|  |  |
| --- | --- |
| **World Radiocommunication Conference (WRC-15) Geneva, 2–27 November 2015** |  |
| **INTERNATIONAL TELECOMMUNICATION UNION** |  |
|  |  |
| PLENARY MEETING | **Addendum 1 to Document 85(Add.6)-E** |
|  | **16 October 2015** |
|  | **Original: English** |
|  | |
| Burundi (Republic of)/Kenya (Republic of)/Uganda (Republic of)/ Rwanda (Republic of)/Tanzania (United Republic of) | |
| Proposals for the work of the conference | |
|  | |
| Agenda item 1.6.1 | |

1.6 to consider possible additional primary allocations:

1.6.1 to the fixed-satellite service (Earth-to-space and space-to-Earth) of 250 MHz in the range between 10 GHz and 17 GHz in Region 1;

and review the regulatory provisions on the current allocations to the fixed-satellite service within each range, taking into account the results of ITU‑R studies, in accordance with Resolutions **151 (WRC‑12)** and **152 (WRC‑12)**, respectively;

Introduction

Eleven candidate bands have been proposed for studies. Positions of EACO member countries (BDI/KEN/RRW/TZA/UGA) on each of the candidate band is summarized in the table below:

|  |  |  |
| --- | --- | --- |
| The band | Supported method (E to S) | Supported method (S to E) |
| 10.00-10.50 | - | AA1 |
| 10.50-10.60 | - | - |
| 10.60-10.68 | - | - |
| 13.25-13.40 | - | - |
| 13.40-13.75 | E1 | EE2 |
| 14.50-14.80 | F1 | FF1 |
| 14.80-15.35 | G1 | GG1 |
| 15.35-15.40 | - | - |
| 15.40-15.70 | I1 | II1 |
| 15.70-16.60 | - | - |
| 16.60-17.00 | - | - |

Proposal

BDI/KEN/RRW/TZA/UGA (EACO member countries) propose the following on each candidate band:

# 1) The band 10-10.5 GHz

ARTICLE 5

Frequency allocations

Section IV – Table of Frequency Allocations  
(See No. 2.1)

NOC BDI/KEN/UGA/RRW/TZA/85A6A1/1

10-11.7 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 10-10.45  FIXED  MOBILE  RADIOLOCATION  Amateur | 10-10.45  RADIOLOCATION  Amateur | 10-10.45  FIXED  MOBILE  RADIOLOCATION  Amateur |
| 5.479 | 5.479 5.480 | 5.479 |
| 10.45-10.5 RADIOLOCATION  Amateur  Amateur-satellite  5.481 | | |

# 2) The band 10.5-10.6 GHz

ARTICLE 5

Frequency allocations

Section IV – Table of Frequency Allocations  
(See No. 2.1)

NOC BDI/KEN/UGA/RRW/TZA/85A6A1/2

10-11.7 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 10.5-10.55  FIXED  MOBILE  Radiolocation | 10.5-10.55  FIXED  MOBILE  RADIOLOCATION | |
| 10.55-10.6 FIXED  MOBILE except aeronautical mobile  Radiolocation | | |

# 3) The band 10.6-10.68 GHz

ARTICLE 5

Frequency allocations

Section IV – Table of Frequency Allocations  
(See No. 2.1)

NOC BDI/KEN/UGA/RRW/TZA/85A6A1/3

10-11.7 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 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 | | |

# 4) The band 13.25-13.4 GHz

NOC BDI/KEN/UGA/RRW/TZA/85A6A1/4

11.7-14 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 13.25-13.4 EARTH EXPLORATION-SATELLITE (active)  AERONAUTICAL RADIONAVIGATION 5.497  SPACE RESEARCH (active)  5.498A 5.499 | | |

# 5) The band 13.4-13.75 GHz

ARTICLE 5

Frequency allocations

Section IV – Table of Frequency Allocations  
(See No. 2.1)

