

RECOMMENDATION ITU-R P.846-1

**MEASUREMENTS OF IONOSPHERIC
AND RELATED CHARACTERISTICS**

(Question UIT-R 222/3)

(1992-1995)

The ITU Radiocommunication Assembly,

considering

- a) that regular long-term measurements of ionospheric and solar characteristics are required for studies of improvements in ionospheric maps and propagation models;
- b) that measurements of solar-terrestrial, geomagnetic and ionospheric parameters are required for the short-term forecasts of ionospheric propagation;
- c) that radiocommunication between Earth and space at frequencies above 30 MHz can be significantly affected by propagation conditions in the ionosphere,

recommends

- 1** that ionospheric characteristics, as measured by the established worldwide network of ionospheric measuring stations and archived at World Data Centres set up by ICSU, be used for ionospheric mapping and propagation modelling purposes;
 - 2** that the 2 800 MHz (10.7 cm) solar noise-flux, as measured by the National Research Council (NRC), Canada, continues to be used to determine the index Φ ;
 - 3** that sunspot numbers continue to be represented by the indices of International Relative Sunspot Numbers produced by the Sunspot Index Data Centre sponsored by the Observatoire Royal de Belgique and the Federation of Astronomical and Geophysical Data Analysis Service (FAGS);
 - 4** that solar, geomagnetic and ionospheric characteristics be regularly measured and the resulting data exchanged rapidly for use in short-term forecasts of ionospheric propagation conditions;
 - 5** that the following characteristics associated with trans-ionospheric propagation be measured on a systematic basis and the resulting data be made available to the ITU-R:
 - total electron content, amplitude and phase scintillations, absorption, Faraday polarization rotation, group delay, coherence bandwidth, and variations in the direction of arrival.
-