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Informal Working Group 6

PRELIMINARY VIEW ON WRC-03

WRC-2003 Agenda Item 1.38: *to consider provision of up to 6 MHz of frequency spectrum to the Earth exploration-satellite service (active) in the frequency band 420-470 MHz, in accordance with Resolution 727 (Rev.WRC-2000);*

ISSUE: The use of the frequency band 420-470 MHz by the earth exploration-satellite service (EESS) (active) (Resolution 727 (Rev.WRC-2000), used extensively by government radars and the amateur services.

BACKGROUND: A similar agenda item was debated at WRC-97 resulting in a decision not to adopt proposed allocations for EESS (active) in the 420-470 MHz band. The Earth sensing community has identified that the need for an allocation at a radio spectrum wavelength of approximately one meter. Experiments have shown good correlation of backscatter radiation from biomass and soil moisture, which are parameters needed for forest monitoring. The need for such forest monitoring was emphasized at the United Nations Conference on Economic Development (UNCED) (Buenos Aires - 1992). Studies have identified a minimum bandwidth requirement of 6 MHz to satisfy mission objectives.

The amateur community is concerned with the possibility of harmful interference to amateur operations in the 430-440 MHz portion of the band. There are currently 16 amateur satellites in orbit that use frequencies within the band 435-438 MHz for both up and down links internationally.

The band 430–440 MHz is allocated to the amateur service on a co-primary basis in Region 1, and on a primary basis in eight Region 2 countries: Argentina, Colombia, Costa Rica, Cuba, Guyana, Honduras, Panama and Venezuela (No. **S5.278**). Elsewhere in Region 2 and in Region 3, the amateur service allocation is secondary. Additionally, the bands 420–430 MHz and 440–450 MHz are allocated to the amateur service on a secondary basis in Australia, the United States, Jamaica and the Philippines (No.**S5.270**).

The band 420-450 MHz is also allocated to the radiolocation service on a primary basis and is used for telemetry, telecommand and long-range surveillance by land, ship and airborne stations for early missile warning, detection of low-observable targets, and the

tracking of all objects in Earth orbit. The band 450-470 MHz is used by the Fixed, Mobile and Mobile-Satellite services.

Studies to date have shown the potential for interference between EESS (active) sensors, and amateur stations when the SAR is in the line of sight of amateur stations, and specifically in the band 435-438 MHz, which would be the worst-case scenario for the amateurs.

PRELIMINARY VIEW: The U.S. opposes this allocation in the band 420-470 MHz unless it can be shown that the EESS (active) sensors do not cause harmful interference to amateur systems and stations. (16 April 2001)