

**§ 2.100**

*Time Hopping Systems.* A time hopping system is a spread spectrum system in which the period and duty cycle of a pulsed RF carrier are varied in a pseudorandom manner under the control of a coded sequence. Time hopping is often used effectively with frequency hopping to form a hybrid time-division, multiple-access (TDMA) spread spectrum system.

*Transponder.* A transmitter-receiver facility the function of which is to transmit signals automatically when the proper interrogation is received. (FCC)

*Tropospheric Scatter.* The propagation of radio waves by scattering as a result of irregularities or discontinuities in the physical properties of the troposphere. (RR)

*Unwanted Emissions.* Consist of spurious emissions and out-of-band emissions. (RR)

[49 FR 2368, Jan. 19, 1984, as amended at 50 FR 25239, June 18, 1985; 51 FR 37399, Oct. 22, 1986; 52 FR 7417, Mar. 11, 1987; 54 FR 49980, Dec. 4, 1990; 55 FR 28761, July 13, 1990; 56 FR 42703, Aug. 29, 1991; 58 FR 68058, Dec. 23, 1993; 62 FR 26242, May 13, 1997; 65 FR 60109, Oct. 10, 2000; 66 FR 50840, Oct. 5, 2001; 68 FR 74330, Dec. 23, 2004]

**Subpart B—Allocation, Assignment, and Use of Radio Frequencies**

SOURCE: 49 FR 2373, Jan. 19, 1984, unless otherwise noted.

**§ 2.100 International regulations in force.**

The International Radiocommunication Union *Radio Regulations*, Edition of 2001, became effective internationally on January 1, 2002, except as provided in the references in Article 59.

[67 FR 59601, Sept. 23, 2002]

**§ 2.101 Nomenclature of frequencies.**

Band No.	Frequency subdivision	Frequency range
4 .....	VLF (very low frequency).	Below 30 kHz.
5 .....	LF (low frequency) .....	30 to 300 kHz.
6 .....	MF (medium frequency) .....	300 to 3000 kHz.
7 .....	HF (high frequency) .....	3 to 30 MHz.
8 .....	VHF (very high frequency).	30 to 300 MHz.
9 .....	UHF (ultra high frequency).	300 to 3000 MHz.

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Band No.	Frequency subdivision	Frequency range
10 .....	SHF (super high frequency).	3 to 30 GHz.
11 .....	EHF (extremely high frequency).	30 to 300 GHz
12 .....	.....	300 to 3000 GHz.

**§ 2.102 Assignment of frequencies.**

(a) Except as otherwise provided in this section, the assignment of frequencies and bands of frequencies to all stations and classes of stations and the licensing and authorizing of the use of all such frequencies between 9 kHz and 400 GHz, and the actual use of such frequencies for radiocommunication or for any other purpose, including the transfer of energy by radio, shall be in accordance with the Table of Frequency Allocations in § 2.106.

(b) On the condition that harmful interference will not be caused to services operating in accordance with the Table of Frequency Allocations the following exceptions to paragraph (a) of this section may be authorized:

(1) In individual cases the Commission may, without rule making proceedings, authorize on a temporary basis only, the use of frequencies not in accordance with the Table of Frequency Allocations for projects of short duration or emergencies where the Commission finds that important or exceptional circumstances require such utilization. Such authorizations are not intended to develop a service to be operated on frequencies other than those allocated such service.

(2) A station for the development of techniques or equipment to be employed by services set forth in column 5 of the Table of Frequency Allocations may be authorized the use of frequencies allocated to those services or classes of stations.

(3) Experimental stations pursuant to part 5, may be authorized the use of any frequency or frequency band not exclusively allocated to the passive services (including the Radio Astronomy Service).

(4) In the event a band is reallocated so as to delete its availability for use by a particular service, the Commission may provide for the further interim use of the band by stations in that service for a temporary, specific period of time.