

# FCC Wireless Services at a Glance

From [http://wireless.fcc.gov/services/index.htm?job=wtb\\_services\\_home](http://wireless.fcc.gov/services/index.htm?job=wtb_services_home)

<h2 style="text-align: center;">Personal Radio Services</h2> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; background-color: #000080; color: white; margin: 0;"><b>Service At A Glance</b></p> <p><b>Personal Radio</b></p> <p>Short-range, low power radio for personal communications, radio signaling, and business communications not provided for in other services.</p> <p><b>Included Services</b></p> <p><a href="#">218-219 MHz</a>  <a href="#">Citizens Band (CB)</a>  <a href="#">Family</a>  <a href="#">General Mobile Radio</a>  <a href="#">Low Power Radio</a>  <a href="#">Medical Implant Communications</a>  <a href="#">Multi-Use Radio Service</a>  <a href="#">Personal Locator Beacons</a>  <a href="#">Radio Control</a>  <a href="#">Wireless Medical Telemetry</a></p> </div>	<h2 style="text-align: center;">Amateur Radio Service</h2> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; background-color: #000080; color: white; margin: 0;"><b>Service At A Glance</b></p> <p><b>Amateur Radio Service</b></p> <p>The Amateur Radio Service is a voluntary noncommercial communication service, used by qualified persons of any age who are interested in radio technique with a personal aim and without pecuniary interest..</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Established</td> <td>Early 1900's</td> </tr> <tr> <td><a href="#">Service Rules</a></td> <td>CFR, Part 97</td> </tr> </table> <p><b>Licensing</b></p> <p>Fee and Mailing Instructions (<a href="#">pdf</a>)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">System</td> <td><a href="#">ULS</a></td> </tr> </table> <p><b>ULS Radio Service Codes</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">HA - Amateur</td> <td></td> </tr> <tr> <td>HV - Amateur Vanity</td> <td></td> </tr> </table> </div>	Established	Early 1900's	<a href="#">Service Rules</a>	CFR, Part 97	System	<a href="#">ULS</a>	HA - Amateur		HV - Amateur Vanity		<h2 style="text-align: center;">Citizens Band (CB)</h2> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; background-color: #000080; color: white; margin: 0;"><b>Service At A Glance</b></p> <p><b>Citizens Band</b></p> <p>Two-way voice communications service for use in personal and business activities. Its communications range is from 1 to 5 miles.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Also Known As</td> <td>CB</td> </tr> <tr> <td><a href="#">Service Rules</a></td> <td>CFR, 95.401</td> </tr> <tr> <td>Part Of</td> <td><a href="#">Personal Radio</a></td> </tr> </table> <p><b>Related Services</b></p> <p><a href="#">General Mobile Radio</a>  <a href="#">Low Power Radio</a></p> <p><b>Included Services</b></p> <p><a href="#">Family</a>  <a href="#">Multi-Use Radio Service</a></p> <p><b>Band Plan</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Band(s)</td> <td>26.965-27.405 MHz</td> </tr> </table> </div>	Also Known As	CB	<a href="#">Service Rules</a>	CFR, 95.401	Part Of	<a href="#">Personal Radio</a>	Band(s)	26.965-27.405 MHz
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<p><b>Personal Radio Services</b></p> <p>Personal radio services provide short-range, low power radio for personal communications, radio signaling, and business communications not provided for in other wireless services. The range of applications is wide, spanning from varied one- and two way voice communications systems to non-voice data transmission devices used for monitoring patients or operating equipment by radio control. Licensing and eligibility rules vary. Some personal radio services require a license grant from the FCC, while others require only that you use equipment that is properly authorized under the FCC's rules. See specific service pages for the licensing and eligibility details about each individual service.</p> <p>The personal radio services are:</p>	<p><b>Amateur Radio Service</b></p> <p>The amateur and amateur-satellite services are for qualified persons of any age who are interested in radio technique solely with a personal aim and without pecuniary interest. These services present an opportunity for self-training, intercommunication, and technical investigations. You can <a href="#">read more about amateur radio services</a> including information about the <a href="#">Sequential Call Sign System</a>, <a href="#">vanity call signs</a>, <a href="#">communications</a>, and more.</p> <p><b>Licensing</b></p> <p>Operation of an amateur station requires an amateur operator license grant from the FCC. Before receiving a license grant, you must pass an <a href="#">examination</a> administered by a team of</p>	<p><b>Citizens Band (CB)</b></p> <p>Citizens Band (CB) Radio Service is a private two-way voice communication service for use in personal and business activities of the general public. Its communications range is from one to five miles.</p> <p><b>Licensing</b></p> <p>License documents are neither needed nor issued and there are no age or citizenship requirements. As long as you use only an unmodified FCC certificated CB unit, you are provided authority to operate a CB unit in places where the FCC regulates radio communications.</p> <p><b>Operations</b></p> <p>You are provided authority to operate a CB unit in places</p>																		

<p><b>218-219 MHz Service</b> - One or two way communications for transmission of information to subscribers within a specific service area.</p> <p><b>Citizens Band (CB) Radio Service</b> - 1-5 mile range two-way voice communication for use in personal and business activities.</p> <p><b>Family Radio Service (FRS)</b> - 1 mile range Citizen Band service for family use in their neighborhood or during group outings</p> <p><b>General Mobile Radio Service (GMRS)</b> - 5-25 mile range Citizen Band service for family use in their neighborhood or during group outings</p> <p><b>Low Power Radio Service (LPRS)</b> - private, one-way communications providing auditory assistance for persons with disability, language translation, and in educational settings, health care, law, and AMTS coast stations.</p> <p><b>Medical Implant Communications Service (MICS)</b> - for transmitting data in support of diagnostic or therapeutic functions associated with implanted medical devices.</p> <p><b>Multi-Use Radio Service (MURS)</b> - private, two-way, short-distance voice or datacommunications service for personal or business activities of the general public.</p> <p><b>Personal Locator Beacons (PLB)</b> - used by hikers, and people in remote locations to alert search and rescue personnel of a distress situation.</p> <p><b>Radio Control Radio Service (R/C)</b> - one-way non-voice radio service for on/off operation of devices at places distant from the operator.</p> <p><b>Wireless Medical Telemetry Service (WMTS)</b> - for remote monitoring of patients' health through radio technology and transporting the data via a radio link to a remote location, such as a nurses' station.</p>	<p><a href="#">volunteer examiners</a> (VEs) to determine your <a href="#">operator class</a>.</p> <ul style="list-style-type: none"> <li>• <a href="#">Licensing Process</a></li> <li>• <a href="#">Exams (fees)</a></li> <li>• <a href="#">Volunteer Examiners</a> (VEs)</li> <li>• <a href="#">Volunteer Examiner Coordinators</a> (VECs)</li> </ul> <p><b>Common Filing Tasks</b> Amateur licensees can submit applications using the <a href="#">Universal Licensing System</a> (ULS) or paper applications using <a href="#">Form 605</a> and <a href="#">Form 159</a>. Common filing tasks include:</p> <ul style="list-style-type: none"> <li>• <a href="#">Changing Address</a></li> <li>• <a href="#">Checking Application Status</a></li> <li>• <a href="#">Obtaining a Vanity Call Sign</a></li> <li>• <a href="#">Renewing a License</a></li> <li>• <a href="#">Replacing a License</a></li> </ul> <p><b>Releases</b> <a href="#">More releases...</a></p> <p>2/7/2011 PUBLIC NOTICE (DA 11-221)</p> <p>Amateur service operation in CEPT countries <a href="#">pdf</a> - <a href="#">Word</a></p> <p>5/7/2010 NOTICE OF PROPOSED RULEMAKING (FCC 10-76)</p> <p>Amendment of Parts 2 and 97 of the Commission's Rules to Facilitate Use by the Amateur Radio Service of the Allocation at 5 MHz. Proposed to Amend Parts 2 and 97 of Its Rules Relating to the Amateur Radio Service <a href="#">pdf</a> - <a href="#">Word</a></p> <p>10/27/2009 LETTER (DA 09-2302)</p> <p>Kentucky Department of Military Affairs Granted the Waiver Request. <a href="#">pdf</a> - <a href="#">Word</a></p>	<p>where the FCC regulates radiocommunications, as long as you use only an unmodified FCC certificated CB unit. An FCC certificated unit has an identifying label placed on it by the manufacturer. Read more about restrictions of <a href="#">operations</a> and <a href="#">usage of channels</a>.</p>
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	<p>9/10/2009 PUBLIC NOTICE (DA 09-2031)</p> <p>Amateur Service Operation in CEPT Countries <a href="#">pdf</a> - <a href="#">Word</a></p> <p>2/8/2007 PUBLIC NOTICE (DA 07-610)</p> <p>WTB Implements Restriction of One Request Per Vanity Call Sign <a href="#">pdf</a> - <a href="#">Word</a></p> <p>12/11/2006 HEARING DESIGNATION ORDER (DA 06-2487)</p> <p>Re: Joseph W. Hartmann, Jr., Application for New License in the Amateur Radio Service By this Hearing Designation Order, we commence a hearing proceeding before a Commission Administrative Law Judge (ALJ) to determine whether the application filed by Joseph Hartmann, Jr. for a new Amateur Radio Service license should be granted. <a href="#">pdf</a> - <a href="#">Word</a></p> <p>12/19/2005 PUBLIC NOTICE (DA 05-3224)</p> <p>WTB Reminds Wireless Licensees in Areas Impacted by Hurricanes Katrina, Rita and Wilma of Procedures for Seeking Further Extensions of Regulatory Deadlines <a href="#">pdf</a> - <a href="#">Word</a></p> <p>10/8/2002 MEMORANDUM OPINION AND ORDER (DA 02-2475)</p> <p>Modification and Clarification of Policies and Procedures Governing Siting and Maintenance of Amateur Radio Antennas and Support Structures; Amendment of Section 97.15 Dismissed the Petition for Reconsideration filed by W. Lee McVey <a href="#">pdf</a> - <a href="#">text</a> - <a href="#">Word</a></p> <p>11/13/2002 REPORT AND ORDER (FCC 02-298)</p> <p>Revisions to Broadcast Auxiliary Rules in Part 74 and Conforming Technical Rules for Broadcast Auxiliary Service, Cable Television Relay Service and Fixed Services in Parts</p>	
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<p>mile. You can not make a telephone call with an FRS unit. You may use your FRS unit for business-related communications.</p> <p><b>Licensing</b> License documents are neither needed nor issued. You are provided authority to operate a FRS unit in places where the FCC regulates radio communications as long as you use only an unmodified FCC certified FRS unit. An FCC certified FRS unit has an identifying label placed on it by the manufacturer. There is no age or citizenship requirement.</p> <p><b>Operations</b> You may operate your FRS unit within the territorial limits of the fifty United States, the District of Columbia, and the Caribbean and Pacific Insular areas ("U.S."). You may also operate your FRS unit on or over any other area of the world, except within the territorial limits of areas where radio-communications are regulated by another agency of the U.S. or within the territorial limits of any foreign government.</p>	<p>children, parents, grandparents, aunts, uncles, nephews, nieces, and in-laws (<a href="#">47 CFR 95.179</a>). Normally, as a GMRS system licensee, you and your family members would communicate among yourselves over the general area of your residence or during recreational group outings, such as camping or hiking. The FCC grants five-year renewable licenses for GMRS Systems. The individual licensee is responsible for the proper operations of the licensed GMRS system at all times.</p> <p><b>Licensing</b> Before any station transmits on any channel authorized in the GMRS from any point within or over the territorial limits of any area where the FCC regulates radio services, the responsible party must obtain a license. The FCC usually grants GMRS system licenses for a five-year term. To apply for a GMRS system license, you may file online through the <a href="#">Universal Licensing System</a> (ULS), or file <a href="#">FCC Form 605</a> manually. New filers can learn more about ULS in its <a href="#">getting started tutorials</a>. See Fee Requirements for FCC Form 605 (<a href="#">pdf</a>) for current licensing fee information.</p> <p>Last reviewed/updated on 10/31/2006</p>	<p>VHF "color dot" frequencies. These frequencies were moved from Part 90 to Part 95 and became a new Citizens Band Radio Service (CB) named the Multi-Use Radio Service (MURS). The Commission defines MURS as a private, two-way, short-distance voice or data communications service for personal or business activities of the general public.</p> <p><b>Licensing</b> No licenses are issued for this service. An entity is authorized by rule to operate a MURS transmitter if it:</p> <ul style="list-style-type: none"> <li>• is not a foreign government or a representative of a foreign government;</li> <li>• uses the transmitter in accordance with <a href="#">47 CFR. 95.1309</a>;</li> <li>• otherwise operates in accordance with the rules contained in <a href="#">Sections 95.1301-95.1309</a>.</li> </ul> <p><b>Operations</b> See a <a href="#">summary of MURS operations rules</a>, or read more about <a href="#">MURS technical requirements</a>. Last reviewed/updated on 6/26/2003</p>
<p><b>FRS/GMRS Dual Service Radios</b> Some manufacturers have received approval to market radios that are certified for use in both the Family Radio Service (FRS) and the General Mobile Radio Service (GMRS). Other manufacturers have received approval of their radios under the GMRS rules, but market them as FRS/GMRS radios on the basis that:</p> <ul style="list-style-type: none"> <li>• Some channels are authorized to both services, or</li> <li>• A user of the radio may communicate with stations in the other service.</li> </ul> <p>Radios marketed as "FRS/GMRS" or "dual-service radios" are available from many manufacturers and many retail or discount stores. The manual that comes with the radio, or the label placed on it by the manufacturer, should indicate the service the unit is certified for. If you cannot determine what service the unit may be used in, contact the manufacturer.</p> <p>If you operate a radio that has been approved exclusively under the rules that apply to FRS, you are not required to have a license. FRS radios have a maximum power of ½ watt (500 milliwatt) effective radiated power and integral (non-detachable) antennas. If you operate a radio under the rules that apply to <a href="#">GMRS</a>, you must have a GMRS license. GMRS radios generally transmit at higher power levels (1 to 5 watts is typical) and may have detachable antennas.</p>		

