

RECOMMENDATION ITU-R F.613*

**THE USE OF IONOSPHERIC CHANNEL SOUNDING SYSTEMS
OPERATING IN THE FIXED SERVICE AT FREQUENCIES
BELOW ABOUT 30 MHz**

(1986)

The ITU Radiocommunication Assembly,

considering

- (a) that ionospheric oblique path sounding allows the determination in real-time of ionospheric propagation conditions;
- (b) that the results of sounding may be applied to the optimization of frequency utilization and circuit reliability for a communications circuit on the same path;
- (c) that sounding on the frequencies assigned to a circuit also allows the signal-to-noise and interference ratios existing on those frequencies to be evaluated;
- (d) that the proliferation of channel sounding systems increases the already severe congestion of the HF bands;
- (e) that soundings on frequencies other than those assigned to the particular circuit may cause interference to other users and give information which cannot be directly applied to the frequency management of the circuit;
- (f) that sounding more frequently than can be utilized by the frequency management procedures in use is unnecessary,

recommends

1. that where ionospheric channel sounding is employed, it should take place only on the frequencies and within the channel bandwidths assigned to the communications circuit, the frequency utilization for which is being managed using the sounding information;
2. that the repetition rate of the sounding signals should be at the minimum rate required for frequency management;
3. that the radiated power of the sounding signals should be at the minimum level required for frequency management;
4. that in the event of natural disasters and emergencies which require the rapid establishment of telecommunications facilities, the constraints on the use of channel sounding may be relaxed.

* Radiocommunication Study Group 9 made editorial amendments to this Recommendation in 2000 in accordance with Resolution ITU-R 44.