MOD BDI/KEN/UGA/RRW/TZA/85A6A1/5

11.7-14 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 13.4-13.65  EARTH EXPLORATION-SATELLITE (active)  FIXED-SATELLITE (space-to-Earth) ADD 5.C161 ADD 5.X161, ADD 5.C161*bis*  RADIOLOCATION  SPACE RESEARCH ADD 5.L161  Standard frequency and time signal-satellite (Earth-to-space)  5.499 5.500 5.501 5.501B | 13.4-13.65  EARTH EXPLORATION-SATELLITE (active)  RADIOLOCATION  SPACE RESEARCH ADD 5.L161  Standard frequency and time signal-satellite (Earth-to-space)  5.499 5.500 5.501 5.501B | |
| 13.65-13.75 EARTH EXPLORATION-SATELLITE (active)  RADIOLOCATION  SPACE RESEARCH MOD 5.501A  Standard frequency and time signal-satellite (Earth-to-space)  5.499 5.500 5.501 5.501B | | |

**Reasons:** To allocate the band 13.4-13.65 GHz to the FSS (space-to-Earth) in Region 1

ADD BDI/KEN/UGA/RRW/TZA/85A6A1/6

5.C161 The use of the band 13.4-13.65 GHz by the fixed-satellite service (space-to-Earth) is limited to geostationary-satellite systems and is subject to agreement obtained under No. **9.21** with respect to satellite systems, operating in the space research service (space-to-space) to relay data from space stations in the geostationary satellite orbit to associated space stations in the non-geostationary satellite orbit, for which information for advance publication has been received by the Bureau prior to 27 November 2015.     (WRC‑15)

**Reasons:** To limit use of the new FSS allocation (space-to-Earth) in Region 1 to GSO FSS, and to specify the terms and conditions for sharing between newly filed GSO FSS networks and SRS systems already notified to the Bureau, operating on space-to-space link to relay data from GSO space station to non-GSO user space station. There is understanding, that coordination of newly filed GSO FSS networks and already notified to the Bureau SRS (space-to-Earth) systems is subject to RR No. 9.7.

ADD BDI/KEN/UGA/RRW/TZA/85A6A1/7

5.L161 The allocation of the band 13.4-13.65 GHz to the space research service on a primary basis is limited to active spaceborne sensors, as well as satellite systems, operating in the space research service (space-to-Earth and space-to-space) to relay data from space stations in the geostationary-satellite orbit to associated earth stations and space stations in the non-geostationary-satellite orbit, for which information for advance publication has been received by the Bureau prior to 27 November 2015. Satellite systems in the space research service (space-to-Earth and space-to-space) shall not cause harmful interference to nor claim protection from stations in the fixed, mobile, radiolocation and Earth exploration-satellite (active) services. Other uses of the band by the space research service are on a secondary basis.     (WRC‑15)

**Reasons:** Since only the frequency assignments having allocation of the considered frequency band on an equal basis are taken into account in the coordination under RR Article 9 it is proposed to modify footnote No. 5.501А and to add a new footnote under which the status of the ITU BR notified frequency assignments of DRS in SRS (s-E and s-s) will be increased up to the primary with regard to FSS. With respect to FSS stations in Region 1 in any case it is required to seek the agreement of other administrations (under RR No. 9.21) operating DRS in SRS (space-to-space) in Region 1, with NGSO user which can be potentially located over the territories of Regions 2 and 3. The direction of the DRS SRS links (space-to-Earth and space-to-space) is defined by the relevant Recommendations therefore it is not specified in RR Article 5 footnotes.

ADD BDI/KEN/UGA/RRW/TZA/85A6A1/8

5.X161 Administrations shall not preclude the deployment and operation of transmitting earth stations in the standard frequency and time signal-satellite (Earth-to-space) allocated on a secondary basis in the band 13.4-13.65 GHz, due to the primary allocation to FSS (space-to-Earth).     (WRC‑15)

**Reasons:** To ensure the deployment of transmitting Earth stations for the European ACES system in the band 13.4-13.75 GHz operating under the standard frequency and time signal-satellite.