**Personal Locator Beacons (PLB)**

Service At A Glance	
<b>Personal Locator Beacons</b>	
Used by hikers, and people in remote locations to alert search and rescue personnel of a distress situation.	
Also Known As	PLB
<a href="#">Service Rules</a>	CFR, Part 95.1400-95.1402
Part Of	<a href="#">Personal Radio</a>
<b>Related Services</b>	
<a href="#">218-219 MHz Citizens Band (CB) Family</a> <a href="#">General Mobile Radio</a> <a href="#">Medical Implant Communications Radio Control</a> <a href="#">Wireless Medical Telemetry</a>	
<b>Band Plan</b>	
Band(s)	406.0-406.1 MHz

**Low Power Radio Service (LPRS)**

Service At A Glance	
<b>Low Power Radio Service (LPRS)</b>	
A private, one-way short-distance communications service providing auditory assistance to persons with disability, persons who require language translation, and persons in educational settings, health care, law, and AMTS coast stations.	
Also Known As	LPRS
Established	2002
<a href="#">Service Rules</a>	CFR, Part 95
Part Of	<a href="#">Personal Radio</a>
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<b>Band Plan</b>	
Band(s)	216.75-217.0 MHz

**218-219 MHz Radio Services**

Service At A Glance	
<b>218-219 MHz Radio Service</b>	
Short-distance communications service designed for licensees to transmit information, product, and service offerings to subscribers and receive interactive responses.	
Also Known As	Formerly IVDS
Established	1992
<a href="#">Service Rules</a>	47 C.F.R., Part 95
Part Of	<a href="#">Personal Radio</a>
<b>Related Services</b>	
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<b>Band Plan</b>	
Band(s)	218.0-218.5 MHz 218.5-219.0 MHz
Blocks	A, B
Block Size	0.5 MHz
Market Areas	MSA/RSA
<b>Licensing</b>	
Fee and Mailing Instructions ( <a href="#">pdf</a> )	
System	<a href="#">ULS</a>
<b>ULS Radio Service Codes</b>	
ZV - Formerly IVDS now 218-219 MHz	
<b>Auctions</b>	
<a href="#">#2: IVDS</a>	
7/28/1994 - 7/29/1994	

Personal Locator Beacons (PLB)

Low Power Radio Service (LPRS)

218-219 MHz Radio Service

<p>On July 1, 2003, the FCC authorized the use of Personal Locator Beacons (PLBs). PLBs will provide a distress and alerting capacity for use by the general public in life-threatening situations in remote environments after all other means of notifying search and rescue (SAR) responders (e.g., telephone, radio) have been exhausted. For example, if you are a hiker, camper, backpacker, kayaker, etc. and are out of cell phone range, a PLB, which is a small transmitter that sends out a personalized emergency distress signal, is a highly effective and internationally recognized way to summon help.</p> <ul style="list-style-type: none"> <li>• <a href="#">Licensing</a></li> <li>• <a href="#">System</a></li> </ul> <p><b>Licensing</b> License documents are neither needed nor issued for Personal Locator Beacons. You are provided authority to operate a PLB in places where the FCC regulates radio communications as long as you use only an unmodified FCC certified PLB. An FCC certified PLB has an identifying label placed on it by the manufacturer. There is no age or citizenship requirement. When you buy a PLB, it is mandatory that you register it with the National Oceanic and Atmospheric Administration (NOAA). This will provide necessary emergency information to Search and Rescue personnel to facilitate knowing who you are, where you are and how to handle any pre-existing medical problems when they reach you. The registration can be done by:</p> <ul style="list-style-type: none"> <li>• Mailing your beacon registration form to: SARSAT Beacon Registration NOAA, NESDIS, E/SP3, RM 3320, FB-4 5200 Auth Road, Suitland, MD 20746-4304</li> <li>• Faxing the signed form to NOAA at 301-568-8649</li> <li>• Registering online at <a href="#">NOAA Beacon Registration</a></li> </ul>	<p>The LPRS is a private, one-way short-distance communication service providing auditory assistance to persons with disabilities, persons who require language translation, and persons in educational settings, health care assistance to the ill, law enforcement tracking services in cooperation with a law enforcement agency, and point-to-point network control communications for Automated Marine Telecommunications System (AMTS) coast stations. Two-way voice communications are prohibited.</p> <p><b>Licensing</b> You do not need an FCC license to use most LPRS transmitters. To operate an LPRS transmitter for AMTS purposes, however, you must hold an AMTS license. Otherwise, provided you are not a representative of a foreign government, you are authorized by <a href="#">47 C.F.R. 95.1001</a>, to operate an FCC type-accepted LPRS transmitter for voice, data, or tracking signals as follows:</p> <ul style="list-style-type: none"> <li>• Auditory assistance communications (including, but not limited to, applications such as assistive listening devices, audio description for the blind, and simultaneous language translation) for persons who:             <ul style="list-style-type: none"> <li>○ Have physical or mental impairment that substantially limits one or more of the major life activities of such individuals;</li> <li>○ Require language translation; or</li> <li>○ May otherwise benefit from auditory assistance communications in educational settings.</li> </ul> </li> <li>• Health care related communications for the ill;</li> <li>• Law enforcement tracking signals (for homing or interrogation) including the tracking of persons or stolen goods under authority or agreement with a law enforcement agency (federal, state, or local) having jurisdiction in the area where the transmitters are placed; or</li> <li>• AMTS point-to-point network control communications.</li> </ul> <p><b>Operations</b> An LPRS transmitter may be operated within the territorial limits of the fifty United States, the District of Columbia, and the Caribbean and Pacific Insular areas ("U.S."). It may also be operated on or over any other area of the world, except within</p>	<p>The 218-219 MHz Service<sup>1</sup> is a short-distance communication service designed for licensees to transmit information, product, and service offerings to subscribers and receive interactive responses within a specified service area. Mobile operation is permitted. Rules permit both common carrier and private operations, as well as one- and two-way communications. Potential applications include ordering goods or services offered by television services, viewer polling, remote meter reading, vending inventory control, and cable television theft deterrence.</p> <p>Although new rules are designed to allow licensees the maximum flexibility to structure services to meet market demand, the 218-219 MHz band is insufficient for the transmission of conventional full-motion video. 218-219 MHz Service channels may also be unable to support proposed operations that require large amounts of spectrum, including certain video, voice, and advanced data applications.</p>
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	<p>the territorial limits of areas where radio-communications are regulated by another agency of the U.S., or within the territorial limits of any foreign government. The transmitting antenna must not exceed 30.5 meters (100 feet) above ground level. This height limitation does not apply, however, to LPRS transmitter units located indoors or where the antenna is an integral part of the unit.</p>	
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Radio Control Radio Service	Medical Device Radiocommunications Service	Wireless Medical Telemetry
<p><b>Radio Control Radio Service</b></p> <p>Radio Control (R/C) is a one-way, short distance, non-voice radio service for on/off operation of devices at places distant from the operator. The FCC authorizes your R/C unit to transmit any non-voice emission type for the purpose of (1) the operator turning on and/or off a device at a remote location, or (2) an indicating device for the operator being turned on and/or off by a sensor at a remote location. You cannot communicate voice or data in the R/C.</p> <p><b>Licensing</b> License documents are neither needed nor issued. The FCC provides your authority to operate an R/C unit in places where the FCC regulates radio communications. There is no</p>	<p><b>Medical Device Radiocommunications Service</b></p> <p>The Medical Device Radiocommunications Service (MedRadio) is an ultra-low power, unlicensed, mobile radio service for transmitting data in support of diagnostic or therapeutic functions associated with implanted and body-worn medical devices. MedRadio permits individuals and medical practitioners to utilize ultra-low power medical implant devices, such as cardiac pacemakers and glucose monitoring devices, without causing interference to other users of the electromagnetic radio spectrum.</p> <p><b>Licensing</b> No licensing is required, but MedRadio equipment must only be operated by a duly authorized health care professional.</p>	<p>Wireless medical telemetry generally is the remote monitoring of a patient's health through radio technology. The use of wireless medical telemetry gives patients greater mobility and increased comfort by freeing them from the need to be connected to hospital equipment that would otherwise be required to monitor their condition. Wireless medical telemetry also serves the goal of reducing health care costs because it permits the remote monitoring of several patients simultaneously.</p> <p>All types of communications except voice and video are permitted on both a bi-directional and unidirectional basis, provided that all communications are related to the provision of medical care.</p>

