

## RECOMMENDATION ITU-R M.1174

**CHARACTERISTICS OF EQUIPMENT USED FOR ON-BOARD COMMUNICATIONS  
IN THE BANDS BETWEEN 450 AND 470 MHz**

(1995)

The ITU Radiocommunication Assembly,

*considering*

a) that there is a need to describe the characteristics of equipment used for on-board communications in the bands between 450 and 470 MHz,

*recommends*

**1** that transmitters and receivers used in the maritime mobile service for on-board communications in the bands between 450 and 470 MHz should conform to the technical characteristics shown in Annex 1.

## ANNEX 1

**Characteristics of equipment used for on-board communication  
in the bands between 450 and 470 MHz**

- 1** The equipment should be fitted with sufficient channels for satisfactory operation in the area of intended use.
- 2** The effective radiated power shall be limited to the minimum required for satisfactory operation, but shall in no case exceed 2 W. Wherever practicable the equipment should be fitted with a suitable device to reduce readily the output power by at least 10 dB.
- 3** In the case of equipment installed at a fixed point on the ship, the height of its antenna shall not be more than 3.5 m above the level of the bridge.
- 4** Only frequency modulation with a pre-emphasis of 6 dB/octave (phase modulation) shall be used.
- 5** The frequency deviation shall not exceed  $\pm 5$  kHz.
- 6** The frequency tolerance shall be 5 parts in  $10^6$ .
- 7** The audio-frequency band shall be limited to 3 000 Hz.
- 8** Control, telemetry and other non-voice signals shall be coded in such a manner as to minimize the possibility of false response to interfering signals.
- 9** The frequencies specified in RR No. S5.287 [No. 669] for on-board communications may be used for single-frequency and two-frequency simplex operations.

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*Note by the Secretariat:* The references made to the Radio Regulations (RR) in this Recommendation refer to the RR as revised by the World Radiocommunication Conference 1995. These elements of the RR will come into force on 1 June 1998. Where applicable, the equivalent references in the current RR are also provided in square brackets.

**10** For ships using these on-board communication frequencies in survival craft two-way radiotelephone stations, the survival craft equipment shall be capable of transmitting and receiving the frequency 457.525 MHz.

**11** If the use of a repeater station is required on board a ship, the following frequency pairs shall be used (see also RR No. S5.288 [No. 670]):

457.525 MHz and 467.525 MHz

457.550 MHz and 467.550 MHz

457.575 MHz and 467.575 MHz

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