EXAMPLE SPECTRUM CONTOURS

Contour Description

The spectrum contours are computed for a received signal level that results in an increase in the thermal noise of a ground-based receiver.

Required Frequency Assignment Data

The following frequency assignment data elements from the Government Master File are used to compute the spectrum contours:

- frequency;
- transmitter emission bandwidth;
- transmitter power;
- transmitter latitude and longitude; and
- transmitter antenna height.

Representative sidelobe antenna gains are used to compute the spectrum contours.

Spectrum Contour Methodology

The spectrum contours are computed for a received signal level that results in a 1 dB increase in the thermal noise of a reference receiver. A reference receiver bandwidth of 1 MHz is used in the development of the spectrum contours. The Irregular Terrain Model (ITM) in the point-to-point mode is used to compute the propagation loss for the spectrum contours. ITM, which is based on electromagnetic theory and on statistical analyses of both terrain features and radio measurements, predicts the median attenuation of a radio signal as a function of distance and the variability of the signal in time and in space. In the point-to-point mode the ITM uses a terrain profile based on the latitude and longitude and the antenna heights for the transmitter and the receiver.