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| **World Radiocommunication Conference (WRC-19) Sharm el-Sheikh, Egypt, 28 October – 22 November 2019** |  |
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| PLENARY MEETING | **Document 112-E** |
|  | **16 October 2019** |
|  | **Original: English** |
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| Angola (Republic of)/Botswana (Republic of)/Eswatini (Kingdom of)/Lesotho (Kingdom of)/Madagascar (Republic of)/Malawi/Mauritius (Republic of)/Mozambique (Republic of)/Namibia (Republic of)/Democratic Republic of the Congo/Seychelles (Republic of)/South Africa (Republic of)/Tanzania (United Republic of)/Zambia (Republic of)/ | |
| Proposals for the work of the conference | |
|  | |
| Agenda item 1.16 | |

1.16 to consider issues related to wireless access systems, including radio local area networks (WAS/RLAN), in the frequency bands between 5 150 MHz and 5 925 MHz, and take the appropriate regulatory actions, including additional spectrum allocations to the mobile service, in accordance with Resolution **239 (WRC-15)**;

Introduction

The above listed Administrations from the Southern African Development Community (SADC) region support the alignment of the technical and regulatory conditions for the 5 150-5 250 MHz frequency band with those defined for the adjacent frequency band 5 250-5 350 MHz in *resolves* 4 of Resolution **229 (Rev.WRC-12)** to protect incumbent services.

For the band 5 725-5 850 MHz, above-mentioned Administrations support the modification of the Radio Regulation by allocating the band to mobile (except aeronautical mobile) service on a primary basis in Region 1. Through a footnote the use of the band will be in accordance with Resolution **229** **(Rev.WRC-19)**. Amongst other conditions, WAS/RLAN will be restricted to indoor use only.

For the bands 5 250-5 350 MHz, 5 350-5 470 MHz and 5 850-5 925 MHz, above-mentioned Administrations support NOC to the Radio Regulations.

**Band A: 5 150-5 250 MHz**

MOD AGL/BOT/SWZ/LSO/MDG/MWI/MAU/MOZ/NMB/COD/SEY/AFS/TZA/ZMB/112/1#49961

RESOLUTION 229 (Rev.WRC‑19)

Use of the bands 5 150-5 250 MHz, 5 250-5 350 MHz and 5 470-5 725 MHz by the mobile service for the implementation of wireless access systems   
including radio local area networks

The World Radiocommunication Conference (Sharm el-Sheikh, 2019),

considering

*a)* that WRC‑03 allocated the bands 5 150-5 350 MHz and 5 470-5 725 MHz on a primary basis to the mobile service for the implementation of wireless access systems (WAS), including radio local area networks (RLANs);

*b)* that WRC‑03 decided to make an additional primary allocation for the Earth exploration-satellite service (EESS) (active) in the band 5 460-5 570 MHz and space research service (SRS) (active) in the band 5 350-5 570 MHz;

*c)* that WRC‑03 decided to upgrade the radiolocation service to a primary status in the 5 350‑5 650 MHz band;

*d)* that the band 5 150-5 250 MHz is allocated worldwide on a primary basis to the fixed-satellite service (FSS) (Earth-to-space), this allocation being limited to feeder links of non‑geostationary-satellite systems in the mobile-satellite service (No. **5.447A**);

*e)* that the band 5 150-5 250 MHz is also allocated to the mobile service, on a primary basis, in some countries (No. **5.447**) subject to agreement obtained under No. **9.21**;

*f)* that the band 5 250-5 460 MHz is allocated to the EESS (active) and the band 5 250‑5 350 MHz to the SRS (active) on a primary basis;

*g)* that the band 5 250-5 725 MHz is allocated on a primary basis to the radiodetermination service;

*h)* that there is a need to protect the existing primary services in the 5 150-5 350 MHz and 5 470-5 725 MHz bands;

*i)* that results of studies in ITU‑R indicate that sharing in the band 5 150-5 250 MHz between WAS, including RLANs, and the FSS is feasible under specified conditions;

*j)* that studies have shown that sharing between the radiodetermination and mobile services in the bands 5 250-5 350 MHz and 5 470-5 725 MHz is only possible with the application of mitigation techniques such as dynamic frequency selection;

*k)* that there is a need to specify an appropriate e.i.r.p. limit and, where necessary, operational restrictions for WAS, including RLANs, in the mobile service in the bands 5 250-5 350 MHz and 5 470-5 570 MHz in order to protect systems in the EESS (active) and SRS (active);

