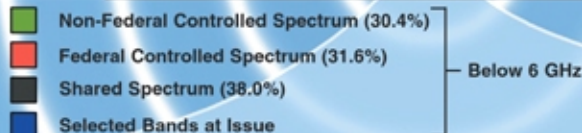
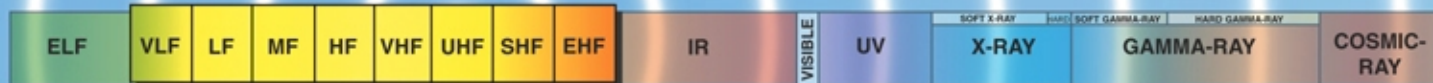
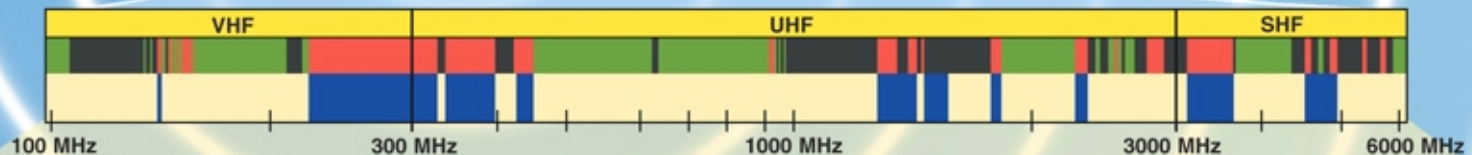


Electromagnetic Spectrum

THE RADIO SPECTRUM



The top bar shows how the electromagnetic spectrum is divided into various regions, and indicates that portion referred to as the Radio Spectrum. The lower bar illustrates the division of Federal, Non-Federal, and Shared bands for a critical part of the Radio Spectrum. Also shown are selected military uses that would be impacted by reallocating spectrum for competing uses.



Selected Bands at Issue

138 - 144 MHz
Military Uses
 Land Mobile Radio
 Tactical Air / Ground / Air

Competing Uses
 Little LEOs
 Public Safety

1215 - 1390 MHz
Military Uses
 Long / Medium Range Air Defense
 Radio Navigation
 Air Route Surveillance Radars
 Tactical Communications
 Test Range Support
 Air / Fleet Defense
 Drug Interdiction
 GPS
 Remote Satellite Sensors
 Nuclear Detection

Competing Uses
 MSS
 NLMCS
 Wind Profiler
 Radars

3100 - 3650 MHz
Military Uses
 High Power Mobile Radars
 Shipboard ATC
 Missile Links
 Airborne Station Keeping

Competing Uses
 MDS
 WLL
 FSS

225 - 400 MHz
Military Uses
 Tactical Air / Ground / Air
 Data Links
 Satellite Comm
 Military ATC
 Search & Rescue
 Executive Comm
 Tactical Comm

Competing Uses
 Little LEOs
 Public Safety
 Terrestrial DAB
 CMRS
 Space Research

1435 - 1525 MHz
Military Uses
 Telemetry Supporting
 Entire Aerospace Industry

Competing Uses
 DAB / DARS
 MSS
 NLMCS

4400 - 4940 MHz
Military Uses
 Fixed Wideband Comm
 Mobile Wideband Comm
 Command Links
 Data Links

Competing Uses
 GWCS
 FSS
 Public Safety

400.15 - 401 MHz
Military Uses
 DMSP (↓)

Competing Uses
 MSS

1755 - 1850 MHz
Military Uses
 DoD Satellite TT&C (↑)
 Point-to Point Microwave
 Air Combat Training Systems
 Tactical Comm
 Tactical Data Links

Competing Uses
 PCS
 MDS
 3G Wireless / IMT 2000

ATC - Air Traffic Control
BM - Ballistic Missile
CMRS - Commercial Mobile Radio Service
DAB - Digital Audio Broadcast - Terrestrial
DARS - Digital Audio Radio Service - Satellite
DMSP - Defense Meteorological Satellite Program
FSS - Fixed Satellite Service
GPS - Global Positioning Satellite
GWCS - General Wireless Communications Service
IMT 2000 - 3rd Generation Mobile Telephony
LEO - Low Earth Orbit
MDS - Multipoint Distribution System
MSS - Mobile Satellite Service
NLMCS - New Land Mobile Communications Service
PCS - Personal Communications Service
TT&C - Tracking, Telemetry and Command
WLL - Wireless Local Loop

420 - 450 MHz
Military Uses
 BM Surveillance and
 Early Warning Radars
 Shipboard / Airborne Early
 Warning Radars
 Missile / Air Vehicle Flight
 Termination
 Troop Position Location
 Anti-Stealth Radar
 Foliage Penetration Radar

Competing Uses
 Auxiliary Broadcast
 CMRS
 Biomedical Telemetry
 WLL
 MSS
 EES (active)

2200 - 2290 MHz
Military Uses
 DoD Satellite TT&C (↓)
 Guided Missile Telemetry
 Point-to-Point Microwave

Competing Uses
 PCS
 MDS
 WLL

DoD Joint Spectrum Center
 Annapolis MD 21402-5064 • <http://www.jsc.mil>