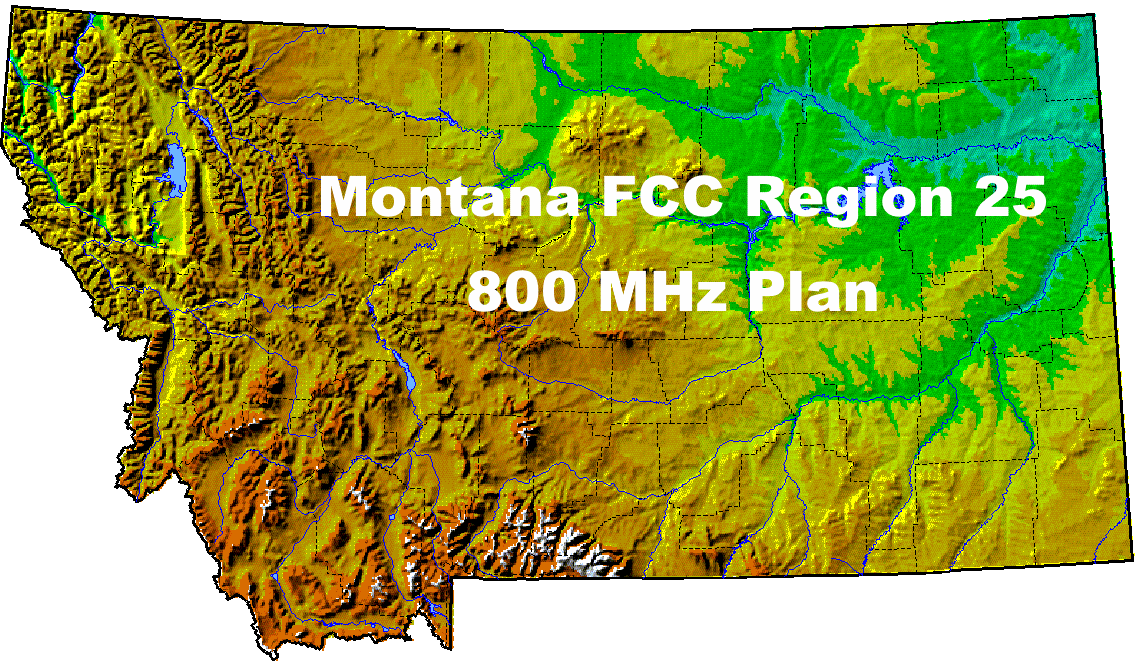
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***Region 25 – 800 MHz Plan***

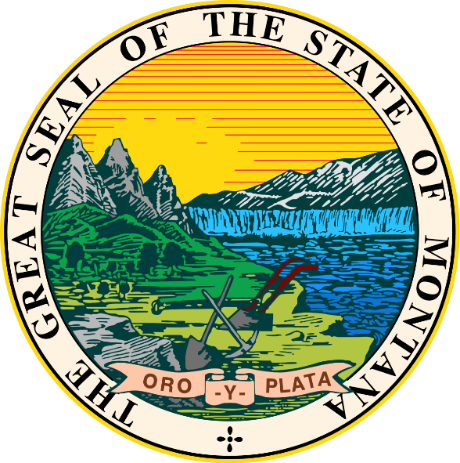
**PUBLIC SAFETY RADIO**

**COMMUNICATIONS PLAN**

**for**

**THE STATE OF**

**MONTANA**



**November 2021**

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**Record of Change**

| **Change No.** | **Description** | **Change Date** | **Approved By** |
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This Region 25 Public Safety Radio Communications Plan is subject to information updates and/or changes. Use this Record of Change to document and manage modifications throughout the life of this document. All attempts have been made to ensure the accuracy of the information within this Plan as of each documented distribution date.

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# Plan Introduction and Summary

## Introduction

This is the 800 MHz Regional Plan for Region 25 (Montana). The purpose of the Regional Plan is to ensure that maximum public benefit is derived from use of the 800 MHz spectrum by eligible agencies. Further, the Plan was developed to guide eligible entities through the application process and provide an equitable means of settling disputes concerning frequency allocations should they arise.

### Background

In December of 1983, the United States Congress directed the Federal Communications Commission (FCC) to establish a plan to ensure that the communications needs of state and local public safety authorities would be met. By their regular means of initiation, the FCC began the process of developing such a plan. Through their efforts, and the efforts of the National Public Safety Planning Advisory Committee (NPSPAC), the plan was begun.

NPSPAC provided an opportunity for the public safety community and other interested members of the public to participate in an overall spectrum management approach by recommending policy guidelines, technical standards, and procedures to satisfy public safety needs for the foreseeable future. After consideration of NPSPAC’s Final Report and comments filed in Docket No. 87-112, a Report and Order was released by the FCC in December 1987, which established guidelines for the development of regional plans. Six megahertz of spectrum was selected in the 821-824 and 866-869 MHz band, since they were already being used for public safety purposes. To address a growing problem of harmful interference to 800 MHz public safety communication systems caused by high-density commercial wireless systems, the FCC in July 2004 adopted a comprehensive plan to reconfigure the public safety band to 806-809/851-854 MHz.

The National guidelines are found in FCC 87-359, which contains the required steps and contents for regional plan development. It is on this document that this Plan is developed.

### Purpose

Public safety communications has, for many years, been inadequate throughout the United States. This is as true for Montana as it is for any other state. Many, if not all, public safety radio users are constantly bombarded with outside interference, noise, and overcrowding. It is with these problems in mind that this Plan was developed.

This regional Plan was developed with the objective of assuring all levels of public safety/public service agencies that radio communications in the near and distant future will not suffer from the problems of the past. The allocation of frequencies was done in as equitable a way as possible. The goal was to supply a pool of frequencies for each county and a pool for state agency use with adequate reserve allocations for future needs in all areas, and a method to appeal initial allocations based on need.

## Regional Plan Summary

First, Region 25 is defined as the entire State of Montana. The broad classifications of entities eligible to apply for spectrum are defined in accordance with FCC definitions. To garner their participation in, and support of, the planning process, an attempt was made to contact all eligible agencies. These attempts are documented. A discussion follows of the process by which the initial spectrum allocation was made. Finally, a detailed discussion of the application process is given.

This includes guidelines for spectrum use, application requirements, and the application review process and dispute resolution. Also included is a discussion of the future planning process.

The Region 25 Committee accepts the Computer Assisted Pre-Coordination Resource and Database (CAPRAD) database[[1]](#footnote-1) initial allocation based on population density and call volume by county. The Committee will use the CAPRAD database when allocating frequency resources in Region 25. It will be understood that service to a desired area in a wide area system may best be accomplished by facilities in an adjacent county. Therefore, a “County”, as defined by the CAPRAD sort and other applicable rules, shall be defined as the Subject County plus 10 miles into an adjacent county. This will permit the use of a tower location that is not physically located in the Subject County but will provide substantial service to the Subject County.

## Major Plan Elements

The National guidelines, as developed by NPSPAC, were followed very closely in all considerations for frequency allocation, re-use, turn back, regional interoperability, spectrum requirements, and adjacent region operations. This Plan should provide the flexibility to accommodate the growth and changes which are bound to occur in public safety and public service communications operations long into the future.

The major elements of this Plan are:

* The declaration that this is the Region 25 Plan
* That Region 25 encompasses the entire State of Montana
* The administration and operation of the Regional Planning Committee (RPC)
* 800 MHz interoperability
* General Use spectrum management
* Common Channel communications requirements
* Allocation requests
* Dispute resolution
* Adjacent Region coordination
* The appendices, with the general usage voice channel allocation listed in APPENDIX F.

# Authority

## Regional Planning Committee Formation

The development of the Public-Safety Radio Communications Plan for Region 25 has followed the requirements of the FCC 87-359, the Report and Order on General Docket 87-112.

In accordance with that Report and Order, the Association of Public Safety Communications Officials International (APCO) recommended to the Commission the appointment of a “Convenor” for Montana, Region 25. The Convenor acted as coordinator for assembly and formation of the planning committee. The Frequency Advisory Committee of the Montana APCO chapter served as a review body for convening plans.

The Planning Committee was formed through the following steps:

1. Primary notice of convening was made through direct mailings to Montana's 56 county Disaster & Emergency Services coordinators. Each DES coordinator was asked to identify all public safety radio using agencies and organizations within the county and notify them of the meeting and its potential impact.

Notice was published in the newsletters of the Montana Sheriffs & Peace Officers Association and the Montana Disaster & Emergency Services Division. All Montana APCO Chapter members were notified through mailings. Individual notices were sent to all State of Montana agencies who use public safety radio. Separate press releases were also sent to the Montana League of Cities & Towns, the Montana Association of Counties, and the Montana Fire Services Training School for dissemination through their news organs.

FCC Public Notice No. 12458 announcing the meeting was issued April 3, 1991.

APPENDIX E contains copies of notification materials.

1. The convening meeting was held May 2, 1991 in Helena, on the State Capitol campus. There was unanimous agreement to form a planning committee.
2. A chairman was nominated and elected unanimously.
3. The assembled group chose to have all interested parties constitute the Committee-at-Large for advice and consent, while relying on a smaller working group to generate draft plans. Final plan approval was to be made by the Committee-at-Large, which is the Regional Planning Committee (RPC).
4. Committee-at-Large membership was left open to any person or agency who may not have been notified or later decided to join the committee. The working group consisted of volunteers from the larger membership who were able to participate in plan development.
5. Vendor participation was encouraged, but vendors were not allowed a vote.
6. Participants in the formation of the Regional Planning Committee represented interested parties from both the Public Safety and Special Emergency Radio Services. A total of 30 individuals participated in the development process.
7. The original Regional Planning Committee consisted of all interested parties in attendance at the convening meeting and those who asked to be involved, but were unable to attend. Except for three commercial sector representatives, each committee member represented a single public safety agency or organization and was allowed one vote in all Committee matters. No more than one person represented any agency or organization. The majority of those present at a scheduled meeting constituted a majority for all business. Three working committee meetings were held.
8. Final approval of the original plan prior to submission to the FCC was sought through a mail ballot sent to all those who had participated in the planning process. In this way, the finished plan was reviewed and accepted by the widest possible group of public safety /public service users.

## Regional Planning Committee Membership

APPENDIX A of this document contains the names, organizational affiliations, e-mail addresses, and phone numbers of all Regional Planning Committee participants and officers.

## National Interrelationships

It is expected that Regional Plans for other areas of the country may differ from this Plan due to broad differences in circumstance, geography, and population density. By officially sanctioning this Plan, the Federal Communications Commission agrees that it does not conflict with FCC rules and regulations.

Nothing in the Plan is to interfere with the proper functions and duties of the organizations appointed by the FCC for frequency coordination in the Private Land Mobile Radio Services, but rather it provides procedures that are the consensus of the Public Safety Radio Services and Special Emergency Radio Service user agencies in this Region. If there is a perceived conflict, then the judgment of the FCC will prevail.

## Federal Interoperability

Interoperability between Federal, State and Local Governments during both daily and disaster operations will primarily take place on the five Common Channels identified in this Regional Plan. Federal agencies may use the five nationwide 800 MHz interoperability channels with a written agreement from the licensee in the state. Additionally, through the use of written agreements, a licensee may permit Federal use of a non-Federal communications system. Such use, on other than the five identified Common Channels, is to be in full compliance with FCC requirements for government use of non-government frequencies (Title 47 CFR, sec 2.103). It is permissible for a non-Federal government licensee to increase channel requirements to account for 2-10 percent increase in mobile units, dependent on the amount of Federal Government agencies involvement in its area, provided that written documentation from Federal agencies supports at least that number of increased units.

