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| World Telecommunication Standardization Assembly (WTSA-20) Geneva, 1-9 March 2022 |  |
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| PLENARY MEETING | Addendum 17 to Document 35-E |
|  | **15 December 2021** |
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| African Telecommunication Union Administrations | |
| Proposed modifications to Resolution 72 | |
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| **Abstract:** | ATU proposes to modify Reolution72, to consider new emerging radio technologies such as: 5G and IoT for the next study period 2022-2024 by aligning with the new ICRNP guidelines published in March 2020. TSB to appoint experts in the field of assessment and measurement of exposure to electromagnetic fields to assist and assist developing countries in the formulation of their strategy in this area. ATU also proposes to invite ITU-T Study Group 5 to coordinate and cooperate with various international organizations. | |
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MOD AFCP/35A17/1

RESOLUTION 72 (Rev. Geneva, 2022)

Measurement and assessment concerns related to human exposure to electromagnetic fields

(Johannesburg, 2008; Dubai, 2012; Hammamet, 2016; Geneva, 2022)

The World Telecommunication Standardization Assembly (Geneva, 2022),

recalling

*a)* Resolution 176 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on human exposure to and measurement of EMF;

*b)* Resolution 177 (Rev. Dubai, 2018) of the Plenipotentiary Conference, on conformance and interoperability;

*c)* Resolution 76 (Rev. Hammamet, 2016) of the World Telecommunication Standardization Assembly, on Studies related to conformance and interoperability

*d)* Resolution 62 (Rev. Buenos, Aires, 2017) of the World Telecommunication Development Conference, on measurement concerns related to human exposure to EMF,

considering

*a)* that the World Health Organization (WHO) has the expertise and competency in the health field to assess the impact of radio waves on the human body;

*b)* that WHO advocates exposure limits that were established by international organizations such as the International Commission for Non-Ionizing Radiation Protection (ICRNP);

*c)* that the ITU has a mechanism for verifying compliance with radio signal levels by calculating and measuring the field strength and power density of these signals;

*d)* that the considerable development of the use of the radio frequency spectrum has resulted in an increase in the sources of emission of electromagnetic fields in a given geographical area;

*e)* that regulatory authorities in many developing countries[[1]](#footnote-2) urgently need information on methods of measuring and assessing human exposure to RF energy, in order to put in place national regulations to protect populations;

*f)* that the ICRNP[[2]](#footnote-3), the Institute of Electrical and Electronics Engineers (IEEE)[[3]](#footnote-4) and the International Organization for Standardization / International Electrotechnical Commission (ISO / IEC) have developed guidelines for exposure limits to electromagnetic fields and that many administrations have adopted national regulations based on these guidelines;

*g)* that most developing countries do not have the necessary tools to measure and assess the impact of radio waves on the human body,

recognizing

*a)* the work done within ITU Radiocommunication Sector (ITU‑R) study groups on radiowave propagation, electromagnetic compatibility (EMC) and related aspects, including measurement methods;

*b)* the work done within Study Group 5 of the ITU Telecommunication Standardization Sector (ITU‑T) on techniques for taking radio-frequency (RF) measurements and assessment;

*c)* that Study Group 5, in establishing methodologies for assessing human exposure to RF energy, cooperates with many participating standards organizations (PSOs);

*d)* that the ITU EMF Guide, in its digital version, also available in a mobile-phone application, is updated as ITU and/or WHO receive information and/or results of research;

*e)* that the Focus Group on smart sustainable cities, established within ITU‑T Study Group 5, has published a technical report on EMF considerations in smart sustainable cities,

recognizing further

*a)* that some publications about EMF effects on health create doubt among the population, increasing the perception of the risk they involve;

*b)* that, in the absence of regulation and accurate, complete information, people become concerned about long-term exposure to EMF, due to their perception of risk, and are likely to oppose the deployment of radio installations in their neighbourhoods, demanding the enactment of restrictive municipal rules that affect the deployment of wireless networks;

*c)* that Study Group 5, in particular, has elaborated Recommendations on the technical measurement of EMF that help to diminish risk perception within the population;

*d)* that the development of these Recommendations has made it possible to significantly decrease the cost of measurement equipment and to leverage the results through social communication;

*e)* that the cost of the advanced equipment used for assessing human exposure to RF energy is high, and that it may only be affordable in developed countries;

*f)* that implementing such measurement and assessment is essential for many regulatory authorities, in particular in developing countries, in order to monitor the limits for human exposure to RF energy, and that they are called upon to ensure those limits are met in order to license different services;