*l)* that the deployment density of WAS, including RLANs, will depend on a number of factors including intrasystem interference and the availability of other competing technologies and services;

*m)* that the means to measure or calculate the aggregate pfd level at FSS satellite receivers specified in Recommendation ITU‑R S.1426 are currently under study;

*n)* that certain parameters contained in Recommendation ITU‑R M.1454 related to the calculation of the number of RLANs tolerable by FSS satellite receivers operating in the band 5 150-5 250 MHz require further study;

*o)* that an aggregate pfd level has been developed in Recommendation ITU‑R S.1426 for the protection of FSS satellite receivers in the 5 150-5 250 MHz band,

further considering

*a)* that the interference from a single WAS, including RLANs, complying with the operational restrictions under *resolves*2 will not on its own cause any unacceptable interference to FSS receivers on board satellites in the band 5 150-5 250 MHz;

*b)* that such FSS satellite receivers may experience an unacceptable effect due to the aggregate interference from these WAS, including RLANs, especially in the case of a prolific growth in the number of these systems;

*c)* that the aggregate effect on FSS satellite receivers will be due to the global deployment of WAS, including RLANs, and it may not be possible for administrations to determine the location of the source of the interference and the number of WAS, including RLANs, in operation simultaneously,

noting

*a)* that, prior to WRC‑03, a number of administrations have developed regulations to permit indoor and outdoor WAS, including RLANs, to operate in the various bands under consideration in this Resolution;

*b)* that, in response to Resolution **229 (WRC‑03)[[1]](#footnote-1)\***, ITU‑R developed Report ITU‑R M.2115, which provides testing procedures for implementation of dynamic frequency selection,

recognizing

*a)* that in the band 5 600-5 650 MHz, ground-based meteorological radars are extensively deployed and support critical national weather services, according to footnote No. **5.452**;

*b)* that the performance and interference criteria of spaceborne active sensors in the EESS (active) are given in Recommendation ITU‑R RS.1166;

*c)* that a mitigation technique to protect radiodetermination systems is given in Recommendation ITU‑R M.1652;

*d)* that Recommendation ITU‑R RS.1632 identifies a suitable set of constraints for WAS, including RLANs, in order to protect the EESS (active) in the 5 250-5 350 MHz band;

*e)* that Recommendation ITU‑R M.1653 identifies the conditions for sharing between WAS, including RLANs, and the EESS (active) in the 5 470-5 570 MHz band;

*f)* that the stations in the mobile service should also be designed to provide, on average, a near-uniform spread of the loading of the spectrum used by stations across the band or bands in use to improve sharing with satellite services;

*g)* that WAS, including RLANs, provide effective broadband solutions, future demand has increased since the frequency range was first identified for this application;

*h)* that there is a need for administrations to ensure that WAS, including RLANs, meet the required mitigation techniques, for example, through equipment or standards compliance procedures,

resolves

1 that the use of these bands by the mobile service is for the implementation of WAS, including RLANs, as described in the most recent version of Recommendation ITU‑R M.1450;

2 that in the bands 5 150-5 250 MHz and 5 250-5 350 MHz, stations in the mobile service shall be limited to a maximum mean e.i.r.p. of 200 mW and a maximum mean e.i.r.p. density of 10 mW/MHz in any 1 MHz band. Administrations are requested to take appropriate measures that will result in the predominant number of stations in the mobile service being operated in an indoor environment. Furthermore, stations in the mobile service that are permitted to be used either indoors or outdoors may operate up to a maximum mean e.i.r.p. of 1 W and a maximum mean e.i.r.p. density of 50 mW/MHz in any 1 MHz band, and, when operating above a mean e.i.r.p. of 200 mW, these stations shall comply with the following e.i.r.p. elevation angle mask where θ is the angle above the local horizontal plane (of the Earth):

−13 dB(W/MHz) for 0° ≤ θ < 8°

−13 − 0.716(θ − 8) dB(W/MHz) for 8° ≤ θ < 40°

−35.9 − 1.22(θ − 40) dB(W/MHz) for 40° ≤ θ ≤ 45°

−42 dB(W/MHz) for 45° < θ;

3 that administrations may exercise some flexibility in adopting other mitigation techniques, provided that they develop national regulations to meet their obligations to achieve an equivalent level of protection to the EESS (active) and the SRS (active) based on their system characteristics and interference criteria as stated in Recommendation ITU‑R RS.1632;