## Regional Plan Administration

### Operations of the Regional Planning Committee (RPC)

The Region 25 RPC will use Robert’s Rules of Order to conduct meetings. All decisions will be by clear consensus vote with each Public Safety Agency having one vote. The meetings are open to all persons and a public input time is given for anyone to express a viewpoint or to have input to the planning.

Workgroups may be formed as needed to work on specific issues. Workgroups are intended to work on details of specific issues and make recommendations to the full committee.

Any changes to the Regional Plan must be voted and approved by the full RPC. Workgroups are open to any who want to participate. The Chair of the RPC appoints the Chair for each workgroup.

A minimum of one meeting of the full committee per year will be held. This will be announced and advertised by the RPC Chair.

### Duties of the RPC

The primary responsibility of the RPC will be to review applications from agencies within the region for conformance to Plan requirements. The RPC will have access to the Computer Assisted Pre-coordination and Resource Database System (CAPRAD) pre-coordination database system, and will review and recommend approval of applications, as they are received in the system. Applications approved by the RPC will be forwarded to the selected coordinator, then to the FCC.

The RPC duties are as follows:

* Review applications for compliance to the Region 25 Plan,
* Review appeals, applicant clarifications and applicant presentations,
* Maintain coordination with FCC certified frequency coordinators and advisors,
* Update CAPRAD.

**Interoperability Duties**

The Region 25 RPC will oversee interoperability channels. The Region 25 RPC will advise the statewide Public Safety Communications Advisory Council and assist in the statewide interoperability planning process.

The RPC duties are as follows:

* Update and maintain a statewide interoperability plan, and submit to the statewide Public Safety Communications Advisory Council for approval,
* Load interoperability channel assignments in CAPRAD,
* Review applications for conformance to the Statewide Communications Interoperability Plan (SCIP) and the 800 MHz Plan.

**Administrative Duties**

The RPC is responsible for monitoring adherence to the Region 25 Plan. The RPC will remain in place permanently to resolve inter-regional issues and recommend regional plan changes to the FCC.

The whole of the RPC duties are as follows:

* Review and update the Region 25 Plan as necessary,
* Monitor various system(s) implementation progress,
* Communicate with applicants to determine if implementation of their systems is in accordance with provisions of their applications,
* Make recommendations to resolve inter-regional issues,
* Maintain coordination with neighboring RPCs.

# Spectrum Utilization

This portion of the Plan provides a basis for proper spectrum utilization. Its purpose is to guide the RPC in their task of evaluating the implementation of this Plan within this Region.

## Region Defined

Region 25 is the State of Montana. This region was defined by the Federal Communications Commission because of recommendations made in the National Public Safety Planning Advisory Committee (NPSPAC) Final Report as submitted, approved, and contained in Docket 87-112. For purposes of this plan, the State of Montana shall be defined as all the lands and waters contained within the boundaries of the state.

## Regional Profile

This section describes the general population and geography of Region 25. In comparison to other NPSPAC regions, Montana is characterized as geographically vast and demographically sparse.

**3.2.1 Montana Population and Expected Growth Percentage**

The population of the state is 1,086,760 (2020 Census), with approximately 57% (616,760) living in urbanized centers and 43% (470,000) living in rural areas. Population density is about 6.8 persons per square mile. Total population grew at a moderate rate of 8% from 2010 to 2020. Forecasts show Montana's population will grow 14% over the next 30 years, reaching 1.16 million by 2030. Urban areas in Montana are growing quite rapidly, while more rural areas are gradually becoming less populated.

**3.2.2 Geographical Description**

There are 56 counties in the state with a total land mass of 147,138 square miles. The largest county is Beaverhead, with a total of 5,551 square miles. The only water areas of significance in frequency planning are Flathead Lake in northwestern Montana with a surface area of approximately 200 square miles and Fort Peck Reservoir with a surface area of approximately 390 square miles and length of 134 miles. There are numerous significant mountain ranges in the state. These include the Cabinet, Purcell, Garnet, Mission, Bitterroot, Big and Little Belt, Crazy, Gallatin, Bridger, Tobacco Root, Madison, Absaroka, Beartooth, Pryor, Big and Little Snowy, Bull, Swan, Flathead, Salish, Sapphire, Pioneer, Tendoy, Ruby, Snowcrest, Gravelly and Whitefish mountain ranges.

The population of Montana is unevenly distributed across the large land area of the state. There are 21 population centers of 10,000 or more persons and six of 50,000 or more. This presents some problems in area coverage for radio systems in that the entire land area of any given jurisdiction must be covered. The population per square mile is very sparse and the concentrations of radio users for public safety activities are therefore dispersed. All of these items were taken under consideration in the allocation plan.

## Usage Guidelines

All systems operating within the Region having five or more channels will be required to be trunked. Those systems having four or less channels may be conventional or trunked.

The FCC, in its Report and Order states, “Exceptions will be permitted only when a substantial showing is made that alternative technology would be at least as efficient as trunking or that trunking would not meet operational requirements. Exceptions will not be granted routinely, however, strong evidence showing why trunking is unacceptable must be presented in support of any request for exception.”

Systems of four or less channels operating in the conventional mode who do not meet FCC loading standards will be required to share the frequency on a non-exclusive basis.

Public safety communications at the state level, as it impacts the Region, will be reviewed by the RPC. State-wide public safety agencies will submit their communications plans for approval if they utilize communications systems within the Region and those portions of such systems must be compatible with the Regional Plan.

The next level of communication coverage will be a county/multiple municipality area. Those systems that are designed to provide area communications coverage must demonstrate their need to require such wide area coverage.

This would apply in a situation such as a city requesting coverage of an entire county. Communication coverage beyond the bounds of a jurisdictional area of concern cannot be tolerated unless it is critical to the protection of life and property. If 800 MHz trunked radio technology is utilized, the system design must include as many county/multiple municipality government public safety and public service radio users as can be managed technically.

The county/multiple municipality agency(ies), depending upon systems loading and the need for multiple systems within an area, must provide intercommunications between area-wide systems. In a multi-agency environment, a lead agency using the 800 MHz spectrum, which is an agency or organization having primary response obligations in the geographic area, shall be responsible for coordinating the implementation of the Common Channels in this band as mandated by this Regional Plan. Such implementation must be reviewed and approved by the RPC.

Municipal terminology often differs. In order to provide a title for the next level of communications, the term city-wide is used to define the level below county-wide. City-wide communications for public safety and public services purposes must provide only the communications needed within its boundaries. However, if the total number of radios in service does not reach minimum loading criteria for a trunked system, they must consider utilizing the next higher system level if 800 MHz trunked radio is available in the area. As those higher-level systems reach capacity, the smaller system communicators in public safety and public service must then consider uniting their communications efforts to formulate one large system or forfeit use of the limited 800 MHz system.

Where smaller conventional 800 MHz needs are requested, those frequencies to be utilized must not interfere with the region’s trunked systems. The 800 MHz regional trunked radio system is to be considered the higher technology at this time and in greater compliance with FCC guidelines. The amount of interference that can be tolerated depends on the service affected. Personal life and property protection shall receive the highest priority and disruptive interference with communications involved in these services in an area shall not be tolerated. Any co-channel interference within an authorized area of coverage will be examined on a case-by-case basis by the RPC.

## Technical Design Requirements for Licensing

### Definition of Coverage Area or Area of Jurisdiction

The coverage area shall be that area for which a system is intended to cover with received signal strength of greater than 40 dBu. This area shall normally represent the boundaries of the County or the incorporated municipality, which is applying for the license. In the case of regional or area-wide, multi-jurisdictional systems, the coverage shall be that area of all jurisdictions participating combined.

### System Coverage Limitations

System coverage shall be limited to the coverage area defined as listed above plus no more than three additional miles in all directions extending from said boundaries of definition. This limitation shall assure maximum frequency reuse. The only exception to this rule shall be those applicants wishing to offer service or system use to areas outside of their jurisdictional boundaries. In these situations, the applicant shall provide a proposal of said service to the RPC for approval.

Systems not located within the geographical center of the jurisdiction(s) for which they cover shall utilize either directional antennas or antenna/tower relationship techniques to achieve the coverage required by this Plan.

### Determination of Coverage

There are four variables used in determining the area of coverage of a proposed system. These variables are (1) the required strength of the received signal, (2) antenna height above average terrain (HAAT), (3) the effective radiated power (ERP) of the system, and (4) the type of environment.

Received Signal Strength: For purposes of this Plan, received signal strength shall be the determining factor which defines the actual boundary of a system. The minimum signal level, which marks the outer boundary of a system, shall be 40 dBu.

Antenna Height: Shall be the height of the antenna above the average terrain surrounding the tower site.

Effective Radiated Power (ERP): The ERP is the transmitter output power times the net gain of the antenna system. The actual formula is: ERP (w) equals Power (w) times Log (net gain in dB divided by 10).

Environment Type: Okumura/Hata Method – The Okumura method uses four different classifications to describe the average terrain around a transmitter site or area. The classifications are:

1. Urban: which is built-up city that is crowded with large buildings or closely interspersed with houses and thickly grown trees. This would include the downtown area of a major city.
2. Suburban: which is a city scattered with trees, houses and buildings. This would include the downtown area of a large city.
3. Quasi-Open: is an area between suburban and open areas. This includes areas outside of city limits that have few buildings and houses.
4. Open: is an area where there are no obstacles such as tall trees or buildings in the propagation path or a plot of land which is cleared of anything for 300 to 400 meters ahead. This would include farmland, open fields, etc.

Preparation of these requirements shall be the responsibility of the applicant. The FCC provides some additional guidance for these calculations in part 90.309(a)(4) of the Rules and Regulations.

### Annexations and Other Expansions

It is well known that as cities grow, annexations occur. When there is an expansion of the present city limits of any city currently using an 800-megahertz system within the spectrum as herein specified, it is understood that the existing system may have to be expanded and its range increased. This is a modification and may be permitted. The increased range of the system will have to be determined at the time of modification to assure non-interference with any other existing system. Where interference is likely, the use of alternate methods of expansion, such as satellite systems, may be necessary.

Should the annexation or expansion of a city effectively take in all or most of a county, the allocation for that county may be given to the city if required by said city and not in use or planned to be used by the county. Where more spectrum is not available from the initial allocation, the rules for expansion of initial allocation, as contained in this Plan, shall apply.

### Coverage Area Description

All applicants shall provide with their applications a map showing the jurisdictional boundaries to be covered by the system, and the calculated system coverage. This map shall display the location of the system transmitter(s), including control stations. It is recommended that a U.S. Geological Survey (USGS) Quad topographical map be used for this purpose. If not available, a high quality locally produced map or a highway map may be substituted. Regardless of the type map used, the name of the applicant and the scale of the map shall be displayed on the map.

### Aircraft–to-Ground Communications

The use of 800 MHz radio in an aircraft for air-to-ground transmissions shall be limited to a maximum effective radiated power (ERP) of one watt. Aircraft on the ground will be considered a mobile and can use additional power and the appropriate frequencies.

