

### **Radio Frequencies for meteorological activities**

6.2.80 The Commission noted with appreciation the very favourable outcome of the World Radiocommunication Conference 2000 as regards the several items of concern for meteorology. The active participation of WMO in the ITU preparatory activities was instrumental in ensuring that meteorological requirements were recognized and supported. The Commission expressed its appreciation for the effective coordination and preparatory activities undertaken by the Steering Group on Radio-Frequency Coordination (SG-RFC) and the Secretariat, and the fruitful cooperation from several NMHSs and meteorological satellite agencies, and in particular EUMETSAT.

6.2.81 The main decisions of WRC-2000 relevant to meteorological activities are summarized as follows:

- Meteorological requirements in the band 401-406 MHz for meteorological aids (radiosondes) and meteorological satellite operation were acknowledged for the foreseeable future. Resolution 219 (WRC-97), which requested the assessment of meteorological requirements in the band 401 - 406 MHz and the possible transition out of the band 405 - 406 MHz, is suppressed. This decision is an important achievement for meteorological operations, concluding a tough debate since 1992. The issue may, however, be reconsidered by WRC-2003 under Resolution 214 (WRC-2000) which addresses frequency allocation for MSS below 1 GHz;
- Current allocations were not changed in the band 1670-1710 MHz, which is a main band for meteorological satellite operation worldwide and for radiosondes operation by many NMHSs in its lower part. The possible allocation of part of the band to the mobile-satellite service has also been debated since 1992. WRC-2000 adopted a new resolution on sharing studies and possible allocations to the mobile-satellite service in the 1-3 GHz range, including consideration of the band 1683-1690 MHz and the assessment, with the participation of WMO, of the current and future meteorological spectrum requirements. This resolution replaces a previous resolution that addressed the whole band 1675-1710 MHz;
- The allocations to spaceborne passive remote sensing in the Earth Exploration-Satellite Service in the frequency range 71-275 GHz were re-organized to meet present and foreseeable future requirements, taking into account technological and scientific advances. These decisions complement those taken by WRC-97 in the frequency range 50-71 GHz;
- The band 18.6-18.8 GHz was allocated worldwide to spaceborne passive remote sensing, solving an issue that was debated for 15 years;
- Regulatory provisions were decided to ensure an acceptable protection of spaceborne passive sensors in the band 55.78-56.26 GHz (oxygen absorption band);
- The 2 700-2 900 MHz band, which is worldwide allocated to meteorological radars and aeronautical radionavigation radars, was not selected as a band for the IMT-2000 operation (third generation of mobile phones). The question is however included in the agenda of WRC-2006.

6.2.82 The Commission noted that the pressure on radio frequency bands would continue with the increasing development and expansion of new radiocommunication systems. It noted that EC-LII re-emphasized the importance of continuing to defend the frequency allocations to meteorological systems and environmental satellites, and the Commission fully concurred with this analysis. It also noted that the preliminary agenda for the next World Radiocommunication Conference (WRC-2003) included items of importance for meteorology, including the band 1683-1690 MHz, and it invited Members and the Secretariat to pursue their participation in the relevant ITU-R activities. The Commission underlined the importance of the participation of WMO representative(s) in ITU-R activities, on behalf of WMO Members which could not afford participation of their own experts. It requested its Steering Group on Radio-Frequency Coordination (SG-RFC) to continue its activities related to ITU-R studies and to operational frequency coordination, in particular the use by both Met-Aids and Met-Sat systems of the 401-403 MHz and 1670-1700 MHz bands. It further noted with appreciation that the Handbook on the use of Radio Spectrum for Meteorological Activities was being published in cooperation between WMO and ITU.