

RESOLUTION 950 (Rev.WRC-07)

**Consideration of the use of the frequencies
between 275 and 3000 GHz**

The World Radiocommunication Conference (Geneva, 2007),

considering

- a) that, in the Table of Frequency Allocations, frequency bands above 275 GHz are not allocated;
- b) that, notwithstanding *considering a)*, No. **5.565** makes provision for the use of the frequency band 275-1 000 GHz for experimentation with, and development of various passive services and all other services and recognizes the need to conduct further research;
- c) that No. **5.565** also makes provision for the protection of passive services until, and if, such time as the Table of Frequency Allocations may be extended;
- d) that, in addition to the spectral lines identified by No. **5.565**, research activities in the bands above 275 GHz may yield other spectral lines of interest, such as those listed in Recommendation ITU-R RA.314;
- e) that within various Radiocommunication Study Groups, studies on systems between 275 and 3000 GHz, including system characteristics of suitable applications, are being considered;
- f) that the present use of the bands between 275 and 3000 GHz is mainly related to the passive services, however, with anticipated technology development, the bands may become increasingly important for suitable active service applications;
- g) that sharing studies in ITU-R among passive services and all other services operating in frequencies between 275 and 3000 GHz have not been completed;
- h) that the lack of use to date of the band 275-3000 GHz by the various active services indicates a general consideration of frequency allocations above 275 GHz may be premature,

recognizing

- a) that propagation characteristics at frequencies above 275 GHz, such as atmospheric absorption and scattering, have a significant impact on the performance of both active and passive systems and need to be studied;

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b) that it is necessary to investigate further the potential uses of the bands between 275 and 3 000 GHz by suitable applications,

noting

a) that significant infrastructure investments are being made under international collaboration for the use of these bands between 275 and 3 000 GHz, for example, the Atacama Large Millimetre Array (ALMA), a facility under construction that will provide new insights on the structure of the universe;

b) that Radiocommunication Bureau Circular Letter CR/137 identified additional information for the Bureau to record characteristics of active and passive sensors for Earth exploration-satellite service and space research service satellites, in frequency bands below 275 GHz,

further noting

a) that a process and format similar to that provided in *noting b)* could be used to record systems operating in the 275 to 3 000 GHz band;

b) that recording active and passive systems operating in the 275 to 3 000 GHz band will provide information until the date when, and if, it is determined that changes to the Radio Regulations are needed,

resolves

1 to review No. **5.565**, excluding frequency allocations, in order to update the spectrum use between 275 GHz and 3 000 GHz by the passive services at WRC-11, taking into account the result of the ITU-R studies;

2 that administrations may submit for inclusion in the Master International Frequency Register details on systems which operate between 275 and 3 000 GHz and which may be recorded by the Radiocommunication Bureau under Nos. **8.4**, **11.8** and **11.12**,

invites ITU-R

to conduct the necessary studies in time for consideration by WRC-11 with a view to the modification of No. **5.565**, including advice on the applications suitable for the band 275-3 000 GHz,

instructs the Director of the Radiocommunication Bureau

to accept submissions referred to in *resolves 2*, and to record them in the Master International Frequency Register.