Since aircraft operations of trunked or conventional radio systems tend to disrupt adjoining systems because of the height of the transmitting aircraft above ground level, aircraft shall be limited in height of use. No transmissions on area channels are allowed above 2,000 feet above ground level (AGL), and no transmissions are allowed above 3,000 feet AGL on wide area mutual aid channels.

Simplex (talk around) operations of aircraft radios shall be utilized for on-scene communications. Co-channel and adjacent channel users are not required to provide protection to airborne users.

Operation of public safety radios in aircraft must conform to FCC 90.423 Operation on board aircraft.

### Give-Back Frequencies

All agencies participating in the use of any 800-megahertz spectrum shall prepare and submit a plan for transfer or abandonment of their currently licensed frequencies in the lower bands. These transferred or released frequencies shall be available for reassignment to those agencies not migrating to 800 MHz at this time. These released frequencies shall then be available for reassignment by the assignment/coordination criteria in effect for that particular service by the regular FCC authorized coordinator for that service.

Mutual aid channels, intersystem channels and other emergency channel information can be found in the *Montana Mutual Aid and Common Frequencies Manual*: <https://dojmt.gov/mutual-aid-manual/>.

These frequencies used by Public Safety and Special Emergency Radio Services are exempt from the relinquishment requirement.

### Unassigned Spectrum

Due to the fact that the entire frequency spectrum is not needed at this time, the excess channel pairs will be returned to a reserve pool. These channels may be used for conflict with adjacent Region allocations or may simply remain within this Region until needed. This does not imply that these frequencies are unavailable, only that before they can be utilized within the Region they must be coordinated via the regular RPC coordination process and within the guidelines set forth in this Plan. Where possible, the channels designated for a jurisdiction in this Plan shall be used.

### Adjacent Region Coordination

Coordination with adjacent regions shall be an on-going process until all Regional Plans have been finalized. At present, all adjacent regions have been coordinated with and no conflicts have been identified. The adjacent regions with which coordination has been conducted are: Idaho (Region 12); North Dakota (Region 32); South Dakota (Region 38); Wyoming (Region 46); as well as the Canadian provinces of: Alberta, British Columbia, and Saskatchewan. Letters of concurrence may be found in APPENDIX B.

As the use of the five National channels is not considered a day-to-day function, the “hard” coordination for the use of these channels is not considered to be necessary or advisable. The use of these channels will always be on a non-interference basis, with on-the-air coordination at the time of use when required. Any user found to be operating in any manner other than this shall be considered to be operating improperly and subject to existing FCC rules for willful interference with the communications of other users.

## Initial Spectrum Allocation

### Frequency Sorting Methodology

The initial spectrum allocation for Montana was determined by a computerized frequency sorting process performed by APCO. The purpose of the computer program, which assigns frequencies to specific eligibility, and to pools for future assignments is two-fold:

* 1. The assignments must result in a high degree of spectrum efficiency
  2. The assignments must result in a low probability of co-channel and adjacent channel interference.

When new channels are allocated for a county, the CAPRAD system adheres to the same principles as did the initial APCO packing of the channel pairs. This updated plan converts the old channel plan frequencies down 15 MHz to the new rebanded frequency plan.

### Geographic Area

For the purpose of the frequency allotment sort, a geographic area is based on the size of a county, the geographic centers, and average terrain height. To the degree practical, the defined areas should include the entire area of the eligible geopolitical boundary, but not exceed the boundary by more than three miles. Thus, the procedure is to gather information of sufficient detail, outline the areas to be defined, determine the coordinates and radius of the boundaries which define each area, and tabulate the data for determining the channel allotments.

### Define the Environment

The environment of each system is defined according to the Okumura/Hata method of classifications.

### Blocked Channels

In every Region there are five mutual aid channels which must be blocked to prevent the computer from making assignments on these channels. (Since the mutual aid channels are spaced at 500 KHz intervals, other Region-wide systems are spaced at 500 KHz and placed adjacent to the mutual aid channels. This procedure reduces the impact of blocked adjacent channels by virtue of the fact that the channel plan already has protection spacing on each side of the mutual aid channels.) These Region-wide blocked channels are identified by FCC channel number and tabulated. They become the input to the database.

### Transmitter Combining

The original computer packing program used a minimum channel separation of 250 KHz. This separation is provided in order to enable more efficient combining of multiple transmitters to a single antenna. These separated blocks of frequencies also have a maximum number of channels that can be combined onto one antenna. If a county is being given more than five channel pairs, then a second set of channels separated by 250 KHz is allocated. This is to maximize combiner usage and minimize the number of antennas on the tower. Because of this, some channels may appear to be too close in frequency, but are actually intended to be used on a different combiner or antenna.

### Grandfathered Equipment

Radio equipment that is currently FCC Part 90 type excepted in the public safety 800 MHz spectrum, 809-816/854-861 MHz band, may continue to operate on the NPSPAC 806-808.9875/851-853.9875 MHz channels, provided the deviation is reduced to +/- 4 KHz, the NPSPAC deviation. This applies to radio equipment using analog voice, mobile data, and non P25 digital. NPSPAC 800 MHz channels are 25 KHz bandwidth channels spaced at 12.5 KHz; thus, each channel overlaps the adjacent channel. The reason for the +/- 4 KHz deviation limitation on wideband systems is to mitigate interference to the adjacent channels. The exception to this is the five Nationwide Interoperability Channels, 8CALL90, 8TAC91-94. They may use the +/- 5 KHz deviation since they have a guard band on either side of the channel.

### Protection Ratios

There are two interference protection ratios built into the computer program. One is for the co-channel case; the other is for the adjacent channel case. The ratios provide 35 dB Desire/Undesired signal ratio for co-channel assignments, and 15 dB Desire/Undesired ratio for the adjacent channel case. These ratios provide an acceptable probability of interference for Public Safety Services.

# Communications Requirements

## Common Channel Implementation

The implementation of National Common Channels must follow the guidelines as set forth by the Federal Communications Commission and within this Regional Plan. The FCC has set aside five channels in the new spectrum for mutual aid. These channels are accessible by all levels of government and shall be used in accordance with the provisions of the FCC rules and regulations and this Regional Plan. Agencies applying for license in the 806-809.9875 and 851-853.9875 MHz bands shall be required to explain how they will implement the new Common Channels. They will also be required to explain how they will maintain intercommunication with their neighboring agencies who do not implement the Common Channels, but still are dependent upon the applying agency for assistance in an emergency. All mobile and portable equipment must be equipped to operate in the “talkaround mode” on the Nationwide Common Channels.

The Nationwide Calling Channel 8CALL90 (806/851.0125 MHz) shall be implemented as a full mobile relay. Wide area coverage transmitters will be installed where applicable within a system. Large system users (5 channels or more) of 800 MHz shall be required to monitor this channel at all times. The area of coverage for this channel shall be equal to the area covered by the licensed system. This may or may not require the use of satellite receivers within the area to meet this requirement.

The four Nationwide Tactical (8TAC91-94) Channels will be assigned statewide, for use as needed by all eligible licensees. These channels are used in accordance with provisions of FCC rules and regulations and this Regional Plan. These channels require no special licensing, only that the users be eligible for licensing on the other Public Safety 800 MHz channels as specified in section 90.616 (a) of the FCC Rules and Regulations.

The 800 MHz Nationwide Calling and Tactical channels are listed in APPENDIX C.

### Areas of Operation

The Common Channels shall be available for use throughout the Region. No specific assignments were deemed necessary within the Region.

### 4.1.1.1 National Calling Channel

The National Calling Channel 8CALL90 (806.0125/851.0125 MHz) shall be implemented as a full mobile relay. Wide area coverage transmitters will be installed where applicable within a system. Large system users (5 channels or more) of 800 MHz frequencies shall be required to monitor this channel at all times. The area of coverage for this channel shall be equal to the area covered by the licensed system. This may or may not require the use of satellite receivers within the system.

***4.1.1.2 National Tactical Channels***

The four National Tactical Channels will be available statewide for use by all eligible public safety licensees and others as assigned under specific incident communications plans. Any Local, State, or Federal public-safety entity may operate mobile or portable radios on these channels in Region 25 without license. Other disaster relief and emergency management services may make similar use as provided for in the National Plan only under specific incident communication plans. ICS 205 "Incident Radio Communications Plan" and its derivatives, completed at the time of the incident, are considered adequate communications plans as required here.

All permanent base and control transmitters on these channels shall be licensed with the FCC. Temporary base and control stations designated under specific incident communications plans shall be allowed without license, subject to the provisions of FCC Rules & Regulations, §90.137(b).

***4.1.1.3 lnteragency Incident Management Channels***

The 20 Interagency Incident Management Channels shall be implemented as International Tactical Channels, except that all use must be covered by specific incident communications plans, completed at the time of the incident. No permanent base or control stations shall be licensed on these channels.

***4.1.1.4 Wide-Area Administrative Channels***

Any of the six Wide-Area Administrative Channels may be implemented, upon designation by the RPC, in a specific service or function (law enforcement, fire, public works, etc.), as appropriate and necessary after public notice and a 60-day comment period. However, at least two of the six shall be retained for general administrative use and paging.

In the event of a major incident, two of these channels shall be made available for incident command and management. Channel 130 (807/852.7125 MHz) shall be used for a dedicated channel between the incident commander and the emergency operations center (EOC) which directly supports the incident. Channel 132 (807/852.7375 MHz) shall be available as a communications channel between and among the EOC and public agency managers who have responsibilities in support of the incident command. Public safety entities which maintain emergency operations centers shall be permitted to license these channels for these purposes only.

### Operation on the Common Channels

Normally, the five interoperable channels are to be used only for activities requiring inter-communications between agencies not sharing any other compatible communications system. Interoperable channels are not to be used by any level agency for routine, daily operations. In major emergency situations, one or more 8TAC channels may be assigned by the primary Public Safety Agency within that area of operation. The primary public safety agency in each county, if not defined elsewhere in the Plan, shall be the County Sheriff’s Department; the lead agency, which may be any agency licensed to operate in this spectrum; or the “on-scene” commander. The primary public safety agency in each city shall be the city-level Emergency Management Department in situations which occur within the corporate limits of said city. These primary agencies will assign one or more of the 8TAC channels for use according to need during each special situation requiring the use of these channels. All applicants are required to include the Calling Channel and the four Tactical Channels in their mobile and portable units, with talk-around capability.

Participants in the interoperable channels include Federal, State, Tribal and Local Disaster management agencies. Law enforcement, fire, and providers of basic and advanced life support services will be the primary using agencies. If radio channels are available, other services provided in the Public Safety Radio Services and the Special Emergency Radio Services may also participate to the extent required to ensure the safety of the public. These agencies include the Montana Disaster and Emergency Services; Department of Transportation; Department of Natural Resources and Conservation; Fish, Wildlife & Parks; and other special service agencies not normally involved in day-to-day public safety operations.

### Operation Procedures

On all Common Channels, plain English will be used at all times, and the use of unfamiliar terms, phrases, or codes will not be allowed. The primary public safety agency will monitor radio traffic discipline and resolve serious or chronic infractions.

Table - National Calling Channel (8CALL90)

|  |  |  |  |
| --- | --- | --- | --- |
| Channel Name | Mobile TX Frequency | Base RX Frequency | Tone |
| 8CALL90 | 806.0125 MHz | 851.0125 MHz | 156.7 Hz |

The 8CALL90 channel shall be used to establish contact with other users in a particular Region that can render assistance at an incident. This channel shall not be utilized as an ongoing working channel. Once contact has been established between agencies, an agreed upon 8TAC or mutual aid channel shall be used for continued communications.

