.95/11.2-11.45 GHz is regulated by App. 30B ITU RR. Oman has a national allotment in these bands (App. 30B)
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
		AES	10.7-12.75 GHz. Decision of TRA No 133/2008 of 28-Oct-08
11.7-12.5 GHz	**11.7-12.5 GHz (CIVIL)**		
FIXED	FIXED		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
BROADCASTING	BROADCASTING		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
BROADCASTING-SATELLITE 5.492	BROADCASTING-SATELLITE 5.492	Satellite Broadcasting	The band is regulated by App. 30 ITU RR. SIT within 12.4-12.5 GHz only. Oman national beam OMA12300 planned at 17.2E: 11708.30 + 19.18n MHz, 1≤ n ≤40 (App. 30)
5.487 5.487A		AES	10.7-12.75 GHz. Decision of TRA No 133/2008 of 28-Oct-08
12.5-12.75 GHz	**12.5-12.75 GHz (CIVIL)**		
FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space)	FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space)	FSS	
5.494 5.495 5.496		AES	10.7-12.75 GHz. Decision of TRA No 133/2008 of 28-Oct-08
12.75-13.25 GHz	**12.75-13.25 GHz (CIVIL)**		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (Earth-to-space) 5.441	FIXED-SATELLITE (Earth-to-space) 5.441	FSS	The band is regulated by App. 30B ITU RR. Oman has a national allotment (OMA00000) (App. 30B)
MOBILE	MOBILE		
Space research (deep space) (space-to-Earth)	Space research (deep space) (space-to-Earth)		
13.25-13.4 GHz	**13.25-13.4 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		
AERONAUTICAL RADIONAVIGATION 5.497	AERONAUTICAL RADIONAVIGATION 5.497	Doppler navigation aids	
SPACE RESEARCH (active)	SPACE RESEARCH (active)		
5.498A 5.499	5.498A		
13.4-13.75 GHz	**13.4-13.75 GHz (SHARED)**		
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		
RADIOLOCATION	RADIOLOCATION	Doppler navigation aids	
SPACE RESEARCH 5.501A		Radars	13.25 – 14 GHz. Military radars
Standard frequency and time signal-satellite (Earth-to-space)		Ship berthing radars	
	SPACE RESEARCH 5.501A		
	Standard frequency and time signal-satellite (Earth-to-space)		
5.499 5.500 5.501 5.501B	5.501B		
13.75-14 GHz	**13.75-14 GHz (SHARED)**		
FIXED-SATELLITE (Earth-to-space) 5.484A	FIXED-SATELLITE (Earth-to-space) 5.484A	FSS	
RADIOLOCATION	RADIOLOCATION	Radars	13.25 – 14 GHz. Military radars
		Ship berthing radars	
		Navigation radars	
Earth exploration-satellite	Earth exploration-satellite		
Standard frequency and time signal-satellite (Earth-to-space)	Standard frequency and time signal-satellite (Earth-to-space)		
Space research	Space research		
5.499 5.500 5.501 5.502 5.503	5.502 5.503		
14-14.25 GHz	**14-14.25 GHz (CIVIL)**		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 5.506B	FIXED		
RADIONAVIGATION 5.504	FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506	FSS	
		ESV	14-14.5 GHz: Decision of TRA No 15/2012 of 27-August-2012
		AES	14-14.5 GHz. Decision of TRA No 133/2008 of 28-Oct-08
Mobile-satellite (Earth-to-space) 5.504B 5.504C 5.506A	RADIONAVIGATION 5.504		
Space research	Mobile-satellite (Earth-to-space) 5.504B 5.504C 5.506A		
	Space research		
5.504A 5.505	5.504A		
14.25-14.3 GHz	**14.25-14.3 GHz (CIVIL)**		
FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 5.506B	FIXED		
RADIONAVIGATION 5.504	FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506	FSS	
		ESV	14-14.5 GHz: Decision of TRA No 15/2012 of 27-August-2012
		AES	14-14.5 GHz. Decision of TRA No 133/2008 of 28-Oct-08
Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.508A	RADIONAVIGATION 5.504		
Space research	Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.508A		
	Space research		
5.504A 5.505 5.508	5.504A		
14.3-14.4 GHz	**14.3-14.4 GHz (CIVIL)**		
FIXED	FIXED		
FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 5.506B	FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506	FSS	
		ESV	14-14.5 GHz: Decision of TRA No 15/2012 of 27-August-2012
		AES	14-14.5 GHz. Decision of TRA No 133/2008 of 28-Oct-08
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.509A	Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.509A		
Radionavigation-satellite	Radionavigation-satellite		
5.504A	5.504A		
14.4-14.47 GHz	**14.4-14.47 GHz (CIVIL)**		
FIXED	FIXED		
FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 5.506B	FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506	FSS	
		ESV	14-14.5 GHz: Decision of TRA No 15/2012 of 27-August-2012

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
		AES	14-14.5 GHz. Decision of TRA No 133/2008 of 28-Oct-08
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.509A	Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.509A		
Space research (space-to-Earth)	Space research (space-to-Earth)		
5.504A	5.504A		
14.47-14.5 GHz	**14.47-14.5 GHz (CIVIL)**		
FIXED	FIXED		
FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 5.506B	FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506	FSS	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
		ESV	14-14.5 GHz: Decision of TRA No 15/2012 of 27-August-2012
		AES	14-14.5 GHz. Decision of TRA No 133/2008 of 28-Oct-08
Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.509A	Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.509A		
Radio astronomy	Radio astronomy		
5.149 5.504A	5.149 5.504A		
14.5-14.8 GHz	**14.5-14.8 GHz (SHARED)**		
FIXED	FIXED	Fixed links	Including tactical fixed data links
FIXED-SATELLITE (Earth-to-space) 5.510	FIXED-SATELLITE (Earth-to-space) 5.510		
MOBILE	MOBILE		Tactical mobile data links
Space research	Space research		
14.8-15.35 GHz	**14.8-15.35 GHz (SHARED)**		
FIXED	FIXED	Fixed links	Including tactical fixed data links
MOBILE	MOBILE		Tactical mobile data links
Space research	Space research		
5.339	5.339		
15.35-15.4 GHz	**15.35-15.4 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340 5.511	5.340		Passive band. All emissions prohibited in this band
15.4-15.43 GHz	**15.4-15.43 GHz (CIVIL)**		
RADIOLOCATION 5.511E 5.511F	RADIOLOCATION 5.511E 5.511F		
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION	Doppler radar low power sensing	
		Ground movement radars	
5.511D	5.511D		
15.43-15.63 GHz	**15.43-15.63 GHz (CIVIL)**		
FIXED-SATELLITE (Earth-to-space) 5.511A	FIXED-SATELLITE (Earth-to-space) 5.511A	FSS	MSS Feeder links

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
RADIOLOCATION 5.511E 5.511F	RADIOLOCATION 5.511E 5.511F		
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION	Doppler radar low power sensing	
		Ground movement radars	
5.511C	5.511C		
15.63-15.7 GHz	**15.63-15.7 GHz (CIVIL)**		
RADIOLOCATION 5.511E 5.511F	RADIOLOCATION 5.511E 5.511F		
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION	Doppler radar low power sensing	
		Ground movement radars	
5.511D	5.511D		
15.7-16.6 GHz	**15.7-16.6 GHz (MILITARY)**		
RADIOLOCATION	FIXED		
	MOBILE		
	RADIOLOCATION	Military systems	Land, airborne and naval radars
5.512 5.513			
16.6-17.1 GHz	**16.6-17.1 GHz (MILITARY)**		
RADIOLOCATION	FIXED		
Space research (deep space) (Earth-to-space)	MOBILE		
	RADIOLOCATION	Military systems	Radar applications
	Space research (deep space) (Earth-to-space)		
5.512 5.513			
