

# 1613.8-1626.5 MHz

## 1. Band Introduction

The primary Federal use of this band is for Earth terminals used in conjunction with commercial mobile-satellite service (MSS) systems. The satellite service providers include the Iridium and Globalstar non-geostationary MSS systems. With respect to the Globalstar system, the transmissions are in the Earth-to-space direction and with respect to Iridium, the transmissions are in both the Earth-to-space and space-to-Earth directions.

## 2. Allocations

### 2a. Allocation Table

The frequency allocation table shown below is extracted from the Manual of Regulations and Procedures for Federal Radio Frequency Management, Chapter 4 – Allocations, Allotments and Plans.

*Table of Frequency Allocations*

*United States Table*

Federal Table	Non-Federal Table	FCC Rule Part(s)
1613.8-1626.5 MOBILE-SATELLITE (Earth-to-space) US319 US380 AERONAUTICAL RADIONAVIGATION US260 RADIODETERMINATION-SATELLITE (Earth-to-space) Mobile-satellite (space-to-Earth)	5.341 5.364 5.365 5.366 5.367 5.368 5.372 US208	Satellite Communications (25) Aviation (87)

### 2b. Additional Allocation Table Information

**5.341** In the bands 1400-1727 MHz, 101-120 GHz and 197-220 GHz, passive research is being conducted by some countries in a programme for the search for intentional emissions of extraterrestrial origin.

**5.364** The use of the band 1 610-1 626.5 MHz by the mobile-satellite service (Earth-to-space) and by the radiodetermination-satellite service (Earth-to-space) is subject to coordination under No. 9.11A. A mobile earth station operating in either of the services

## **1613.8 – 1626.5 MHz**

in this band shall not produce a peak e.i.r.p. density in excess of -15 dB (W/4 kHz) in the part of the band used by systems operating in accordance with the provisions of No. 5.366 (to which No. 4.10 applies), unless otherwise agreed by the affected administrations. In the part of the band where such systems are not operating, the mean e.i.r.p. density of a mobile earth station shall not exceed -3 dB(W/4 kHz). Stations of the mobile-satellite service shall not claim protection from stations in the aeronautical radionavigation service, stations operating in accordance with the provisions of No. 5.366 and stations in the fixed service operating in accordance with the provisions of No. 5.359. Administrations responsible for the coordination of mobile-satellite networks shall make all practicable efforts to ensure protection of stations operating in accordance with the provisions of No. 5.366.

**5.365** The use of the band 1 613.8-1 626.5 MHz by the mobile-satellite service (space-to-Earth) is subject to coordination under No. 9.11A.

**5.366** The band 1 610-1 626.5 MHz is reserved on a worldwide basis for the use and development of airborne electronic aids to air navigation and any directly associated ground-based or satellite-borne facilities. Such satellite use is subject to agreement obtained under No. 9.21.

**5.367** *Additional allocation:* The bands 1 610-1 626.5 MHz and 5 000-5 150 MHz are also allocated to the aeronautical mobile-satellite (R) service on a primary basis, subject to agreement obtained under No. 9.21.

**5.368** With respect to the radiodetermination-satellite and mobile-satellite services, the provisions of No. 4.10 do not apply in the band 1 610-1 626.5 MHz, with the exception of the aeronautical radionavigation-satellite service.

**5.372** Harmful interference shall not be caused to stations of the radio astronomy service using the band 1 610.6-1 613.8 MHz by stations of the radiodetermination-satellite and mobile-satellite services (No. 29.13 applies).

**US208** Planning and use of the band 1559-1626.5 MHz necessitate the development of technical and/or operational sharing criteria to ensure the maximum degree of electromagnetic compatibility with existing and planned systems within the band.

**US260** Aeronautical mobile communications which are an integral part of aeronautical radionavigation systems may be satisfied in the bands 1559-1626.5 MHz, 5000-5250 MHz and 15.4-15.7 GHz.

**US319** In the bands 137-138 MHz, 148-149.9 MHz, 149.9-150.05 MHz, 399.9-400.05 MHz, 400.15-401 MHz, 1610-1626.5 MHz, and 2483.5-2500 MHz, Federal stations in the mobile-satellite service shall be limited to earth stations operating with non-Federal space stations.

**US380** In the bands 1525-1544 MHz, 1545-1559 MHz, 1610-1645.5 MHz, 1646.5-1660.5 MHz, 2000-2020 MHz, 2180-2200 MHz, and 2483.5-2500 MHz, a non-Federal licensee in the mobile-satellite service (MSS) may also operate an ancillary terrestrial component in conjunction with its MSS network, subject to the Commission’s rules for ancillary terrestrial components and subject to all applicable conditions and provisions of its MSS authorization.

### 3. Federal Agency Use

#### 3a. Federal Agency Frequency Assignments Table

Mobile earth station equipment operating in the 1610.6-1613.8 MHz band are licensed by the Federal Communications Commission (FCC) and do not require a frequency assignment in the Government Master File.

Pursuant to Section 7.23 of the NTIA Manual, Federal agencies may operate radio devices as end users of such systems. Such use must be in accordance with FCC rules governing the specified service. Some Federal agencies obtain FCC blanket licenses for operation of multiple handhelds used in conjunction with these non-Federal systems.