Table - National Tactical Channels (8TAC91 – 8TAC94)

|  |  |  |  |
| --- | --- | --- | --- |
| Channel Name | Mobile TX Frequency | Base RX Frequency | Tone |
| 8TAC91 | 806.5125 MHz | 851.5125 MHz | 156.7 Hz |
| 8TAC92 | 807.0125 MHz | 852.0125 MHz | 156.7 Hz |
| 8TAC93 | 807.5125 MHz | 852.5125 MHz | 156.7 Hz |
| 8TAC94 | 808.0125 MHz | 853.0125 MHz | 156.7 Hz |

These frequencies are reserved for use by those agencies involved in inter-agency communications. Incidents requiring multi-agency participation will utilize these frequencies as directed by the control agency assuming responsibility for an incident or area of concern. These frequencies may be subdivided according to function in an incident or by geographical location in response to an incident. It is recommended that the following assignments for 8TAC91-8TAC94 be used when possible.

8TAC91 Law Enforcement

8TAC92 Fire Services

8TAC93 Emergency Medical Services

8TAC94 Command and Control

### Coded Squelch

All equipment capable of operating on the five Common Channels shall be equipped with the Nationwide Common Tone Squelch of 156.7 Hz. Mobile relays on these channels, if authorized, may use additional tone or digital squelch codes for the purpose of selecting individual mobile relay stations, provided the National Common Tone Squelch Code is used on the output. If such an arrangement is utilized, provision must also be made for certain centralized, high level sites to be activated by the 156.7 Hz tone to ensure emergency access by transient units.

## Network Operating Methods

Communications systems on 8TAC91 through 8TAC94 will be implemented by agencies who volunteer on a distributed coordinated basis. Every primary geographic section of the Region is intended to be covered by at least one of the 8TAC channels. In many areas the Common Channels will be utilized on a mobile to mobile talk-around basis. Mobile relays on 8TAC91 through 8TAC94 will be on a limited coverage design to permit reuse of the channel several times within the Region and in adjacent regions. Since Region 25 will probably not have a large number of stationary 8TAC Channel stations, the implementation of mobile relay or repeaters is strongly encouraged. This will fill an “on-scene” requirement for most multi-agency response situations.

Adjacent region coordination will be via existing mutual aid coordination procedures with the requesting region establishing the tactical frequency assignment. A sample Interoperability Memorandum of Understanding may be found in APPENDIX D.

## Requirements for Trunking

All systems operating in the Region having five or more NSPAC channels will be required to be trunked. Those systems having four or less channels may be conventional. It is strongly suggested that any entity licensing three or more repeaters use trunking.

The FCC in its Report and Order states: “Exceptions will be permitted only when a substantial showing is made that alternative technology would be at least as efficient as trunking or that trunking would not meet operational requirements. Exceptions will not be granted routinely. Strong showings as to why trunking is unacceptable must be presented in support of any request for exception.” Systems that do not meet FCC loading standards can be required to share such frequencies on a non-exclusive basis. Those agencies requesting Data channels only can be required to share channels with adjacent agencies wherever feasible or limit coverage to their geographic area. The RPC will consider exceptions on a case-by-case basis.

Depending on system loading and the need for multiple systems within an area, operators of wide area systems (including, but not limited to, designated “Monitoring Agencies”) must provide for coordination between area-wide systems and Monitoring Agencies. Single municipalities or agencies must restrict design and implementation of their system(s) to provide only the communications needed within its geopolitical boundaries. The use of trunked systems is encouraged. However, if the total number of radios in service does not reach minimum loading criteria for a trunked system, that user must consider utilizing the next higher system level if 800 MHz trunked radio is available in the area. As systems reach capacity, smaller system users must consider consolidating their communications systems to formulate on large trunked systems.

A requesting applicant for radio communications in the 800 MHz public safety services in the Region will be required to conform to FCC loading criteria for its proposed system. The provisions of this Regional Plan must be used as a guide for establishing any new systems. Strict adherence for limiting the area of coverage to the boundaries of the applicant agency’s jurisdiction must be observed. Overlap or extended coverage must be minimized, even where systems utilizing 800 MHz trunked radio systems are proposing to intermix systems for cooperative and/or mutual aid purposes.

Antenna heights are to be limited to provide only the necessary coverage for a system. When antenna locations are restricted to only the “high-ground”, transmitter outputs and special antenna patterns must be employed to produce only the necessary coverage with the proper amount of ERP. All necessary precautions are to be taken to gain maximum reuse of the limited 800 MHz spectrum.

## Channel Loading Requirements

An agency/jurisdiction requesting a single frequency to replace a frequency currently in use that will be turned back for reassignment will not be required to meet loading requirements in order to obtain the new frequency. However, if the single frequency is not loaded to more than 50 units within three years after the license is granted, the frequency may be available for assignment to other agencies on a shared basis in the event that other frequencies meeting the criteria for assignment are exhausted. Shared use of a frequency is not interference free. Users of single frequency systems may be required to provide the RPC “confirmation of loading” for mobiles and portables as a method of validating system loading. This exception shall apply to agencies having only one system and a single frequency. Agencies/jurisdictions requesting multiple frequencies or employing trunking technology shall comply with the loading standards as outlined below. While considering loading, emergency vs. non-emergency requires consideration. Emergency agency refers to those agencies that provide immediate protection of life and property, such as law enforcement, fire and EMS that have the primary responsibility for initial response to life threatening situations.

### Loading Tables

Table - Loading Tables

|  |  |  |
| --- | --- | --- |
| UNITS | EMERGENCY CHANNELS | NON-EMERGENCY CHANNELS |
| 1-5 | 80 | 100 |
| 6-10 | 85 | 110 |
| 11-15 | 90 | 125 |
| 16-20 | 95 | 130 |

Agencies requesting additional frequencies must show loading of 100 percent or greater on their existing system. Should a demand for frequencies exist after assignable frequencies become exhausted, any system having frequencies assigned under this Plan four or more years previously and not loaded to at least 70 percent will lose operating authority on a sufficient number of frequencies to bring the system into compliance with the 70 percent loading standard. Frequencies lost in this manner will be reallocated to other agencies to help satisfy the demand for additional frequencies.

### Traffic Loading Study

Justification for adding frequencies, or retaining existing frequencies, can be provided by a traffic loading study in lieu of loading by number of transmitters per channel. It will be the responsibility of the requesting agency to provide a verifiable study showing sufficient air time usage to merit additional frequencies. A showing of airtime usage, excluding telephone interconnect air time, during the peak busy hour greater than 70 percent per channel on three consecutive days will be required to satisfy loading criteria.

### Slow Growth

All systems in the 806-809/851-854 MHz bands under this Plan will be slow growth in accordance with Section 90.629 of the Commission’s Rules.

## Expansion of Existing Systems

Existing systems that are to be expanded to include the NPSPAC frequency bands of 806-809/851-854 MHz will have the mobile radios “grandfathered”, provided that they are modified in conformance with the Memorandum Opinion and Order, FCC Docket 87-112. Primarily this involves reducing the modulation from +/- 5 kHz to +/- 4 kHz, to help eliminate audio imbalance between 5 kHz general pool channels and 4 kHz NPSPAC pool channels.

# Implementation and Procedures

## Notification

Region 25 held a meeting to introduce the revisions to the 800 MHz Plan on\_\_\_\_\_\_\_\_\_. Notice of this meeting was accomplished via posting on websites within the public safety community, and e-mail notifications to fire, law enforcement, emergency management, Federal, and Tribal agencies within the state.

Thirty days’ notice was given prior to this meeting. Minutes of this meeting, including agencies, jurisdictions, associations, boards’ commissions, and elected officials, are attached in APPENDIX E.

During this meeting, and planned as well for all subsequent meetings, an open floor for comments was observed.

## Frequency Allocation Process

The method used for “packing” Region 25 was the APCO computerized method. The approximate geographical location for the center of each county, in latitude and longitude, were provided along with the environmental type of the county and the approximate radius to cover the county lines. Along with this information, a list of frequencies to block along the adjacent region’s border was included. The actual assignment of frequencies is for five channel-pairs per county.

## 5.2.1 Region 25 Parameters

The following assignment parameters were requested and subsequently accommodated in the packing process.

* A minimum allocation of 5 channels is made for each county. For counties with a population of 25,000 or greater, one additional channel is allocated for each additional 20,000 of population, rounded to the nearest 20,000 multiple. The following counties received more than five channels:

Cascade

Flathead

Gallatin

Lewis & Clark

Missoula

Roosevelt

Silver Bow

Yellowstone

8 channels

9 channels

14 channels

7 channels

10 channels

6 channels

8 channels

12 channels

* The State of Montana is assigned 16 channels statewide, divided into two blocks of eight channels. Each block is given guard channel protection either with a reserved channel or by being placed next to one of the National Common Channels. At least one block will go in the upper half of the band for use anywhere in the state, including in the proximity of Canada. Adjacent region allocations must be taken into account.
* Six statewide administrative channels are grouped into two blocks of three. They are for nonemergency, interagency operations, unlike any other allocation. They are packed as are State of Montana channels. At least one block will go in the upper half of the band. Guard channel protection is needed and adjacent region allocations must be considered.
* The Interagency Incident Management Channels (20 channels) are grouped into four blocks of five channels. They are given guard channel protection as are the State of Montana channels. Guard protection from adjacent region allocations is not considered essential since these are mobile and temporary base channels, secondary in use. All four blocks should be in the upper half of the band so they are common statewide (not subject to Canadian-proximity restrictions).

## Frequency Allocation Data

Frequency allocation data is provided in APPENDIX F. The first section is channel assignment and then county by county information is provided. The Plan took adjacent regions into consideration. In addition, letters of concurrence were sent.

## State Map

A map showing the location of all Montana counties may be found in APPENDIX G. A map showing the 800 MHz channel allocations by county may be found in APPENDIX H.

## Allocation of Unassigned Channels

Based on adjacent regions’ channel assignments and the probability of adjacent channel interference within Region 25, the frequency-sorting program was not able to allocate any unassigned channels.

## Expansion of Initial Allocation

In the event that the allocation for any county becomes depleted, the Region 25 RPC shall meet to make further allocations to said county. Should this occur, the applying agency or entity shall submit the proper license for another licensing request. Allocations will be made based on the initial frequency allocation plan as mentioned above.

## Application Process

This section describes the application process to assist any applicants. Application shall be submitted to the Region 25 RPC to be processed. The applications to be licensed in the 806-809/851-854 MHz frequency bands will be subject to review by the RPC. At the discretion of the RPC, the application will be submitted to the Region 25 RPC if there are any discrepancies or disputes. The application can be rejected at the Regional level for non-conformance with this Plan.

Items that should be included with the application at a minimum are:

* Service - what tasks or duties are the agency/applicant charged with accomplishing
* System type - describe radio system (trunked, conventional, voice, data, voice/data combined, etc.)
* Intersystem interoperability - how the applying organizations will communicate or public safety entities will communicate
* Channel loading factors - equipment inventory totals that will be employed in the system and maximum number of mobile radios potentially in use at a given time
* Coverage area - details of an engineering survey showing the radio coverage required for minimum coverage (40 dBu)
* Vacated frequency returned - which frequencies the agency(ies) will release for potential re-assignment
* Implementation schedule - an explanation of any budgetary commitment and a proposed time frame for putting equipment into service.

