#### **CHAPTER 7**

# **National Table of Frequency Allocations**

### 7.1 FREQUENCY ALLOCATIONS

# 7.1.1 ITU Table of Frequency Allocations

The ITU Table of Frequency Allocations is that table contained in Article S5 of the ITU Radio Regulations, 1998 Edition.

# 7.1.2 National Table of Frequency Allocations

The Federated States of Micronesia National Table indicates the normal national frequency allocation planning and the degree of conformity with the ITU Table. When required in the national interest and consistent with national rights, as well as obligations undertaken by the Federated States of Micronesia to other countries that may be affected, additional uses of frequencies in any band may be authorized to meet service needs other than those provided for in the National Table. Under No. S4.4 of the ITU Radio Regulations, administrations may assign frequencies in derogation of the ITU Table of Frequency Allocations "on the express condition that harmful interference shall not be caused to services carried on by stations (of other countries) operating in accordance with the provisions of the Convention and of these Regulations."

# 7.1.3 FSM National Table of Frequency Allocations

The rules pertaining to the relative status between radio services are as follows:

Primary and permitted services have equal rights, except that, in the preparation of frequency plans, the primary service, as compared with the permitted service, shall have prior choice of frequencies.

Secondary services are on a non-interference basis to the primary service. Stations of a secondary service:

- (a) shall not cause harmful interference to stations of primary services to which frequencies are already assigned or to which frequencies may be assigned at a later date;
- (b) cannot claim protection from harmful interference from stations of a primary service to which frequencies are already assigned or may be assigned at a later date;
- (c) can claim protection, however, from harmful interference from stations of the same or other secondary service(s) to which frequencies may be assigned at a later date

Additional allocation - where a band is indicated in a footnote of the Table as "also allocated" to a service in an area smaller than a Region, or in a particular country. For example, an allocation which is added in this area or in this country to the service or services which are indicated in the Table

Alternative allocation - where a band is indicated in a footnote of the Table as "allocated" to one or more services in an area smaller than a Region, or in a particular country. For example, an allocation which replaces, in this area or in this country, the allocation indicated in the Table.

Different category of service - where the allocation category (primary or secondary) of the service in the Table is changed. For example, the Table reflects the allocation as Fixed, Mobile and RADIOLOCATION, the category of these services are changed by the footnote to FIXED, MOBILE and Radiolocation

An allocation or a footnote to the National Table denoting relative status between radio services automatically applies to each assignment in the band to which the footnote or allocation pertains, unless at the time of a particular frequency assignment action a different provision is decided upon for the assignment concerned.

An assignment that is in conformity with the service allocation (as amplified by pertinent footnotes) for the band in which it is contained takes precedence over assignments therein that are

not in conformity unless, at the time of the frequency assignment action, a different provision is decided upon.

Where in this Table a band is indicated as allocated to more than one service, such services are listed in the following order:

- (a) services, the names of which are printed in all capital letters (example: FIXED); these services are called "primary" services;
- (b) services, the names of which are printed in "normal characters" (example: Mobile); these are "secondary" services.

The columns to the right of the double line show the national provisions; those to the left show the provisions of the ITU Table of Frequency Allocations.

Column 1 indicates the national band limits. Where the allocated service is followed by a function in parentheses, e.g., SPACE (space-to-Earth), the allocation is limited to the function shown.

Column 2 contains such remarks as serve to amplify the allocations or indicate the existence of a National Frequency Assignment Plan for the band.

The international footnotes shown in the columns to the left of the double line are applicable only in the relationships between the Federated States of Micronesia and other countries. An international footnote is applicable to the National Table only if the number also appears in the Table.

The texts of footnotes in this Table are listed in numerical order at the end of the Table.

# 7.1.4 International Frequency Allocation Regions

For the purpose of the allocation of the radio frequency spectrum, the ITU has divided the world into three regions. The Federated States of Micronesia is in Region 3.

The ITU has established Lines A, B and C to separate the three regions. These three lines are defined as follows:

Line A: Line A extends from the North Pole along Meridian  $40^{0}$  East of Greenwich to parallel  $40^{0}$  North; thence by great circle arc to the intersection of Meridian  $60^{0}$  East and the Tropic of Cancer; thence along the Meridian  $60^{0}$  East to the South Pole.

Line B: Line B extends from the North Pole along Meridian  $10^0$  West of Greenwich to its intersection with parallel  $72^0$  North; thence by great circle arc to the intersection of Meridian  $50^0$  West and parallel  $40^0$  North; thence by great circle arc to the intersection of Meridian  $20^0$  West and parallel  $10^0$  South; thence along Meridian  $20^0$  West to the South Pole.

Line C: Line C extends from the North Pole by great circle arc to the intersection of parallel 65<sup>0</sup> 30 seconds north with the international boundary in the Bering Strait; thence by great circle arc to the intersection of Meridian 165<sup>0</sup> East of Greenwich and parallel 50<sup>0</sup> North; thence by great circle arc to the intersection of Meridian 170<sup>0</sup> West and parallel 10<sup>0</sup> North; thence along parallel 10<sup>0</sup> North to its intersection with Meridian 120<sup>0</sup> West; thence along Meridian 120<sup>0</sup> West to the South Pole.

### 7.1.5 FREQUENCY NOMENCLATURE

The terms "allocation," "allotment," and "assignment" are used to describe the distribution of frequencies or bands of frequencies. Allocations are made to radio services, for example, the fixed service, the aeronautical mobile service, and the space research service. Allotments are made to areas or countries and, within the Federated States of Micronesia, to specific uses. Assignments are instruments of authorization of discrete frequencies to specific radio stations.

In the application of the provisions of these Regulations, letters or numbers shall not be used to designate specific bands of frequencies, e.g., S-band, X-band, Ku-band. Such designations create confusion, because the band limits vary from one designator system or user group to another. This can be avoided by using the international system of citing in Hertz the actual numerical limits of

specific frequency bands. Further, broader portions of the spectrum can be described by the following internationally adopted terms:

Frequency Subdivision Frequency Range

VLF (very low) 3 kHz to 30 kHz LF (low) 30 kHz to 300 kHz

MF (medium) 300 kHz to 3000 kHz

HF (high) 3 M VHF (very high) 30 D UHF (ultra high) 300 SHF (super high) 3 G EHF (extremely high) 30

3 MHz to 30 MHz 30 MHz to 300 MHz 300 MHz to 3000MHz 3 GHz to 30 GHz 30 GHz to 300 GHz 300 GHz to 3000 GHz

Hz=hertz=cycles per second k=kilo (10<sup>3</sup>) M=Mega (10<sup>6</sup>) G=giga (10<sup>9</sup>) T=tera (10<sup>12</sup>)

#### 7.1.6 EMISSION DESIGNATORS

Emissions are designated according to their classification and their necessary bandwidth.

## 7.1.7 Classification of Emissions

Emissions are classified according to the type of modulation of the main carrier, the nature of signal(s) modulating the main carrier, and the type of information to be transmitted. For a more complete description of an emission, two optional characteristics can be added; these are the details of signal(s) and the nature of multiplexing.

## 7.1.8 Necessary Bandwidth

- 1. Whenever the full designation of an emission is necessary, the symbol for that emission shall be preceded by a number indicating the necessary bandwidth of the emission
- 2. See Annex J for methods used to determine necessary bandwidth and the relationship between. occupied and necessary bandwidth. The value so determined shall be used when the full designation of an emission is required. However, the necessary bandwidth so determined is not the only characteristic of an emission to be considered in evaluating the interference that may be caused by that emission.