



UNITED STATES DEPARTMENT OF COMMERCE
National Telecommunications and
Information Administration
Washington, D.C. 20230

MAR 24 2017

Robert Nelson
Chief Engineer, International Bureau
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Mr. Nelson

The National Telecommunications and Information Administration (NTIA), on behalf of the Executive Branch, approve the release of two Executive Branch draft proposals for the 2019 World Radiocommunication Conference (WRC-19). NTIA is submitting WRC-19 draft proposals for two agenda item 9.1 issues.

- 1) Issue 9.1.7 – Urgent Studies for unauthorized operation of earth station terminals.
- 2) Issue 9.1.8 – Urgent Studies for Machine Type Communications (MTC).

NTIA considered the federal agencies' inputs toward the development of these documents. NTIA forwards this package for your consideration and review by the FCC WRC-19 Advisory Committee. Mr. Charles Glass is the primary contact from my staff.

Sincerely

A handwritten signature in blue ink, appearing to read "Paige R. Atkins".

Paige R. Atkins
Associate Administrator
Office of Spectrum Management

Enclosures:

UNITED STATES OF AMERICA
DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE

Agenda Item 9.1, Issue 9.1.7: Resolution 958 (Rev.WRC-15): to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the Convention, on the activities of the Radiocommunication Sector since WRC-15 on the urgent studies required in preparation for WRC-19 on the unauthorized operation of earth station terminals (Res. ITU-R 64).

Background Information: The Radiocommunication Assembly (RA-15) approved Resolution ITU-R 64, titled “Guidelines for the management of unauthorized operation of earth station terminals”. The resolves of this resolution invited ITU-R study groups concerned:

- 1 to conduct studies to examine whether there is a need for possible additional measures in order to limit uplink transmissions of terminals to those terminals authorized in accordance with No. 18.1;
- 2 to study the possible methods that will assist administrations in managing the unauthorized operation of earth station terminals deployed within their territory, as a tool to guide their national spectrum-management program.

Resolution 958 (WRC-15) identifies topics requiring urgent study for inclusion in the Report of the Director for WRC-19. In the Annex to this resolution, Section 2 raises the issue of unauthorized operation of uplink terminals.

- a) whether there is a need for possible additional measures in order to limit uplink transmissions of terminals to those authorized terminals in accordance with No. 18.1; and
- b) the possible methods that will assist administrations in managing the unauthorized operation of earth station terminals deployed within its territory, as a tool to guide their national spectrum management programme, in accordance with Resolution ITU-R 64 (RA-15).

This issue concerns the operation of unlicensed uplink terminals in an administration’s territory. For some administrations, the use of these terminals causes interference into legitimate satellite service users as well as terrestrial systems. These administrations may not have the resources or technical capabilities to identify and geo-locate the unauthorized uplink terminals. An objective of this issue is to determine whether there is any need for regulatory measures to inhibit the use of unauthorized uplink terminals. So far, studies have shown that this issue can be resolved within the administration by methods not requiring modification of the Radio Regulations. Some administrations may require better spectrum management training and internal spectrum monitoring to identify unauthorized uplink transmissions. The development of ITU-R reports or handbooks may assist administrations in the management of their satellite spectrum resources to prevent or limit the unauthorized use of uplink terminals and enable the administration to locate and terminate the unauthorized transmissions.

Conclusion: Studies have not identified any methods requiring modification to the Radio Regulations. Instead, better training and monitoring capability, along with ITU developed Reports and Handbooks, can assist administrations in inhibiting the use of unauthorized uplink earth terminals and can enable administrations to locate and terminate the unauthorized transmissions.

UNITED STATES OF AMERICA
DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE

Agenda Item 9.1, Issue 9.1.8: on the activities of the Radiocommunication Sector since WRC-15, Issue 9.1.8: – Resolution 958 (WRC-15) – Urgent studies required in preparation for WRC-19 – Narrowband and broadband machine-type communication infrastructures.

Background Information: WRC-19 Agenda item 9.1, issue 9.1.8 calls for studies on the technical and operational aspects of radio networks and systems, as well as spectrum needed, including possible harmonized use of spectrum to support the implementation of narrowband and broadband machine-type communication infrastructures, in order to develop Recommendations, Reports and/or Handbooks, as appropriate, and to take appropriate actions within the ITU Radiocommunication Sector (ITU-R) scope of work.

Machine-type communication (MTC), machine-to-machine (M2M), and Internet of Things (IoT) are all different names for the same type of application that enables machines to communicate with each other. In this proposal MTC is the common reference for these forms of communication. In the ITU-R, these types of applications already take advantage of spectrum allocated to the mobile service, including frequency ranges identified for International Mobile Telecommunications (IMT). Input from industry and other groups developing MTC technologies, including presentations at the ITU Workshop on Spectrum Management for Internet of Things Deployment (November 2016, Geneva, Switzerland), indicated overwhelmingly that identifying specific frequency bands for those applications may delay or unnecessarily restrict innovation, and may cause an inefficient use of the spectrum. Therefore, having spectrum identified specifically for MTC is neither desired, nor necessary.

Conclusion: The United States believes it is unnecessary to identify spectrum specifically for machine-type communications. Therefore, no regulatory action is required.