4 that in the band 5 470-5 725 MHz, stations in the mobile service shall be restricted to a maximum transmitter power of 250 mW[[2]](#footnote-4)1 with a maximum mean e.i.r.p. of 1 W and a maximum mean e.i.r.p. density of 50 mW/MHz in any 1 MHz band;

5 that in the bands 5 250-5 350 MHz and 5 470-5 725 MHz, systems in the mobile service shall either employ transmitter power control to provide, on average, a mitigation factor of at least 3 dB on the maximum average output power of the systems, or, if transmitter power control is not in use, then the maximum mean e.i.r.p. shall be reduced by 3 dB;

6 that, in the bands 5 250-5 350 MHz and 5 470-5 725 MHz, the mitigation measures found in Annex 1 to Recommendation ITU‑R M.1652‑1 shall be implemented by systems in the mobile service to ensure compatible operation with radiodetermination systems,

invites administrations

to consider appropriate measures when allowing the operation of stations in the mobile service using the e.i.r.p. elevation angle mask referred in *resolves*2 above, to ensure the equipment is operated in compliance with this mask,

invites ITU‑R

1 to continue studies on mitigation techniques to provide protection of EESS from stations in the mobile service;

2 to continue studies on suitable test methods and procedures for the implementation of dynamic frequency selection, taking into account practical experience.

**Reasons:** Above-mentioned Administrations support updating Resolution **229 (Rev.WRC-12)** to align the technical and regulatory conditions for the 5 150-5 250 MHz frequency band with those defined for the adjacent frequency band 5 250-5 350 MHz in *resolves* 4 of Resolution **229 (Rev.WRC-12)**.

**Band B: 5 250-5 350 MHz**

ARTICLE 5

Frequency allocations

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

NOC AGL/BOT/SWZ/LSO/MDG/MWI/MAU/MOZ/NMB/COD/SEY/AFS/TZA/ZMB/112/2#49956

5 250-5 570 MHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 5 250-5 255 EARTH EXPLORATION-SATELLITE (active)  MOBILE except aeronautical mobile 5.446A 5.447F  RADIOLOCATION  SPACE RESEARCH 5.447D  5.447E 5.448 5.448A | | |
| 5 255-5 350 EARTH EXPLORATION-SATELLITE (active)  MOBILE except aeronautical mobile 5.446A 5.447F  RADIOLOCATION  SPACE RESEARCH (active)  5.447E 5.448 5.448A | | |

**Reasons:** Above-mentioned Administrations support NOC in the band 5 250-5 350 MHz.

Band C: 5 350-5 470 MHz

NOC AGL/BOT/SWZ/LSO/MDG/MWI/MAU/MOZ/NMB/COD/SEY/AFS/TZA/ZMB/112/3#49957

5 250-5 570 MHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 5 350-5 460 EARTH EXPLORATION-SATELLITE (active) 5.448B  RADIOLOCATION 5.448D  AERONAUTICAL RADIONAVIGATION 5.449  SPACE RESEARCH (active) 5.448C | | |
| 5 460-5 470 EARTH EXPLORATION-SATELLITE (active)  RADIOLOCATION 5.448D  RADIONAVIGATION 5.449  SPACE RESEARCH (active)  5.448B | | |

**Reasons:** Above-mentioned Administrations support NOC in the band 5 350-5 470 MHz.

**Band D: 5 725-5 850 MHz**

MOD AGL/BOT/SWZ/LSO/MDG/MWI/MAU/MOZ/NMB/COD/SEY/AFS/TZA/ZMB/112/4#49959

5 570-6 700 MHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 5 725-5 830  FIXED-SATELLITE (Earth-to-space)  MOBILE except aeronautical mobile ADD 5.A116  RADIOLOCATION  Amateur | 5 725-5 830  RADIOLOCATION  Amateur | 5 725-5 830  RADIOLOCATION  Amateur |
| 5.150 5.451 5.453 5.455 | 5.150 5.453 5.455 | 5.150 5.453 5.455 |
| 5 830-5 850  FIXED-SATELLITE (Earth-to-space)  MOBILE except aeronautical mobile ADD 5.A116  RADIOLOCATION  Amateur  Amateur-satellite (space-to-Earth) | 5 830-5 850  RADIOLOCATION  Amateur  Amateur-satellite (space-to-Earth) | 5 830-5 850  RADIOLOCATION  Amateur  Amateur-satellite (space-to-Earth) |
| 5.150 5.451 5.453 5.455 | 5.150 5.453 5.455 | 5.150 5.453 5.455 |

**Reasons:** Above-mentioned Administrations support a primary mobile allocation in Region 1 and a new footnote to refer to the use of the band for WAS/RLAN.

