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SUMMARY OF UNITED STATES FREQUENCY BAND ALLOCATIONS  
500 MHz - 3000 MHz

This document is a summary of the spectrum allocations in the 500 to 3000 MHz range in the United States.

In the United States, radio spectrum is allocated to either Government or non-Government use exclusively, or for shared use. The Federal Communications Commission (FCC) manages all non-Government use of the spectrum and the National Telecommunications and Information Administration (NTIA) manages the Government use of the spectrum. Service bands that are shared by Government and non-Government users require coordination between the FCC and the NTIA.

In those cases where an allocation is made to more than one service, such services are categorized as either primary, permitted, or secondary. Primary and permitted services have priority over secondary services and are protected from interference from secondary services. In preparation of frequency plans, primary services have priority over permitted services. Secondary services must not cause harmful interference to the primary and permitted services. Secondary services cannot claim protection from interference from primary or permitted services.

In the following summary, the number of non-Government assignments is provided for some bands from the 1987 FCC data base.

1. 470 - 512 MHz

The 470-512 MHz band is exclusively non-Government and is allocated to the Broadcasting and Land Mobile services on a shared primary basis. Television channels 14-20 are in this band.

2. 512 - 608 MHz

The 512-608 MHz band is exclusively non-Government and is allocated for the Broadcasting service. Television channels 21-36 are in this band.

3. 608 - 614 MHz

The 608-614 MHz band is shared by Government and non-Government users for Radio Astronomy. Footnote US246 states that no stations will be authorized to transmit in this band.

4. 614 - 806 MHz

The 614-806 MHz band is exclusively non-Government and is allocated for the Broadcasting service. Television channels 38-69 are in this band.

5. 806 - 821 MHz

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The 806-821 MHz band is exclusively non-Government and is allocated to the Land Mobile service. See Part 90 on Private Land Mobile. Footnote NG31 states that stations in the Rural Radio Service licensed for Basic Exchange Telecommunications Radio Service may be authorized to use some frequencies in the band 816-820 MHz (fixed subscriber) on a co-primary basis with private land mobile radio licensees, pursuant to Part 22, Subpart H.

6. 821 - 824 MHz

The 821-824 MHz band is exclusively non-Government and is allocated to the Land Mobile service. See Part 90 on Private Land Mobile.

7. 824 - 849 MHz

The 824-849 MHz band is exclusively non-Government and is allocated to the Land Mobile service. Cellular is licensed in this band as described by Part 22 on Domestic Public Land Mobile.

8. 849 - 851 MHz

The 849-851 MHz band is exclusively non-Government and is held in reserve for the Land Mobile service.

9. 851 - 866 MHz

The 851-866 MHz band is exclusively non-Government and is allocated to the Land Mobile service. See Part 90 on Private Land Mobile. Footnote NG31 states that stations in the Rural Radio Service licensed for Basic Exchange Telecommunications Radio Service may be authorized to use some frequencies in the band 861-865 MHz (central office or base) on a co-primary basis with private land mobile radio licensees, pursuant to Part 22, Subpart H.

10. 866 - 869 MHz

The 866-869 MHz band is exclusively non-Government and is allocated to the Land Mobile service. See Part 90 on Private Land Mobile.

11. 869 - 894 MHz

The 869-894 MHz band is exclusively non-Government and is allocated to the Land Mobile service. Cellular is licensed in this band as described by Part 22 on Domestic Public Land Mobile.

12. 894 - 896 MHz

The 894-896 MHz band is exclusively non-Government and is held in reserve for

the Land Mobile service.

13. 896 - 901 MHz

The 896-901 MHz band is exclusively non-Government and is allocated to the Land Mobile service. See Part 90 on Private Land Mobile.

14. 901 - 902 MHz

The 901-902 MHz band is exclusively non-Government and is allocated to the Mobile service.

15. 902 - 928 MHz

The 902-928 MHz band is allocated to the Government for Radiolocation. Footnote 707 states that in Region 2, this band is designated for industrial, scientific, and medical (ISM) applications. Radiocommunication service operating within this band must accept harmful interference which may be caused by these applications. The amateur service is allocated to this band on a secondary basis as per footnote US275.