17.1-17.2 GHz	**17.1-17.2 GHz (SHARED)**		
RADIOLOCATION	FIXED		
	MOBILE		
	RADIOLOCATION	Radars	
5.512 5.513			
17.2-17.3 GHz	**17.2-17.3 GHz (SHARED)**		
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		
RADIOLOCATION	FIXED		
SPACE RESEARCH (active)	MOBILE		
	RADIOLOCATION	Radars	
	SPACE RESEARCH (active)		
5.512 5.513 5.513A	5.513A		
17.3-17.7 GHz	**17.3-17.7 GHz (SHARED)**		
FIXED-SATELLITE (Earth-to-space) 5.516 (space-to-Earth) 5.516A 5.516B	FIXED-SATELLITE (Earth-to-space) 5.516 (space-to-Earth) 5.516A 5.516B	Feeder links for the BSS service	The band is regulated by App. 30A ITU RR. Oman national beam OMA12300 at 17.2 E: 17308.3 + 19.18n MHz, 1≤ n ≤20 (App. 30A)
Radiolocation		High density FSS	Res. 143 ITU RR
	Fixed		
	Mobile		
	Radiolocation		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
5.514	5.514		
17.7-18.1 GHz	**17.7-18.1 GHz (SHARED)**		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516	FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516	Feeder links for the BSS service	The band is regulated by App. 30A ITU RR. Oman national beam OMA12300 at 17.2E: 17308.3 + 19.18n MHz, 21≤ n ≤40 (RR App. 30A)
		FSS	Coordinated earth stations
MOBILE	MOBILE		
18.1-18.4 GHz	**18.1-18.4 GHz (MILITARY)**		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B (Earth-to-space) 5.520	FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B (Earth-to-space) 5.520	FSS	Coordinated earth stations
MOBILE	MOBILE		
5.519 5.521	5.519		
18.4-18.6 GHz	**18.4-18.6 GHz (MILITARY)**		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B	FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B	FSS	Coordinated earth stations
MOBILE	MOBILE		
18.6-18.8 GHz	**18.6-18.8 GHz (MILITARY)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (space-to-Earth) 5.522B	FIXED-SATELLITE (space-to-Earth) 5.522B	FSS	Coordinated earth stations
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
Space research (passive)	Space research (passive)		
5.522A 5.522C	5.522A 5.522C		
18.8-19.3 GHz	**18.8-19.3 GHz (MILITARY)**		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (space-to-Earth) 5.516.B 5.523A	FIXED-SATELLITE (space-to-Earth) 5.516.B 5.523A	FSS	Coordinated earth stations
MOBILE	MOBILE		
19.3-19.7 GHz	**19.3-19.7 GHz (MILITARY)**		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 5.523B 5.523C 5.523D 5.523E	FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 5.523B 5.523C 5.523D 5.523E	FSS	
MOBILE	MOBILE		
19.7-20.1 GHz	**19.7-20.1 GHz (CIVIL)**		
	FIXED		
	MOBILE		
FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B	FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B	High density FSS	Res. 143 ITU RR
		FSS	
Mobile-satellite (space-to-Earth)	Mobile-satellite (space-to-Earth)		Coordinated earth stations SUT

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
5.524	5.524		
20.1-20.2 GHz	**20.1-20.2 GHz (CIVIL)**		
FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B	FIXED		
MOBILE-SATELLITE (space-to-Earth)	MOBILE		
	FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B	High density FSS	Res. 143 ITU RR
		FSS	Coordinated earth stations
	MOBILE-SATELLITE (space-to-Earth)		
5.524 5.525 5.526 5.527 5.528	5.524 5.525 5.526 5.527 5.528		
20.2-21.2 GHz	**20.2-21.2 GHz (SHARED)**		
FIXED-SATELLITE (space-to-Earth)	FIXED		
MOBILE-SATELLITE (space-to-Earth)	MOBILE		
Standard frequency and time signal-satellite (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)	FSS	
	MOBILE-SATELLITE (space-to-Earth)		
	Standard frequency and time signal-satellite (space-to-Earth)		
5.524	5.524		
21.2-21.4 GHz	**21.2-21.4 GHz (MILITARY)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
FIXED	FIXED	Fixed links	Unidirectional and temporary. Including SAP/SAB
MOBILE	MOBILE	Mobile links	Unidirectional and temporary. Including SAP/SAB
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
21.4-22 GHz	**21.4-22 GHz (CIVIL)**		
FIXED	FIXED		
MOBILE	MOBILE		
BROADCASTING-SATELLITE 5.208B	BROADCASTING-SATELLITE 5.208B	Wideband High Definition Television	
5.530A 5.530B 5.530C 5.530D	5.530A 5.530B 5.530C 5.530D	Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08
22-22.21 GHz	**22-22.21 GHz (CIVIL)**		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
5.149	5.149	Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08
22.21-22.5 GHz	**22.21-22.5 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
FIXED	FIXED	Fixed links	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
RADIO ASTRONOM	RADIO ASTRONOM		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.149 5.532	5.149 5.532	Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
22.5-22.55 GHz	**22.5-22.55 GHz (CIVIL)**		
FIXED	FIXED	Fixed links	
MOBILE	MOBILE		
22.55-23.15 GHz	**22.55-22.6 GHz (CIVIL)**		
FIXED	FIXED	Fixed links	
INTER-SATELLITE 5.338A	INTER-SATELLITE 5.338A		
MOBILE	MOBILE		
SPACE RESEARCH (Earth-to-space) 5.532A	SPACE RESEARCH (Earth-to-space) 5.532A		
		Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08
	22.6-23 GHz (MILITARY)		
	FIXED	Fixed links	
	INTER-SATELLITE 5.338A		
	MOBILE		
	SPACE RESEARCH (Earth-to-space) 5.532A		
		Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08
	23-23.15 GHz (CIVIL)		
	FIXED	Fixed links	
	INTER-SATELLITE 5.338A		
	MOBILE		
	SPACE RESEARCH (Earth-to-space) 5.532A		
5.149	5.149	Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08
23.15-23.55 GHz	**23.15-23.55 GHz (CIVIL)**		
FIXED	FIXED	Fixed links	
INTER-SATELLITE 5.338A	INTER-SATELLITE 5.338A		
MOBILE	MOBILE		
		Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08
23.55-23.6 GHz	**23.55-23.6 GHz (CIVIL)**		
FIXED	FIXED	Fixed links	
MOBILE	MOBILE		
		Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08
23.6-24 GHz	**23.6-24 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
			Passive band
5.340	5.340	Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
24-24.05 GHz	**24-24.05 GHz (CIVIL)**		
AMATEUR	AMATEUR	Amateur	
AMATEUR-SATELLITE	AMATEUR-SATELLITE	Amateur Satellite	
		ISM	24 – 24.25 GHz
5.150	5.150	Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08
24.05-24.25 GHz	**24.05-24.25 GHz (SHARED)**		
RADIOLOCATION	RADIOLOCATION		
Amateur	Amateur		
Earth exploration-satellite (active)	Earth exploration-satellite (active)		
		ISM	24 – 24.25 GHz
5.150	5.150	Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08
24.25-24.45 GHz	**24.25-24.45 GHz (CIVIL)**		
FIXED	FIXED	Fixed links	24.25-24.5 GHz: Unidirectional only, including SAP/SAB
		Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08
24.45-24.65 GHz	**24.45-24.65 GHz (CIVIL)**		
FIXED	FIXED	Fixed links	24.25-24.5 GHz: Unidirectional only, including SAP/SAB. 24.5-25.5 GHz paired with 25.5-26.5 GHz in FWA spectrum blocks only
		FWA	24.5-25.5 GHz paired with 25.5-26.5 GHz for FDD systems.
INTER-SATELLITE	INTER-SATELLITE		
		Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08
24.65-24.75 GHz	**24.65-24.75 GHz (CIVIL)**		
FIXED	FIXED	Fixed links	24.5-25.5 GHz paired with 25.5-26.5 GHz in FWA spectrum blocks only
		FWA	24.5-25.5 GHz paired with 25.5-26.5 GHz for FDD systems.