ADD AGL/BOT/SWZ/LSO/MDG/MWI/MAU/MOZ/NMB/COD/SEY/AFS/TZA/ZMB/ 112/5#49960

5.A116 The use of the band 5 725-5 850 MHz in Region 1 by the stations in the mobile, except aeronautical mobile, service shall be in accordance with Resolution **229 (Rev.WRC‑19)**.     (WRC‑19)

**Reasons:** The use of the band by mobile shall be for the implementation of WAS/RLAN as specified in Resolution **229 (Rev.WRC-19)**.

MOD AGL/BOT/SWZ/LSO/MDG/MWI/MAU/MOZ/NMB/COD/SEY/AFS/TZA/ZMB/112/6#49961

RESOLUTION 229 (Rev.WRC‑19)

Use of the bands 5 150-5 250 MHz, 5 250-5 350 MHz, 5 470-5 725 MHz and   
5 725-5 850 MHz by the mobile service for the implementation of   
wireless access systems including radio local area networks

The World Radiocommunication Conference (Sharm el-Sheikh, 2019),

considering

*a)* that WRC‑03 allocated the bands 5 150-5 350 MHz and 5 470-5 725 MHz on a primary basis to the mobile service for the implementation of wireless access systems (WAS), including radio local area networks (RLANs);

*b)* that WRC‑03 decided to make an additional primary allocation for the Earth exploration-satellite service (EESS) (active) in the band 5 460-5 570 MHz and space research service (SRS) (active) in the band 5 350-5 570 MHz;

*c)* that WRC‑03 decided to upgrade the radiolocation service to a primary status in the 5 350‑5 650 MHz band;

*d)* that the band 5 150-5 250 MHz is allocated worldwide on a primary basis to the fixed-satellite service (FSS) (Earth-to-space), this allocation being limited to feeder links of non‑geostationary-satellite systems in the mobile-satellite service (No. **5.447A**);

*e)* that the band 5 150-5 250 MHz is also allocated to the mobile service, on a primary basis, in some countries (No. **5.447**) subject to agreement obtained under No. **9.21**;

*f)* that the band 5 250-5 460 MHz is allocated to the EESS (active) and the band 5 250‑5 350 MHz to the SRS (active) on a primary basis;

*g)* that the band 5 250-5 850 MHz is allocated on a primary basis to the radiodetermination service;

*h)* that the band 5 725-5 850 MHz is allocated in Region 1 only, on a primary basis to the fixed‑satellite service (FSS) (Earth-to-space);

*i)* that there is a need to protect the existing primary services in the 5 150-5 350 MHz and 5 470-5 850 MHz bands;

*j)* that results of studies in ITU‑R indicate that sharing in the bands 5 150-5 250 MHz and 5 725-5 850 MHz (Region 1 only) between WAS, including RLANs, and the FSS is feasible under specified conditions;

*k)* that studies have shown that sharing between the radiodetermination and mobile services in the bands 5 250-5 350 MHz and 5 470-5 725 MHz is only possible with the application of mitigation techniques such as dynamic frequency selection;

*l)* that there is a need to specify an appropriate e.i.r.p. limit and, where necessary, operational restrictions for WAS, including RLANs, in the mobile service in the bands 5 250‑5 350 MHz and 5 470-5 570 MHz in order to protect systems in the EESS (active) and SRS (active);

*m)* that the deployment density of WAS, including RLANs, will depend on a number of factors including intrasystem interference and the availability of other competing technologies and services;

*n)* that the means to measure or calculate the aggregate pfd level at FSS satellite receivers specified in Recommendation ITU‑R S.1426 are currently under study;

*o)* that certain parameters contained in Recommendation ITU‑R M.1454 related to the calculation of the number of RLANs tolerable by FSS satellite receivers operating in the band 5 150-5 250 MHz require further study;

*p)* that an aggregate pfd level has been developed in Recommendation ITU‑R S.1426 for the protection of FSS satellite receivers in the 5 150-5 250 MHz band,

further considering

*a)* that the interference from a single WAS, including RLANs, complying with the operational restrictions under *resolves*2 will not on its own cause any unacceptable interference to FSS receivers on board satellites in the bands 5 150-5 250 MHz and 5 725-5 850 MHz (Region 1 only);