## Prioritization of Applicants

Priority for channel allocations will be made on a first come first served basis. Cooperative multi-agency system implementations will be given priority over non-shared single agency systems.

The Region 25 800 MHz RPC will work with its counterpart Region 25 700 MHz RPC to attempt to make the most efficient use of spectrum for Public Safety in the Region.

## Appeal Process

At any time, any applicant may appeal an allocation, rejection, or any limits placed on a particular application for any reason. An applicant who decides to appeal a rejection should initiate that appeal immediately upon notification of rejection.

The appeal process has three levels:

1. The Region 25 RPC
2. The National Regional Planning Council, and
3. The FCC

In the event that an appeal reaches the FCC, their decision will be final and binding upon all parties.

# Certification

I hereby certify that all planning committee meetings, including subcommittee or executive committee meetings were open to the public.

*[Insert signature here]*

Chair, Region 25

Voting Membership list

Table - Regional Planning Committee Leadership

|  |  |  |  |
| --- | --- | --- | --- |
| **Leadership** | **Name** | **Phone** | **E-mail** |
| Chairman | Dale Osborne | (406) 896-4364 | dosborne@mt.gov |
| Vice Chairman | Jack Spillman | (406) 758-2117 | jspillman@flathead911.mt.gov |
| Secretary | Elizabeth Wing Spooner | (406) 444-2491 | ewspooner@mt.gov |

Table - Regional Planning Committee Voting Members

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Position/Agency** | **Phone** | **E-mail** |
| Mike Feldman | Public Safety Communication Dir.  Montana Highway Patrol | (406) 490-9310 | mfeldman@mt.gov |
| Charlie Gilmore | Communications System Manager  Lewis & Clark County Sheriff's Office | (406) 447-8249 | cgilmore@lccountymt.gov |
| Tom Munsey | State Emergency Preparedness Program Mgr., Office of State Continuity and Emergency Mgmt. | (406) 444-1462 | tmunsey@mt.gov |
| Dale Osborne | Lead Communications Technician  Montana Highway Patrol | (406) 896-4364 | dosborne@mt.gov |
| Marjean Penny | Public Safety Communications Advisory Council Member | (425) 344-4857 | marjean.penny@montana.edu |
| Jack Spillman | Public Safety Communications  Flathead County Sheriff's Office | (406) 758-2117 | jspillman@flathead911.mt.gov |
| Elizabeth Wing Spooner, | Mutual Aid Frequency Program Mgr.  State of Montana | (406) 444-2491 | ewspooner@mt.gov |
| Ed Tinsley | Statewide Interoperability Coordinator (SWIC) | (406) 444-0125 | etinsley@mt.gov |

Adjacent Regions Concurrence Letters

Interoperability Frequencies/  
Common Nomenclature

Table - 800 MHz Nationwide Interoperability Channels

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **800 MHz Nationwide Interoperability Channels** | | | | | |
| **Channel Name** | **MO RX** | **RX Tone** | **MO TX** | **TX Tone** | **Emission** |
| 8CALL90 | 851.0125 | 156.7 Hz | 806.0125 | 156.7 Hz | 16K0F3E |
| 8CALL90D | 851.0125 | 156.7 Hz | 851.0125 | 156.7 Hz | 16K0F3E |
| 8TAC91 | 851.5125 | 156.7 Hz | 806.5125 | 156.7 Hz | 16K0F3E |
| 8TAC91D | 851.5125 | 156.7 Hz | 851.5125 | 156.7 Hz | 16K0F3E |
| 8TAC92 | 852.0125 | 156.7 Hz | 807.0125 | 156.7 Hz | 16K0F3E |
| 8TAC92D | 852.0125 | 156.7 Hz | 852.0125 | 156.7 Hz | 16K0F3E |
| 8TAC93 | 852.5125 | 156.7 Hz | 807.5125 | 156.7 Hz | 16K0F3E |
| 8TAC93D | 852.5125 | 156.7 Hz | 852.5125 | 156.7 Hz | 16K0F3E |
| 8TAC94 | 853.0125 | 156.7 Hz | 808.0125 | 156.7 Hz | 16K0F3E |
| 8TAC94D | 853.0125 | 156.7 Hz | 853.0125 | 156.7 Hz | 16K0F3E |

NOTE: 5 kHz deviation may be used on the Nationwide Interoperability Channels

**Project 25 Common Air Interface**

**Interoperability Channel Technical Parameters**

Certain common P25 parameters need to be defined to ensure digital radios operating on the 800 MHz Interoperability Channels can communicate. This is analogous to defining the common CTCSS tone used on NPSPAC analog Interoperability channels.

**Network Access Code**

In the Project 25 Common Air Interface definition, the Network Access Code (NAC) is analogous to the use of CTCSS and CDCSS signals in analog radio systems. It is a code transmitted in the pre-amble of the P25 signal and repeated periodically throughout the transmission. Its purpose is to provide selective access to and maintain access to a receiver. It is also used to block nuisance and other co-channel signals. There are up to 4096 of these NAC codes. For ease of migration in other frequency bands, a NAC code table was developed which shows a mapping of CTCSS and CDCSS signals into corresponding NAC codes. Document TIA/EIA TSB102.BAAC contains NAC code table and other Project 25 Common Air Interface Reserve Values.

The use of NAC code $293 is required for the 800 MHz Interoperability Channel NAC code.

**Talk Group ID**

In the Project 25 Common Air Interface definition, the talk group ID on conventional channels is analogous to the use of talk groups in trunking. In order to ensure that all users can communicate, all units should use a common talk group ID.

Recommendation: Use P25 default value for talk group ID = $0001.

**Manufacturer's ID**

The Project 25 Common Air Interface allows the ability to define manufacturer specific functions. In order to ensure that all users can communicate, all units should not use a specific Manufacturer's ID, but should use the default value of $00.

**Message ID**

The Project 25 Common Air Interface allows the ability to define specific message functions. In order to ensure that all users can communicate, all units should use the default Message ID for unencrypted messages of $00000000000000000000.

**Encryption Algorithm ID and Key ID**

The Project 25 Common Air Interface allows the ability to define specific encryption algorithms and encryption keys. In order to ensure that all users can communicate, encryption should not be used on the Interoperability Calling Channels, all units should use the default Algorithm ID for defaults may be used for the other Interoperability channels when encryption is not used.

Use of encryption is allowed on the other Interoperability channels. Regional Planning Committees need to define appropriate Message ID, Encryption Algorithm ID, and Encryption Key ID to be used in the encrypted mode on Interoperability channels.

Sample Interoperability - Memorandum of Understanding

TO: (Signer of application and title)

(Agency Name)

FROM: (Name), Chairman

DATE: (mm/dd/yyyy)

SUBJECT: Memorandum of Understanding for Operating the 800 MHz Interoperability Channels

This memorandum of understanding (hereafter referred to as MOU) shall be attached to the application when submitting it. By virtue of signing and submitting the application and this MOU, (agency name) (hereafter referred to as APPLICANT) affirms its willingness to comply with the proper operation of the Interoperability (interoperability) channels as dictated by the Montana Region 25 Planning Committee (hereafter referred to as RPC) as approved by the Federal Communications Commission (hereafter referred to as FCC) and by the conditions of this MOU.

The APPLICANT shall abide by the conditions of this MOU which are as follows:

To operate by all applicable State, County, and City laws/ordinances.

To utilize “plain language” for all transmissions.

To monitor the Calling Channel(s) and coordinate the use of the Tactical Channels.

To identify inappropriate use and mitigate the same from occurring in the future.

To mitigate contention for channels by exercising the Priority Levels identified in this MOU.

The preceding conditions are the primary, though not complete, requirements for operating in the interoperability channels. Refer to the Region Plan for the complete requirements list.

Priority Levels:

Disaster or extreme emergency operation for mutual aid and interagency communications;

Emergency or urgent operation involving imminent danger to life or property;

Special event control, generally of a preplanned nature (including Task Force operations)

Single agency secondary communications (default priority).

To resolve contention within the same priority, the channel should go to the organization with the wider span of control/authority. This shall be determined by the Statewide Interoperability Executive Committee or RPC for the operation or by the levels of authority/government identified in the contention.

For clarification purposes and an aid to operate as authorized, any fixed base or mobile relay stations identified on the license for temporary locations (FCC station class FBT or FB2T, respectively) shall remain within the licensed area of operation. Similarly, vehicular/mobile repeater stations (FCC station class MO3) shall remain within the licensed area of operation. Federal agencies are permitted access to interoperability channels only as authorized by 47 CFR 2.102 (c) & 2.103 and Part 7.12 of the NTIA Manual.

Any violation of this MOU, the Region Plan, or FCC Rule shall be addressed immediately. The first level of resolution shall be between the parties involved, next the Statewide Interoperability Executive Committee or RPC, and finally the FCC.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (typed or printed name of authorized signer)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (authorized signer signature)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (date)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (agency name)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (agency address)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (agency address)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (agency address)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (signer’s phone)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (signer’s e-mail address)

Summary of Minutes/Copies of Notifications

*[Include here the minutes of the meeting at which this Regional Plan was formally adopted.]*

Minutes from all meetings of the RPC may be requested from an Officer of the RPC, or may be found on the Montana Statewide Interoperability Executive Committee website at \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Montana 800 MHz Allotments by FCC Channels Expanded

Table - 800 MHz General Use Channels (Expanded List)

