

RECOMMENDATION ITU-R F.388\*

**Radio-frequency channel arrangements for  
trans-horizon radio-relay systems**

(1959-1963)

The ITU Radiocommunication Assembly,

*considering*

- a) that trans-horizon radio-relay systems are already in service and that systems of this type will come into more extensive use in the future;
- b) that the high radiated power of trans-horizon radio-relay systems and the long range of tropospheric-scatter propagation may give rise to serious interference at distances extending beyond international boundaries, for example, 1 000 km;
- c) that interference, both between and within trans-horizon radio-relay systems, could be minimized by the coordination of radio-frequency channel arrangements over a large geographical area;
- d) that many interfering effects between equipment at the same station could be minimized by a carefully planned arrangement of radio frequencies;
- e) that some technical information for the planning of such systems exists, but that the design of trans-horizon radio-relay systems is subject to change;
- f) that different methods of modulation are at present being used or proposed, among them, frequency modulation and single-sideband amplitude modulation;
- g) that, at the present time, standardization of preferred radio-frequency channel arrangements might therefore unduly restrict the future development of trans-horizon radio-relay systems;
- h) that, nevertheless, a common basis for planning such systems is desirable,

*recommends*

- 1 that the radio-frequency channel arrangements for the international connection of trans-horizon radio-relay systems should be agreed between the administrations concerned;
- 2 that the basis of planning of the radio-frequency channel arrangements for radio-relay systems using frequency modulation given in Report 286 (Geneva, 1982) may be used, where appropriate, as a guide.

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\* Radiocommunication Study Group 9 made editorial amendments to this Recommendation in 2001 in accordance with Resolution ITU-R 44.