**Radio Control Radio Service**

Service At A Glance	
<b>Radio Control Radio Service</b>	
A one-way, short-distance, non-voice radio service for on/off operation of devices at places distant from the operator.	
Also Known As	R/C
Established	1993
<a href="#">Service Rules</a>	CFR, Part 95.201-95.225
Part Of	<a href="#">Personal Radio</a>
<b>Related Services</b>	
<a href="#">218-219 MHz Citizens Band (CB) Family</a> <a href="#">General Mobile Radio</a> <a href="#">Low Power Radio</a> <a href="#">Medical Implant Communications</a> <a href="#">Wireless Medical Telemetry</a>	
<b>Band Plan</b>	
Band(s)	72.0-73.0 MHz 75.4-76.0 MHz

**Medical Device Radiocommunications Service**

Service At A Glance	
<b>Medical Device Radiocommunications Service</b>	
An ultra-low power, unlicensed, mobile radio service for transmitting data in support of diagnostic or therapeutic functions associated with implanted and body-worn medical devices.	
Also Known As	MedRadio
Established	1999
<a href="#">Service Rules</a>	CFR, Part 95
Part Of	<a href="#">Personal Radio</a>
<b>Related Services</b>	
<a href="#">218-219 MHz Citizens Band (CB) Family Radio Service (FRS)</a> <a href="#">General Mobile Radio</a> <a href="#">Low Power Radio Service (LPRS)</a> <a href="#">Radio Control Radio Service (R/C)</a> <a href="#">Wireless Medical Telemetry (WMTS)</a>	
<b>Band Plan</b>	
Band(s)	401-406 MHz

**Wireless Medical Telemetry**

Service At A Glance	
<b>Wireless Medical Telemetry</b>	
The remote monitoring of patients' health through radio technology.	
Also Known As	WMTS
Established	2000
<a href="#">Service Rules</a>	CFR, Part 95
Part Of	<a href="#">Personal Radio</a>
<b>Related Services</b>	
<a href="#">218-219 MHz Citizens Band (CB) Family</a> <a href="#">General Mobile Radio</a> <a href="#">Low Power Radio</a> <a href="#">Medical Device Radiocommunications</a> <a href="#">Radio Control</a>	
<b>Band Plan</b>	
Band(s)	608-614 MHz 1395-1400 MHz 1427-1432 MHz

<p>age or citizenship requirement.</p> <p><b>Operations</b> You may operate your R/C unit within the territorial limits of the fifty United States, the District of Columbia, and the Caribbean and Pacific Insular areas ("U.S."). You may also operate your R/C unit on or over any other area of the world, except within the territorial limits of areas where radio communications are regulated by another agency of the U.S. or within the territorial limits of any foreign government.</p>	<p><b>Operations</b> Operations rules and technical regulations applicable to MedRadio transmitters are found within <a href="#">47 CFR 95.601-95.673 Subpart E</a> and <a href="#">47 CFR 95.1201-95.1221 Subpart I</a>. See a <a href="#">summary of MedRadio operations rules</a>, or read more about <a href="#">equipment</a> issues or <a href="#">radiation testing</a>.</p>	
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220 MHz Services

Service At A Glance	
<b>220 MHz Services</b>	
Allocated to promote the development of narrowband spectrum efficient technologies for land mobile communications	
Established	1991
<a href="#">Service Rules</a>	CFR, Part 90
<b>Band Plan</b>	
Band(s)	220-222 MHz
Blocks	A through E, per BEA F through J, per EAG K through M, per NWA
Block Size	A through E, 100 KHz per block F through J, 150 KHz per block K through M, 100 KHz per block
Channels	200 paired
<b>Licensing</b>	
System	<a href="#">ULS</a>

3650-3700 MHz Radio Service

Service At A Glance	
<b>3650-3700 MHz Radio Service</b>	
Available for use in a broad range of new products and services, including high-speed, wireless local area networks and broadband Internet access operating equipment that must use "contention-based protocols." All licensees have the mutual obligation to cooperate to avoid harmful interference.	
Established	2007
<a href="#">Service Rules</a>	CFR, Part 90
<b>Related Services</b>	
<a href="#">AWS BRS/EBS</a>	
<b>Band Plan</b>	
Band(s)	3650-3675 MHz for Restricted Protocol 3650-3700 MHz for Unrestricted Protocol
Block Size	25 MHz and 50 MHz, Protocol Dependent
<b>Licensing</b>	
Non-exclusive Nationwide with fixed and base station registration via ULS	
Fee and Mailing Instructions ( <a href="#">pdf</a> )	
Filing Procedures Public Notice ( <a href="#">pdf</a> )	
<a href="#">Fee Filing Guide</a>	
System	<a href="#">ULS</a>

700 MHz Guard Bands

Service At A Glance	
<b>700 MHz Guard Bands</b>	
700 MHz Guard Bands spectrum can be used for fixed and mobile services. Spectrum can be leased to commercial service providers or directly to end users. Licensees and their customers must adhere to specific technical and operational requirements in order to protect public safety licensees, to the extent that the Guard Bands remain adjacent to the public safety allocation in the 700 MHz Band.	
Established	2000
<a href="#">Service Rules</a>	CFR, Part 27
<b>Band Plan</b>	
Band(s)	757-758 MHz 775-776 MHz 787-788 MHz 805-806 MHz
Blocks	A, B
Block Size	2 MHz (paired spectrum)
Market Areas	• MEAs
<b>Licensing</b>	
System	<a href="#">ULS</a>
<b>ULS Radio Service Codes</b>	
WX - 700 MHz Bands	
<b>Auctions</b>	
<a href="#">#33: Upper 700 MHz Guard</a> 9/6/2000 - 9/21/2000	
<a href="#">#38: Upper 700 MHz Guard</a> 2/13/2001 - 2/21/2001	

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<p><b>220 MHz Services</b></p> <p>The spectrum for the 220 MHz services was allocated by Report and Order 87-14 on September 6, 1988 to promote the development of narrowband spectrum efficient technologies for land mobile communications. On April 17, 1991, the Commission released the Report and Order in PR Docket No. 89-552, that established service rules for the spectrum. <a href="#">Subsequent rulemakings</a> changed the operational and licensing characteristics of the band. Today the band (excluding the Public Safety and Government channels) is characterized by geographical area licensing with operational flexibility (see <a href="#">Band Plan</a>).</p> <p>There are 2 megahertz of spectrum allocated for the 220 MHz Service. Initially spectrum was divided into 200 base side channels (220 MHz to 221 MHz) and 200 mobile side channels (221 MHz to 222 MHz) with the channels assigned in pairs and each base channel one megahertz below its corresponding mobile channel. The 200 base side channels are each spaced 5 KHz apart and were initially awarded on a first come first served site specific basis with mutually exclusive applications filed on the same day awarded via lottery. Because of the large number of applications filed in the first few weeks that the band became available, an application freeze was placed into effect. The freeze remained in effect for various reasons until new licensing rules became effective, and the channels were grouped into blocks of spectrum and awarded via geographic area auctions with the geographic area licensees required to provide protection to incumbents (<a href="#">Rule 90.763</a>).</p>	<p><b>3650-3700 MHz Radio Service</b></p> <p>On March 10, 2005, the Commission adopted a Report and Order, FCC 05-56 (<a href="#">pdf</a>), that revised the FCC's rules to open the 3650-3700 MHz band for terrestrial wireless broadband operations. In Memorandum Opinion and Order, FCC 07-99 (<a href="#">pdf</a>), adopted on May 22, 2007, the Commission addressed petitions for reconsideration of the Report and Order by affirming the rules and policies adopted in 2005, with one rule modification and a clarification. These rules involve minimal regulatory burdens to encourage multiple entrants and to stimulate the rapid expansion of broadband services — especially in America's rural heartland — while at the same time ensuring that incumbent, grandfathered fixed satellite service (FSS) Earth stations and Federal radiolocation stations in this band are protected from harmful interference.</p>	<p><b>700 MHz Guard Bands</b></p> <p>The 700 MHz Guard Bands consist of a total of 4 megahertz of paired spectrum that was initially allocated to protect public safety operations in immediately adjacent bands from harmful interference while at the same time promoting the efficient use of this spectrum. The Guard Bands licensees and their customers must adhere to specific technical and operational measures designed to minimize interference to public safety licensees, to the extent that the Guard Bands remain adjacent to the public safety allocation in the 700 MHz Band. Guard Bands licensees can act as system operators, or can lease their spectrum to system operators or directly to end users through the Commission's Secondary Markets spectrum leasing policies and rules. You can read more <a href="#">about 700 MHz guard bands</a>, the <a href="#">licensing process</a>, and current ways of <a href="#">obtaining spectrum</a>.</p>
<p><b>Advanced Wireless Services (AWS) Spectrum</b></p>	<p><b>Aviation Radio Services</b></p> <div data-bbox="793 1128 1276 1421" style="border: 1px solid black; padding: 5px;"> <p><b>Service At A Glance</b></p> <p><b>Aviation Radio Services</b></p> <p>Internationally-allocated radio services providing for safety of life and property in air navigation.</p> <p><b>Included Services</b></p> <p><a href="#">Aircraft Stations</a></p> <p><a href="#">Ground Stations</a></p> </div>	<p><b>Air-Ground Radiotelephone Service</b></p>

