

## **TECHNICAL WORKING PARTY ON MOBILE AND TERRESTRIAL PROPAGATION**

### **REPORT TO RRAC, NOVEMBER 2000**

#### **1. Introduction**

The Technical Working Party on Mobile and Terrestrial Propagation held its first meeting in October 1996, following a merger of the TWPs on Mobile Radio Propagation and on Diffraction, Scatter and Other Terrain Effects.

The Working Party covers the fields of mobile and terrestrial propagation mechanisms, particularly diffraction and scattering. The Terms of Reference are available separately. The membership has 59 representatives from 32 organisations, with a good balance between industry, academia and government. Four meetings are held per year, with an average attendance of 26 per meeting over the past year. Each meeting has standing business of reports from members, liaison with other groups and discussion of progress on the TWP's current "hot topic" area. This is followed by one or two technical presentations by members or invited speakers. The TWP maintains a Web site.

#### **2. Activities of the TWP**

In recent years the TWP membership have undertaken several major collaborative tasks in support of members' broad interests in the effects of terrain and terrain cover on services ranging from VHF to millimetre wave bands.

- production and maintenance of a database of diffraction path measurements for the use of members of the TWP in model development and comparison. A CD-ROM including some 50,000 records with the corresponding path profiles is available to TWP members.
- proposals for a common specification of three-dimensional "street-level" building databases for use in propagation models were developed by the TWP. Several TWP members are already involved in procuring such databases and in developing suitable propagation models that use these. A document describing the "Format for 3-D Geographical Datasets" was issued on behalf of the TWP, and presented to the RA Management Board.
- a questionnaire on the availability and accuracy of propagation models within the terms of reference of the TWP was circulated and analysed.

#### **3. New initiatives of the TWP**

In anticipation of its new role as a task group of the RRAC, the TWP has initiated discussions to formulate proposals for improving propagation models and to specify the data requirements and accuracies required to drive these models. The two areas being considered are 3G mobile and broadband FWA. Proposals for new work will be available for consideration by the RRAC early in 2001.

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