16. 928 - 929 MHz

The 928-929 MHz band is exclusively non-Government and is allocated to the Fixed service.

17. 929 - 932 MHz

The 928-929 MHz band is exclusively non-Government and is allocated to the Land Mobile service.

18. 932 - 935 MHz

The 932-935 MHz band is shared by Government and non-Government users for the Fixed service.

19. 935 - 940 MHz

The 935-940 MHz band is exclusively non-Government and is allocated to the Land Mobile service.

20. 940 - 941 MHz

The 940-941 MHz band is exclusively non-Government and is allocated to the Mobile service.

## 21. 941 - 944 MHz

The 914-944 MHz band is shared by Government and non-Government users for the Fixed service.

## 22. 944 - 960 MHz

The 944-960 MHz band is exclusively non-Government and is allocated to the Fixed service.

## 23. 960 - 1215 MHz

The 960-1215 MHz band is allocated worldwide to the Aeronautical Radionavigation service.

## 24. 1215 - 1240 MHz

The 1215-1240 MHz band is allocated exclusively to the Government for Radiolocation and Radionavigation-satellite (space-to-Earth) services, both on a primary basis.

## 25. 1240 - 1300 MHz

The 1240-1300 MHz band is shared by Government and non-Government users. The Government allocation is to the Radiolocation service on a primary basis. Government footnote G56 states that the Government allocation is primarily for military use, but secondary use is permitted by other Government agencies in support of experimentation and research programs. The non-Government allocation is to the Amateur service on a secondary basis.

## 26. 1300 - 1350 MHz

The 1300-1350 MHz band is shared by Government and non-Government users. The Government allocation is to the Aeronautical Radionavigation service on a primary basis and the Radiolocation service on a secondary basis. The non-Government allocation is to the Aeronautical Radionavigation service on a primary basis.

## 27. 1350 - 1400 MHz

The 1350-1400 MHz band is allocated exclusively to the Government for Fixed, Mobile, and Radiolocation services, all on a primary basis.

## 28. 1400 - 1427 MHz

The 1400-1427 MHz band is allocated worldwide for Radio Astronomy, Earth

Exploration-Satellite (Passive), and Space Research (Passive), all on a primary basis.

29. 1427 - 1429 MHz

The 1427-1429 MHz band is shared by Government and non-Government users. The Government allocation is to the Fixed, Mobile (except aeronautical mobile), and Space Operation (Earth-to-space) services, all on a shared primary basis. The non-Government allocation is to the Space Operation (Earth-to-space) service on a primary basis, to the Land Mobile (Telemetry and telecommand) service on a secondary basis, and to the Fixed (Telemetry) service on a secondary basis.

30. 1429 - 1435 MHz

The 1429-1435 MHz band is shared by Government and non-Government users. The Government allocation is for the Fixed and Mobile services, both on a primary basis. The non-Government allocation is for Land Mobile (Telemetry and Telecommand) and Fixed (Telemetry), both on a secondary basis.

31. 1435 - 1530 MHz

The 1435-1530 MHz band is shared by Government and non-Government users. In the United States, this band is allocated to the Mobile (aeronautical telemetry) Service on a primary basis for both the Federal Government and non-Government. U.S. footnote US78 states that 1435-1485 MHz will be assigned primarily for flight testing of manned aircraft or major components thereof. The 1485-1535 MHz portion will be assigned primarily for flight testing of unmanned aircraft, missiles, or major components thereof. Telemetry associated with launching and re-entry of space vehicles is a permissible usage between 1435 and 1535 MHz. Flight testing telemetry is defined as telemetry supporting research, development, testing and evaluation, but is not integral to the operational function of the system.

32. 1530 - 1535 MHz

The 1530-1535 MHz band is shared by Government and non-Government users. WARC-79 added the Maritime Mobile-Satellite (space-to-Earth) Service to the 1530-1535 MHz band and this change has been incorporated into the U.S. Table of Allocations. The Mobile service has been downgraded to secondary status in this band. These changes became effective January 1, 1990.