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<p><b>Proceedings</b></p> <p>Docket No. 00-258 allocates spectrum below 3 GHz for Advanced Wireless Services, including Third Generation ("3G") systems.  <a href="#">View filed comments</a></p> <p>Docket No. 02-353 establishes services rules for the 90 MHz of AWS spectrum in the 1.7 and 2.1 GHz bands.  <a href="#">View filed comments</a></p> <p>Docket No. 04-356 focuses on establishing service rules for the 20 MHz of AWS spectrum at 1915-1920 MHz, 1995-2000 MHz, 2020-2025 MHz, and 2175-2180 MHz.  <a href="#">View filed comments</a></p> <p><a href="#">Filing Comments</a></p> <p><b>Auctions</b></p> <p><a href="#">#66: AWS-1</a></p> <p>8/9/2006 - 9/18/2006</p>		
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<p><b>Advanced Wireless Services (AWS) Spectrum</b></p> <p>The wireless industry has seen explosive growth in the demand for both voice and data services over the past several years. The number of mobile telephone subscribers, as well as usage rates, has grown considerably, and carriers have been upgrading their networks with advanced technologies in order to deploy both high-quality voice services and innovative data services.</p> <p>In order to keep pace with this growth and provide additional spectrum for providers, the Commission is currently working to draft rules, auction, and license additional spectrum, labeled AWS, that can be used to offer a variety of wireless services, including <a href="#">Third Generation ("3G")</a> mobile broadband and advanced wireless services.</p> <p>In November 2003, the Commission created service rules for 90 megahertz of AWS spectrum at 1710-1755 and 2110-2155 MHz. The Commission plans to auction this spectrum as early as June 2006. This spectrum will be licensed on a flexible use basis under Part 27 of <a href="#">the Commission's rules</a>, according to the band plan (<a href="#">pdf</a>).</p> <p>In addition, in October 2004, the Commission allocated an additional 20 megahertz of AWS spectrum, the proposed F and G blocks, and sought comment on the service and technical rules for this spectrum.</p>	<p><b>Aviation Radio Services</b></p> <p>The aviation radio service is an internationally-allocated radio service providing for safety of life and property in air navigation. There are two types of aviation radio services:</p> <ul style="list-style-type: none"> <li>• <a href="#">Aircraft Radio Stations</a> are stations in the aeronautical mobile service that use radio equipment, such as two-way radiotelephones, radar, radionavigation equipment, and emergency locator transmitters (ELTs), on board aircraft for the primary purpose of ensuring safety of aircraft in flight.</li> <li>• <a href="#">Ground Radio Stations</a> are usually of two types. The Aeronautical and Fixed Service includes stations used for ground-to-air communications with aircraft about aviation safety, navigation, or preparation for flight. The Aeronautical Radionavigation Service is made up of stations used for navigation, obstruction warning, instrument landing, and measurement of altitude and range.</li> </ul>	<p><b>Air-Ground Radiotelephone Service</b></p> <p>The air-ground radiotelephone service includes commercial and general aviation services. Licensees may offer a wide range of telecommunications services to passengers and others on aircraft.</p> <p>Commercial aviation air-ground radiotelephone service licensees operate in the 800 MHz band and can provide communication services to all aviation markets, including commercial, governmental, and private aircraft. Services include, but are not limited to, voice telephony, broadband internet access, and data. However, fixed services and ancillary land mobile services are not permitted.</p> <p>General aviation air-ground radiotelephone service licensees operate in the 450 MHz band and can provide a variety of telecommunications services to private aircraft such as small single engine planes and corporate jets.</p> <p>In addition to the Commission's rules governing air-ground services, Federal Aviation Administration (FAA) and aircraft operator rules and policies restrict the use of personal electronic devices (PEDs) on aircraft. The use of PEDs, which include wireless telephones, pagers, personal digital assistants, portable music players, video games and laptop computers, remains subject to FAA and aircraft operator authority over inflight safety.</p>
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Aircraft Stations	Ground Stations	Basic Exchange Telephone Radio Service																																																																																														
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<p>February 8, 1996, brought about fundamental changes in the licensing of aircraft radio stations. Aircraft radio stations include all types of radio transmitting equipment used aboard an aircraft, e.g., two-way radiotelephones, radar, radionavigation equipment, and emergency locator transmitters (ELTs). The primary purpose of aircraft radio equipment is to ensure safety of aircraft in flight.</p>	<p>Federal Aviation Administration. Wherever aviation services are provided in U.S. territory, both FAA and FCC requirements must be met by anyone who uses aviation radio. In addition, civil aircraft on international flights are subject to international radio regulations intended to safeguard air travelers worldwide. Flight safety is the primary purpose of all Aviation Services.</p>	<p>link is used as the last segment of the local loop to provide wireless telephone service to subscribers in remote areas. BETRS technology was developed in the mid 1980's and allows up to four subscribers to use a single radio channel pair, simultaneously, without interfering with one another. This service may operate in the paired 152/158 and 454/459 MHz bands and on 10 channel blocks in the 816-820/861-865 MHz bands. BETRS may be licensed only to state certified carriers in the area where the service is provided and is considered a part of the public switched telephone network by state regulators. Regulation of this service currently resides in <a href="#">Part 1</a> and <a href="#">Part 22</a> of the Code of Federal Regulations (CFR), Subtitle 47, on Telecommunications and may be researched or ordered through the <a href="#">Government Printing Office</a>. Forms 601, 602, 603, and 159 are required for this service. For forms and fee information, see <a href="#">Forms &amp; Fees</a>. The Commission's rules for BETRS, 47 CFR 22, in the 152/158 and 454/459 MHz bands, have been amended by the following actions since the October 1, 1996 edition:</p> <p>2/24/1997  SECOND REPORT AND ORDER AND FURTHER NOTICE OF PROPOSED RULEMAKING (FCC 97-59)  In the Matter of Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems Implementation of Section 309(j) of the Communications Act - Competitive Bidding  This Order adopts rules and competitive bidding procedures for the Common Carrier Paging and 929 MHz Private Carrier Paging licensing process.  <a href="#">pdf</a> - <a href="#">text</a> - <a href="#">WordPerfect</a>  Appendices for text and Wordperfect version: <a href="#">text</a> - <a href="#">WordPerfect</a></p> <p>NTIA Special Publication 95-33 - Survey of Rural Information Infrastructure Technologies has additional information regarding rural telephone provision at <a href="http://www.its.bldrdoc.gov/its/spectrum/rural">http://www.its.bldrdoc.gov/its/spectrum/rural</a>.</p>
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**Industrial/Business**

**Service At A Glance**

**Industrial/Business**

Covers the radio communications of entities engaged in commercial activities or clergy activities; operating educational, philanthropic, or ecclesiastical institutions; or operating hospitals, clinics, or medical associations.

Also Known As Land Transportation

Established 1997

[Service Rules](#) Part 90

Part Of [Private Land Mobile](#)

**Included Services**

- Business
- Film and Video Production
- Forest Products
- Manufacturers
- Motor Carrier
- Petroleum
- Power
- Railroad
- Relay Press
- Special Industrial
- Taxicab
- Telephone Maintenance

**Intelligent Transportation Systems (ITS)**

**Service At A Glance**

**Intelligent Transportation Systems**

Integrates radio-based technologies into the nation's transportation infrastructure.

Also Known As ITS

Established 2004

[Service Rules](#) CFR, Part 90 and 95

**Included Services**

- [Dedicated Short Range Communications \(DSRC\) Service](#)
- [Location and Monitoring Service \(LMS\)](#)

**Dedicated Short Range Communications (DSRC) Service**

**Service At A Glance**

**Dedicated Short Range Communications (DSRC) Service**

Facilitates the use of radio-based technologies to improve traffic flow and traffic safety as well as to assist the traveling public.

Also Known As DSRC

Established 2004

[Service Rules](#) CFR, Part 90 and 95

Part Of [Intelligent Transportation Service](#)

**Related Services**

[Location and Monitoring Service](#)

**Band Plan**

Band(s) 5.850-5.925 GHz

Block Size 10 MHz channels some of which can be aggregated to 20 MHz

Market Areas MSA/RSA

**Licensing**

Non-exclusive for area of operation with site registration

Fee and Mailing Instructions ([pdf](#))

System [ULS](#)

**ULS Radio Service Codes**

IQ - Intelligent Transportation Service (Public Safety)

QQ - Intelligent Transportation Service (Non-Public Safety)

<b>Band Plan</b>	
Band(s)	25- 50 MHz 72-76 MHz 150-174 MHz 216-220 MHz 406-413 MHz 421-430 MHz 450-470 MHz 470-512 MHz 800 MHz 900 MHz
<b>Licensing</b>	
Fee and Mailing Instructions ( <a href="#">pdf</a> )	
System	<a href="#">ULS</a>
<b>ULS Radio Service Codes</b>	
Below 800 MHz	
IG - Industrial/Business Pool - Private, Conventional YG - Industrial/Business Pool - Private, Trunked	
Above 800 MHz Business	
GB - 806-821/851-866 MHz, Conventional GU - 896-901/935-940 MHz, Conventional YB - 806-821/851-866 MHz, Trunked YU - 896-901/935-940 MHz, Trunked	
Above 800 MHz Industrial/Land Transportation	
GO - 806-821/851-866 MHz, Conventional GI - 896-901/935-940 MHz, Conventional YO - 806-821/851-866 MHz, Trunked YI - 896-901/935-940 MHz, Trunked	