FIXED-SATELLITE (Earth-to-space) 5.532B	FIXED-SATELLITE (Earth-to-space) 5.532B		
INTER-SATELLITE	INTER-SATELLITE		
		Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08
24.75-25.25 GHz	**24.75-25.25 GHz (CIVIL)**		
FIXED	FIXED	Fixed links	24.5-25.5 GHz paired with 25.5-26.5 GHz in FWA spectrum blocks only
		FWA	24.5-25.5 GHz paired with 25.5-26.5 GHz for FDD systems.
FIXED-SATELLITE (Earth-to-space) 5.532B	FIXED-SATELLITE (Earth-to-space) 5.532B		
		Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
25.25-25.5 GHz	**25.25-25.5 GHz (CIVIL)**		
FIXED	FIXED	Fixed links	24.5-25.5 GHz paired with 25.5-26.5 GHz in FWA spectrum blocks only
		FWA	24.5-25.5 GHz paired with 25.5-26.5 GHz for FDD systems.
INTER-SATELLITE 5.536	INTER-SATELLITE 5.536		
MOBILE	MOBILE		
Standard frequency and time signal-satellite (Earth-to-space)	Standard frequency and time signal-satellite (Earth-to-space)		
		Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08
25.5-27 GHz	**25.5-26.5 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (space-to Earth) 5.536B	EARTH EXPLORATION-SATELLITE (space-to Earth) 5.536B		
FIXED	FIXED	Fixed links	24.5-25.5 GHz paired with 25.5-26.5 GHz in FWA spectrum blocks only
		FWA	24.5-25.5 GHz paired with 25.5-26.5 GHz for FDD systems.
INTER-SATELLITE 5.536	INTER-SATELLITE 5.536		
MOBILE	MOBILE		
SPACE RESEARCH (space-to-Earth) 5.536C	SPACE RESEARCH (space-to-Earth) 5.536C		
Standard frequency and time signal-satellite (Earth-to-space)	Standard frequency and time signal-satellite (Earth-to-space)		
		Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08
	5.536A		
	26.5-27 GHz (MILITARY)		
	EARTH EXPLORATION-SATELLITE (space-to Earth) 5.536A 5.536B		
	FIXED	Fixed links	Unidirectional only
	INTER-SATELLITE 5.536		
	MOBILE	Mobile links	
	SPACE RESEARCH (space-to-Earth) 5.536A 5.536C		
	Standard frequency and time signal-satellite (Earth-to-space)		
		Automotive SRR	21.65 – 26.65 GHz: Decision of TRA No 133/2008 of 28-Oct-08
5.536A	5.536A		
27-27.5 GHz	**27-27.5 GHz (MILITARY)**		
FIXED	FIXED		
INTER-SATELLITE 5.536	INTER-SATELLITE 5.536		
MOBILE	MOBILE		
		Military systems	Fixed and mobile systems
27.5-28.5 GHz	**27.5-28.5 GHz (CIVIL)**		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
FIXED 5.537A	FIXED 5.537A	Fixed links	27.5-28.5 GHz paired with 28.5-29.5 GHz in FWA spectrum blocks only
		FWA	27.5-28.5 GHz paired with 28.5-29.5 GHz for FDD systems.
FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539	FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539	Feeder links	For HDTV BSS: 27.5-29.5 GHz
MOBILE	MOBILE		
5.538 5.540	5.538 5.540		
28.5-29.1 GHz	**28.5-29.1 GHz (CIVIL)**		
FIXED	FIXED	Fixed links	28.5-29.5 GHz paired with 27.5-28.5 GHz in FWA spectrum blocks only
		FWA	28.5-29.5 GHz paired with 27.5-28.5 GHz for FDD systems
FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.523A 5.539	FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.523A 5.539	FSS	Uncoordinated earth stations within the band 28.4445-28.8365 GHz
		Feeder links	For HDTV BSS: 27.5-29.5 GHz
MOBILE	MOBILE		
Earth exploration-satellite (Earth-to-space) 5.541	Earth exploration-satellite (Earth-to-space) 5.541		
5.540	5.540		
29.1-29.5 GHz	**29.1-29.5 GHz (CIVIL)**		
FIXED	FIXED	Fixed links	28.5-29.5 GHz paired with 27.5-28.5 GHz in FWA spectrum blocks only
		FWA	28.5-29.5 GHz paired with 27.5-28.5 GHz for FDD systems
FIXED-SATELLITE (Earth-to-space) 5.516B 5.523C 5.523E 5.535A 5.539 5.541A	FIXED-SATELLITE (Earth-to-space) 5.516B 5.523C 5.523E 5.535A 5.539 5.541A	FSS	Uncoordinated earth stations within the band 29.4525-29.5 GHz
		Feeder links	For HDTV BSS: 27.5-29.5 GHz
MOBILE	MOBILE		
Earth exploration-satellite (Earth-to-space) 5.541	Earth exploration-satellite (Earth-to-space) 5.541		
5.540	5.540		
29.5-29.9 GHz	**29.5-29.9 GHz (CIVIL)**		
FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539	FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539	High Density FSS	SIT/SUT. ITU-RR Resolution 143
		FSS	
Earth exploration-satellite (Earth-to-space) 5.541	Earth exploration-satellite (Earth-to-space) 5.541		
Mobile-satellite (Earth-to-space)	Mobile-satellite (Earth-to-space)		
	Fixed 5.542		
	Mobile 5.542		
5.540 5.542	5.540		
29.9-30 GHz	**29.9-30 GHz (CIVIL)**		
FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539	FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539	High Density FSS	SIT/SUT
		FSS	
MOBILE-SATELLITE (Earth-to-space)	MOBILE-SATELLITE (Earth-to-space)	MSS	Uncoordinated earth stations

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
Earth exploration-satellite (Earth-to-space) 5.541 5.543	Earth exploration-satellite (Earth-to-space) 5.541 5.543		
	Fixed 5.542		
	Mobile 5.542		
5.525 5.526 5.527 5.538 5.540 5.542	5.525 5.526 5.527 5.538 5.540		
30-31 GHz	**30-31 GHz (SHARED)**		
FIXED-SATELLITE (Earth-to-space) 5.338A	FIXED-SATELLITE (Earth-to-space) 5.338A	FSS	
MOBILE-SATELLITE (Earth-to-space)	MOBILE-SATELLITE (Earth-to-space)	MSS	
Standard frequency and time signal-satellite (space-to-Earth)	Standard frequency and time signal-satellite (space-to-Earth)		
	Fixed 5.542		
5.542	Mobile 5.542		
31-31.3 GHz	**31-31.3 GHz (CIVIL)**		
FIXED 5.338A 5.543A	FIXED 5.338A	Fixed links	Channeling must be according to FWA
		FWA	Can be used for enterprises' FWA networks
MOBILE	MOBILE		
Standard frequency and time signal-satellite (space-to-Earth)	Standard frequency and time signal-satellite (space-to-Earth)		
Space research 5.544 5.545	Space research 5.544		
5.149	5.149		
31.3-31.5 GHz	**31.3-31.5 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340	5.340		Passive band. All emissions prohibited in this band
31.5-31.8 GHz	**31.5-31.8 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