|  |  |  |  |
| --- | --- | --- | --- |
| CHANNEL NUMBER | MOBILE FREQUENCY | BASE FREQUENCY | USAGE/COUNTIES |
| Channel Number 001 | 806.0125 MHz | 851.0125 MHz | Mutual Aid Call (8Call90) |
|  |  |  |  |
| Guard | 806.0250 MHz | 851.0250 MHz | GUARD |
|  |  |  |  |
| Channel Number 002 | 806.0375 MHz | 851.0375 MHz | JUDITH BASIN  MINERAL  TREASURE  WIBAUX |
|  |  |  |  |
| Channel Number 003 | 806.0500 MHz | 851.0500 MHz | JEFFERSON  GALLATIN  PETROLEUM  TETON |
|  |  |  |  |
| Channel Number 004 | 806.0625 MHz | 851.0625 MHz | MEAGHER  PRAIRIE  RAVALLI |
|  |  |  |  |
| Channel Number 005 | 806.0750 MHz | 851.0750 MHz | FERGUS  POWELL  RICHLAND |
|  |  |  |  |
| Channel Number 006 | 806.0875 MHz | 851.0875 MHz | BROADWATER  FALLON  STILLWATER |
|  |  |  |  |
| Channel Number 007 | 806.1000 MHz | 851.1000 MHz | LAKE  GARFIELD  SILVER BOW |
|  |  |  |  |
| Channel Number 008 | 806.1125 MHz | 851.1125 MHz | DAWSON  GRANITE  WHEATLAND |
|  |  |  |  |
| Channel Number 009 | 806.1250 MHz | 851.1250 MHz | MADISON  SANDERS  YELLOWSTONE |
|  |  |  |  |
| Channel Number 010 | 806.1375 MHz | 851.1375 MHz | CARTER  DEER LODGE  MCCONE  SWEET GRASS |
|  |  |  |  |
| Channel Number 011 | 806.1500 MHz | 851.1500 MHz | CASCADE  MISOULLA  YELLOWSTONE |
|  |  |  |  |
| Channel Number 012 | 806.1625 MHz | 851.1625 MHz | CUSTER |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| CHANNEL NUMBER | MOBILE FREQUENCY | BASE FREQUENCY | USAGE/COUNTIES |
| Channel Number 013 | 806.1750 MHz | 851.1750 MHz | CASCADE  MISOULLA  MUSSELSHELL |
|  |  |  |  |
| Channel Number 014 | 806.1875 MHz | 851.1875 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 015 | 806.2000 MHz | 851.2000 MHz | GALLATIN  GOLDEN VALLEY |
|  |  |  |  |
| Channel Number 016 | 806.2125 MHz | 851.2125 MHz | CARBON  LEWIS & CLARK |
|  |  |  |  |
| Channel Number 017 | 806.2250 MHz | 851.2250 MHz | BEAVERHEAD  POWDER RIVER |
|  |  |  |  |
| Channel Number 018 | 806.2375 MHz | 851.2375 MHz | PARK |
|  |  |  |  |
| Channel Number 019 | 806.2500 MHz | 806.2500 MHz | ROSEBUD |
|  |  |  |  |
| Channel Number 020 | 806.2625 MHz | 851.2625 MHz | GALLATIN |
|  |  |  |  |
| Channel Number 021 | 806.2750 MHz | 851.2750 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 022 | 806.2875 MHz | 851.2875 MHz | JUDITH BASIN  MINERA  TREASURE  WIBAUX |
|  |  |  |  |
| Channel Number 023 | 806.3000 MHz | 851.3000 MHz | JEFFERSON  PETROLEUM  TETON |
|  |  |  |  |
| Channel Number 024 | 806.3125 MHz | 851.3125 MHz | BIGHORN  MEAGHER  PRAIRIE  RAVALLI |
|  |  |  |  |
| Channel Number 025 | 806.3250 MHz | 851.3250 MHz | FERGUS  POWELL  RICHLAND |
|  |  |  |  |
| Channel Number 026 | 806.3375 MHz | 851.3375 MHz | BROADWATER  FALLON  STILLWATER |
|  |  |  |  |
| Channel Number 027 | 806.3500 MHz | 851.3500 MHz | GALLATIN  GARFIELD  LAKE  SILVER BOW |
|  |  |  |  |
| Channel Number 028 | 806.3625 MHz | 851.3625 MHz | DAWSON  GRANITE  WHEATLAND |
|  |  |  |  |
| Channel Number 029 | 806.3750 MHz | 851.3750 MHz | MADISON  SANDERS  YELLOWSTONE |
|  |  |  |  |
| CHANNEL NUMBER | MOBILE FREQUENCY | BASE FREQUENCY | USAGE/COUNTIES |
| Channel Number 030 | 806.3875 MHz | 851.3875 MHz | CARTER  DEER LODGE  MCCONE  SWEET GRASS |
|  |  |  |  |
| Channel Number 031 | 806.4000 MHz | 851.4000 MHz | CASCADE  MISSOULA  YELLOWSTONE |
|  |  |  |  |
| Channel Number 032 | 806.4125 MHz | 851.4125 MHz | CUSTER |
|  |  |  |  |
| Channel Number 033 | 806.4250 | 851.4250 | CASCADE  MISSOULA  MUSSELSHELL |
|  |  |  |  |
| Channel Number 034 | 806.4375 MHz | 851.4375 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 035 | 806.4500 MHz | 851.4500 MHz | GALLATIN  GOLDEN VALLEY |
|  |  |  |  |
| Channel Number 036 | 806.4625 MHz | 851.4625 MHz | CARBON  LEWIS & CLARK |
|  |  |  |  |
| Channel Number 037 | 806.4750 MHz | 851.4750 MHz | BEAVERHEAD |
|  |  |  |  |
| Channel Number 038 | 806.4875 MHz | 851.4875 MHz | PARK |
|  |  |  |  |
| Guard | 806.5000 | 851.5000 | Guard |
|  |  |  |  |
| Channel Number 039 | 806.5125 MHz | 851.5125 MHz | MUTUAL AID (8TAC91) |
|  |  |  |  |
| Guard | 806.5250 | 851.5250 | Guard |
|  |  |  |  |
| Channel Number 040 | 806.5375 MHz | 851.5375 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 041 | 806.5500 MHz | 851.5500 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 042 | 806.5625 MHz | 851.5625 MHz | JUDITH BASIN |
|  |  |  |  |
| Channel Number 043 | 806.5750 MHz | 851.5750 MHz | JEFFERSON |
|  |  |  |  |
| Channel Number 044 | 806.5875 MHz | 851.5875 MHz | PRAIRIE |
|  |  |  |  |
| Channel Number 045 | 806.6000 MHz | 851.6000 MHz | FERGUS  POWDER RIVER  POWELL  RICHLAND |
|  |  |  |  |
| Channel Number 046 | 806.6125 MHz | 851.6125 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 047 | 806.6250 MHz | 851.6250 MHz | GARFIELD  SILVER BOW |
|  |  |  |  |
| Channel Number 048 | 806.6375 MHz | 851.6375 MHz | LAKE  WHEATLAND |
|  |  |  |  |
| CHANNEL NUMBER | MOBILE FREQUENCY | BASE FREQUENCY | USAGE/COUNTIES |
| Channel Number 049 | 806.6500 MHz | 851.6500 MHz | GALLATIN  YELLOWSTONE |
|  |  |  |  |
| Channel Number 050 | 806.6625 MHz | 851.6625 MHz | CARTER  DEER LODGE  SWEET GRASS |
|  |  |  |  |
| Channel Number 051 | 806.6750 MHz | 851.6750 MHz | MCCONE |
|  |  |  |  |
| Channel Number 052 | 806.6875 MHz | 851.6875 MHz | BIGHORN |
|  |  |  |  |
| Channel Number 053 | 806.7000 MHz | 851.7000 MHz | MUSSELSHELL |
|  |  |  |  |
| Channel Number 054 | 806.7125 MHz | 851.7125 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 055 | 806.7250 MHz | 851.7250 MHz | ROSEBUD |
|  |  |  |  |
| Channel Number 056 | 806.7375 MHz | 851.7375 MHz | CARBON  LEWIS & CLARK |
|  |  |  |  |
| Channel Number 057 | 806.7500 MHz | 851.7500 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 058 | 806.7625 MHz | 851.7625 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 059 | 806.7750 MHz | 851.7750 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 060 | 806.7875 MHz | 851.7875 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 061 | 806.8000 MHz | 851.8000 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 062 | 806.8125 MHz | 851.8125 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 063 | 806.8250 MHz | 851.8250 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 064 | 806.8375 MHz | 851.8375 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 065 | 806.8500 MHz | 851.8500 MHz | POWDER RIVER |
|  |  |  |  |
| Channel Number 066 | 806.8625 MHz | 851.8625 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 067 | 806.8750 MHz | 851.8750 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 068 | 806.8875 MHz | 851.8875 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 069 | 806.9000 MHz | 851.9000 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 070 | 806.9125 MHz | 851.9125 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 071 | 806.9250 MHz | 851.9250 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 072 | 806.9375 MHz | 851.9375 MHz | BIGHORN |
|  |  |  |  |
| Channel Number 073 | 806.9500 MHz | 851.9500 MHz | UNASSIGNED |
| CHANNEL NUMBER | MOBILE FREQUENCY | BASE FREQUENCY | USAGE/COUNTIES |
| Channel Number 074 | 806.9625 MHz | 851.9625 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 075 | 806.9750 MHz | 851.9750 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 076 | 806.9875 MHz | 851.9875 MHz | UNASSIGNED |
|  |  |  |  |
| GUARD | 807.0000 MHz | 852.0000 | GUARD |
|  |  |  |  |
| Channel Number 077 | 807.0125 MHz | 852.0125 MHz | Mutual Aid (8TAC92) |
|  |  |  |  |
| GUARD | 807.0250 MHz | 852.0250 | GUARD |
|  |  |  |  |
| Channel Number 078 | 807.0375 MHz | 852.0375 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 079 | 807.0500 MHz | 852.0500 MHz | GALLATIN |
|  |  |  |  |
| Channel Number 080 | 807.0625 MHz | 852.0625 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 081 | 807.0750 MHz | 852.0750 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 082 | 807.0875 MHz | 852.0875 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 083 | 807.1000 MHz | 852.1000 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 084 | 807.1125 MHz | 852.1125 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 085 | 807.1250 MHz | 852.1250 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 086 | 807.1375 MHz | 852.1375 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 087 | 807.1500 MHz | 852.1500 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 088 | 807.1625 MHz | 852.1625 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 089 | 807.1750 MHz | 852.1750 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 090 | 807.1875 MHz | 852.1875 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 091 | 807.2000 MHz | 852.2000 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 092 | 807.2125 MHz | 852.2125 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 093 | 807.2250 MHz | 852.2250 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 094 | 807.2375 MHz | 852.2375 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 095 | 807.2500 MHz | 852.2500 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 096 | 807.2625 MHz | 852.2625 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 097 | 807.2750 MHz | 852.2750 MHz | UNASSIGNED |
|  |  |  |  |
| CHANNEL NUMBER | MOBILE FREQUENCY | BASE FREQUENCY | USAGE/COUNTIES |
| Channel Number 098 | 807.2875 MHz | 852.2875 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 099 | 807.3000 MHz | 852.3000 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 100 | 807.3125 MHz | 852.3125 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 101 | 807.3250 MHz | 852.3250 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 102 | 807.3375 MHz | 852.3375 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 103 | 807.3500 MHz | 852.3500MHz | GALLATIN |
|  |  |  |  |
| Channel Number 104 | 807.3625 MHz | 852.3625 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 105 | 807.3750 MHz | 852.3750 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 106 | 807.3875 MHz | 852.3875 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 107 | 807.4000 MHz | 852.4000 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 108 | 807.4125 MHz | 852.4125 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 109 | 807.4250 MHz | 852.4250 MHz | ROSEBUD |
|  |  |  |  |
| Channel Number 110 | 807.4375 MHz | 852.4375 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 111 | 807.4500 MHz | 852.4500 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 112 | 807.4625 MHz | 852.4625 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 113 | 807.4750 MHz | 852.4750 MHz | LEWIS & CLARK |
|  |  |  |  |
| Channel Number 114 | 807.4875 MHz | 852.4875 MHz | BEAVERHEAD |
|  |  |  |  |
| GUARD | 807.5000 MHz | 852.5000 MHz | GUARD |
|  |  |  |  |
| Channel Number 115 | 807.5125 MHz | 852.5125 MHz | Mutual Aid (8TAC93) |
|  |  |  |  |
| GUARD | 807.5250 MHz | 852.5250 MHz | GUARD |
|  |  |  |  |
| Channel Number 116 | 807.5375 MHz | 852.5375 MHz | FLATHEAD  LIBERTY  ROOSEVELT |
|  |  |  |  |
| Channel Number 117 | 807.5500 MHz | 852.5500 MHz | BLAINE |
|  |  |  |  |
| Channel Number 118 | 807.5625 MHz | 852.5625 MHz | DANIELS  MISSOULA  TOOLE |
|  |  |  |  |
