

## **FHH Telecom Law May 2003**

### **FCC to Review Millimeter Wave Allocations**

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Technological advances and spectrum crowding have combined to promote interest in commercial development of previously unused frequencies above 50 GHz, with wavelengths measured in millimeters. Applications are likely to include satellite uplinks and downlinks, fixed terrestrial transmissions, licensed mobile uses, and unlicensed operation, including vehicular radar. Recent World Radiocommunications Conferences (WRCs) have revised the international allocations table to enhance commercial uses of these bands, while protecting passive uses by the radio astronomy service (RAS) and the Earth exploration satellite service (EESS).

Last year, the FCC proposed changes to the domestic allocation table for the 71-76, 81-86 and 92-95 GHz bands, generally reflecting the changes to the international allocations table adopted at the WRC in 2000. These changes should promote better use of the spectrum by various services while reducing potential for inter-service interference.

More recently, in response to a request from the National Telecommunications and Information Administration (NTIA), the FCC issued another Notice of Proposed Rulemaking, this time addressing allocations at 76-81 GHz band and above 95 GHz. Again, the proposed changes would enact domestically the changes to the international allocation table made at WRC 2000, primarily re-aligning and consolidating current allocations. The FCC raises a few other questions, including technical sharing criteria between satellite downlink services and RAS allocations in the same and adjacent bands. The FCC also seeks input on the feasibility of spectrum sharing between RAS and vehicular radar at 76-77 GHz, and interference mitigation techniques for that band.

Lastly, noting prior allocations of the 50-64 GHz bands to a variety of services, the Commission asks for input on power density limits for transmissions by high-density fixed service (HDFS) at 55.78-56.26 GHz. These limits would be designed to minimize interference to the co-primary EESS use in that narrow band. NTIA suggested, and the Commission proposes, a limit of -28.5 dBW/MHz, the same value offered by the U.S. delegation at WRC 2000, and more stringent than the -26 dBW/MHz that WRC 2000 adopted. The FCC notes the tighter limit should provide better protection to EESS, while having a minimum impact on current and future HDFS operations, since HDFS equipment has generally not been developed at this time for the band.

Comment and reply dates are not yet available, pending publication in the Federal Register.