Fixed	Fixed		
Mobile except aeronautical mobile	Mobile except aeronautical mobile		
5.149 5.546	5.149		Passive band
31.8-32 GHz	**31.8-32 GHz (CIVIL)**		
FIXED 5.547A	FIXED 5.547A	High Density FS	31.8-33.4 GHz: P-P and P-MP
RADIONAVIGATION	RADIONAVIGATION		
SPACE RESEARCH (deep space) (space-to-Earth)	SPACE RESEARCH (deep space) (space-to-Earth)		
5.547 5.547B 5.548	5.547 5.548		
32-32.3 GHz	**32-32.3 GHz (CIVIL)**		
FIXED 5.547A	FIXED 5.547A	High Density FS	31.8-33.4 GHz: P-P and P-MP
RADIONAVIGATION	RADIONAVIGATION		
SPACE RESEARCH (deep space) (space-to-Earth)	SPACE RESEARCH (deep space) (space-to-Earth)		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
5.547 5.547C 5.548	5.547 5.548		
32.3-33 GHz	**32.3-33 GHz (CIVIL)**		
FIXED 5.547A	FIXED 5.547A	High Density FS	31.8-33.4 GHz: P-P and P-MP
INTER-SATELLITE	INTER-SATELLITE		
RADIONAVIGATION	RADIONAVIGATION		
5.547 5.547D 5.548	5.547 5.548		
33-33.4 GHz	**33-33.4 GHz (CIVIL)**		
FIXED 5.547A	FIXED 5.547A	High Density FS	31.8-33.4 GHz: P-P and P-MP
RADIONAVIGATION	RADIONAVIGATION		
5.547 5.547E	5.547		
33.4-34.2 GHz	**33.4-34.2 GHz (SHARED)**		
RADIOLOCATION	FIXED		
	MOBILE		
	RADIOLOCATION	Radiolocation systems	
		Surveying and measurement	
5.549			
34.2-34.7 GHz	**34.2-34.7 GHz (SHARED)**		
RADIOLOCATION	FIXED		
SPACE RESEARCH (deep space) (Earth-to-space)	MOBILE		
	RADIOLOCATION	Radiolocation systems	
		Surveying and measurement	
	SPACE RESEARCH (deep space) (Earth-to-space)		
5.549			
34.7-35.2 GHz	**34.7-35.2 GHz (SHARED)**		
RADIOLOCATION	FIXED		
Space research 5.550	MOBILE		
	RADIOLOCATION	Radiolocation systems	
		Surveying and measurement	
	Space research 5.550		
5.549			
35.2-35.5 GHz	**35.2-35.5 GHz (SHARED)**		
METEOROLOGICAL AIDS	FIXED		
RADIOLOCATION	METEOROLOGICAL AIDS	Active sensors (satellite)	Rain radar from satellites
	MOBILE		
	RADIOLOCATION	Radiolocation systems	
5.549			
35.5-36 GHz	**35.5-36 GHz (SHARED)**		
METEOROLOGICAL AIDS	FIXED		
EARTH EXPLORATION-SATELLITE (active)	METEOROLOGICAL AIDS	Active sensors (satellite)	
RADIOLOCATION	MOBILE		
SPACE RESEARCH (active)	EARTH EXPLORATION-SATELLITE (active)	Active sensors (satellite)	

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
	RADIOLOCATION	Radiolocation systems	
	SPACE RESEARCH (active)		
5.549 5.549A	5.549A		
36-37 GHz	**36-37 GHz (SHARED)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
FIXED	FIXED	Fixed links	
MOBILE	MOBILE	Mobile links	
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.149 5.550A	5.149 5.550A		
37-37.5 GHz	**37-37.5 GHz (SHARED)**		
FIXED	FIXED	High Density FS	37.0-39.5 GHz: P-P and P-MP
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
SPACE RESEARCH (space-to-Earth)	SPACE RESEARCH (space-to-Earth)		
5.547	5.547		
37.5-38 GHz	**37.5-38 GHz (SHARED)**		
FIXED	FIXED	High Density FS	37.0-39.5 GHz: P-P and P-MP
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)	FSS	Uncoordinated earth stations shall not claim protection from Fixed Service
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
SPACE RESEARCH (space-to-Earth)	SPACE RESEARCH (space-to-Earth)		
Earth exploration-satellite (space-to-Earth)	Earth exploration-satellite (space-to-Earth)		
5.547	5.547		
38-39.5 GHz	**38-39.5 GHz (SHARED)**		
FIXED	FIXED	High Density FS	37.0-39.5 GHz: P-P and P-MP
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)	FSS	Uncoordinated earth stations shall not claim protection from Fixed Service
MOBILE	MOBILE		
Earth exploration-satellite (space-to-Earth)	Earth exploration-satellite (space-to-Earth)		
5.547	5.547		
39.5-40 GHz	**39.5-40 GHz (SHARED)**		
FIXED	FIXED		
FIXED-SATELLITE (space-to-Earth) 5.516B	FIXED-SATELLITE (space-to-Earth) 5.516B	FSS	
MOBILE	MOBILE		
MOBILE-SATELLITE (space-to-Earth)	MOBILE-SATELLITE (space-to-Earth)		
Earth exploration-satellite (space-to-Earth)	Earth exploration-satellite (space-to-Earth)		
5.547	5.547		
40-40.5 GHz	**40-40.5 GHz (SHARED)**		
EARTH EXPLORATION-SATELLITE (Earth-to-space)	EARTH EXPLORATION-SATELLITE (Earth-to-space)		
FIXED	FIXED		
FIXED-SATELLITE (space-to-Earth) 5.516B	FIXED-SATELLITE (space-to-Earth) 5.516B	FSS	
MOBILE	MOBILE	Broadband mobile systems	Possible future band
MOBILE-SATELLITE (space-to-Earth)	MOBILE-SATELLITE (space-to-Earth)		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
SPACE RESEARCH (Earth-to-space)	SPACE RESEARCH (Earth-to-space)		
Earth exploration-satellite (space-to-Earth)	Earth exploration-satellite (space-to-Earth)		
40.5-41 GHz	**40.5-41 GHz (CIVIL)**		
FIXED	FIXED	MWS	Including MVDS
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)	FSS	
BROADCASTING	BROADCASTING		
BROADCASTING-SATELLITE	BROADCASTING-SATELLITE		
Mobile	Mobile		
5.547	5.547		
41-42.5 GHz	**41-42.5 GHz (CIVIL)**		
FIXED	FIXED	MWS	Including MVDS
FIXED-SATELLITE (space-to-Earth) 5.516B	FIXED-SATELLITE (space-to-Earth) 5.516B	FSS	
BROADCASTING	BROADCASTING		
BROADCASTING-SATELLITE	BROADCASTING-SATELLITE		
Mobile	Mobile		
5.547 5.551F 5.551H 5.551I	5.547 5.551H 5.551I		
42.5-43.5 GHz	**42.5-43.5 GHz (CIVIL)**		
FIXED	FIXED	MWS	Including MVDS
FIXED-SATELLITE (Earth-to-space) 5.552	FIXED-SATELLITE (Earth-to-space) 5.552	FSS	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	Broadband mobile systems	Possible future band
RADIO ASTRONOMY	RADIO ASTRONOMY		
5.149 5.547	5.149 5.547		
43.5-47 GHz	**43.5-45.5 GHz (MILITARY)**		
MOBILE 5.553	MOBILE 5.553	Mobile applications	
MOBILE-SATELLITE	MOBILE-SATELLITE	MSS	
RADIONAVIGATION	RADIONAVIGATION		
RADIONAVIGATION-SATELLITE	RADIONAVIGATION-SATELLITE		
	5.554		
	45.5-47 GHz (CIVIL)		
	MOBILE 5.553		
	MOBILE-SATELLITE		
	RADIONAVIGATION		
	RADIONAVIGATION-SATELLITE		
5.554	5.554		
47-47.2 GHz	**47-47.2 GHz (CIVIL)**		
AMATEUR	AMATEUR	Amateur	