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<p><b>Industrial/Business</b></p> <p>Licensees in the Industrial/Business Radio Pool use radio to support business operations. Their communications systems are used for support of day-to-day business activities, such as dispatching and diverting personnel or work vehicles, coordinating the activities of workers and machines on location, or remotely monitoring and controlling equipment. You can read more <a href="#">about the Industrial/Business Radio Pool</a>.</p> <p><b>Licensing</b></p> <p>Individuals or entities desiring to operate on frequencies listed in the Industrial/Business Pool are required to obtain a radio station license for these frequencies. There is information available to help you with the <a href="#">Licensing Process</a>.</p> <p><b>Frequency Coordination</b></p> <p>New applications and major modifications to an existing license must be filed through a frequency coordinator. <a href="#">Frequency coordinators</a> are private organizations that have been certified by the Commission to recommend the most appropriate frequencies for applicants in the designated Part 90 radio services.</p>	<p><b>Intelligent Transportation Systems (ITS)</b></p> <p>The Intelligent Transportation Systems (ITS) radio service is for the purpose of integrating radio-based technologies into the nation's transportation infrastructure and to develop and implement the nation's intelligent transportation systems. The ITS radio services are:</p> <p><b><a href="#">Dedicated Short Range Communications (DSRC) Service</a></b> - The DSRC Service involves vehicle-to-vehicle and vehicle-to-infrastructure communications, helping to protect the safety of the traveling public. It can save lives by warning drivers of an impending dangerous condition or event in time to take corrective or evasive actions. The band is also eligible for use by non-public safety entities for commercial or private DSRC operations.</p> <p><b>Location and Monitoring Service (LMS)</b> - LMS systems utilize non-voice radio techniques to determine the location and status of mobile radio units. LMS licensees authorized to operate a system in the 902– 928 MHz band may serve individuals, federal government agencies, and entities eligible for licensing in Part 90. LMS will not cause interference to and must tolerate interference from industrial, scientific, and medical (ISM) devices and radiolocation Government stations that operate in the 902–928 MHz band.</p>	<p><b>Dedicated Short Range Communications (DSRC) Service</b></p> <p>On December 17, 2003 the Commission adopted a Report and Order establishing licensing and service rules for the Dedicated Short Range Communications (DSRC) Service in the Intelligent Transportation Systems (ITS) Radio Service in the 5.850-5.925 GHz band (5.9 GHz band). The DSRC Service involves vehicle-to-vehicle and vehicle-to-infrastructure communications, helping to protect the safety of the traveling public. It can save lives by warning drivers of an impending dangerous condition or event in time to take corrective or evasive actions. The band is also eligible for use by non-public safety entities for commercial or private DSRC operations.</p> <p><a href="#">More about the Dedicated Short Range Communications Services...</a></p> <p><b>Licensing</b></p> <p>We license DSRC Roadside Units (RSUs), communication units that are fixed along the roadside, under subpart M (Intelligent Transportation Radio Service) of Part 90 of the Commission's Rules. We require licensees to register RSUs by site and segment(s). We license On-Board Units (OBUs), in-vehicle communications units, by rule under new subpart L of Part 95 of our Rules.</p> <p>Governmental entities will be authorized a geographic-area license based on that entity's legal jurisdictional area of operations. Non-governmental entities, will be licensed based on each applicant's area-of-operation, i.e., by county, state, multi-state, or nationwide. Frequency coordination will not be necessary. Those applicants who are approved will each be granted a non-exclusive license for the geographic-area requested, i.e., county, state etc. Operation may not begin until licensees register RSU sites, channels, and other relevant data in the Universal Licensing System (ULS). RSUs at locations within 75 kilometers of Government radar sites are also subject to NTIA coordination. Operation may not begin until NTIA approval is received</p> <p><b>Instructional Television Fixed (ITFS)</b> See <a href="#">Educational Broadband Service</a></p>
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Local Television Transmission Service

Service At A Glance	
<b>Local Television Transmission Service</b>	
LTTS stations are available for Communications Common Carriers to provide service to television broadcast stations, network entities, cable system operators and cable network entities.	
Established	1997
<a href="#">Service Rules</a>	47 C.F.R., Parts 1, 2, 101
<b>Related Services</b>	
<a href="#">Broadcast Auxiliary</a>	
<b>Band Plan</b>	
Band(s)	2 GHz 4 GHz 6 GHz 11 GHz 13 GHz 14 GHz 21 GHz
<b>Licensing</b>	
System	<a href="#">ULS</a>
<b>ULS Radio Service Codes</b>	
CT - Local Television Transmission	

Lower 700 MHz Service

Service At A Glance	
<b>Lower 700 MHz</b>	
Licensees are permitted to provide fixed, mobile, and broadcast services. Possible uses of this spectrum include mobile and other digital new broadcast operations, fixed and mobile wireless commercial services (including FDD- and TDD-based services), as well as fixed and mobile wireless uses for private, internal radio needs.	
Established	2002
<a href="#">Service Rules</a>	CFR, Parts 1, 27
<b>Band Plan</b>	
Band(s)	698-746 MHz
Blocks	A, B, C, D, E
Block Size	6 MHz (D,E), 12 MHz - paired (A,B,C)
Market Areas	<ul style="list-style-type: none"> <li>700 MHz MSA/RSAs</li> <li>700 MHz EAGs</li> </ul>
<b>Licensing</b>	
System	<a href="#">ULS</a>
<b>ULS Radio Service Codes</b>	
WZ - Lower 700 MHz	
<b>Auctions</b>	
<a href="#">#44: Lower 700 MHz Band</a>	
8/27/2002 - 9/18/2002	
<a href="#">#49: Lower 700 MHz Band</a>	
5/28/2003 - 6/13/2003	

**!** Recent Commission action has significantly revised the frequency allocations and service rules for the 700 MHz band. We are in the process of updating the information on this site to reflect these changes. Please refer to the FCC Report and Order and Further Notice of Proposed Rule Making ([pdf](#)) and Second Report and Order ([pdf](#)) for information regarding the revisions to the 700 MHz band and service rules.

Also, information on Auction 73, the 700 MHz Band auction, scheduled to begin January 24, 2008, is available on the [Auctions webpage](#).

Low Power Radio Service (LPRS)

Service At A Glance	
<b>Low Power Radio Service (LPRS)</b>	
A private, one-way short-distance communications service providing auditory assistance to persons with disability, persons who require language translation, and persons in educational settings, health care, law, and AMTS coast stations.	
Also Known As	LPRS
Established	2002
<a href="#">Service Rules</a>	CFR, Part 95
Part Of	<a href="#">Personal Radio</a>
<b>Related Services</b>	
<a href="#">218-219 MHz Citizens Band (CB) Family</a> <a href="#">General Mobile Radio</a> <a href="#">Medical Implant Communications Radio Control</a> <a href="#">Wireless Medical Telemetry</a>	
<b>Band Plan</b>	
Band(s)	216.75-217.0 MHz

Local Television Transmission Service (LTTS) stations are available for communications common carriers to provide service to television broadcast stations, network entities, cable system operators and cable network entities. Fixed point-to-point, temporary fixed and mobile operations are permitted in LTTS. Stations in this service are used to relay television programming material between points. The stations may be used to link studio and broadcast transmitter, relay programming from one city to another, or to relay programming from live events. Stations in this service are also used for Electronic News gathering and for video feeds at sporting events.

- [2 GHz Relocation](#)
- [Frequency Coordinators](#)
- [Special Temporary Authorization](#)
- [Construction/Coverage Requirements](#)
- [Releases](#)

**2 GHz Relocation**

Although licensed under Part 101, communications common carriers in the LTTS may be assigned Broadcast Auxiliary Service (BAS) frequencies listed in Section 74.602(a). Such LTTS licensees in the 1990-2025 MHz band ("2 GHz band") are subject to relocation (for emerging technologies such as PCS, MSS) to a new BAS channel plan in the 2025-2110 MHz band. More information on the transition and new BAS channel plan can be found in Part 2 (notes NG 156 and NG 177 to Section 2.106 (Table of Allocations)) and Part 74 (Section 74.602 (Frequency assignments), and Section 74.690 (Transition of the 1990-2025 MHz band from the Broadcast Auxiliary Service to emerging technologies)) of the [Commission's Rules](#). Nextel BAS-relocation plan- In 2004 the Commission adopted the 800 MHz Report and Order ([pdf](#)) (modified by Supplemental Order and Order on Reconsideration ([pdf](#)) and Memorandum Opinion and Order ([pdf](#))) which granted Nextel the use of spectrum at 1.9 GHz and established provisions for Nextel's clearing the 1990-2025 MHz band segment of BAS

**!** Recent Commission action has significantly revised the frequency allocations and service rules for the 700 MHz band. We are in the process of updating the information on this site to reflect these changes. Please refer to the FCC Report and Order and Further Notice of Proposed Rule Making ([pdf](#)) and Second Report and Order ([pdf](#)) for information regarding the revisions to the 700 MHz band and service rules. Also, information on Auction 73, the 700 MHz Band auction, scheduled to begin January 24, 2008, is available on the [Auctions webpage](#).

In 2002, the FCC reallocated the 698-746 MHz spectrum band (Lower 700 MHz Band) that had been allocated to television Channels 52-59. The recovery of the Lower 700 MHz Band will be made possible by the conversion of television broadcasting from the existing analog transmission system to a digital transmission system. Because the digital television (DTV) transmission system is more spectrally efficient than the analog system, less spectrum will be needed for broadcast television service after the transition to DTV on channels 2 - 51 is complete.

[Read more About Lower 700 MHz](#)

**Auction 44 & Auction 49**

Pursuant to Section 309(j)(14) of the Communications Act, the FCC is required to assign spectrum recovered from broadcast television using competitive bidding. On September 18, 2002, the FCC completed an initial auction of 740 licenses in the Lower 700 MHz band C and D blocks, or the 710-716/740-746 MHz and 716-722 MHz bands ([Auction No. 44](#)) raising (in net high bids) a total of \$88,651,630 for the U.S. Treasury. 102 winning bidders won a total of 484 licenses in this auction. On June 13, 2003, the FCC completed an additional auction of 256 licenses in the Lower 700 MHz band C and D blocks ([Auction No. 44](#)) raising (in net high bids) a total of \$56,815,960. In this auction, 35 winners won a total of 251 licenses. Auctions for the [A, B, and E Blocks](#) have not been scheduled.

[Read more about Auction 44](#) and [Auction 49](#).

