QUESTION ITU-R 88-1/4

Propagation and mobile earth station antenna characteristics
for mobile-satellite services

(1988-1990)

The ITU Radiocommunication Assembly,

considering

*a)* that mobile earth-station antenna performance substantially affects system design in mobile-satellite services;

*b)* that multipath fading due to reflection and shadowing due to foliage and natural or man‑made structures are important factors in designing and constructing mobile-satellite systems;

*c)* that there are various techniques which may be adopted for keeping mobile earth station antennas pointed correctly;

*d)* that the configuration of airborne antenna systems is severely constrained by the effect on aircraft performance;

*e)* that services using medium and low gain antennas are being used by systems of the International Mobile Satellite Organization (IMSO) and other organizations;

*f)* that characteristics of multipath fading are being studied in ITU-R Study Group 3 under Question ITU-R 207/3;

*g)* that some mobile ship, aircraft and land earth stations will be operating at high latitudes of the globe and may consequently have special propagation and antenna design problems,

decides that the following Questions should be studied

1 What are the preferred types of antenna systems and their characteristics for:

1.1 shipborne use;

1.2 airborne use;

1.3 land use;

taking into account that some mobile earth stations may have elevation angles of less than 5° to satellites in the geostationary orbit?

2 What fading reduction techniques can be applied to mobile antenna systems in a mobile-satellite service?

further decides

1 that the results of the above studies should be included in appropriate Recommendations and/or Reports;

2 that the above studies should be completed by 2027.

Category: S3