33. 1535 - 1544 MHz

The 1535-1544 MHz band is shared by Government and non-Government users. This band is allocated worldwide to the Maritime Mobile-Satellite (space-to-Earth) service.

34. 1544 - 1545 MHz

The 1544-1545 MHz band is allocated worldwide to the Mobile Satellite (space-to-Earth) service.

35. 1545 - 1559 MHz

The 1545-1559 MHz band is allocated worldwide to the Aeronautical Mobile-Satellite (R) (space-to-Earth) service.

36. 1559 - 1610 MHz

The 1559-1610 MHz band is allocated worldwide to Aeronautical Radionavigation Radionavigation-Satellite (space-to-Earth) service.

37. 1610 - 1626.5 MHz

The 1610-1626.5 MHz band is allocated worldwide to the Aeronautical Radionavigation service.

38. 1626.5 - 1645.5 MHz

The 1626.5-1645.5 MHz frequency band is allocated worldwide to the Maritime Mobile-Satellite (Earth-to-space) service.

39. 1645.5 - 1646.5 MHz

The 1645.5-1646.5 MHz band is allocated worldwide to the Mobile-Satellite (Earth-to-space) service.

40. 1646.5 - 1660 MHz

The 1646.5-1660 MHz band is allocated worldwide to the Aeronautical Mobile-Satellite (R) (Earth-to-space) service.

41. 1660 - 1660.5 MHz

The 1660-1660.5 MHz band is shared worldwide between the Aeronautical Mobile-Satellite (R) (Earth-to-space) service and the Radio Astronomy service, both on a primary basis.

42. 1660.5 - 1668.4 MHz

The 1660.5-1668.4 MHz band is shared by Government and non-Government users. In the United States this band is allocated to the Radio Astronomy and passive Space Research services, both on a shared primary basis.

## 43. 1668.4 - 1670 MHz

In the United States the 1668.4-1670 MHz band is allocated to Meteorological Aids (Radiosonde) and Radio Astronomy, both on a primary basis for Government and non-Government users.

## 44. 1670 - 1690 MHz

The 1670-1690 MHz band is shared by Government and non-Government users in the Meteorological Aids (Radiosonde) and Meteorological-Satellite (Space-to-Earth) services, both on a primary basis.

## 45. 1690 - 1700 MHz

In the United States the 1690-1700 MHz band is shared by Government and non-Government users of the Meteorological Aids (Radiosonde) and Meteorological-Satellite (space-to-Earth) services, both on a primary basis.

## 46. 1700 - 1710 MHz

The 1700-1710 MHz band is shared by Government and non-Government users. This band is allocated on a shared primary basis to the Fixed service and the Meteorological-Satellite (space-to-Earth) services.

## 47. 1710 - 1850 MHz

The allocation in the 1710-1850 MHz band is to the Federal Government on an exclusive basis.

This frequency band is allocated to the Fixed and Mobile Services on a shared primary basis. Government footnote G42 allows certain space command, control, range, and range rate systems in the band 1761-1842 MHz on a coequal basis.

## 48. 1850 - 1990 MHz

In the United States the 1850-1990 MHz band is allocated exclusively to the non-Government Fixed service on a primary basis.

There are more than 8,100 non-Government assignments in this band. These assignments are mostly in the power, petroleum, railroad, and local government service categories.

## 49. 1990 - 2110 MHz

In the United States the 1990-2110 MHz band is exclusively non-Government and is shared by the Fixed and Mobile services, both on a primary basis. Command uplinks for the space shuttle are authorized.

There are approximately 5700 assignments in this band, most of which are to the auxiliary broadcast service category.

50. 2110 - 2200 MHz

In the United States the 2110-2200 MHz band is allocated exclusively to non-Government for the Fixed service.

There are more than 17,400 assignments in this band to common carriers. The assignments are mostly in the domestic land mobile point-to-point microwave service categories.

51. 2200 - 2290 MHz

In the United States the 2200-2290 MHz band is allocated exclusively to the Federal Government.

The Government allocates this band to the Fixed Service, the Mobile Service, and the Space Research (space-to-Earth) Service on a shared primary basis. The Fixed and Mobile services are restricted to line-of-sight propagation. The Mobile Service includes aeronautical telemetry, but excludes telemetry from manned aircraft.