**Licensing**

Winning bidders must follow a series of steps in order to be granted their license(s). Once the auction is completed, the FCC issues a public notice announcing the winning bidders as well

The LPRS is a private, one-way short-distance communication service providing auditory assistance to persons with disabilities, persons who require language translation, and persons in educational settings, health care assistance to the ill, law enforcement tracking services in cooperation with a law enforcement agency, and point-to-point network control communications for Automated Marine Telecommunications System (AMTS) coast stations. Two-way voice communications are prohibited.

**Licensing**

You do not need an FCC license to use most LPRS transmitters. To operate an LPRS transmitter for AMTS purposes, however, you must hold an AMTS license. Otherwise, provided you are not a representative of a foreign government, you are authorized by [47 C.F.R. 95.1001](#), to operate an FCC type-accepted LPRS transmitter for voice, data, or tracking signals as follows:

- Auditory assistance communications (including, but not limited to, applications such as assistive listening devices, audio description for the blind, and simultaneous language translation) for persons who:
  - Have physical or mental impairment that substantially limits one or more of the major life activities of such individuals;
  - Require language translation; or
  - May otherwise benefit from auditory assistance communications in educational settings.
- Health care related communications for the ill;
- Law enforcement tracking signals (for homing or interrogation) including the tracking of persons or stolen goods under authority or agreement with a law enforcement agency (federal, state, or local) having jurisdiction in the area where the transmitters are placed; or
- AMTS point-to-point network control communications.

**Operations**

An LPRS transmitter may be operated within the territorial limits of the fifty United States, the District of Columbia, and the Caribbean and Pacific Insular areas ("U.S."). It may also be

incumbents. Specifically, Nextel's licenses are conditioned on Nextel following a relocation plan ([pdf](#)) (filed with FCC on April 6, 2005) that Nextel was required to develop with the Association for Maximum Service Television (MSTV), the National Association of Broadcasters (NAB), the Society of Broadcast Engineers (SBE), and other interested broadcast parties. Nextel (now Sprint Nextel) has a website with additional information on this process:

▶ [Sprint/Nextel Site with Information on 2GHz Relocation](#)  
 On September 4, 2007, Sprint Nextel, MSTV, NAB and SBE filed a Joint Petition ([pdf](#)) requesting that the Commission waive the current BAS transition completion date for an additional twenty-nine months. On September 7, 2007 the Commission on its own motion ([pdf](#)) extended the deadline by which Sprint Nextel Corporation (Sprint Nextel) is required to complete the transition of the broadcast auxiliary service (BAS) to frequencies above 2025 MHz by 60 days in order to allow time to consider the joint petition.

◀ [Return To Top](#)

**Frequency Coordinators**  
 A list of [frequency coordinators](#) is provided for information purposes only.

◀ [Return To Top](#)

**Special Temporary Authorization**  
 Applications filed to obtain Special Temporary Authority (STA) in the services described in 47 C.F.R. §1.913(d) may be filed electronically, or manually.

▶ [More about STAs...](#)  
 ◀ [Return To Top](#)

**Construction/Coverage Requirements**  
 The FCC requires most wireless telecommunications services licensees 1) to construct their authorized system or meet specific coverage requirements within a given time period and 2) to notify the Commission that the requirement has been met. This time period varies depending on the radio service in which the license is held.

▶ [More about Construction/Coverage Requirements...](#)  
 ◀ [Return To Top](#)

**Releases**  
 To view and download related Public Notices, Orders, Letters

as instructions regarding down payments and submission of Form 601.

▶ [Read more about the Licensing Process](#)

operated on or over any other area of the world, except within the territorial limits of areas where radio-communications are regulated by another agency of the U.S., or within the territorial limits of any foreign government. The transmitting antenna must not exceed 30.5 meters (100 feet) above ground level. This height limitation does not apply, however, to LPRS transmitter units located indoors or where the antenna is an integral part of the unit.





and News Releases, see <a href="#">Releases</a> .		
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TNTCrazyLady

FormerlyNMUrbanHomesteader.weebly.com

Paging		Wireless Medical Telemetry		Fixed Microwave Services	
<b>Service At A Glance</b>		<b>Service At A Glance</b>		<b>Service At A Glance</b>	
<b>Paging</b>		<b>Wireless Medical Telemetry</b>		<b>Fixed Microwave Services</b>	
One-way data communications sent to a mobile device that alerts the user when it arrives. The communication could consist of a phone number for the user to call, a short message, or an information update.		The remote monitoring of patients' health through radio technology.		Microwaves are very short waves in the upper range of the radio spectrum used mostly for point-to-point communications systems.	
Also Known As	Commercial Paging, One-Way Paging, Traditional Paging	Also Known As	WMTS	Also Known As	FMS, POFS, Backhaul, Backbone
Established	1949	Established	2000	<a href="#">Service Rules</a>	Part 101
<a href="#">Service Rules</a>	CFR, Parts 1, 22, and 90	<a href="#">Service Rules</a>	CFR, Part 95	<b>Related Services</b>	
<b>Band Plan</b>		<b>Part Of</b>		<a href="#">24 GHz Market Area</a> <a href="#">39 GHz Market Area</a> <a href="#">70-80-90 GHz</a> <a href="#">Local Multipoint Distribution Service</a> <a href="#">Multichannel Video Distribution and Data Service</a>	
Band(s)	35-36 MHz 43-44 MHz 152-159 MHz 454-460 MHz 929, 931 MHz	<a href="#">Personal Radio</a>		<b>Band Plan</b>	
<b>Related Services</b>		<b>Related Services</b>		930 MHz 940 MHz 950 MHz 2 GHz 4 GHz 6 GHz 10 GHz 11 GHz 12 GHz 18 GHz 23 GHz 31 GHz 38 GHz 70 GHz 80 GHz 90 GHz See <a href="#">47 C.F.R. Part 101.101</a>	
<a href="#">218-219 MHz</a> <a href="#">Citizens Band (CB)</a> Family <a href="#">General Mobile Radio</a> <a href="#">Low Power Radio</a> <a href="#">Medical Device Radiocommunications Radio Control</a>		<b>Band Plan</b>		<b>Licensing</b>	
<b>Band Plan</b>		608-614 MHz 1395-1400 MHz 1427-1432 MHz		System	
Market Areas	EAs, MEAs, NW, Site-by-Site	Band(s)		System <a href="#">ULS</a>	
Channels	129				
Channel Size	20 KHz (unpaired) 40 KHz (paired)				
<b>Licensing</b>					
Fee and Mailing Instructions ( <a href="#">pdf</a> )					
System	<a href="#">ULS</a>				

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<p><b>Paging</b></p> <p>Commercial paging is a Commercial Mobile Radio Service (CMRS) and is thus, 1) provided for profit, 2) interconnected to the public switched network, and 3) available to the public.</p> <p>Traditional commercial paging service consists of one-way data communications sent to a mobile device that alerts the user when it arrives. The communication could consist of a phone number for the user to call, a short message, or an information update. Other licensees in addition to paging carriers offer paging services. For instance, most digital mobile telephone handsets include a paging component or Caller ID feature that allows users to view the phone number of someone who has called them. <a href="#">Narrowband PCS</a> licensees offer more advanced two-way paging type services.</p> <p>Commercial paging may operate in the 35-36, 43-44, 152-159, and 454-460 MHz bands (referred to as the "Lower Band") and the 929 and 931 MHz bands (referred to as the "Upper Band") (refer to <a href="#">Band Plan</a>) and after 1997 was geographically</p>	<p><b>Wireless Medical Telemetry</b></p> <p>Wireless medical telemetry generally is the remote monitoring of a patient's health through radio technology. The use of wireless medical telemetry gives patients greater mobility and increased comfort by freeing them from the need to be connected to hospital equipment that would otherwise be required to monitor their condition. Wireless medical telemetry also serves the goal of reducing health care costs because it permits the remote monitoring of several patients simultaneously.</p> <p>All types of communications except voice and video are permitted on both a bi-directional and unidirectional basis, provided that all communications are related to the provision of medical care.</p>	<p><b>Fixed Microwave Services</b></p> <p>Microwaves are very short waves in the upper range of the radio spectrum used mostly for point-to-point communications systems. Much of the technology was derived from radar developed during World War II. Initially, these systems carried multiplexed speech signals over common carrier and military communications networks; but today they can handle all types of information, e.g. voice, data, facsimiles, and video, in either an analog or digital format.</p> <p>Over the years, these systems have matured to the point that they have become major components of the nation's public switched telephone network. Private organizations use them to satisfy internal communications requirements and to monitor their primary infrastructure. As the nation's cellular and personal communications systems grow, point-to-point microwave facilities, serving as backhaul and backbone links, enable these wireless systems to serve the country's less populated areas on an economical basis.</p>															

licensed based on either Economic Area (EA) or Market Economic Area (MEA) Market Area designations. You can read more about the [history of licensing commercial paging](#).

The rules governing commercial paging are found in the Code of Federal Regulations, Volume 47, [Part 1](#) and [Part 22](#) (and [Part 90](#) for 929 MHz channels).

Today's technology enables private users to employ microwave frequencies to operate and control equipment at remote sites, such as switches and valves associated with the operation of oil and gas pipelines, to gather data related to services, control traffic signals and to obtain toll data from moving vehicles, as well as other monitoring functions.

[▶ More about Fixed Microwave...](#)

**2 GHz Microwave Relocation**

The AWS Relocation and Cost Sharing Report and Order ([pdf](#)) established procedures for the relocation of Fixed Microwave Service (FS) operations from the 2160-2175 MHz band and modified existing relocation procedures for the 2110-2150 MHz and 2175-2180 MHz bands. In addition, the Commission adopted cost sharing rules to identify the reimbursement obligations for Advanced Wireless Service (AWS) and Mobile Satellite Service (MSS) entrants benefiting from the relocation of incumbent FS operations in the 2110-2150 MHz and 2160-2200 MHz bands and AWS entrants benefiting from the relocation of BRS incumbents in the 2150-2160/62 MHz band. More information about relocation, negotiation periods, permissible modifications, etc. are contained in [Sections 101.69 - 101.82](#) of the Commission's Rules.

**Frequency Coordinators**

A list of [microwave coordinators](#) is provided for information purposes only.

**Special Temporary Authorization**

Applications filed to obtain Special Temporary Authority (STA) in the services described in 47 C.F.R. §1.913(d) may be filed electronically, or manually.

[▶ More about STAs...](#)

**Construction/Coverage Requirements**

The FCC requires most wireless telecommunications services licensees 1) to construct their authorized system or meet specific coverage requirements within a given time period and 2) to notify the Commission that the requirement has been met. This time period varies depending on the radio service in which the license is held.

