



Resolution SFCG 19-1

**EFFICIENT USE OF SPECTRUM IN THE
25.5 – 27 GHZ AND 37-38 GHZ BANDS**

The SFCG,

CONSIDERING

- a) that it is essential to recognize the need to migrate high symbol rate space science missions to higher frequency bands;
- b) that the band 25.5 – 27 GHz is allocated inter alia to the Earth exploration-satellite service (EESS) and is planned for increasing use for near Earth high data rate applications for direct space-to-Earth links;
- c) that the band 37 – 38 GHz is allocated inter alia to the space research service and is planned for increasing use for Category A and Category B (including highly elliptical orbit high data rate applications) for direct space-to-Earth links;
- d) that various candidate modulation techniques are currently under investigation and some of these techniques may substantially reduce bandwidth requirements;
- e) that in accordance with Article **3.3** of the Radio Regulations which calls for both technical and economically justifiable measures for reducing unwanted emissions;
- f) that in accordance with Article **3.9** of the Radio Regulations, “the bandwidth of emissions also be such as to ensure the most efficient utilization of the spectrum; in general, this requires that the bandwidth of emissions be kept at the lowest values which the state of the technique and the nature of the service permit”,

RESOLVES

that member agencies use bandwidth efficient modulation techniques whenever practicable for high data rate space-to-Earth applications in the 25.5 – 27 GHz band and the 37 – 38 GHz band.