AMATEUR-SATELLITE	AMATEUR-SATELLITE	Amateur Satellite	
47.2-47.5 GHz	**47.2-47.5 GHz (CIVIL)**		
FIXED	FIXED		
FIXED-SATELLITE (Earth-to-space) 5.552	FIXED-SATELLITE (Earth-to-space) 5.552	Feeder links	For 40 GHz Broadcasting satellites
		FSS	

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
MOBILE	MOBILE	HAPS	The use of HAPS is subject to provisions of RR Resolution 122
5.552A	5.552A		
47.5-47.9 GHz	**47.5-47.9 GHz (CIVIL)**		
FIXED	FIXED		
FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B 5.554A	FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B 5.554A	Feeder links	For 40 GHz Broadcasting satellites
		High Density FSS	ITU-RR Resolution 143
MOBILE	MOBILE		
47.9-48.2 GHz	**47.9-48.2 GHz (CIVIL)**		
FIXED	FIXED		
FIXED-SATELLITE (Earth-to-space) 5.552	FIXED-SATELLITE (Earth-to-space) 5.552	Feeder links	For 40 GHz Broadcasting satellites
		FSS	
MOBILE	MOBILE	HAPS	
5.552A	5.552A		
48.2-48.54 GHz	**48.2-48.54 GHz (CIVIL)**		
FIXED	FIXED	Fixed links	48.5-48.54 GHz
FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B 5.554A 5.555B	FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B 5.554A 5.555B	Feeder links	For 40 GHz Broadcasting satellites
		High Density FSS	ITU-RR Resolution 143
MOBILE	MOBILE		
48.54-49.44 GHz	**48.54-49.44 GHz (CIVIL)**		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (Earth-to-space) 5.552	FIXED-SATELLITE (Earth-to-space) 5.552	Feeder links	48.5-49.2 GHz: For 40 GHz Broadcasting satellites
		FSS	
MOBILE	MOBILE		
5.149 5.340 5.555	5.149 5.340 5.555		
49.44-50.2 GHz	**49.44-50.2 GHz (CIVIL)**		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (Earth-to-space) 5.338A 5.552 (space-to-Earth) 5.516B 5.554A 5.555B	FIXED-SATELLITE (Earth-to-space) 5.338A 5.552 (space-to-Earth) 5.516B 5.554A 5.555B	High Density FSS	ITU-RR Resolution 143
MOBILE	MOBILE		
50.2-50.4 GHz	**50.2-50.4 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340	5.340		Passive band. All emissions prohibited in this band
50.4-51.4 GHz	**50.4-51.4 GHz (SHARED)**		Future satellite and terrestrial applications
FIXED	FIXED		
FIXED-SATELLITE (Earth-to-space) 5.338A	FIXED-SATELLITE (Earth-to-space) 5.338A		
MOBILE	MOBILE		
Mobile-satellite (Earth-to-space)	Mobile-satellite (Earth-to-space)		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
51.4-52.6 GHz	**51.4-52.6 GHz (CIVIL)**		
FIXED 5.338A	FIXED 5.338A	High Density FS	
MOBILE	MOBILE		
5.547 5.556	5.547 5.556		
52.6-54.25 GHz	**52.6-54.25 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340 5.556	5.340 5.556		Passive band. All emissions prohibited in this band
54.25-55.78 GHz	**54.25-55.78 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
INTER-SATELLITE 5.556A	INTER-SATELLITE 5.556A		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.556B			Passive band
55.78-56.9 GHz	**55.78-56.9 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
FIXED 5.557A	FIXED 5.557A	High Density FS	55.78-59.0 GHz: P-P and P-MP
INTER-SATELLITE 5.556A	INTER-SATELLITE 5.556A		
MOBILE 5.558	MOBILE 5.558		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.547 5.557	5.547		
56.9-57 GHz	**56.9-57 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
FIXED	FIXED	High Density FS	55.78-59.0 GHz: P-P and P-MP
INTER-SATELLITE 5.558A	INTER-SATELLITE 5.558A		
MOBILE 5.558	MOBILE 5.558		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.547 5.557	5.547		
57-58.2 GHz	**57-58.2 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
FIXED	FIXED	High Density FS	55.78-59.0 GHz: P-P and P-MP
INTER-SATELLITE 5.556A	INTER-SATELLITE 5.556A		
MOBILE 5.558	MOBILE 5.558		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.547 5.557	5.547		
58.2-59 GHz	**58.2-59 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
FIXED	FIXED	High Density FS	55.78-59.0 GHz: P-P and P-MP
MOBILE	MOBILE		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.547 5.556	5.547 5.556		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
59-59.3 GHz	**59-59.3 GHz (SHARED)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
FIXED	FIXED	Fixed links	
INTER-SATELLITE 5.556A	INTER-SATELLITE 5.556A		
MOBILE 5.558	MOBILE 5.558	Mobile applications	
RADIOLOCATION 5.559	RADIOLOCATION 5.559	Radiolocation systems	
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
59.3-64 GHz	**59.3-64 GHz (SHARED)**		
FIXED	FIXED	Fixed links	
INTER-SATELLITE	INTER-SATELLITE		
MOBILE 5.558	MOBILE 5.558	Mobile applications	
		Broadband mobile systems	62.0-63.0 GHz paired with 65.0-66.0 GHz
RADIOLOCATION 5.559	RADIOLOCATION 5.559	Radiolocation systems	
5.138	5.138	ISM	61 – 61.5 GHz
64-65 GHz	**64-65 GHz (CIVIL)**		
FIXED	FIXED	High Density FS	64.0-66.0 GHz: P-P and P-MP
INTER-SATELLITE	INTER-SATELLITE		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		
5.547 5.556	5.547 5.556		
65-66 GHz	**65-66 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE	EARTH EXPLORATION-SATELLITE		
FIXED	FIXED	High Density FS	64.0-66.0 GHz: P-P and P-MP
INTER-SATELLITE	INTER-SATELLITE		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	Broadband mobile systems	65.0-66.0 GHz paired with 62.0-63.0 GHz
SPACE RESEARCH	SPACE RESEARCH		
5.547	5.547		
66-71 GHz	**66-71 GHz (CIVIL)**		Future civil systems (TBD)
INTER-SATELLITE	INTER-SATELLITE		
MOBILE 5.553 5.558	MOBILE 5.553 5.558		
MOBILE-SATELLITE	MOBILE-SATELLITE		
RADIONAVIGATION	RADIONAVIGATION		
RADIONAVIGATION-SATELLITE	RADIONAVIGATION-SATELLITE		
5.554	5.554		
71-74 GHz	**71-74 GHz (SHARED)**		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)		
MOBILE	MOBILE		
MOBILE-SATELLITE (space-to-Earth)	MOBILE-SATELLITE (space-to-Earth)		
74-76 GHz	**74-75.5 GHz (CIVIL)**		
FIXED	FIXED	Fixed links	
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
MOBILE	MOBILE		