[▶ More about Construction/Coverage Requirements...](#)

Millimeter Wave 70-80-90 GHz Service

**Service At A Glance**

**Millimeter Wave 70-80-90 GHz Service**

Available for use in a broad range of new products and services, including high-speed, point-to-point wireless local area networks and broadband Internet access.

Established 2004

[Service Rules](#) CFR, Part 101

**Related Services**

[Microwave](#)

**Band Plan**

Band(s)	71,000-76,000 MHz 81,000-86,000 MHz 92,000-94,000 MHz 94,100-95,000 MHz
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Block Size	1.25 GHz blocks that can be aggregated
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**Licensing**

Non-exclusive Nationwide with Link Registration

Fee and Mailing Instructions ([pdf](#))

[Filing Procedures Public Notice](#)

System	<a href="#">ULS</a>
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**ULS Radio Service Codes**

MM - Millimeter Wave 70-80-90 GHz

**Federal Government Coordination**

[NTIA Web Based 70-80-90 Link Coordination](#)

**Third Party Database Managers**

[Comsearch](#)

[Frequency Finder, Inc](#)

[Micronet Communications, Inc](#)



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<p><b>Millimeter Wave 70-80-90 GHz Service</b></p> <p>On October 16, 2003, the Commission adopted a <a href="#">Report and Order</a> (modified by Memorandum Opinion and Order (<a href="#">pdf</a>) on reconsideration) establishing service rules to promote non-Federal Government development and use of the “millimeter wave” spectrum in the 71-76 GHz, 81-86 GHz and 92-95 GHz bands on a shared basis with Federal Government operations. These bands are essentially undeveloped and available for use in a broad range of new products and services, including high-speed, point-to-point wireless local area networks and broadband Internet access. Highly directional, “pencil-beam” signal characteristics permit systems in these bands to be engineered in close proximity to one another without causing interference.</p> <p>▶ <a href="#">More about the Millimeter Wave 70-80-90 GHz Service...</a></p> <p><b>Licensing Process</b></p> <p>The Commission will issue an unlimited number of non-exclusive nationwide licenses to non-Federal Government entities for the 12.9 gigahertz of spectrum allocated for commercial use. These licenses will serve as a prerequisite for registering individual point-to-point links. The 71-95 GHz bands are allocated on a shared basis with Federal Government users. Therefore, a licensee will not be authorized to operate a link under its non-exclusive nationwide license until the link is both:</p> <ol style="list-style-type: none"> <li>1. coordinated with the National Telecommunications and Information Administration (NTIA) with respect to Federal Government operations, and</li> <li>2. registered as an approved link with a third-party Database Manager.</li> </ol> <p><b>Multipoint Distribution (MDS/MMDS)</b> See <a href="#">Broadband Radio Service</a></p>		
<p><b>Maritime Mobile Service</b></p>	<p><b>Offshore Radiotelephone Service</b></p>	<p><b>Ship Radio Stations</b></p>

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<p><b>Maritime Mobile Service</b></p> <p>The Maritime Mobile Service is an internationally-allocated radio service providing for safety of life and property at sea and on inland waterways. It includes the Maritime Mobile Service, the Maritime Mobile-Satellite Service, the Port Operations Service, the Ship Movement Service, the Maritime Fixed Service, and the Maritime Radiodetermination Service. These services classify the different types of marine radio communications, but they are less important for regulatory purposes than the two classifications of marine radio stations:</p> <ul style="list-style-type: none"> <li>• <a href="#">stations on land</a></li> <li>• <a href="#">stations aboard ships</a></li> </ul> <p>Together, shipboard and land stations in the marine services are meant to serve the needs of the entire maritime community. The FCC regulates these services both for ships of U.S. registry that sail in international and foreign waters and for all marine activities in U.S. territory. For this and other reasons, the rules make a distinction between compulsory users of marine radio for safety at sea, and noncompulsory users for purposes other than safety. In addition, rules concerning domestic marine communications are matched to requirements of the U.S. Coast Guard, which monitors marine distress frequencies continuously to protect life and property in U.S. waters.</p> <p>The Maritime Services have evolved from the earliest practical uses of radio. In 1900, just six years after Marconi demonstrated his "wireless" radio, devices were being installed aboard ships to enable them to receive storm warnings transmitted from stations on shore. Today, the same principle applies in using both shipboard and land stations in the marine services to safeguard life and property at sea. Both types of stations are also used to aid marine navigation, commerce, and personal business, but such uses are secondary to safety, which has international priority.</p>	<p><b>Offshore Radiotelephone Service</b></p> <p>The Offshore Radiotelephone Service allows Commercial Mobile Radio Service (CMRS) providers to use conventional duplex analog technology to provide telephone service to subscribers located on (or in helicopters en route to) oil exploration and production platforms in the Gulf of Mexico. This service may operate in the paired 476/479 through 489/493 MHz bands, in three zones comprising Louisiana and Texas, depending on the longitude. For specifics, see <a href="#">Part 22.1007 of our rules</a>.</p> <p>Regulation of this service currently resides in <a href="#">Part 1</a> and <a href="#">Part 22</a> of the Code of Federal Regulations (CFR), Subtitle 47, on Telecommunications and may be researched or ordered through the <a href="#">Government Printing Office</a>.</p> <p>For forms and fee information, see <a href="#">Forms &amp; Fees</a>. Form 601, 602, 603, and 159 are required for this service.</p> <p>This service was not affected by the Paging Order, WT Docket 96-18 (<a href="#">text</a>).</p>	<p><b>Ship Radio Stations</b></p> <p>A shipboard radio station includes all the transmitting and receiving equipment installed aboard a ship for communications afloat. Depending on the size, purpose, or destination of a ship, its radio station must meet certain requirements established by law or treaty.</p> <p>▶ <a href="#">More about ship radio stations...</a></p> <p><b>Licensing</b></p> <p>On October 25, 1996, the FCC released a Report and Order in WT Docket No. 96-82, 11 FCC Rcd 14849, FCC 96-421 (<a href="#">pdf</a>), eliminating the individual licensing requirement for voluntary ships operating domestically which are not required by law to carry a radio.</p> <p>▶ <a href="#">More on licensing and how the rules affect the maritime public...</a></p> <p><b>Global Maritime Distress and Safety System (GMDSS)</b></p> <p>The FCC rules require certain vessels to be equipped with radio equipment for safety purposes. These rules are in accordance with international agreements. The GMDSS replaces the older "Morse code" based safety system. Learn more about the FCC's GMDSS regulations:</p> <p>▶ <a href="#">General information for vessel operators</a> -- How does the GMDSS affect you?</p> <p>▶ <a href="#">Certification information for manufacturers</a></p>
<p><b>Narrowband PCS</b></p>	<p><b>Specialized Mobile Radio Service</b></p>	<p><b>Wireless Communications Service (WCS)</b></p>



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<p><b>Narrowband PCS</b></p> <p>Personal Communications Service (PCS) encompasses a wide variety of mobile, portable and ancillary communications services to individuals and businesses. The Commission broadly defined PCS as mobile and fixed communications offerings that serve individuals and businesses, and can be integrated with a variety of competing networks. The spectrum allocated to PCS is divided into three major categories: (1) <a href="#">broadband</a>, (2) narrowband, and (3) unlicensed.</p> <p>Narrowband PCS uses a smaller portion of the spectrum than broadband PCS. Narrowband PCS licenses are used to provide such services as two-way paging and other text-based services. For example, licensees offer services using devices that come equipped with a small keyboard allowing a subscriber to both retrieve and send complete messages through microwave signals (e.g. wireless e-mail). Licensees also use the spectrum to offer wireless telemetry which is the monitoring of mobile or fixed equipment in a remote location. For example, a licensee may remotely monitor utility meters of energy companies (this is called automatic meter reading or "AMR").</p> <p>Narrowband PCS operates in the <a href="#">901-902 MHz, 930-931 MHz, and 940-941 MHz bands</a> and is licensed based on nationwide, regional, and MTA market designations. The rules governing narrowband PCS are found in the Code of Federal Regulations, <a href="#">Volume 47, Part 24</a>.</p>	<p><b>Specialized Mobile Radio Service</b></p> <p>The Specialized Mobile Radio (SMR) service was first established by the Commission in 1979 to provide land mobile communications on a commercial (i.e., for profit) basis. A traditional SMR system consists of one or more base station transmitters, one or more antennas, and end user radio equipment that usually consists of a mobile radio unit either provided by the end user or obtained from the SMR operator for a fee. SMR end users may operate in either an "interconnected" mode or a "dispatch" mode. Interconnected mode connects mobile radio units with the public switched telephone network (PSTN) through the SMR base station. This allows the mobile radio unit to function as a mobile telephone. Dispatch mode allows two-way, over the air, voice communications between two or more mobile units (e.g., between a car and a truck) or between mobile units and fixed units (e.g., between the end user's office and a truck).</p> <p><a href="#">More about SMRS...</a></p> <p><b>Licensing</b> Currently there is no 800 MHz SMR or 900 MHz SMR spectrum scheduled for auction. There are, however, other methods to gain access to this spectrum.</p> <p><a href="#">More about licensing and obtaining spectrum...</a></p> <p><b>Band Reconfiguration</b> The introduction of 800 MHz cellular systems has created interference with Public Safety and Other non-800 MHz cellular systems operating in the band. That matter has been addressed in <a href="#">Commission documents</a>.</p>	<p><b>Wireless Communications Service (WCS)</b></p> <p>The Wireless Communications Service (WCS) may provide fixed, mobile, radiolocation or satellite communication services to individuals and businesses within their assigned spectrum block and geographical area. The WCS is capable of providing advanced wireless phone services which are able to pinpoint subscribers in any given locale. The WCS is most likely used to provide a variety of mobile services, including an entire family of new communication devices utilizing very small, lightweight, multi-function portable phones and advanced devices with two-way data capabilities. WCS systems are able to communicate with other telephone networks as well as with personal digital assistants, allowing subscribers to send and receive data and/or video messages without connection to a wire.</p> <p>The FCC's auction of WCS licenses helped kick off an entirely new industry. Competition in the WCS industry will benefit consumers and businesses. The FCC's licensing plan for this spectrum provides for several new full service providers of wireless service in each market. Consumers will be able to choose from multiple providers and will receive lower prices and better service as a result.</p> <p><a href="#">List of Licensees</a> <a href="#">Geographic Information Systems (free data/software)</a></p> <p><b>WCS Spectrum Allocation</b> The Commission has divided the 128 markets allocated to the WCS into four frequency blocks (A through D) with 2 licenses per block (Band Plan). (<a href="#">pdf</a>) Blocks are divided into either Major Economic Areas (MEAs) or Regional Economic Area Groupings (REAGs). Blocks "A" and "B" consist of 52 MEAs and Blocks "C" and "D" consist of 12 REAGs. The MEAs and REAGs are based on the 172 Economic Areas (EAs) developed by the Bureau of Economic Analysis of the U.S. Department of Commerce and 3 EA-like areas.</p>
<p><b>Private Land Mobile Radio Services</b></p>	<p><b>Private Land Mobile Paging</b></p>	<p><b>Rural Radiotelephone Service</b></p>

**Service At A Glance**

**Private Land Mobile Radio Services**

Consists of various services utilizing regularly interacting groups of base, mobile, portable, and associated control and relay stations for private (non-profit) radio communications by eligible users.