ADD BDI/KEN/UGA/RRW/TZA/85A6A1/9

5.C161*bis* In the band 13.4-13.65 GHz, geostationary-satellite networks in the fixed-satellite service (space-to-Earth) shall not claim protection from space stations in the Earth exploration-satellite service (active) operating in accordance with these Regulations. No. **5.43A** and No. **22.2** do not apply.     (WRC‑15)

MOD BDI/KEN/UGA/RRW/TZA/85A6A1/10

5.501A The allocation of the band 13.65-13.75 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‑15)

**Reasons:** To ensure operation of notified to the Bureau SRS systems on space-to-Earth and space-to-space links on an equal basis with newly filed stations in the fixed-satellite service (space-to-Earth).

ARTICLE 21

Terrestrial and space services sharing frequency bands above 1 GHz

Section I − Choice of sites and frequencies

MOD BDI/KEN/UGA/RRW/TZA/85A6A1/11

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1 21.2.1 For their own protection receiving stations in the fixed or mobile service operating in bands shared with space radiocommunication services (space-to-Earth) should also avoid directing their antennas towards the geostationary-satellite orbit if their sensitivity is sufficiently high that interference from space station transmissions may be significant. In particular, in the bands 13.4-13.65 GHz and 21.4-22 GHz, it is recommended to maintain a minimum separation angle of 1.5° with respect to the direction of the geostationary-satellite orbit.    (WRC‑15)

Section V − Limits of power flux-density from space stations

MOD BDI/KEN/UGA/RRW/TZA/85A6A1/12

TABLE **21-4**  (*continued*)     (Rev.WRC‑15)

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Frequency band | Service\* | Limit in dB(W/m2) for angles of arrival (δ) above the horizontal plane | | | | | | | Reference bandwidth |
| 0°-5° | | 5°-25° | | | 25°-90° | |
| 12.2-12.75 GHz 7 (Region 3)  12.5‑12.75 GHz 7 (Region 1 countries listed in Nos. 5.494 and 5.496) | Fixed-satellite (space-to-Earth) (geostationary-satellite orbit) | −148 | | −148 + 0.5(δ − 5) | | | −138 | | 4 kHz |
| 13.4-13.65 GHz (Region 1) | Fixed-satellite (space-to-Earth) (geostationary-satellite orbit) | **0°-0.6°** | **0.6°-1.25°** | | **1.25°-21.25°** | **21.25°-70°** | | **70°-90°** | 1 MHz |
| −137.5 | −136.5 | | −130.5 | −127.5 | | −122 |

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\* The references to services are those services which have allocations in Article 5.

**Reasons:** To insert pfd limits for GSO FSS (space-to-Earth) into RR Article 21 in order to protect allocations to terrestrial services (FS, MS) and RLS.

APPENDIX 5 (REV.WRC‑12)

Identification of administrations with which coordination is to be effected or  
agreement sought under the provisions of Article 9

MOD BDI/KEN/UGA/RRW/TZA/85A6A1/13

TABLE 5-1     (Rev.WRC‑15)

Technical conditions for coordination

(see Article 9)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Reference of Article 9 | Case | Frequency bands (and Region) of the service for which coordination is sought | Threshold/condition | Calculation  method | Remarks |
| No. **9.7** GSO/GSO | A station in a satellite network using the geostationary-satellite orbit (GSO), in any space radiocommunication service, in a frequency band and in a Region where this service is not subject to a Plan, in respect of any other satellite network using that orbit, in any space radiocommunication service in a frequency band and in a Region where this service is not subject to a Plan, with the exception of the coordination between earth stations operating in the opposite direction of transmission | 1) 3 400-4 200 MHz 5 725-5 850 MHz (Region 1) and 5 850-6 725 MHz 7 025-7 075 MHz | i) Bandwidth overlap, and  ii) any network in the fixed-satellite service (FSS) and any associated space operation functions (see No. **1.23**) with a space station within an orbital arc of ±8° of the nominal orbital position of a proposed network in the FSS |  | With respect to the space services listed in the threshold/condition column in the bands in 1), 2), 2*bis*), 3), 4), 5), 6), 7) and 8), an administration may request, pursuant to No. **9.41**, to be included in requests for coordination, indicating the networks for which the value of Δ*T*/*T* calculated by the method in § 2.2.1.2 and 3.2 of Appendix **8** exceeds 6%. When the Bureau, on request by an affected administration, studies this information pursuant to No. **9.42**, the calculation method given in § 2.2.1.2 and 3.2 of Appendix **8** shall be used |
| 2) 10.95-11.2 GHz 11.45‑11.7 GHz  11.7-12.2 GHz  (Region 2) 12.2-12.5 GHz  (Region 3) 12.5‑12.75 GHz (Regions 1 and 3) 12.7‑12.75 GHz (Region 2) and  13.75‑14.5 GHz | i) Bandwidth overlap, and  ii) any network in the FSS or broadcasting-satellite service (BSS), not subject to a Plan, and any associated space operation functions (see No. **1.23**) with a space station within an orbital arc of ±7° of the nominal orbital position of a proposed network in the FSS or BSS, not subject to a Plan |
| 2*bis*) 13.4-13.65 GHz (Region 1) | i) Bandwidth overlap, and  ii) any network in the space research service (SRS) or any network in the FSS and any associated space operation functions (see No. **1.23**) with a space station within an orbital arc of ±7° of the nominal orbital position of a proposed network in the FSS |