BROADCASTING	BROADCASTING		
BROADCASTING-SATELLITE	BROADCASTING-SATELLITE		
Space research (space-to-Earth)	Space research (space-to-Earth)		
	5.559A 5.561		
	75.5-76 GHz (SHARED)		
	FIXED	Fixed links	
	FIXED-SATELLITE (space-to-Earth)		
	MOBILE		
	BROADCASTING		
	BROADCASTING-SATELLITE		
	Space research (space-to-Earth)		
5.561	5.561		
76-77.5 GHz	**76-77.5 GHz (SHARED)**		
RADIO ASTRONOMY	RADIO ASTRONOMY		
RADIOLOCATION	RADIOLOCATION	Radiolocation systems	
Amateur	Amateur		
Amateur-satellite	Amateur-satellite		
Space research (space-to-Earth)	Space research (space-to-Earth)		
		Automotive LRR (RTTT)	76-77 GHz. Decision of TRA No 133/2008 of 28-Oct-08
5.149	5.149	Automotive SRR (RTTT)	77-81 GHz. Decision of TRA No 133/2008 of 28-Oct-08
77.5-78 GHz	**77.5-78 GHz (CIVIL)**		
AMATEUR	AMATEUR	Amateur	
AMATEUR-SATELLITE	AMATEUR-SATELLITE	Amateur Satellite	
Radio astronomy	Radio astronomy		
Space research (space-to-Earth)	Space research (space-to-Earth)		
5.149	5.149	Automotive SRR (RTTT)	77-81 GHz. Decision of TRA No 133/2008 of 28-Oct-08
78-79 GHz	**78-79 GHz (CIVIL)**		
RADIOLOCATION	RADIOLOCATION	Radiolocation systems	
Amateur	Amateur		
Amateur-satellite	Amateur-satellite		
Radio astronomy	Radio astronomy		
Space research (space-to-Earth)	Space research (space-to-Earth)		
5.149 5.560	5.149 5.560	Automotive SRR (RTTT)	77-81 GHz. Decision of TRA No 133/2008 of 28-Oct-08
79-81 GHz	**79-81 GHz (SHARED)**		
RADIO ASTRONOMY	RADIO ASTRONOMY		
RADIOLOCATION	RADIOLOCATION	Radiolocation systems	
Amateur	Amateur		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
Amateur-satellite	Amateur-satellite		
Space research (space-to-Earth)	Space research (space-to-Earth)		
5.149	5.149	Automotive SRR (RTTT)	77-81 GHz. Decision of TRA No 133/2008 of 28-Oct-08
81-84 GHz	**81-84 GHz (SHARED)**		
FIXED 5.338A	FIXED 5.338A	Fixed links	
FIXED-SATELLITE (Earth-to-space)	FIXED-SATELLITE (Earth-to-space)		
MOBILE	MOBILE		
MOBILE-SATELLITE (Earth-to-space)	MOBILE-SATELLITE (Earth-to-space)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
Space research (space-to-Earth)	Space research (space-to-Earth)		
5.149 5.561A	5.149 5.561A		
84-86 GHz	**84-86 GHz (CIVIL)**		
FIXED 5.338A	FIXED 5.338A	Fixed links	
FIXED-SATELLITE (Earth-to-space) 5.561B	FIXED-SATELLITE (Earth-to-space) 5.561B		
MOBILE	MOBILE		
RADIO ASTRONOMY	RADIO ASTRONOMY		
5.149	5.149		
86-92 GHz	**86-92 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340	5.340		Passive band. All emissions prohibited in this band
92-94 GHz	**92-94 GHz (SHARED)**		
FIXED 5.338A	FIXED 5.338A		
MOBILE	MOBILE		
RADIO ASTRONOMY	RADIO ASTRONOMY		
RADIOLOCATION	RADIOLOCATION		
5.149	5.149		Radio astronomy
94-94.1 GHz	**94-94.1 GHz (SHARED)**		
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		
RADIOLOCATION	RADIOLOCATION		
SPACE RESEARCH (active)	SPACE RESEARCH (active)		
Radio astronomy	Radio astronomy		
5.562 5.562A	5.562 5.562A		Active sensors (satellite) Space research (active)
94.1-95 GHz	**94.1-95 GHz (SHARED)**		
FIXED	FIXED		
MOBILE	MOBILE		
RADIO ASTRONOMY	RADIO ASTRONOMY		
RADIOLOCATION	RADIOLOCATION		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
5.149	5.149		Radio astronomy
95-100 GHz	**95-100 GHz (SHARED)**		
FIXED	FIXED		
MOBILE	MOBILE		
RADIO ASTRONOMY	RADIO ASTRONOMY		
RADIOLOCATION	RADIOLOCATION		
RADIONAVIGATION	RADIONAVIGATION		
RADIONAVIGATION-SATELLITE	RADIONAVIGATION-SATELLITE		
5.149 5.554	5.149 5.554		Radio astronomy
100-102 GHz	**100-102 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340 5.341	5.340 5.341		
102-105 GHz	**102-105 GHz (CIVIL)**		
FIXED	FIXED		
MOBILE	MOBILE		
RADIO ASTRONOMY	RADIO ASTRONOMY		
5.149 5.341	5.149 5.341		
105-109.5 GHz	**105-109.5 GHz (CIVIL)**		
FIXED	FIXED		
MOBILE	MOBILE		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive) 5.562B	SPACE RESEARCH (passive) 5.562B		
5.149 5.341	5.149 5.341		
109.5-111.8 GHz	**109.5-111.8 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340 5.341	5.340 5.341		
111.8-114.25 GHz	**111.8-114.25 GHz (CIVIL)**		
FIXED	FIXED		
MOBILE	MOBILE		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive) 5.562B	SPACE RESEARCH (passive) 5.562B		
5.149 5.341	5.149 5.341		
114.25-116 GHz	**114.25-116 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340 5.341	5.340 5.341		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
116-119.98 GHz	**116-119.98 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
INTER-SATELLITE 5.562C	INTER-SATELLITE 5.562C		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.341	5.341		
119.98-122.25 GHz	**119.98-122.25 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
INTER-SATELLITE 5.562C	INTER-SATELLITE 5.562C		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
		ISM	122-123 GHz
5.138 5.341	5.138 5.341		
122.25-123 GHz	**122.25-123 GHz (CIVIL)**		
FIXED	FIXED		
INTER-SATELLITE	INTER-SATELLITE		
MOBILE 5.558	MOBILE 5.558		
Amateur	Amateur		
		ISM	122-123 GHz
5.138	5.138		
123-130 GHz	**123-130 GHz (CIVIL)**		
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)		
MOBILE-SATELLITE (space-to-Earth)	MOBILE-SATELLITE (space-to-Earth)		
RADIONAVIGATION	RADIONAVIGATION		
RADIONAVIGATION-SATELLITE	RADIONAVIGATION-SATELLITE		
Radio astronomy 5.562D	Radio astronomy		
5.149 5.554	5.149 5.554		
130-134 GHz	**130-134 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (active) 5.562E	EARTH EXPLORATION-SATELLITE (active) 5.562E		
FIXED	FIXED		
INTER-SATELLITE	INTER-SATELLITE		
MOBILE 5.558	MOBILE 5.558		
RADIO ASTRONOMY	RADIO ASTRONOMY		
5.149 5.562A	5.149 5.562A		
134-136 GHz	**134-136 GHz (CIVIL)**		
AMATEUR	AMATEUR		
AMATEUR-SATELLITE	AMATEUR-SATELLITE		
Radio astronomy	Radio astronomy		
136-141 GHz	**136-141 GHz (CIVIL)**		
RADIO ASTRONOMY	RADIO ASTRONOMY		