Also Known As	PLMRS
Established	1927
<a href="#">Service Rules</a>	CFR, Part 90

**Included Services**

[Industrial/Business](#)  
[Private Land Mobile Paging](#)  
[Public Safety](#)  
 Radiolocation

**Licensing**

Fee and Mailing Instructions ([pdf](#))

System	<a href="#">ULS</a>
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**Audits**

[Private Land Mobile Audit](#)

**Service At A Glance**

**Private Land Mobile Paging**

Not-for-profit paging that serves a licensee's internal communications needs.

Also Known As	NPCS
Established	1982
<a href="#">Service Rules</a>	Part 90
Part Of	<a href="#">Private Land Mobile</a>

**Related Services**

[Public Safety](#)  
[Industrial/Business](#)  
 Radiolocation

**Band Plan**

Band(s)	929.0375 MHz 929.0625 MHz 929.0875 MHz 929.1625 MHz 929.2625 MHz
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**Licensing**

System	<a href="#">ULS</a>
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**ULS Radio Service Codes**

GS - Exclusive Channels  
 IG - Shared Industrial/Business Channels  
 PW - Shared Public Safety Channels

**Service At A Glance**

**Rural Radiotelephone Service**

Rural Radiotelephone Service is a fixed radio service where a wireless technology is used to provide telephone service to subscribers in remote areas. Conventional Rural Radiotelephone stations may employ standard duplex, analog technology similar to that of pre-cellular mobile telephone service.

Also Known As	Conventional Rural Radiotelephone
Established	1997
<a href="#">Service Rules</a>	CFR, Parts 1 and 22

**Related Services**

[Basic Exchange Telephone Radio Service](#)

**Band Plan**

Band(s)	152-159 MHz 454-460 MHz
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Market Areas	Site-by-Site
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Channels	44
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Channel Size	40 kHz (paired)
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**Licensing**

Fee and Mailing Instructions ([pdf](#))

System	<a href="#">ULS</a>
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**ULS Radio Service Codes**

CR - Rural Radiotelephone

<p><b>Private Land Mobile Radio Services</b></p> <p>Private land mobile radio systems are used by companies, local governments, and other organizations to meet a wide range of communication requirements, including coordination of people and materials, important safety and security needs, and quick response in times of emergency. These systems, which often share frequencies with other private users, make possible many day-to-day activities that people across the United States have come to rely on, whether directly or indirectly. Public safety agencies, utilities, railroads, manufacturers, and a wide variety of other businesses - from delivery companies to landscapers to building maintenance firms - rely on their business radio systems every day. The services included in Private Land Mobile are <a href="#">Public Safety</a>, <a href="#">Industrial/Business</a>, <a href="#">Private Land Mobile Paging</a>, and Radiolocation.</p> <p>Private Land Mobile Radio Service licensees in the 150-174 MHz and 421-512 MHz bands are subject to the Commission's January 1, 2013 deadline to migrate to narrowband (12.5 kHz or narrower) technology. Information concerning narrowbanding migration and compliance is available at the Public Safety and Homeland Security Bureau's <a href="#">narrowbanding</a> webpage.</p> <p><b>License Audit</b></p> <p>The Wireless Telecommunications Bureau (WTB) audited the construction and operational status of various stations previously subject to rule based construction and operational requirements. This audit was undertaken to improve the accuracy and integrity of license data in the <a href="#">Universal Licensing System (ULS)</a>. See <a href="#">PLMRS License Audit</a> for more information.</p>	<p><b>Private Land Mobile Paging</b></p> <p>A private paging service is a paging service that is not-for-profit and that serves the licensee's internal communications needs as defined in Part 90 of the Rules. Private paging systems in general provide the same applications offered by commercial paging services: tone, tone-voice, numeric or alphanumeric, shared-use, cost-sharing, or cooperative arrangements, multiple licensed systems that use third-party managers, or users combining resources to meet compatible needs for specialized internal communications facilities are presumptively private paging services.</p> <ul style="list-style-type: none"> <li>• <a href="#">Frequencies</a></li> <li>• <a href="#">Frequency Coordinator</a></li> </ul> <p><b>Frequencies</b></p> <p>The following frequencies are available to all Public Safety and Industrial Business Pool licensees for one-way paging on a shared basis:</p> <ul style="list-style-type: none"> <li>• 929.0375 MHz</li> <li>• 929.0625 MHz</li> <li>• 929.0875 MHz</li> <li>• 929.1625 MHz</li> <li>• 929.2625 MHz</li> </ul> <p>Specific regulations governing the use of these bands can be found at <a href="#">47 CFR 90.494</a>.</p> <ul style="list-style-type: none"> <li>• <a href="#">Return To Top</a></li> </ul> <p><b>Frequency Coordinator</b></p> <p>In 1982, Congress provided the Commission with the statutory authority to use frequency coordinators to assist it in developing and managing the Private Land Mobile Radio (PLMR) spectrum.</p> <p>Frequency coordinators, in this case, are private organizations that have been certified by the Commission to recommend the most appropriate frequencies for applicants in the designated Part 90 radio services. This frequency coordination process is intended to make more efficient use of the PLMR spectrum for the benefit of all members of the public.</p> <p>In general, applications for new frequency assignments, changes to existing facilities or operation at temporary</p>	<p><b>Rural Radiotelephone Service</b></p> <p>Rural Radiotelephone Service is a fixed radio service where a wireless technology is used to provide telephone service to subscribers in remote areas. Conventional Rural Radiotelephone stations may employ standard duplex, analog technology similar to that of pre-cellular mobile telephone service.</p> <p>This service may operate in the paired 152/158 and 454/459 MHz bands. Conventional Rural radiotelephone service is generally considered by state regulators to be a separate service that is interconnected to the public switched telephone network.</p> <p>Regulation of this service currently resides in Part 1 and 22 of the Code of Federal Regulations (CFR), Subtitle 47, on Telecommunications and may be researched or ordered through the <a href="#">Government Printing Office</a>.</p> <p>For forms and fee information, see <a href="#">Forms &amp; Fees</a>.</p> <p>The Commission's rules for Basic Exchange Telephone Radio Service (BETRS), <a href="#">CFR Title 47, Part 22</a>, in the 152/158 and 454/459 MHz bands, have been amended by the following actions since the October 1, 1996 edition:</p> <p>2/24/1997 SECOND REPORT AND ORDER AND FURTHER NOTICE OF PROPOSED RULEMAKING (FCC 97-59) In the Matter of Revision of Part 22 and Part 90 of the Commission's Rules to Facilitate Future Development of Paging Systems Implementation of Section 309(j) of the Communications Act - Competitive Bidding This Order adopts rules and competitive bidding procedures for the Common Carrier Paging and 929 MHz Private Carrier Paging licensing process. <a href="#">pdf</a> - <a href="#">text</a> - <a href="#">WordPerfect</a> Appendices for text and Wordperfect version: <a href="#">text</a> - <a href="#">WordPerfect</a></p> <p><a href="#">NTIA Special Publication 95-33 - Survey of Rural Information Infrastructure Technologies</a> has additional information regarding rural telephone provision.</p>
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locations must include a showing of frequency coordination. See 47 CFR 90.175 for further information.

The private paging frequency coordinators are:

[Personal Communications Industry Association \(PCIA\)](#)  
 Attn: Don Andrew, Frequency Coordination Department  
 901 N. Washington Street, STE 600  
 Alexandria, VA 22314  
 P: 703-759-7502  
 F: 703-836-1608  
 E: [andrewd@pcia.com](mailto:andrewd@pcia.com)

[Industrial Telecommunications Association, Inc. \(ITA\)\\*](#)  
 Attn: Frequency Coordination Department  
 8484 Westpark Drive  
 McLean, VA 22102  
 E: [ila@ita-relay.com](mailto:ila@ita-relay.com)

\*Also coordinates on behalf of the International Taxicab and Livery Association (ITLA), Telephone Maintenance Frequency Advisory Committee (TELFAC), Newspaper Association of America (NAA), and Alliance of Motion Picture and Television Producers

[American Mobile Telecommunications Association \(AMTA\)](#)  
 200 N. Glebe Road  
 Suite 1000  
 Arlington, VA 22203  
 P: 703-558-2204  
 E: [online@amtausa.org](mailto:online@amtausa.org)

[Manufacturers Radio Frequency Advisory Committee, Inc. \(MRFAC\)](#)  
 Attn: Don Andrew, Frequency Coordination Department  
 899-A Harrison Street, S.E.  
 Leesburg, VA 20175  
 P: 703-669-0320  
 F: 703-669-0322  
 E: [info@mrfac.com](mailto:info@mrfac.com)  
 E: [MRFACFreq@aol.com](mailto:MRFACFreq@aol.com)

[Utilities Telecom Council Spectrum Services \(UTC\)](#)  
 1129 20th Street NW, Suite 350  
 Washington, DC 20036  
 P: 202-872-0030  
 F: 202-872-1331  
 E: [spectrumservices@utc.org](mailto:spectrumservices@utc.org)

[Forest Industries Telecommunications \(FIT\)](#)  
 1565 Oak Street  
 Eugene, Oregon 97401

	P: 541-485-8441 F: 541-485-7556 E: <a href="mailto:license@landmobile.com">license@landmobile.com</a>	
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TNTCrazyLady

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