**Reasons:** To specify the order and mechanism of coordination in accordance with provisions of RR No. 9.7 between newly notifying networks of the FSS and SRS (space-to-Earth).

MOD BDI/KEN/UGA/RRW/TZA/85A6A1/14

TABLE 5-1     (Rev.WRC‑15)

Technical conditions for coordination

(see Article 9)

TABLE 5-1 (*end*)     (Rev.WRC‑15)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Reference of Article 9 | Case | Frequency bands  (and Region) of the service for which coordination is sought | Threshold/condition | Calculation  method | Remarks |
| No. **9.21** Terrestrial, GSO, non‑GSO/ terrestrial, GSO, non‑GSO | A station of a service for which the requirement to obtain the agreement of other administrations is included in a footnote to the Table of Frequency Allocations referring to No. **9.21** | Band(s) indicated in the relevant footnote except 13.4-13.65 GHz in Region 1 | Incompatibility established by the use of Appendices **7**, **8**, technical Annexes of Appendices **30** or **30A**, pfd values specified in some of the footnotes, other technical provisions of the Radio Regulations or ITU‑R Recommendations, as appropriate | Methods specified in, or adapted from, Appendices **7**, **8**, **30**, **30A**, other technical provisions of the Radio Regulations or ITU‑R Recommendations |  |
| 13.4-13.65 GHz in Region 1 | Any network in the space research service (SRS) within an orbital arc of ±(24)° of the nominal orbital position of a proposed network in the FSS |

**Reasons:** To define the procedure for coordination under the provisions of RR No. 9.21 between the newly notified FSS networks and SRS networks.

APPENDIX 7 (REV.WRC‑12)

Methods for the determination of the coordination area around an earth  
station in frequency bands between 100 MHz and 105 GHz

ANNEX 7

System parameters and predetermined coordination distances for determination of the coordination area around an earth station

# 3 Horizon antenna gain for a receiving earth station with respect to a transmitting earth station

MOD BDI/KEN/UGA/RRW/TZA/85A6A1/15

TABLE 8c    (Rev.WRC‑15)

Parameters required for the determination of coordination distance for a receiving earth station

