Classification of waves.

39. (1) Radio-electric emissions are divided into two classes—A, continuous waves; B, damped waves; defined as follows:—

Class A: Waves of which the successive oscillations are identical as a permanent condition. (Continuous waves.)

Class B: Waves consisting of successive trains in which the amplitude of the oscillations, after reaching a maximum, decreases gradually. (Damped waves.)

(2) Waves of Class A comprise the types given below, which are defined as follows:—

Type A1: Unmodulated continuous waves. Continuous waves of which the amplitude or frequency is varied by the operation of telegraphic keying. (C.W.)

Type A2: Continuous waves modulated at audible frequency. Continuous waves of which the amplitude or frequency is varied in a periodic manner at audible frequency, combined with telegraphic keying. (I.C.W.)

Type A3: Continuous waves modulated by speech or by music. Continuous waves of which the amplitude or frequency is varied according to the characteristic vibrations of speech or music. (Telephony.)

(3) These definitions do not relate to systems of sending-apparatus.

40. Waves shall be designated primarily by their frequency in kilocycles per second (kc/s), the approximate length in metres (m.) being shown in parentheses.

(NOTE.—*In these regulations the approximate value of the wave-length in metres is the quotient obtained by dividing the number 300,000 by the frequency expressed in kilocycles per second.*)

Allocation of frequencies.

41. The Minister shall allot transmitting-frequencies (wave-lengths) from the bands assigned to the particular service by the International Radio-telegraph Convention.

No monopoly of allocated frequency.

42. The allotment of any frequency to any transmitting station shall not be held to confer upon such station a monopoly of the use of such frequency with or without restriction as to time.

Frequency meter to be provided.

43. All transmitting stations shall be equipped with instruments for the accurate measurement of the frequency of the emitted wave; and the Minister may, at his discretion, require such instruments to be checked at any time with national standards.

Breadth of emission.

44. In order that interference to services on adjacent waves may be minimized, the width of a band of frequencies occupied by the emission of a station must correspond reasonably with technical progress for the type of communication concerned.

Waves to be pure and steady.

45. The waves emitted by a station must be maintained at the authorized frequency, as exactly as the state of technical development reasonably permits, and their radiation must also be as free as practicable from all emissions which are not essential to the type of communication effected:

Provided that the variation between the mean frequency of the emissions and the allocated frequency of any radio-station shall not in any case be more than 500 cycles, subject, in the case of broadcasting stations, to the provisions of Part IV hereof.

Erection of aerials.

46. (1) Radio aerials shall not, without the consent of the licensee for the supply of electricity concerned, be erected above or below wires used for the supply of electricity, or sufficiently near to such wires to permit of contact with them should either class of wire break or become detached from its support, or the support fail.

(2) Radio aerials shall not, without the consent of the Minister, be erected above or below any electric line erected and maintained by the Post and Telegraph Department.

Interference and identity rules to be complied with.

47. The licensee shall comply with all such directions and observe all such rules as may be given or made by the Minister from time to time for the purpose of preventing interference with the working of any other radio-station, and for enabling the messages transmitted by means of the licensed apparatus to be distinguished from those emanating from any other radio-station.

Tests and adjustments.

48. (1) Tests and adjustments in any station must be made in such a way as not to interfere with the service of other stations engaged in authorized correspondence. Test and adjustment signals must be of such a character that they cannot be confused with a message, abbreviation, or other signals, having a special significance under these regulations.