

March 31, 1999

Mr. Roderick K. Porter
Acting Chief of the International Bureau
Federal Communications Commission
Washington, D.C. 20554

Dear Mr. Porter:

The National Telecommunications and Information Administration on behalf of the Executive Branch Agencies, has approved the release of a preliminary view for WRC-2000. This preliminary view addresses agenda item 1.4 and is concerned with the protection of Earth exploration-satellite (passive) service (EESS) allocations in the band 55.78-59 GHz from high-density applications of the fixed service (HDFS).

Sincerely,

Original Signed
William T. Hatch
Acting Associate Administrator
Office of Spectrum Management

Enclosure

UNITED STATES
PRELIMINARY VIEW

WRC-2000 AGENDA ITEM 1.4: *to consider issues concerning allocations and regulatory aspects related to Resolutions 126 (WRC-97), 128 (WRC-97), 129 (WRC-97), 133 (WRC-97), 134 (WRC-97) and 726 (WRC-97);*

ISSUE: Protection of Earth exploration-satellite (passive) service (EESS) allocation in the band 55.78-59 GHz from high-density applications of the fixed service (HDFS)

BACKGROUND: Resolution **726 (WRC-97)** states that the deployment of high-density applications of the fixed service (HDFS) in the frequency range 30 to about 50 GHz may present sharing difficulties with other services already allocated in these bands, and that the needs of these services must be taken into account. It resolves that administrations should take into account various bands above 30 GHz for high-density applications in the fixed service and among these is the 55.78-59 GHz band. The ITU-R is also requested to study the technical and operational criteria and methods to facilitate sharing between high-density systems of the fixed service and other services in these bands.

The band 55.78-59 GHz is allocated to the EESS (passive) and space research service (passive) on a primary basis for spaceborne passive remote sensing of the Earth. It is also allocated to the fixed service on a primary basis. This band is used primarily for tri-dimensional measurements of atmospheric temperature and gases used in Numerical Weather Prediction (NWP) models.

ITU-R studies were performed on sharing between the fixed service and spaceborne passive sensors in the oxygen absorption bands around 60 GHz in support of the 50-71 GHz reallocation plan that was approved at WRC-97. Based on fixed service parameters available at the time these studies were conducted and considering the level of oxygen absorption in this band, it was concluded that sharing between spaceborne passive sensors and the fixed service was feasible in the band 55.78-59 GHz *without any restrictions* on the fixed service. Since WRC-97 the fixed service has significantly altered the assumptions on the parameters of the fixed service transmitters that were used as the basis for this conclusion in defining high-density applications of the fixed service.

Studies, using these high-density system parameters are under way in ITU-R Working Party 7C to determine if high-density fixed use may result in excessive interference to passive sensor operations and may require some sort of limitation on the fixed service in order to protect vital 55.78 - 59 GHz sensor operations.

U.S. PRELIMINARY VIEW: The United States believes that limits may need to be placed upon HDFS systems in portions of the 55.78-59 GHz band where oxygen absorption is not sufficient to protect passive sensor operation and will continue to work with the appropriate ITU working parties to ensure maximum utilisation of the spectrum by all allocated services.