*Federal Frequency Assignment Table*

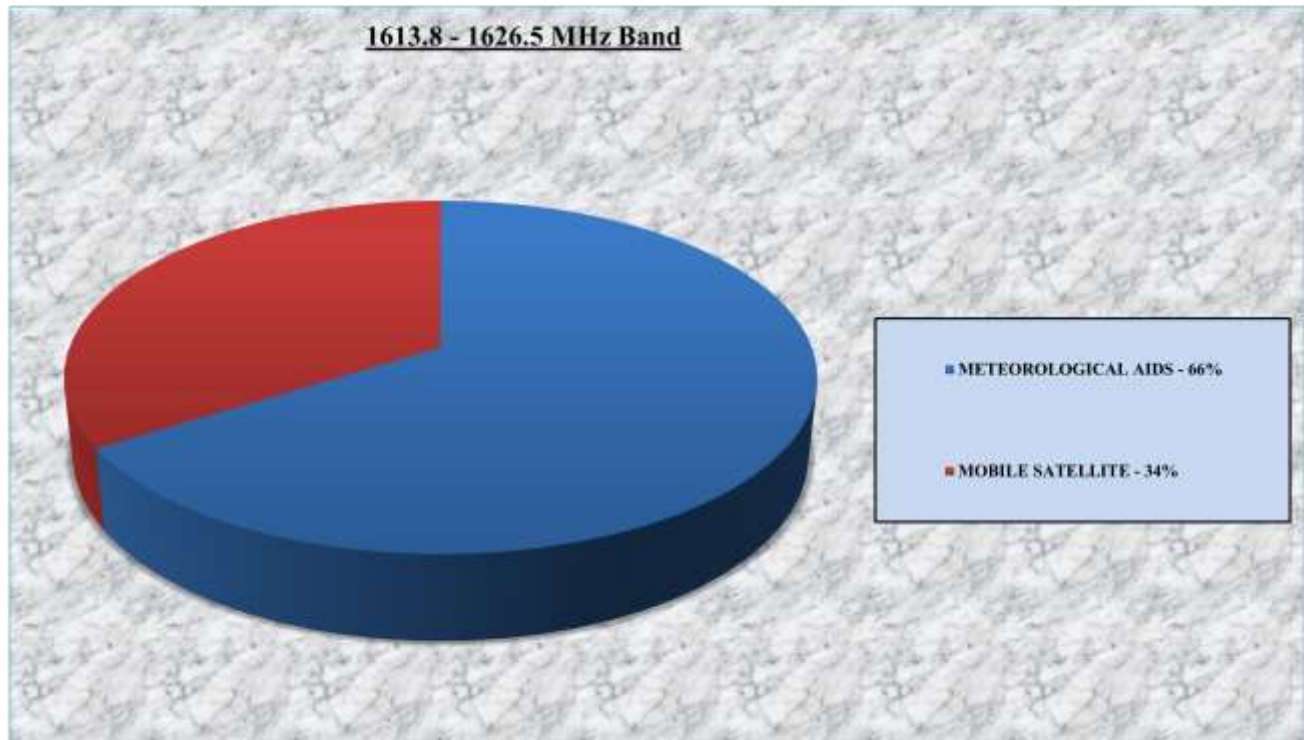
1613.8-1626.5 MHz Band					
SHARED BAND					
AGENCY	AERONAUTICAL RADIONAVIGATION MOBILE-SATELLITE (Earth-to-space) (space-to-Earth) RADIODETERMINATION-SATELLITE (Earth-to-space)				
	TYPE OF APPLICATION				
	METEOROLOGICAL AID	MOBILE SATELLITE			TOTAL
AF		1			1
AR	2				2
<b>TOTAL</b>	<b>2</b>	<b>1</b>			<b>3</b>

The number of actual systems, or number of equipments, may exceed and sometimes far exceed, the number of frequency assignments in a band. Also, a frequency assignment may represent, a local, state, regional or nationwide authorization. Therefore, care must be taken in evaluating bands strictly on the basis of assignment counts or percentages of assignments.

## 1613.8 – 1626.5 MHz

### 3b. Percentage of Frequency Assignments Chart

The following chart displays the percentage of frequency assignments in the Government Master File for the systems operating in the chart legend below for the frequency band 1613.8 – 1626.6 MHz.



## 4. Frequency Band Analysis By Application

### 4a. Mobile-Satellite Service (Earth-to-Space)

In this band, the Federal agencies are end users of Globalstar and Iridium commercial non-geostationary MSS systems. Globalstar operates in the 1610.73 to 1618.73 MHz portion of the band and Iridium operates in the 1618.73 - 1626.5 MHz portion of the band. These systems provide voice and data communication capabilities to Federal users anywhere in the United States or around the world. Mobile earth stations operating in this band are used by Federal law enforcement agencies, Federal emergency management teams, the Department of Defense and the Department of Homeland Security. Mobile earth stations can be used to provide flexible and easily deployable communication systems during emergency support efforts.

Globalstar is also authorized to operate mobile earth stations using an Ancillary Terrestrial Component (ATC) service supporting an integrated satellite and terrestrial communication network. The ATC handsets operate in this band.

**4b. Aeronautical Radionavigation Service**

The Federal Government is not operating aeronautical radionavigation systems in the 1613.6-1626.5 MHz band at this time.

**4c. Radiodetermination-Satellite Service (Earth-to-Space)**

The Federal Government is not operating radiodetermination-satellite systems in the 1613.80-1626.5 MHz band at this time.

**5. Planned Use**

The use of this band for the commercial mobile satellite service is expected to continue indefinitely.

The Federal Government currently has no plans to operate aeronautical radionavigation systems in this band.

The Federal Government currently has no plans to operate radiodetermination-satellite systems in this band.