*b)* that such FSS satellite receivers may experience an unacceptable effect due to the aggregate interference from these WAS, including RLANs, especially in the case of a prolific growth in the number of these systems;

*c)* that the aggregate effect on FSS satellite receivers will be due to the global deployment of WAS, including RLANs, and it may not be possible for administrations to determine the location of the source of the interference and the number of WAS, including RLANs, in operation simultaneously,

noting

*a)* that, prior to WRC‑03, a number of administrations have developed regulations to permit indoor and outdoor WAS, including RLANs, to operate in the various bands under consideration in this Resolution;

*b)* that, in response to Resolution **229 (WRC‑03)[[3]](#footnote-5)\***, ITU‑R developed Report ITU‑R M.2115, which provides testing procedures for implementation of dynamic frequency selection,

recognizing

*a)* that in the band 5 600-5 650 MHz, ground-based meteorological radars are extensively deployed and support critical national weather services, according to footnote No. **5.452**;

*b)* that the performance and interference criteria of spaceborne active sensors in the EESS (active) are given in Recommendation ITU‑R RS.1166;

*c)* that a mitigation technique to protect radiodetermination systems is given in Recommendation ITU‑R M.1652;

*d)* that Recommendation ITU‑R RS.1632 identifies a suitable set of constraints for WAS, including RLANs, in order to protect the EESS (active) in the 5 250-5 350 MHz band;

*e)* that Recommendation ITU‑R M.1653 identifies the conditions for sharing between WAS, including RLANs, and the EESS (active) in the 5 470-5 570 MHz band;

*f)* that the stations in the mobile service should also be designed to provide, on average, a near-uniform spread of the loading of the spectrum used by stations across the band or bands in use to improve sharing with satellite services;

*g)* that WAS, including RLANs, provide effective broadband solutions, future demand has increased since the frequency range was first identified for this application;

*h)* that there is a need for administrations to ensure that WAS, including RLANs, meet the required mitigation techniques, for example, through equipment or standards compliance procedures,

resolves

1 that the use of these bands by the mobile service is for the implementation of WAS, including RLANs, as described in the most recent version of Recommendation ITU‑R M.1450;

2 that in the band 5 150-5 250 MHz, stations in the mobile service shall be restricted to indoor use with a maximum mean e.i.r.p.[[4]](#footnote-6)1 of 200 mW and a maximum mean e.i.r.p. density of 10 mW/MHz in any 1 MHz band or equivalently 0.25 mW/25 kHz in any 25 kHz band;

3 that administrations may monitor whether the aggregate pfd levels given in Recommendation ITU‑R S.1426[[5]](#footnote-7)2 have been, or will be exceeded in the future, in order to enable a future competent conference to take appropriate action;

4 that in the band 5 250-5 350 MHz, stations in the mobile service shall be limited to a maximum mean e.i.r.p. of 200 mW and a maximum mean e.i.r.p. density of 10 mW/MHz in any 1 MHz band. Administrations are requested to take appropriate measures that will result in the predominant number of stations in the mobile service being operated in an indoor environment. Furthermore, stations in the mobile service that are permitted to be used either indoors or outdoors may operate up to a maximum mean e.i.r.p. of 1 W and a maximum mean e.i.r.p. density of 50 mW/MHz in any 1 MHz band, and, when operating above a mean e.i.r.p. of 200 mW, these stations shall comply with the following e.i.r.p. elevation angle mask where θ is the angle above the local horizontal plane (of the Earth):

−13 dB(W/MHz) for 0° ≤ θ < 8°

−13 − 0.716(θ − 8) dB(W/MHz) for 8° ≤ θ < 40°

−35.9 − 1.22(θ − 40) dB(W/MHz) for 40° ≤ θ ≤ 45°

−42 dB(W/MHz) for 45° < θ;

5 that administrations may exercise some flexibility in adopting other mitigation techniques, provided that they develop national regulations to meet their obligations to achieve an equivalent level of protection to the EESS (active) and the SRS (active) based on their system characteristics and interference criteria as stated in Recommendation ITU‑R RS.1632;

6 that in the band 5 470-5 725 MHz, stations in the mobile service shall be restricted to a maximum transmitter power of 250 mW[[6]](#footnote-8)3 with a maximum mean e.i.r.p. of 1 W and a maximum mean e.i.r.p. density of 50 mW/MHz in any 1 MHz band;