| Channel Number 119 | 807.5750 MHz | 852.5750 MHz | HILL  LINCOLN |
| CHANNEL NUMBER | MOBILE FREQUENCY | BASE FREQUENCY | USAGE/COUNTIES |
| Channel Number 120 | 807.5875 MHz | 852.5875 MHz | PHILLIPS  PONDERA  SHERIDAN |
|  |  |  |  |
| Channel Number 121 | 807.6000 MHz | 852.6000 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 122 | 807.6125 MHz | 852.6125 MHz | CHOUTEAU  FLATHEAD  VALLEY |
|  |  |  |  |
| Channel Number 123 | 807.6250 MHz | 852.6250 MHz | Reserved for GUARD |
|  |  |  |  |
| Channel Number 124 | 807.6375 MHz | 852.6375 MHz | Reserved for IIM BLOCK 1 |
|  |  |  |  |
| Channel Number 125 | 807.6500 MHz | 852.6500 MHz | Reserved for IIM BLOCK 1 |
|  |  |  |  |
| Channel Number 126 | 807.6625 MHz | 852.6625 MHz | Reserved for IIM BLOCK 1 |
|  |  |  |  |
| Channel Number 127 | 807.6750 MHz | 852.6750 MHz | Reserved for IIM BLOCK 1 |
|  |  |  |  |
| Channel Number 128 | 807.6875 MHz | 861.687S MHz | Reserved for IIM BLOCK 1 |
|  |  |  |  |
| Channel Number 129 | 807.7000 MHz | 852.7000 MHz | GALLATIN |
|  |  |  |  |
| Channel Number 130 | 807.7125 MHz | 852.7125 MHz | STATEWIDE ADMIN |
|  |  |  |  |
| Channel Number 131 | 807.7250 MHz | 852.7250 MHz | STATEWIDE ADMIN |
|  |  |  |  |
| Channel Number 132 | 807.7375 MHz | 852.7375 MHz | STATEWIDE ADMIN |
|  |  |  |  |
| Channel Number 133 | 807.7500 MHz | 852.7500 MHz | Reserved for GUARD |
|  |  |  |  |
| Channel Number 134 | 807.7625 MHz | 852.7625 MHz | GLACIER  ROSEBUD |
|  |  |  |  |
| Channel Number 135 | 807.7750 MHz | 852.7750 MHz | FERGUS |
|  |  |  |  |
| Channel Number 136 | 807.7875 MHz | 852.7875 MHz | FLATHEAD  LIBERTY  ROOSEVELT |
|  |  |  |  |
| Channel Number 137 | 807.8000 MHz | 852.8000 MHz | BLAINE |
|  |  |  |  |
| Channel Number 138 | 807.8125 MHz | 852.8125 MHz | BEAVERHEAD  DANIELS  TOOLE |
|  |  |  |  |
| Channel Number 139 | 807.8250 MHz | 852.8250 MHz | LINCOLN |
|  |  |  |  |
| Channel Number 140 | 807.8375 MHz | 852.8375 MHz | CUSTER  GALLATIN  PHILLIPS  PONDERA  SHERIDAN |
|  |  |  |  |
| CHANNEL NUMBER | MOBILE FREQUENCY | BASE FREQUENCY | USAGE/COUNTIES |
| Channel Number 141 | 807.8500 MHz | 852.8500 MHz | SANDERS |
|  |  |  |  |
| Channel Number 142 | 807.8625 MHz | 852.8625 MHz | TETON  VALLEY |
|  |  |  |  |
| Channel Number 143 | 807.8750 MHz | 852.8750 MHz | Reserved for GUARD |
|  |  |  |  |
| Channel Number 144 | 807.8875 MHz | 852.8875 MHz | STATEWIDE ADMIN |
|  |  |  |  |
| Channel Number 145 | 807.9000 MHz | 852.9000 MHz | STATEWIDE ADMIN |
|  |  |  |  |
| Channel Number 146 | 807.9125 MHz | 852.9125 MHz | STATEWIDE ADMIN |
|  |  |  |  |
| Channel Number 147 | 807.9250 MHz | 852.9250 MHz | Reserved for GUARD |
|  |  |  |  |
| Channel Number 148 | 807.9375 MHz | 852.9375 MHz | Reserved for IIM BLOCK 2 |
|  |  |  |  |
| Channel Number 149 | 807.9500 MHz | 852.9500 MHz | Reserved for IIM BLOCK 2 |
|  |  |  |  |
| Channel Number 150 | 807.9625 MHz | 852.9625 MHz | Reserved for IIM BLOCK 2 |
|  |  |  |  |
| Channel Number 151 | 807.9750 MHz | 852.9750 MHz | Reserved for IIM BLOCK 2 |
|  |  |  |  |
| Channel Number 152 | 807.9875 MHz | 852.9875 MHz | Reserved for HM BLOCK 2 |
|  |  |  |  |
| Guard | 808.0000 MHz | 853.0000 MHz | GUARD |
|  |  |  |  |
| Channel Number 153 | 808.0125 MHz | 853.0125 MHz | Mutual Aid (8TAC94) |
|  |  |  |  |
| Guard | 808.0250 MHz | 853.0250 MHz | GUARD CHOUTEAU, MISSOULA |
|  |  |  |  |
| Channel Number 154 | 808.0375 MHz | 853.0375 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 155 | 808.0500 MHz | 853.0500 MHz | FLATHEAD  GALLATIN  GARGIELD  LIBERTY |
|  |  |  |  |
| Channel Number 156 | 808.0625 MHz | 853.0625 MHz | BLAINE  CASCADE  GOLDEN VALLEY |
|  |  |  |  |
| Channel Number 157 | 808.0750 MHz | 853.0750 MHz | BIGHORN  GLACIER |
|  |  |  |  |
| Channel Number 158 | 808.0875 MHz | 853.0875 MHz | GRANITE  HILL  LINCOLN  MUSSELSHELL  PARK |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| CHANNEL NUMBER | MOBILE FREQUENCY | BASE FREQUENCY | USAGE/COUNTIES |
| Channel Number 159 | 808.1000 MHz | 853.1000 MHz | BROADWATER  CUSTER  PONDERA  SHERICAN |
|  |  |  |  |
| Channel Number 160 | 808.1125 MHz | 853.1125 MHz | DAWSON  DEER LODGE  PERTOLEUM  SANDERS  SWEET GRASS |
|  |  |  |  |
| Channel Number 161 | 808.1250 MHz | 853.1250Mz | Reserved for GUARD |
|  |  |  |  |
| Channel Number 162 | 808.1375 MHz | 853.1375 MHz | STATE OF MONTANA |
|  |  |  |  |
| Channel Number 163 | 808.1500 MHz | 853.1500 MHz | STATE OF MONTANA |
|  |  |  |  |
| Channel Number 164 | 808.1625 MHz | 853.1625 MHz | STATE OF MONTANA |
|  |  |  |  |
| Channel Number 165 | 808.1750 MHz | 853.1750 MHz | STATE OF MONTANA |
|  |  |  |  |
| Channel Number 166 | 808.1875 MHz | 853.1875 MHz | STATE OF MONTANA |
|  |  |  |  |
| Channel Number 167 | 808.2000 MHz | 853.2000 MHz | STATE OF MONTANA |
|  |  |  |  |
| Channel Number 168 | 808.2125 MHz | 853.2125 MHz | STATE OF MONTANA |
|  |  |  |  |
| Channel Number 169 | 808.2250 MHz | 853.2250 MHz | STATE OF MONTANA |
|  |  |  |  |
| Channel Number 170 | 808.2375 MHz | 853.2375 MHz | Reserved for GUARD |
|  |  |  |  |
| Channel Number 171 | 808.2500 MHz | 853.2500 MHz | Reserved for IIM BLOCK 3 |
|  |  |  |  |
| Channel Number 172 | 808.2625 MHz | 853.2625 MHz | Reserved for IIM BLOCK 3 |
|  |  |  |  |
| Channel Number 173 | 808.2750 MHz | 853.2750 MHz | Reserved for IIM BLOCK 3 |
|  |  |  |  |
| Channel Number 174 | 808.2875 MHz | 853.2875 MHz | Reserved for IIM BLOCK 3 |
|  |  |  |  |
| Channel Number 175 | 808.3000 MHz | 853.3000 MHz | Reserved for IIM BLOCK 3 |
|  |  |  |  |
| Channel Number 176 | 808.3125 MHz | 853.3125 MHz | Reserved for GUARD |
|  |  |  |  |
| Channel Number 177 | 808.3250 MHz | 853.3250 MHz | FLATHEAD  LIBERTY  MADISON |
|  |  |  |  |
| Channel Number 178 | 808.3375 MHz | 853.3375 MHz | CASCADE |
|  |  |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| CHANNEL NUMBER | MOBILE FREQUENCY | BASE FREQUENCY | USAGE/COUNTIES |
| Channel Number 179 | 808.3500 MHz | 853.3500 MHz | DANIELS  FALLON  GALLATIN  HILL  LAKE |
|  |  |  |  |
| Channel Number 180 | 808.3625 MHz | 853.3625 MHz | GALLATIN  GLACIER  PHILLIPS |
|  |  |  |  |
| Channel Number 181 | 808.3750 MHz | 853.3750 MHz | CARBON  CHOUTEAU  LINCOLN  RAVALLI  ROOSEVELT |
|  |  |  |  |
| Channel Number 182 | 808.3875 MHz | 853.3875 MHz | MEAGHER  TREASURE |
|  |  |  |  |
| Channel Number 183 | 808.4000 MHz | 853.4000 MHz | MINERAL  STILLWATER  TOOLE  VALLEY  WIBAUX |
|  |  |  |  |
| Channel Number 184 | 808.4125 MHz | 853.4125 MHz | BLAINE |
|  |  |  |  |
| Channel Number 185 | 808.4250 MHz | 853.4250 MHz | MISSOULA |
|  |  |  |  |
| Channel Number 186 | 808.4375 MHz | 853.4375 MHz | UNASSIGNED |
|  |  |  |  |
| Channel Number 187 | 808.4500 MHz | 853.4500 MHz | LEWIS & CLARK  ROSEBUD |
|  |  |  |  |
| Channel Number 188 | 808.4625 MHz | 853.4625 MHz | MCCONE |
|  |  |  |  |
| Channel Number 189 | 808.4750 MHz | 853.4750 MHz | FERGUS  LEWIS & CLARK |
|  |  |  |  |
| Channel Number 190 | 808.4875 MHz | 853.4875 MHz | GARFIELD |
|  |  |  |  |
| Channel Number 191 | 808.5000 MHz | 853.5000 MHz | CASCADE  GOLDEN VALLEY  MISSOULA |
|  |  |  |  |
| Channel Number 192 | 808.5125 MHz | 853.5125 MHz | BEAVERHEAD |
|  |  |  |  |
| Channel Number 193 | 808.5250 MHz | 853.5250 MHz | CUSTER  MUSSELSHELL  PARK  TETON |
|  |  |  |  |
| Channel Number 194 | 808.5375 MHz | 853.5375 MHz | BIGHORN  BROADWATER  GRANITE |
|  |  |  |  |
| CHANNEL NUMBER | MOBILE FREQUENCY | BASE FREQUENCY | USAGE/COUNTIES |
| Channel Number 195 | 808.5500 MHz | 853.5500 MHz | CARTER  PETROLEUM  PONDERA  SWEET GRASS |
|  |  |  |  |
| Channel Number 196 | 808.5625 MHz | 853.5625 MHz | DAWSON  DEER LODGE  JUDITH BASIN  YELLOWSTONE |
|  |  |  |  |
| Channel Number 197 | 808.5750 MHz | 853.5750 MHz | LIBERTY  MADISON  POWDER RIVER  SANDERS  SHERIDAN |
|  |  |  |  |
| Channel Number 198 | 808.5875 MHz | 853.5875 MHz | CASCADE  RICHLAND  YELLOWSTONE |
|  |  |  |  |
| Channel Number 199 | 808.6000 MHz | 853.6000 MHz | DANIELS  FALLON  HILL  POWELL  WHEATLAND |
|  |  |  |  |
| Channel Number 200 | 808.6125 MHz | 853.6125 MHz | GALLATIN  GLACIER  PHILLIPS  ROOSEVELT |
|  |  |  |  |
| Channel Number 201 | 808.6250 MHz | 853.6250 MHz | CARBON  CHOUTEAU  LAKE  PRAIRIE  ROOSEVELT  SILVER BOW |
|  |  |  |  |
| Channel Number 202 | 808.6375 MHz | 853.6375 MHz | MEAGHER  RAVALLI  TREASURE |
|  |  |  |  |
| Channel Number 203 | 808.6500 MHz | 853.6500 MHz | JEFFERSON  MINERAL  STILLWATER  TOOLE  VALLEY  WIBAUX |
|  |  |  |  |
| Channel Number 204 | 808.6625 MHz | 853.6625 MHz | Reserved for GUARD |
|  |  |  |  |
| Channel Number 205 | 808.6750 MHz | 853.6750 MHz | STATE OF MONTANA |
|  |  |  |  |
| Channel Number 206 | 808.6875 MHz | 853.6875 MHz | STATE OF MONTANA |
|  |  |  |  |
| Channel Number 207 | 808.7000 MHz | 853.7000 MHz | STATE OF MONTANA |
|  |  |  |  |
| CHANNEL NUMBER | MOBILE FREQUENCY | BASE FREQUENCY | USAGE/COUNTIES |
| Channel Number 208 | 808.7125 MHz | 853.7125 MHz | STATE OF MONTANA |
|  |  |  |  |
| Channel Number 209 | 808.7250 MHz | 853.7250 MHz | STATE OF MONTANA |
|  |  |  |  |
| Channel Number 210 | 808.7375 MHz | 853.7375 MHz | STATE OF MONTANA |
|  |  |  |  |
| Channel Number 211 | 808.7500 MHz | 853.7500 MHz | STATE OF MONTANA |
|  |  |  |  |
| Channel Number 212 | 808.7625 MHz | 853.7625 MHz | STATE OF MONTANA |
|  |  |  |  |
| Channel Number 213 | 808.7750 MHz | 853.7750 MHz | Reserved for GUARD |
|  |  |  |  |
| Channel Number 214 | 808.7875 MHz | 853.7875 MHz | BROADWATER  GOLDEN VALLEY  GRANITE  MCCONE  TETON |
|  |  |  |  |
| Channel Number 215 | 808.8000 MHz | 853.8000 MHz | CARTER  PARK  PETROLEUM  SILVER BOW |
|  |  |  |  |
| Channel Number 216 | 808.8125 MHz | 853.8125 MHz | DAWSON  FLATHEAD  JUDITH BASIN  YELLOWSTONE |
|  |  |  |  |
| Channel Number 217 | 808.8250 MHz | 853.8250 MHz | BLAINE  MADISON  POWDER RIVER  SHERIDAN |
|  |  |  |  |
| Channel Number 218 | 808.8375 MHz | 853.8375 MHz | PONDERA  RICHLAND  YELLOWSTONE |
|  |  |  |  |
| Channel Number 219 | 808.8500 MHz | 853.8500 MHz | DANIELS  FALLON  HILL  LINCOLN  POWELL |
|  |  |  |  |
| Channel Number 220 | 808.8625 MHz | 853.8625 MHz | GLACIER  PHILLIPS  WHEATLAND |
|  |  |  |  |
| Channel Number 221 | 808.8750 MHz | 853.8750 MHz | CHOUTEAU  PRAIRIE  ROOSEVELT  SILVER BOW |
|  |  |  |  |
| Channel Number 222 | 808.8875 MHz | 853.8875 MHz | FLATHEAD  MEAGHER  RAVALLI  TREASURE |
| CHANNEL NUMBER | MOBILE FREQUENCY | BASE FREQUENCY | USAGE/COUNTIES |
| Channel Number 223 | 808.9000 MHz | 853.9000 MHz | JEFFERSON  MINERAL  STILLWATER  TOOLE  VALLEY  WIBAUX |
|  |  |  |  |
| Channel Number 224 | 808.9125 MHz | 853.9125 MHz | Reserved for GUARD |
|  |  |  |  |
| Channel Number 225 | 808.9250 MHz | 853.9250 MHz | Reserved for IIM BLOCK 4 |
|  |  |  |  |
| Channel Number 226 | 808.9375 MHz | 853.9375 MHz | Reserved for IIM BLOCK 4 |
|  |  |  |  |
| Channel Number 227 | 808.9500 MHz | 853.9500 MHz | Reserved for IIM BLOCK 4 |
|  |  |  |  |
| Channel Number 228 | 808.9625MHz | 853.9625 MHz | Reserved for IIM BLOCK 4 |
|  |  |  |  |
| Channel Number 229 | 808.9750 MHz | 853.9750 MHz | Reserved for IIM BLOCK 4 |
|  |  |  |  |
| Channel Number 230 | 808.9875 MHz | 853.9875 MHz | UNASSIGNED |
|  |  |  |  |