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Receiving space radiocommunication service designation | | | Fixed-satellite | | Fixed-satellite, radio- determination satellite | Fixed-satellite | Fixed- satellite | | Meteorological-satellite7, 8 | Meteorological-satellite9 | Earth exploration- satellite7 | Earth exploration- satellite9 | Space research10 | | Fixed-satellite | | Broadcasting-satellite | | Fixed- satellite9 | Broadcasting-satellite | Fixed-satellite7 |
|  | | |  | |  |  |  | |  |  |  |  | Deep space |  |  | |  | |  |  |  |
| Frequency bands (GHz) | | | 4.500-4.800 | | 5.150-5.216 | 6.700-7.075 | 7.250-7.750 | | 7.450-7.550 | 7.750-7.900 | 8.025-8.400 | 8.025-8.400 | 8.400-8.450 | 8.450-8.500 | 10.7-12.75 13.4-13.657 | | 12.5-12.7512 | | 15.4-15.7 | 17.7-17.8 | 17.7-18.8 19.3-19.7 |
| Transmitting terrestrial  service designations | | | Fixed, mobile | | Aeronautical radionavigation | Fixed, mobile | Fixed, mobile | | Fixed, mobile | Fixed, mobile | Fixed, mobile | Fixed, mobile | Fixed, mobile | | Fixed, mobile | | Fixed, mobile | | Aeronau-tical radio-navigation | Fixed | Fixed, mobile |
| Method to be used | | | § 2.1 | | § 2.1 | § 2.2 | § 2.1 | | § 2.1, § 2.2 | § 2.2 | § 2.1 | § 2.2 | § 2.2 | | § 2.1, § 2.2 | | § 1.4.5 | |  | § 1.4.5 | § 2.1 |
| Modulation at earth  station1 | | | A | N |  | N | A | N | N | N | N | N | N | N | A | N | A | N | – |  | N |
| Earth station interference parameters and criteria | *p*0 (%) | | 0.03 | 0.005 |  | 0.005 | 0.03 | 0.005 | 0.002 | 0.001 | 0.083 | 0.011 | 0.001 | 0.1 | 0.03 | 0.003 | 0.03 | 0.003 | 0.003 |  | 0.003 |
| *n* | | 3 | 3 |  | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 |  | 2 |
| *p* (%) | | 0.01 | 0.0017 |  | 0.0017 | 0.01 | 0.0017 | 0.001 | 0.0005 | 0.0415 | 0.0055 | 0.001 | 0.05 | 0.015 | 0.0015 | 0.03 | 0.003 | 0.0015 |  | 0.0015 |
| *NL* (dB) | | 1 | 1 |  | 1 | 1 | 1 | – | – | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |  | 1 |
| *Ms* (dB) | | 7 | 2 |  | 2 | 7 | 2 | – | – | 2 | 4.7 | 0.5 | 1 | 7 | 4 | 7 | 4 | 4 |  | 6 |
| *W* (dB) | | 4 | 0 |  | 0 | 4 | 0 | – | – | 0 | 0 | 0 | 0 | 4 | 0 | 4 | 0 | 0 |  | 0 |
| Terrestrial station parameters | *E* (dBW) in *B*2 | A | 923 | 923 |  | 55 | 55 | 55 | 55 | 55 | 55 | 55 | 25 5 | 255 | 40 | 40 | 55 | 55 |  |  | 35 |
| N | 424 | 424 |  | 42 | 42 | 42 | 42 | 42 | 42 | 42 | −18 | −18 | 43 | 43 | 42 | 42 |  | 40 | 40 |
| *Pt* (dBW)  in *B* | A | 403 | 403 |  | 13 | 13 | 13 | 13 | 13 | 13 | 13 | −175 | −175 | −5 | −5 | 10 | 10 |  |  | −10 |
| N | 0 | 0 |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | −60 | −60 | −2 | −2 | −3 | −3 |  | −7 | −5 |
| *Gx* (dBi) | | 523, 4 | 523, 4 |  | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 42 | 45 | 45 | 45 | 45 |  | 47 | 45 |
| Reference band- width6 | *B* (Hz) | | 106 | 106 |  | 106 | 106 | 106 | 107 | 107 | 106 | 106 | 1 | 1 | 106 | 106 | 27 × 106 | 27 × 106 |  |  | 106 |
| Permissible interference power | *Pr*( *p*) (dBW) in *B* | |  |  |  | −151.2 |  |  | −125 | −125 | −15411 | −142 | −220 | −216 |  |  | −131 | −131 |  |  |  |

*Notes to Table 8c:*

1 A: analogue modulation; N: digital modulation.

2 *E* is defined as the equivalent isotropically radiated power of the interfering terrestrial station in the reference bandwidth.

3 In this band, the parameters for the terrestrial stations associated with transhorizon systems have been used. If an administration believes that transhorizon systems do not need to be considered, the line-of-sight radio-relay parameters associated with the frequency band 3.4-4.2 GHz may be used to determine the coordination area.

4 Digital systems assumed to be non-transhorizon. Therefore *Gx* = 42.0 dBi. For digital transhorizon systems, parameters for analogue transhorizon systems above have been used.