*g)* the importance of EMF emission assessment when implementing policies in some countries,

noting

*a)* the similar activities carried out by other national, regional and international standards development organizations (SDOs);

*b)* the urgent need for regulatory bodies in many developing countries to obtain information on EMF measurement and assessment methodologies in regard to human exposure to RF energy, in order to establish or reinforce national regulations to protect their citizens,

resolves

to invite ITU‑T, in particular Study Group 5, to expand and continue its work and support in this domain, including, but not limited to:

i) publishing and disseminating its technical reports, as well as developing ITU‑T Recommendations to address these issues;

ii) developing, promoting and disseminating information and training resources related to this topic through the organization of training programmes, workshops, forums and seminars for regulators, operators and any interested stakeholders from developing countries;

iii) continuing to cooperate and collaborate with other organizations working on this topic and to leverage their work, in particular with a view to assisting the developing countries in the establishment of standards and in monitoring compliance with these standards, especially on telecommunication installations and terminals;

iv) by considering new emerging radio technologies such as: 5G and IoT for the next study period 2022-2024 by aligning with the new ICRNP guidelines published in March 2020;

v) cooperating on these issues with ITU‑R Study Groups 1 and 6, and with Study Group 2 of the ITU Telecommunication Development Sector (ITU‑D) in the framework of ITU‑D Question 7/2;

vi) strengthening coordination and cooperation with WHO in the EMF project so that any publications relating to human exposure to EMF are circulated to Member States as soon as they are issued,

instructs the Director of the Telecommunication Standardization Bureau, in close collaboration with the Directors of the other two Bureaux

within the available financial resources,

1 to support the development of reports identifying the needs of developing countries on the issue of assessing human exposure to EMF, and to submit the reports as soon as possible to ITU‑T Study Group 5 for its consideration and action in accordance with its mandate;

2 to regularly update the ITU‑T portal on EMF activities including, but not limited to, the ITU EMF Guide, links to websites, and flyers;

3 to hold workshops in developing countries with presentations and training on the use of equipment employed in assessing human exposure to RF energy;

4 to appoint experts in the field of assessment and measurement of exposure to electromagnetic fields to assist and assist developing countries in the formulation of their strategy in this area;

5 to extend support for developing countries while they establish their regional centres equipped with test benches for continuous monitoring of EMF levels, especially in selected areas where the public has concerns, and transparently provide the data to the general public by using, among other things, the modalities listed in Resolutions 44 (Rev. Hammamet, 2016) and 76 (Rev. Hammamet, 2016) of this assembly, in the context of the development of the regional test centres, and of Resolution 177 (Rev. Dubai, 2018) of the Plenipotentiary Conference;

6 to invite ITU-T Study Group 5 to coordinate and cooperate with various international organizations such as WHO, the International Commission for Non-Ionizing Radiation Protection (ICRNP), the International Electro-technical Commission ( IEC) and the Institute of Electrical and Electronics Engineers (IEEE) and other relevant international and regional organizations in the harmonization of exposure thresholds globally and to generate consistent measurement protocols;

7 to report to the next world telecommunication standardization assembly on measures taken to implement this resolution,

invites Member States and Sector Members

1 to contribute actively to the work of Study Group 5 by providing relevant and timely information, in order to assist developing countries in providing information and addressing measurement and assessment concerns related to human exposure to EMF radiated by radio transmitters;

2 to conduct periodic reviews to ensure that ITU‑T Recommendations related to exposure to EMF are followed;

3 to cooperate and share expertise and resources between developed and developing countries in order to help government administrations, especially in developing countries, to reinforce or establish an appropriate regulatory framework for protecting people and the environment from non-ionizing radiation;

4 to encourage the use of ITU‑T Recommendations to build national standards for measuring and assessing EMF levels and inform the public of compliance with those standards,

further invites Member States

to adopt suitable measures in order to ensure compliance with relevant international recommendations to protect health against the adverse effect of EMF.

1. Developing countries also include least developed countries, small island developing states, landlocked developing countries and countries with economies in transition. [↑](#footnote-ref-2)
2. Guidelines for limiting exposure to time-varying electric, magnetic, and electromagnetic fields (up to 300 GHz) – Health Physics 74(4): 494/522; 1998. [↑](#footnote-ref-3)
3. IEEE Std C95.1™-2005, IEEE standard for safety levels with respect to human exposure to radio frequency electromagnetic fields, 3 kHz to 300 GHz. [↑](#footnote-ref-4)