Montana Counties Map

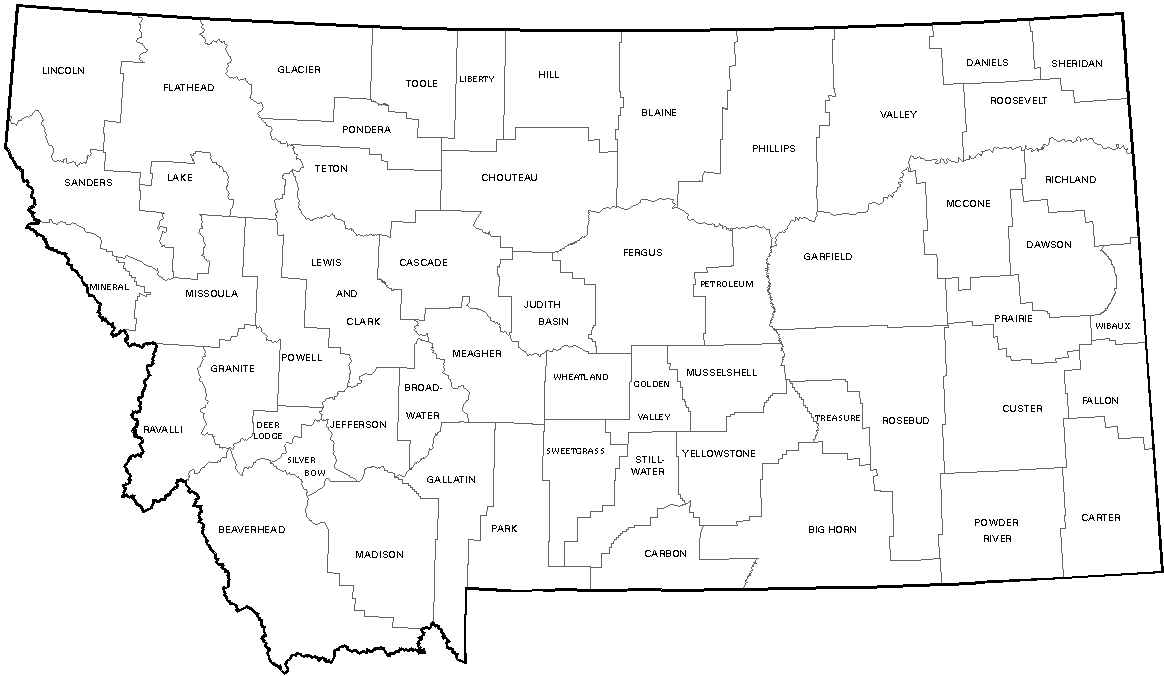


Figure - Montana County Map

Montana 800 MHz Allotments FCC Channels By County

Table - 800 MHz General Use Channels by County

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| COUNTY NAME | CHANNELS |  | COUNTY NAME | CHANNELS |
| BEAVERHEAD | 017 037 114 138 192 |  | MCCONE | 010 030 051 188 214 |
| BIGHORN | 024 052 072 157 194 |  | MEAGHER | 004 024 182 202 222 |
| BLAINE | 117 137 156 184 217 |  | MINERAL | 002 022 183 203 233 |
| BROADWATER | 006 026 159 194 214 |  | MISSOULA | 011 013 031 033 118 **153.5** 185 191 |
| CARBON | 016 036 056 181 201 |  | MUSSELSHELL | 013 033 053 158 193 |
| CARTER | 010 030 050 195 215 |  | PARK | 018 038 158 193 215 |
| CASCADE | 011 013 031 033 156 178 191 198 |  | PETROLEUM | 003 023 160 195 215 |
| CHOUTEAU | 122 **153.5** 181 201 221 |  | PHILLIPS | 120 140 180 200 220 |
| CUSTER | 012 032 140 159 193 |  | PONDERA | 120 140 159 195 218 |
| DANIELS | 118 138 179 199 219 |  | POWDER RIVER | 017 045 065 197 217 |
| DAWSON | 008 028 160 195 216 |  | POWELL | 005 025 045 199 219 |
| DEER LODGE | 010 030 050 160 195 |  | PRAIRIE | 004 024 044 201 221 |
| FALLON | 006 026 179 199 219 |  | RAVALLI | 004 024 181 202 222 |
| FERGUS | 005 025 045 135 189 |  | RICHLAND | 005 025 045 198 218 |
| FLATHEAD | 116 122 136 155 177 216 222 |  | ROOSEVELT | 116 136 181 200 201 221 |
| GALLATIN | 003 015 020 027 035 049 079 103 129 140 155 179 180 200 |  | ROSEBUD | 019 055 109 134 187 |
| GARFIELD | 007 027 047 155 190 |  | SANDERS | 009 029 141 160 197 |
| GLACIER | 134 157 180 200 220 |  | SHERIDAN | 120 140 159 197 217 |
| GOLDEN VALLEY | 015 035 156 191 214 |  | SILVER BOW | 007 027 047 201 215 221 |
| GRANITE | 008 028 158 194 214 |  | STILLWATER | 006 026 183 203 223 |
| HILL | 119 158 179 199 219 |  | SWEET GRASS | 010 030 050 160 195 |
| JEFFERSON | 003 023 043 203 223 |  | TETON | 003 023 142 193 214 |
| JUDITH BASIN | 002 022 042 196 216 |  | TOOLE | 118 138 183 203 223 |
| LAKE | 007 027 048 179 201 |  | TREASURE | 002 022 182 202 222 |
| LEWIS & CLARK | 016 036 056 113 187 189 |  | VALLEY | 122 142 183 203 223 |
| LIBERTY | 116 136 155 177 197 |  | WHEATLAND | 008 028 048 199 220 |
| LINCOLN | 119 139 158 181 219 |  | WIBAUX | 002 022 183 203 223 |
| MADISON | 009 029 177 197 217 |  | YELLOWSTONE | 009 011 029 031 049 196 198 216 218 |

1. At the date of this Plan, the CAPRAD database is no longer federally funded, and its functions may migrate to another mechanism. [↑](#footnote-ref-1)