

QUESTION ITU-R 228-1/3*

**Propagation data required for the planning of radiocommunication
systems operating above 275 GHz****

(2000-2005)

The ITU Radiocommunication Assembly,

considering

- a) that the spectrum in many of the frequency bands used for radiocommunication is increasingly congested and this problem is expected to get worse;
- b) that telecommunication links are being used or planned for use on some terrestrial applications at frequencies above 275 GHz;
- c) that telecommunication links are being used or planned for use on some satellite systems for inter-satellite communications at frequencies above 275 GHz;
- d) that the viability of telecommunication links operating above 275 GHz (space-to-Earth and Earth-to-space) is currently being investigated;
- e) that remote sensing and astronomical applications are using frequencies above 275 GHz;
- f) that interest exists in extending the range of frequencies used for telecommunication applications;
- g) that the focus of study of Questions by Radiocommunication Study Groups includes the following:
 - use of the radio-frequency spectrum in radiocommunication;
 - characteristics and performance of radio systems;
 - operation of radio systems;

* This Question should be brought to the attention of Radiocommunication Study Groups 1, 7 and 9.

** The frequency spectrum above 275 GHz is currently not allocated (see also No. 5.565 of the Radio Regulations).

h) that propagation models are urgently required for planning and design of telecommunication systems at frequencies above 275 GHz,

noting

that according to No. 78 of the ITU Constitution and Note 2 of No. 1005 of the ITU Convention, study groups may adopt Recommendations without limit of frequency range,

decides that the following Question should be studied

- 1 What models best describe the relationship between atmospheric parameters and electromagnetic wave characteristics on terrestrial, space-to-Earth and Earth-to-space links operating at frequencies above 275 GHz?
- 2 What models best describe the relationship between free-space parameters and electromagnetic wave characteristics on inter-satellite links operating at frequencies above 275 GHz?
- 3 What models best describe the relationship between atmospheric parameters and electromagnetic wave characteristics on science service links operating at frequencies above 275 GHz?
- 4 What models best describe the relationship between atmospheric parameters and the minimum practical altitude for space-to-space links operating at frequencies above 275 GHz?

further decides

- 1 that the results of studies above 275 GHz should be brought to the attention of the other Study Groups;
- 2 that the results of the above studies should be included in one or more Recommendations;
- 3 that the results related to terrestrial applications should be available by 2006, and should be included in future Recommendation(s) or Report(s).

Category: C1