

## **WRC 2003 Report**

This paper provides a summary of the WRC 2003 conference topics related to meteorological satellites.

## **Summary of 2003 World Radiocommunication Conference Topics Related to Meteorological Satellites**

The outcome of the 2003 World radiocommunication Conference (WRC-03) had direct impacts on meteorological satellites (metsats), but most will be delayed until the next WRC in 2007

Below is a list of items from WRC-03 affecting metsats:

- Removal of the existing Mobile-Satellite Service (MSS) (Earth-to-space) allocation in Region 2 (North and South America) in the 1675-1710 MHz band
- Addition of new MSS (Earth-to-space) worldwide allocation in 1670-1675 MHz, noting that ITU-registered (before 1/1/04) metsat Earth receiving stations using 1670-1675 MHz band will be protected from possible future MSS interference
- Approval of limits on surface emissions to high altitude platform stations (fixed service) to protect vital Earth exploration-satellite service passive sensor allocation at 31.3-31.8 GHz
- Consideration at WRC-07 of expanding existing 18.1-18.3 GHz geostationary metsat space-to-Earth allocation by 100 MHz – necessary for sending much higher data rates expected from sensors onboard third generation geo metsats
- Review at WRC-07 the further out-of-band emission studies to evaluate possible operational limitations on active services operating in allocations nearby or adjacent to exclusively passive sensing bands. Such limitations would be incorporated to mitigate harmful interference into passive sensors flown on Earth exploration-satellites, including metsats
- Review at WRC-07 studies relating to power flux density limits in the band 17.7-19.7 GHz for satellite systems using highly inclined orbits – could have an impact on future geo metsat space-to-Earth operations in 18 GHz band
- Review at WRC-07 sharing studies between active and passive services in 10.6-10.68 GHz and 36-37 GHz bands – these two bands will be used by passive sensors flown on future polar-orbiting metsat missions such as NPOESS