5 These values are estimated for 1 Hz bandwidth and are 30 dB below the total power assumed for emission.

6 In certain systems in the fixed-satellite service it may be desirable to choose a greater reference bandwidth *B*. However, a greater bandwidth will result in smaller coordination distances and a later decision to reduce the reference bandwidth may require recoordination of the earth station.

7 Geostationary-satellite systems.

8 Non-geostationary satellites in the meteorological-satellite service notified in accordance with No. **5.461A** may use the same coordination parameters.

9 Non-geostationary-satellite systems.

10 Space research earth stations in the band 8.4-8.5 GHz operate with non-geostationary satellites.

11 For large earth stations: *Pr*(*p*) = (*G* − 180) dBW

For small earth stations: *Pr*(20%) = 2 (*G* − 26) − 140 dBW for  26 < *G* ≤ 29 dBi

*Pr*(20%) = *G* − 163 dBW for        *G*  29 dBi

*Pr*(*p*)% = *G* − 163 dBW for        *G* ≤ 26 dBi

12 Applies to the broadcasting-satellite service in unplanned bands in Region 3.

**Reasons:** To specify coordination distances for the FSS receiving earth station in order to protect it from interferences produced by terrestrial FS and MS stations, based on the allowable interference criterion *I*/*N* = 6%, see Recommendation ITU-R S.1432.

# 6) The band 14.5-14.80 GHz

ARTICLE 5

Frequency allocations

Frequency allocations Section IV – Table of Frequency Allocations  
(See No. 2.1)

NOC BDI/KEN/UGA/RRW/TZA/85A6A1/16

14-15.4 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 14.5-14.8 FIXED  FIXED-SATELLITE (Earth-to-space) 5.510  MOBILE  Space research | | |

# 7) The band 14.8-15.35 GHz

ARTICLE 5

Frequency allocations

Frequency allocations Section IV – Table of Frequency Allocations  
(See No. 2.1)

NOC BDI/KEN/UGA/RRW/TZA/85A6A1/17

14-15.4 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 14.8-15.35 FIXED  MOBILE  Space research  5.339 | | |

# 8) The band 15.35-15.4 GHz

ARTICLE 5

Frequency allocations

Frequency allocations Section IV – Table of Frequency Allocations  
(See No. 2.1)

NOC BDI/KEN/UGA/RRW/TZA/85A6A1/18

14-15.4 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 15.35-15.4 EARTH EXPLORATION-SATELLITE (passive)  RADIO ASTRONOMY  SPACE RESEARCH (passive)  5.340 5.511 | | |

# 9) The band 15.4-15.7 GHz

ARTICLE 5

Frequency allocations

Frequency allocations Section IV – Table of Frequency Allocations  
(See No. 2.1)

NOC BDI/KEN/UGA/RRW/TZA/85A6A1/19

15.4-18.4 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 15.4-15.43 RADIOLOCATION 5.511E 5.511F  AERONAUTICAL RADIONAVIGATION  5.511D | | |
| 15.43-15.63 FIXED-SATELLITE (Earth-to-space) 5.511A  RADIOLOCATION 5.511E 5.511F  AERONAUTICAL RADIONAVIGATION  5.511C | | |
| 15.63-15.7 RADIOLOCATION 5.511E 5.511F  AERONAUTICAL RADIONAVIGATION  5.511D | | |

# 10) The band 15.7-16.6 GHz

ARTICLE 5

Frequency allocations

Frequency allocations Section IV – Table of Frequency Allocations  
(See No. 2.1)

NOC BDI/KEN/UGA/RRW/TZA/85A6A1/20

15.4-18.4 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 15.7-16.6 RADIOLOCATION  5.512 5.513 | | |

# 11) The band 16.6-17.00 GHz

ARTICLE 5

Frequency allocations

Frequency allocations Section IV – Table of Frequency Allocations  
(See No. 2.1)

NOC BDI/KEN/UGA/RRW/TZA/85A6A1/21

15.4-18.4 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 16.6-17.1 RADIOLOCATION  Space research (deep space) (Earth-to-space)  5.512 5.513 | | |

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