



WAC/043(19.09.13)

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

Ms. Mindel De La Torre
Chief of the International Bureau
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Dear Ms. De La Torre:

The National Telecommunications and Information Administration (NTIA) on behalf of the Executive Branch agencies, approves the release of the attached Executive Branch preliminary view for WRC-15. The enclosed draft preliminary view addresses agenda item 1.1 (mobile broadband/IMT) in the 5350-5470 MHz range.

This draft preliminary view considers the federal agency inputs toward the development of U.S. proposals for WRC-15. NTIA forwards this package for your consideration and review by your WRC-15 Advisory Committee. Dr. Darlene Drazenovich is the primary contact from my staff.

Sincerely,

(Original Signed March 19, 2013)

Karl B. Nebbia
Associate Administrator
Office of Spectrum Management

Enclosure

UNITED STATES OF AMERICA
DRAFT PRELIMINARY VIEWS FOR WRC-15

Agenda Item 1.1: to consider additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT) and related regulatory provisions, to facilitate the development of terrestrial mobile broadband applications, in accordance with Resolution **233 (WRC-12)**

BACKGROUND: The World Radiocommunication Conference 2012 (WRC-12) adopted WRC-15 Agenda Item 1.1 in an effort to meet the dramatic increase in demand for mobile broadband applications. Radio Local Area Networks (RLANs) have become an important component of broadband connectivity for consumers and businesses. The volume of traffic over the RLAN networks is growing as it supports local area networks as well as data offloading for mobile networks. As devices such as tablets that connect to the internet solely through RLANs increase, data traffic over RLANs can be expected to grow.

The World Radiocommunication Conference-2003 (WRC-03) allocated the bands 5150-5350 MHz and 5470-5725 MHz on a primary basis to the mobile service for the implementation of wireless access systems including RLANs, subject to Resolution **229 (Rev. WRC-12)** (see No. **5.446A**). The WRC-03 action has enabled significant growth of RLANs. Resolution **229 (Rev. WRC-12)** establishes the regulatory, operational and technical provisions that are intended to enable some level of compatibility with the primary services in the subject bands. Resolution **229 (Rev. WRC-12)** also invites the ITU-R to continue studies on mitigation techniques to protect EESS from stations in the mobile service and studies on suitable test methods and procedures for the implementation of dynamic frequency selection; these studies have not been completed.

For over a decade RLANs have provided local area access to the Internet. Over that period, RLAN technology has evolved to provide higher data rates. However, wired and wireless broadband connections into the home or business also have increased data rates as fiber is now closer to the premise, 3G deployments are evolving (Long Term Evolution (LTE), WiMAX, etc.). Therefore, it is crucial for RLAN technology to continue to evolve to support these increased data rates.

The increasing traffic on RLAN networks, wider channel sizes to support higher data rates, and device-to-device connectivity have created a need for additional spectrum. The 5350-5470 MHz band is particularly attractive for RLANs for reasons that include:

- RLAN devices already operate in spectrum immediately adjacent to the 5350-5470 MHz band (i.e. 5150-5350 MHz and 5470-5725 MHz) subject to Resolution **229 (Rev WRC-12)**. Equipment cost and complexity for development of RLAN devices in 5350-5470 MHz may be less complicated than other bands not adjacent to the existing RLAN bands.
- A new international allocation to the mobile service for 5350-5470 MHz would facilitate contiguous spectrum for RLANs, which would increase the number of non-overlapping channels available for use. The contiguous spectrum would enable two additional 80 MHz channels as well as one additional 160 MHz channel. (Note: the increase in

channels is greater than the corresponding increase in spectrum to provide a more efficient band plan.)

The 5350-5470 MHz band is allocated on a primary basis to the Earth exploration-satellite, space research, and radiolocation services. In addition, the 5350-5460 MHz band segment has the aeronautical radionavigation service on a primary basis and the 5460-5470 MHz band segment has the radionavigation service on a primary basis. Many of these services also operate within all or portions of 5470-5725 MHz, where dynamic frequency selection (DFS) has a requirement to protect some of these incumbent services. However, the systems and requirements for the primary services in these bands have evolved. Further, the applicability of Res 229, including whether DFS will be a viable option for mitigating risks to existing services, for the 5350-5470 MHz band needs to be examined.

The modeling considerations for the 5350-5470 MHz band will vary from previous studies completed in the ITU-R and the detailed analyses are expected to be more complex than those previously utilized to determine the sharing conditions under Resolution 229 (WRC-03) for the 5150-5250 MHz, 5250-5350 MHz, and 5470-5725 MHz bands. In order to consider a mobile allocation for RLAN under WRC-15 Agenda Item 1.1 in the 5350-5470 MHz band, JTG compatibility studies need to determine sharing feasibility and mitigation measures, including appropriate regulations, which may provide the possibility of allowing RLAN devices to operate in these bands while ensuring protection of the existing services in the band. The results of the compatibility studies could lead to modifications to the current technical and regulatory mechanisms in Resolution **229 (Rev. WRC-12)** and associated ITU-R recommendations, or new technical and regulatory mechanisms.

U.S. VIEW: If compatibility studies determine sharing feasibility and mitigation measures, including appropriate technical and regulatory mechanisms to protect existing in-band and adjacent band services, the United States supports a primary allocation to the mobile service for the implementation of wireless access systems including RLANs in the 5350-5470 MHz band.