



Resolution SFCG 19-7R4

**USE OF THE 7750-7900 MHz BAND BY NON-GEOSTATIONARY
METEOROLOGICAL SATELLITES**

The SFCG,

CONSIDERING

- a) that sensors onboard meteorological satellites (MetSats) are an important tool for monitoring the Earth and its environment;
- b) that such sensors are becoming more complex with resulting increased data rates;
- c) that the ITU Radio Regulations allocate the band 7750-7900 MHz to MetSats in non-geostationary orbits on a primary basis with PFD limits as listed in Table 21-4 of the RR;
- d) that MetSat operators are using the band to transmit vital meteorological and environmental data to a number of ground stations, including direct read-out user stations and main stations (Central Data Acquisition Stations (CDA));
- e) that spectrum requirements of individual missions range between 30 and 150 MHz, thus limiting the possibility of segmentation as a means of interference avoidance;
- f) that only conscientious frequency management of the 7750-7900 MHz band will satisfy the future requirements of numerous MetSat operators;

RESOLVES

- 1. that space agencies planning and operating MetSats develop procedures for efficient use of the 7750-7900 MHz band that allow interference-free reception of vital meteorological and environmental data;
- 2. that MetSat operators implement interference mitigation techniques to maximize the potential for sharing among MetSats systems using this band;

3. that in case of interference from MetSats operating direct readout downlinks to MetSats operating data dump downlinks, MetSats operating direct readout downlinks implement operational procedures to reduce this interference to an acceptable level. In the extreme this could include switching-off the direct broadcast transmissions while within the reception area of CDA stations during stored mission data dumps;
4. that space agencies planning MetSats in this band maximize the potential for sharing among MetSat operators by: a) coordinating frequency selection with other MetSat operators early in the system design process; b) employing techniques such as pulse-shaping and higher-order modulation to minimize the occupied bandwidth; and c) selecting a centre frequency to maximize the contiguous bandwidth available for other users.