7 that in Region 1 only in the band 5 725-5 850 MHz, stations in the mobile service shall be restricted to indoor[[7]](#footnote-9)4 use with a maximum mean e.i.r.p.1 of 200 mW and a maximum mean e.i.r.p. density of 10 mW/MHz in any 1 MHz band;

8 that in the bands 5 250-5 350 MHz and 5 470-5 725 MHz, systems in the mobile service shall either employ transmitter power control to provide, on average, a mitigation factor of at least 3 dB on the maximum average output power of the systems, or, if transmitter power control is not in use, then the maximum mean e.i.r.p. shall be reduced by 3 dB;

9 that in Region 1 only in the band 5 725-5 850 MHz, stations in the mobile service shall either employ transmitter power control to provide, on average, a mitigation factor of at least 3 dB on the maximum average output power of the systems, or, if transmitter power control is not in use, then the maximum mean e.i.r.p. shall be reduced by 3 dB;

10 that, in the bands 5 250-5 350 MHz and 5 470-5 725 MHz, the mitigation measures found in Annex 1 to Recommendation ITU‑R M.1652‑1 shall be implemented by systems in the mobile service to ensure compatible operation with radiodetermination systems;

11 that in Region 1 only in the band 5 725-5 850 MHz, the mitigation measures found in Annex 1 to Recommendation ITU‑R M.1652‑1 shall be implemented by systems in the mobile service to ensure compatible operation with radiodetermination systems,

invites administrations

to consider appropriate measures when allowing the operation of stations in the mobile service using the e.i.r.p. elevation angle mask referred in *resolves*4 above, to ensure the equipment is operated in compliance with this mask,

invites ITU‑R

1 to continue studies on mitigation techniques to provide protection of EESS from stations in the mobile service;

2 to continue studies on suitable test methods and procedures for the implementation of dynamic frequency selection, taking into account practical experience.

**Reasons:** Above-mentioned Administrations propose updating of Resolution **229 (Rev.WRC-12)** to add the frequency band 5 725-5 850 MHz.

**Band E: 5 850-5 925 MHz**

ARTICLE 5

Frequency allocations

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

NOC AGL/BOT/SWZ/LSO/MDG/MWI/MAU/MOZ/NMB/COD/SEY/AFS/TZA/ZMB/112/7#49963

5 570-6 700 MHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 5 850-5 925  FIXED  FIXED-SATELLITE (Earth-to-space)  MOBILE | 5 850-5 925  FIXED  FIXED-SATELLITE (Earth-to-space)  MOBILE  Amateur  Radiolocation | 5 850-5 925  FIXED  FIXED-SATELLITE  (Earth-to-space)  MOBILE  Radiolocation |
| 5.150 | 5.150 | 5.150 |

**Reasons:** Above-mentioned Administrations support NOC in the band 5 850-5 925 MHz.

SUP AGL/BOT/SWZ/LSO/MDG/MWI/MAU/MOZ/NMB/COD/SEY/AFS/TZA/ZMB/112/8#49964

RESOLUTION 239 (WRC‑15)

Studies concerning Wireless Access Systems including radio local   
area networks in the frequency bands between   
5 150 MHz and 5 925 MHz

**Reasons:** Since the studies have been completed Resolution **239 (WRC-15)** can be suppressed.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. \* *Note by the Secretariat:* This Resolution was revised by WRC-12. [↑](#footnote-ref-1)
2. 1 Administrations with existing regulations prior to WRC‑03 may exercise some flexibility in determining transmitter power limits. [↑](#footnote-ref-4)
3. \* *Note by the Secretariat:* This Resolution was revised by WRC-12. [↑](#footnote-ref-5)
4. 1 In the context of this Resolution, “mean e.i.r.p.” refers to the e.i.r.p. during the transmission burst which corresponds to the highest power, if power control is implemented. [↑](#footnote-ref-6)
5. 2 −124 − 20 log10 (*hSAT*/1 414) dB(W/(m2 · 1 MHz)), or equivalently,

   −140 − 20 log10 (*hSAT*/1 414) dB(W/(m2 · 25 kHz)), at the FSS satellite orbit, where *hSAT* is the altitude of the satellite (km). [↑](#footnote-ref-7)
6. 3 Administrations with existing regulations prior to WRC‑03 may exercise some flexibility in determining transmitter power limits. [↑](#footnote-ref-8)
7. 4 In this context “indoor only” should be considered as “no fixed outdoor usage” to allow for accidental outdoor usage by mobile terminals. [↑](#footnote-ref-9)