RADIOLOCATION	RADIOLOCATION		
Amateur	Amateur		
Amateur-satellite	Amateur-satellite		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
5.149	5.149		
141-148.5 GHz	**141-148.5 GHz (CIVIL)**		
FIXED	FIXED		
MOBILE	MOBILE		
RADIO ASTRONOMY	RADIO ASTRONOMY		
RADIOLOCATION	RADIOLOCATION		
5.149	5.149		
148.5-151.5 GHz	**148.5-151.5 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340	5.340		
151.5-155.5 GHz	**151.5-155.5 GHz (CIVIL)**		
FIXED	FIXED		
MOBILE	MOBILE		
RADIO ASTRONOMY	RADIO ASTRONOMY		
RADIOLOCATION	RADIOLOCATION		
5.149	5.149		
155.5-158.5 GHz	**155.5-158.5 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
FIXED	FIXED		
MOBILE	MOBILE		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive) 5.562B	SPACE RESEARCH (passive) 5.562B		
5.149 5.562F 5.562G	5.149 5.562G		
158.5-164 GHz	**158.5-164 GHz (CIVIL)**		
FIXED	FIXED		
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)		
MOBILE	MOBILE		
MOBILE-SATELLITE (space-to-Earth)	MOBILE-SATELLITE (space-to-Earth)		
164-167 GHz	**164-167 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340	5.340		
167-174.5 GHz	**167-174.5 GHz (CIVIL)**		
FIXED	FIXED		
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)		
INTER-SATELLITE	INTER-SATELLITE		
MOBILE 5.558	MOBILE 5.558		
5.149 5.562D	5.149		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
174.5-174.8 GHz	**174.5-174.8 GHz (CIVIL)**		
FIXED	FIXED		
INTER-SATELLITE	INTER-SATELLITE		
MOBILE 5.558	MOBILE 5.558		
174.8-182 GHz	**174.8-182 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
INTER-SATELLITE 5.562H	INTER-SATELLITE 5.562H		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
182-185 GHz	**182-185 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340	5.340		
185-190 GHz	**185-190 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
INTER-SATELLITE 5.562H	INTER-SATELLITE 5.562H		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
190-191.8 GHz	**190-191.8 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340	5.340		
191.8-200 GHz	**191.8-200 GHz (CIVIL)**		
FIXED	FIXED		
INTER-SATELLITE	INTER-SATELLITE		
MOBILE 5.558	MOBILE 5.558		
MOBILE-SATELLITE	MOBILE-SATELLITE		
RADIONAVIGATION	RADIONAVIGATION		
RADIONAVIGATION-SATELLITE	RADIONAVIGATION-SATELLITE		
5.149 5.341 5.554	5.149 5.341 5.554		
200-202 GHz	**200-202 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340 5.341 5.563A	5.340 5.341 5.563A		
202-209 GHz	**202-209 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340 5.341 5.563A	5.340 5.341 5.563A		
209-217 GHz	**209-217 GHz (CIVIL)**		
FIXED	FIXED		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
FIXED-SATELLITE (Earth-to-space)	FIXED-SATELLITE (Earth-to-space)		
MOBILE	MOBILE		
RADIO ASTRONOMY	RADIO ASTRONOMY		
5.149 5.341	5.149 5.341		
217-226 GHz	**217-226 GHz (CIVIL)**		
FIXED	FIXED		
FIXED-SATELLITE (Earth-to-space)	FIXED-SATELLITE (Earth-to-space)		
MOBILE	MOBILE		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive) 5.562B	SPACE RESEARCH (passive) 5.562B		
5.149 5.341	5.149 5.341		
226-231.5 GHz	**226-231.5 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340	5.340		
231.5-232 GHz	**231.5-232 GHz (CIVIL)**		
FIXED	FIXED		
MOBILE	MOBILE		
Radiolocation	Radiolocation		
232-235 GHz	**232-235 GHz (CIVIL)**		
FIXED	FIXED		
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)		
MOBILE	MOBILE		
Radiolocation	Radiolocation		
235-238 GHz	**235-238 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.563A 5.563B	5.563A 5.563B		
238-240 GHz	**238-240 GHz (CIVIL)**		
FIXED	FIXED		
FIXED-SATELLITE (space-to-Earth)	FIXED-SATELLITE (space-to-Earth)		
MOBILE	MOBILE		
RADIOLOCATION	RADIOLOCATION		
RADIONAVIGATION	RADIONAVIGATION		
RADIONAVIGATION-SATELLITE	RADIONAVIGATION-SATELLITE		
240-241 GHz	**240-241 GHz (CIVIL)**		
FIXED	FIXED		
MOBILE	MOBILE		
RADIOLOCATION	RADIOLOCATION		

Allocations for ITU Region 1	National Allocations of Sultanate of Oman	Major utilization	Notes
241-248 GHz	**241-248 GHz (CIVIL)**		
RADIO ASTRONOMY	RADIO ASTRONOMY		
RADIOLOCATION	RADIOLOCATION		
Amateur	Amateur		
Amateur-satellite	Amateur-satellite		
		ISM	244-246 GHz
5.138 5.149	5.138 5.149		
248-250 GHz	**248-250 GHz (CIVIL)**		
AMATEUR	AMATEUR		
AMATEUR-SATELLITE	AMATEUR-SATELLITE		
Radio astronomy	Radio astronomy		
5.149	5.149		
250-252 GHz	**250-252 GHz (CIVIL)**		
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		
5.340 5.563A	5.340 5.563A		
252-265 GHz	**252-265 GHz (CIVIL)**		
FIXED	FIXED		
MOBILE	MOBILE		
MOBILE-SATELLITE (Earth-to-space)	MOBILE-SATELLITE (Earth-to-space)		
RADIO ASTRONOMY	RADIO ASTRONOMY		
RADIONAVIGATION	RADIONAVIGATION		
RADIONAVIGATION-SATELLITE	RADIONAVIGATION-SATELLITE		
5.149 5.554	5.149 5.554		
265-275 GHz	**265-275 GHz (CIVIL)**		
FIXED	FIXED		
FIXED-SATELLITE (Earth-to-space)	FIXED-SATELLITE (Earth-to-space)		
MOBILE	MOBILE		
RADIO ASTRONOMY	RADIO ASTRONOMY		
5.149 5.563A	5.149 5.563A		
275-3 000 GHz	**275-3 000 GHz**		
(Not allocated) 5.565	(Not allocated) 5.565		

4
Abbreviations

Abbreviations

A3E	DOUBLE SIDEBAND AMPLITUDE MODULATED SINGLE CHANNEL EMISSION
AAIC	ACCOUNTING AUTHORITY IDENTIFICATION CODE
ACAS	AIRBORNE COLLISION AVOIDANCE SYSTEM
AERO	AERONAUTICAL
AGA	AIR-GROUND-AIR
AIS	UNIVERSAL SHIPBORNE AUTOMATIC IDENTIFICATION SYSTEM
ALS	AIRCRAFT LANDING SYSTEM
ARNS	AERONAUTICAL RADIO NAVIGATION SERVICE
ART.	ARTICLE
ASDE	AIRPORT SURFACE DETECTION EQUIPMENT
ASTAP	ASIA-PACIFIC TELECOMMUNICATION STANDARDIZATION PROGRAM
B/PAL	SYSTEM AND STANDARD FOR ANALOG TERRESTRIAL TELEVISION IN VHF BAND ADOPTED IN THE SULTANATE OF OMAN
BS	BASE STATION
BSS	BROADCASTING SATELLITE SERVICE
BWA	BROADBAND WIRELESS ACCESS
CB	CITIZEN BAND
CDMA	CODE-DIVISION MULTIPLEX ACCESS
CDMA450/3G	3G STANDARD IN 450 MHZ BAND