Footnote US303 allows non-Government space stations to transmit to the Tracking and Data Relay System on a case by case basis.

52. 2290 - 2300 MHz

The 2290-2300 MHz band is shared by Government and non-Government users. The Government allocation is to the Space Research (space-to-Earth) (Deep space only), Fixed, and Mobile except aeronautical mobile services, all on a primary basis. The non-Government allocation is to the Space Research (space-to-Earth) (Deep space only) service on a primary basis.

53. 2300 - 2310 MHz

The 2300-2310 MHz band is shared by Government and non-Government users.

The Federal Government allocates this band to the Radiolocation Service on a primary basis and to the Fixed and Mobile Services on a secondary basis. The band is allocated to the non-Government amateur service on a secondary basis. Footnote US253 states that "the fixed and mobile services shall not cause harmful interference to the amateur service". This restriction limits the use of aeronautical mobile service in this band.

54. 2310 - 2390 MHz

The 2310-2390 MHz band is shared by Government and non-Government users. The



Government allocates this band to the Radiolocation and Mobile services on a shared primary basis. In the Mobile service, only aeronautical telemetering and telecommand operations for flight testing of aircraft and missiles is primary, with all other uses secondary. The Government allocates this band to the Fixed service on a secondary basis. The non-Government allocation is to the Mobile Service on a primary basis.

55. 2390 - 2450 MHz

The 2390-2450 MHz band is shared by Government and non-Government users. The Government allocation is to the Radiolocation service on a primary basis and the non-Government allocation is to the Amateur service on a secondary basis. Footnote 752 states that the band 2400-2500 is designated for industrial, scientific, and medical (ISM) applications. Radio services operating in this band must accept harmful interference that may be caused by ISM equipment.

56. 2450 - 2483.5 MHz

The 2450-2483.5 MHz band is exclusively non-Government. It is allocated to the Fixed and Mobile services on a primary shared basis and to the Radiolocation service on a secondary basis.

There are approximately 560 assignments in this band, mostly to the auxiliary broadcast, petroleum, and radiolocation services.

57. 2483.5 - 2500 MHz

The 2483.5-2500 MHz band is exclusively non-Government. It is allocated to the Radiodetermination Satellite (space-to-Earth) service on a primary basis.

There are approximately 150 non-Government assignments in this band, mostly to the petroleum service category.

58. 2500 - 2655 MHz

The 2500-2655 MHz band is exclusively non-Government. It is allocated to the Fixed and Broadcasting-satellite services on a shared primary basis.

59. 2655 - 2690 MHz

The 2655-2690 MHz band is shared by Government and non-Government users. The Government allocation is to the Earth Exploration-Satellite (Passive), Radio Astronomy, and Space Research (passive) services, all on a secondary basis. The non-Government allocation is to the Broadcasting-Satellite service on a primary basis, the Fixed service on a primary basis, Radio Astronomy on a secondary basis, Space Research (Passive) on a secondary basis, and Earth Exploration-Satellite (Passive) on a secondary basis.

## 60. 2690 - 2700 MHz

The 2690-2700 MHz band is allocated worldwide to Radio Astronomy, Earth Exploration-Satellite (Passive), and Space Research (Passive), all on a primary basis.

## 61. 2700 - 2900 MHz

The 2700-2900 MHz band is allocated exclusively to the Government for Aeronautical Navigation on a primary basis, Meteorological Aids on a primary basis, and Radiolocation on a secondary basis. Government footnote G2 states that the Government radiolocation is limited to the military services. Government footnote G15 states that use of this band by military fixed and shipborne air defense radiolocation installations will be fully coordinated with the meteorological aids and aeronautical radionavigation services.

## 62. 2900 - 3100 MHz

The 2900-3100 MHz band is shared by Government and non-Government users. The Government and non-Government services are Maritime Radionavigation on a primary basis and Radiolocation on a secondary basis. Government footnote G56 states that the Government allocation is primarily for military use, but secondary use is permitted by other Government agencies in support of experimentation and research programs.