

passage of r.f. output current shall be provided. Their failure shall not disconnect the aerial circuit.

(10) Power—(a) For the purpose of this specification, the power of the transmitter is defined as:

- (i) On telegraphy—the mean radio-frequency power developed in the load during a marking period; and
- (ii) On telephony—the total unmodulated carrier power delivered to the load.

In neither case shall it include power dissipated in any component, such as an aerial tuning inductor, properly to be regarded as part of the transmitter:

(b) On 500 kHz the power of the transmitter shall be at least—

- (i) 30 watts when measured with a dummy load consisting of a 6 ohm non-inductive resistor in series with a capacitor having any and every value from 125 to 200 pF; and
- (ii) 50 watts when measured with a dummy load consisting of a 30 ohm non-inductive resistor in series with a capacitor having any and every value from 200 to 300 pF:

(c) On 2182 kHz the power of the transmitter shall be at least—

- (i) 5 watts when measured with a dummy load consisting of a 15 ohm non-inductive resistor in series with a capacitor having any and every value from 125 to 200 pF; and
- (ii) 10 watts when measured with a dummy load consisting of a 30 ohm non-inductive resistor in series with a capacitor having any and every value from 300 to 400 pF:

(d) On 8364 kHz the power of the transmitter shall be at least 15 watts when measured with a dummy load consisting of a 40 ohm non-inductive resistor in series, with any and every reactance in the range plus and minus 60 ohm.

7. Receiver—(1) Method of Test—The dummy aerials employed for testing shall be as specified in subclause (10) of clause 6 of this Part of this Schedule.

(2) General—(a) The receiver shall be tunable over the ranges 488 to 513 kHz and 8320 to 8745 kHz for reception of emissions of Classes A1 and A2.

(b) The receiver shall also be capable of reception on a spot frequency of 2182 kHz for reception of emissions of Class A3.

(c) A manual gain control shall be provided.

(d) Reception shall be by watertight headphones shrouded to exclude external noise.

(3) Standard Output Level—The standard audio-frequency output level shall be 1mW into a resistance substantially equal to the modulus of the impedance of the headphone receivers at 1000 Hz.

(4) Selectivity—(a) The selectivity preceding the final detector shall be as follows:

- (i) When tuned to a frequency of 500 kHz or 8364 kHz—

Not more than 6 dB discrimination to be obtained at frequencies removed from tune by ..	1 kHz
At least 6 dB discrimination to be obtained at all frequencies removed from tune by ..	4 kHz
At least 30 dB discrimination to be obtained at all frequencies removed from tune by ..	15 kHz
At least 60 dB discrimination to be obtained at all frequencies removed from tune by ..	40 kHz

- (ii) When spot-tuned to a frequency of 2182 kHz—

Not more than 6 dB discrimination to be obtained at frequencies in the range	2,179 to 2,185 kHz inclusive
At least 30 dB discrimination to be obtained at frequencies of	2,167 kHz and below 2,197 kHz and above
At least 60 dB discrimination to be obtained at frequencies of	2,142 kHz and below 2,222 kHz and above

(b) In the case of a superheterodyne receiver, the image and i.f. rejection ratios shall be at least 30 dB.

(5) Sensitivity and Signal/Noise Ratio—(a) At frequencies in the range 488 to 513 kHz, standard output shall be obtained with a Class A2 input signal modulated 30 percent at 1000 Hz, of level 40 dB above 1µV, and with a Class A1 input signal of level 30 dB above 1 µV. The signal/noise ratio shall be at least 15 dB under these conditions.

(b) At a frequency of 2182 kHz, standard output shall be obtained with a Class A2 input signal modulated 30 percent at 1000 Hz, and of level 30 dB above 1µV. The signal/noise ratio shall be at least 20 dB under these conditions.

(c) At frequencies in the range 8320 to 8745 kHz, standard output shall be obtained with a Class A2 input signal modulated 30 percent at 1000 Hz, of level 40 dB above 1µV. The signal/noise ratio shall be at least 25 dB under these conditions.

(6) Fidelity—(a) For the tests required in paragraphs (b) and (c) of this sub-clause, the input signal may have any level and modulation depth, provided the output of the receiver does not exceed the standard output. The modulation depth and the level of the input signal shall be kept constant during each test:

(b) The modulation frequency response characteristic of the receiver shall be within a range of 8 dB for modulation frequencies between 300 and 1500 Hz when receiving the frequencies specified in subclause (2) (a) of this clause:

(c) The modulation frequency response characteristic of the receiver shall be within a range of 8 dB for modulation frequencies between 250 and 3000 Hz when receiving on a frequency of 2182 kHz.

(7) Tuning Stability—When receiving on 2182 kHz, the requirements of subclause (4) (a) (ii) of this clause shall be met within five minutes of switching on.

8. Operating Facilities Common to Transmitter and Receiver—(1) An electric filament lamp of power rating between 3 and 15 watts, or other approved form of equivalent illumination, shall be provided to illuminate the control panels and instructions, and the case of the lamp shall be waterproof. The lamp shall be provided with an on-off switch.

(2) All controls shall be of such size and form as to permit normal adjustments to be performed by a person wearing thick gloves. Tuning controls shall be not less than 5 cm in diameter.

(3) Send-receive switching shall be by means of a single control.

9. Construction—(1) In all respects the mechanical and electrical construction and the finish of the equipment shall conform to good standards of engineering practice, and the equipment shall be suitable for use in a motor lifeboat.

(2) Provision shall be made for the interior of the case normally to be kept at a temperature of at least 10°C above ambient temperature by means of an electrical heater connected to the ship's mains. The heater shall be mounted so that it will reduce the risk of the controls or cover of the equipment becoming frozen into position and so as to avoid any part of the equipment becoming overheated.

(3) The arrangements under clauses 5 (2) (b) and 9 of this Part of this Schedule shall in no way interfere with the launching of the lifeboat.

10. Additional Safeguards to be Incorporated Where the Equipment Includes Semiconductor Devices—(1) Where