CISPR	INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE
D&S-OPS	DISTRESS AND SAFETY OPERATIONS
DCS	DIGITAL SELECTIVE CALLING
DECT	DIGITAL ENHANCED CORDLESS TELECOMMUNICATIONS
DF	DIRECTION FINDING
DME	DISTANCE MEASURING EQUIPMENT
DRRS	DIGITAL RADIO-RELAY SYSTEM
DSB	DOUBLE SIDE BAND (AM MODULATION)
DSC	DIGITAL SELECTIVE CALLING
DSSS	DIRECT SEQUENCE SPREAD SPECTRUM
DTTB	DIGITAL TERRESTRIAL TELEVISION BROADCASTING
DVB-T	DIGITAL VIDEO BROADCASTING - TERRESTRIAL
E.I.R.P.	EFFECTIVE ISOTROPIC RADIATED POWER
E/S	EARTH-TO-SPACE DIRECTION
EAS	ELECTRONIC ARTICLE SURVEILLANCE
ECC	ELECTRONIC COMMUNICATIONS COMMITTEE
EGSM	GLOBAL SYSTEM FOR MOBILE COMMUNICATIONS IN EXTENDED BAND OF 900 MHZ
EPIRB	EMERGENCY POSITION INDICATING RADIO BEACONS
ERC	EUROPEAN RADIOCOMMUNICATION COMMITTEE
ESV	EARTH STATIONS ON-BOARD VESSELS
F3E	FREQUENCY MODULATED SINGLE CHANNEL EMISSION
FDD	FREQUENCY DIVISION DUPLEX
FDMA	FREQUENCY DIVISION MULTIPLE ACCESS
FHSS	FREQUENCY HOPPING SPREAD SPECTRUM
FIXED LINKS	STANDS FOR POINT-TO-POINT AND POINT-TO-MULTIPOINT RADIO LINKS BELOW 1 GHZ, AND POINT-TO-POINT LINKS (ONLY!) ABOVE 1 GHZ
FM	FREQUENCY MODULATION
FS	FIXED SERVICE
FSS	FIXED-SATELLITE SERVICE
FWS	FIXED WIRELESS SYSTEM
G/PAL	SYSTEM AND STANDARD FOR ANALOG TERRESTRIAL TELEVISION IN UHF BAND ADOPTED IN THE SULTANATE OF OMAN
GALILEO	GLOBAL SATELLITE RADIONAVIGATION SYSTEM BEING BUILT BY EUROPEAN UNION AND EUROPEAN SPACE AGENCY
GBAS	GROUND BASED AUGMENTATION SYSTEM

GE06	REGIONAL AGREEMENT RELATING TO THE PLANNING OF THE DIGITAL BROADCASTING SERVICE IN PARTS OF REGIONS 1 AND 3, IN THE FREQUENCY BANDS 174-230 MHZ AND 470-862 MHZ, GENEVA, 2006
GE75	REGIONAL AGREEMENT RELATING TO THE PLANNING OF LF/MF BROADCASTING IN PARTS OF REGIONS 1 AND 3, GENEVA, 1975
GE84	REGIONAL AGREEMENT CONCERNING FM SOUND BROADCASTING STATIONS (REGION 1 AND PART OF REGION 3), GENEVA, 1984
GE85-EMA	REGIONAL AGREEMENT CONCERNING THE PLANNING OF THE MARITIME RADIONAVIGATION SERVICE (RADIOBEACONS) IN THE FREQUENCY BAND 283.5-315 KHZ FOR THE EUROPEAN MARITIME AREA, GENEVA, 1985
GE85-MM-R1	REGIONAL AGREEMENT CONCERNING THE MF MARITIME MOBILE AND AERONAUTICAL RADIONAVIGATION SERVICES IN REGION 1, GENEVA, 1985
GLONASS	GLOBAL NAVIGATION SATELLITE SYSTEM
GMDSS	GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM
GPS	GLOBAL POSITIONING SYSTEM
GSM-1800	GLOBAL SYSTEM FOR MOBILE COMMUNICATIONS IN 1800 MHZ BAND
GSM-900	GLOBAL SYSTEM FOR MOBILE COMMUNICATIONS IN 900 MHZ BAND
GSO	GEOSTATIONARY SATELLITE ORBIT
HAPS	HIGH ALTITUDE PLATFORM STATION
HDFS	HIGH-DENSITY FIXED SERVICE
HDFSS	HIGH-DENSITY FIXED-SATELLITE SERVICE
HDTV	HIGH-DEFINITION TELEVISION
HF	HIGH FREQUENCY (3 – 30 MHZ)
IBURST	WIRELESS BROADBAND TECHNOLOGY DEVELOPED BY ARRAYCOMM
ICAO	INTERNATIONAL CIVIL AVIATION ORGANIZATION
IEC	INTERNATIONAL ELECTROTECHNICAL COMMISSION
ILS	INSTRUMENTAL LANDING SYSTEM
IMO	INTERNATIONAL MARITIME ORGANIZATION
IMT	INTERNATIONAL MOBILE TELECOMMUNICATIONS
ISM	INDUSTRIAL, SCIENTIFIC AND MEDICAL
ITU	INTERNATIONAL TELECOMMUNICATION UNION
ITU RR	RADIO REGULATIONS OF THE INTERNATIONAL TELECOMMUNICATION UNION
JTIDS	JOINT TACTICAL INFORMATION AND DISTRIBUTION SYSTEM
LF	LOW FREQUENCY (30 – 300 KHZ)
LMDS	LOCAL MULTIPOINT DISTRIBUTION SYSTEM
LORAN	LONG RANGE AID TO NAVIGATION
MDS	MULTIPOINT DISTRIBUTION SYSTEM
METAIDS	METEOROLOGICAL AIDS
MF	MEDIUM FREQUENCY (300 – 3000 KHZ)
MICS	MEDICAL IMPLANT COMMUNICATION SYSTEM
MID	MARITIME IDENTIFICATION DIGITS
MIDS	MULTIFUNCTIONAL INFORMATION DISTRIBUTION SYSTEM
MLS	MICROWAVE LANDING SYSTEM
MMSI	MARITIME MOBILE SERVICE IDENTITY
MS	MOBILE STATION
MSI	MARITIME SAFETY INFORMATION
MSS	MOBILE-SATELLITE SERVICE
MVDS	MULTICHANNEL VIDEO DISTRIBUTION SYSTEM
MWS	MULTIMEDIA WIRELESS SYSTEM
NAVTEX	NARROW-BAND DIRECT-PRINTING TELEGRAPHY SYSTEM FOR TRANSMISSION OF NAVIGATIONAL AND METEOROLOGICAL WARNINGS AND URGENT INFORMATION TO SHIPS
NBDP	NARROW-BAND DIRECT-PRINTING
ND	NON-DIRECTIONAL RADIO (ANTENNA)
NDB	NON-DIRECTIONAL RADIO BEACON
NTLX	NATIONAL TELEX NUMBER
OMAXXXXX	ALLOTMENT/ASSIGNMENT IDS OF THE SULTANATE OF OMAN IN FIXED- OR BROADCASTING-SATELLITE SERVICE IN ITU-RR APPENDIXES

OR	OFF-ROUTE (IN AERONAUTICAL MOBILE SERVICE)
PAMR	PUBLIC ACCESS MOBILE RADIO
PFD	POWER FLUX DENSITY
P-MP	POINT-TO-MULTIPOINT
PMR	PRIVATE (PROFESSIONAL) MOBILE RADIO
P-P	POINT-TO-POINT
PSD	POWER SPECTRAL DENSITY
R	ROUTE (IN AERONAUTICAL MOBILE SERVICE)
RDF	RADIOSONDE RADIO DIRECTION FINDING
REC	RECOMMENDATION
REOS	RECEIVE-ONLY SYSTEMS
RES.	RESOLUTION
RFID	RADIO FREQUENCY IDENTIFICATION
RLAN	RADIO LOCAL AREA NETWORK
RNS	RADIONAVIGATION SERVICE
RR	ITU RADIO REGULATIONS
RSME	RADAR SENSING AND MEASUREMENT SYSTEMS
RTP-COM	RADIO TELEPHONY COMMUNICATION
S/E	SPACE-TO-EARTH DIRECTION
SAB	SERVICE ANCILLARY TO BROADCASTING
SAP	SERVICE ANCILLARY TO PROGRAM MAKING
SAR	SEARCH AND RESCUE
SART	SEARCH AND RESCUE TRANSPONDER
SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
S-DAB	SATELLITE DIGITAL AUDIO BROADCASTING
SIT	SATELLITE INTERACTIVE TERMINAL
SNG	SATELLITE NEWS GATHERING
S-PCS	SATELLITE PERSONAL COMMUNICATION SYSTEM
SRD	SHORT RANGE DEVICE
SRR	SHORT RANGE RADAR
SSB	SINGLE SIDE BAND
SSR	SECONDARY SURVEILLANCE RADAR
SUT	SATELLITE USER TERMINAL
TACAN	TACTICAL AIR NAVIGATION
TBD	TO BE DETERMINED
T-DAB	TERRESTRIAL DIGITAL AUDIO BROADCASTING
TDD	TIME-DIVISION DUPLEX
TDMA	TIME-DIVISION MULTIPLE ACCESS
TETRA	TERRESTRIAL TRUNKED RADIO
UHF	ULTRA-HIGH FREQUENCY (300 – 3000 MHZ)
UMTS	UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM
VHF	VERY HIGH FREQUENCY (30 – 300 MHZ)
VLBI	VERY LONG BASELINE INTERFEROMETRY
VLF	VERY LOW FREQUENCY (3 – 30 KHZ)
VOR	VHF OMNIDIRECTIONAL RANGING
VSAT	VERY SMALL APERTURE TERMINAL
VTS	VEHICLE TRACKING SYSTEM
WAS	WIRELESS ACCESS SYSTEM
WLL	WIRELESS LOCAL LOOP
WMO	WORLD METEOROLOGICAL ORGANIZATION