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WILLIAM J. JAMESON, JR., WAS DULY ELECTED CHAIRMAN OF THE NATIONAL PUBLIC SAFETY PLAN REGION 25 PLANNING COMMITTEE ON 2 MAY 91 AT THE REGION 25 CONVENING MEETING.

I, William J. Jameson, Jr., Chairman of the Region 25 Planning Committee, submit this plan to the Federal Communications Commission on 15 JUN 92. This plan represents many hours of careful planning by public safety communications officials from across the Region and is recommended for your review and acceptance.

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W. J. Jameson, Jr.

EXECUTIVE SUMMARY

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.

The National Public Safety Planning Advisory Committee 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, the FCC released its Report and Order in December 1987. It established the framework of a national public safety plan and allocated 6 megahertz of spectrum in the 800 MHz band for its implementation.

The National Plan provides guidelines for development of forty-eight regional plans. The particulars of the National Plan are found in FCC 87-359, which contains the required developmental steps and contents of regional plans. We have based this plan for Region 25, the State of Montana, upon these guidelines and requirements.

Major elements of this plan include:

- How the Committee was convened, constituted, and operated (Sections 2.1, 2.2, and Appendix A);
- How the final plan was adopted (Section 2.2);
- How spectrum is put to best possible use by requiring minimum coverage areas (Section 3.4.2), providing for maximum frequency reuse (Section 3.5.1), encouraging consolidation of small systems (Section 3.3.3), establishing requirements for trunking (Section 4.2), and packing assignments through an efficient mechanism (Section 3.5.1);
- How interoperability is achieved through use of the International Common Channels and additional regional mutual aid channels (Section 4.1);
- How requirements of all eligibles were considered (Section 5.1) and spectrum allotted (Section 5.2)
- How this plan has been coordinated with adjacent regions (Section 3.5.9);
- How this plan will be carried out by a continuing Regional Review Committee (Section 2.2), an appeal process (Section 5.9), frequency give-backs (Section 3.4.6), and with slow growth provisions (Section 4.2.2); and
- Who the Committee members were (Section 6).

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1.0 SCOPE

1.1 INTRODUCTION

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.

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1.2 PURPOSE

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

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

The National Plan, as developed by NPSPAC, was 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 certain to occur in public safety and public service communications operations long into the future.

2.0 AUTHORITY

2.1 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 Associated Public Safety Communications Officers Inc. (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 A contains copies of notification materials.

2. The convening meeting was held May 2, 1991 in Helena, on the State Capital campus. There was unanimous agreement to form a planning committee.

3. A chairman was nominated and elected unanimously.

4. 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.

5. 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.

6. Vendors participation was encouraged, but vendors were not allowed a vote.

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 have participated in the development process.

2.2 REGIONAL PLANNING COMMITTEE

Section 6 of this document contains the names, organizational affiliations, mailing addresses and phone numbers of all Regional Planning Committee participants. The Committee consists 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.

Final approval of the 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.

2.3 NATIONAL INTERRELATIONSHIPS

This Regional Plan conforms with the National Plan. If there is a conflict between the two plans, the National Plan will govern. It is expected that Regional Plans for other areas of the country may differ from this plan due to the broad differences in circumstance, geography, and population density. By officially sanctioning this plan, the Federal Communications Commission agrees to its conformity with the National Plan. 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.

2.4 FEDERAL INTEROPERABILITY

Interoperability among the Federal, State and Local Governments during both daily and disaster operations will take place primarily on the five common channels identified in the National Plan. Twenty more channels will be designated for large-scale operations which, in Region 25, involve hundreds of Federal radio users. Additionally, through the use of S-160 or equivalent 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.

2.5 REGIONAL REVIEW COMMITTEE

Upon approval of this Plan by the Federal Communications Commission, a Region Review Committee will be established for the review of applications which do not fall within the stated guidelines provided for in this plan, or for the settlement of disputes concerning this plan and/or its application.

This Committee shall consist of the Local APCO Frequency Advisor for this region, a state agency representative, one representative from the Police, Fire and EMS services, and a minimum representation from other eligibles is also welcome. This Committee and its composition will be assured by the Montana APCO Chapter and other Public Safety organizations. Membership on this Committee will be solicited on an annual basis. Since this Committee will probably not have regular business, it will be the responsibility of the Local APCO Frequency Advisor to notify the Committee of problems, conflicts, or when it becomes apparent that spectrum demands will outpace available spectrum. Each member of the Committee shall be furnished a copy of this plan upon his/her appointment or election to the Committee.

Plan updates shall be accomplished by this Committee. All changes or updates to the plan shall be first agreed upon by this Committee and then submitted to the FCC for review and consideration. When approved, all changes shall be added to the plan with the appropriate documentation of approval.

This Committee shall meet at least once annually to review the implementation of the plan. This review shall consist of examination of any and all license activity. In addition, they shall review emerging standards related to 800 MHz and trunking and shall establish appropriate technical standards for plan implementation.

3.0 SPECTRUM UTILIZATION

This portion of the Plan provides a basis for proper spectrum utilization. Its purpose is to guide the Local APCO Frequency Advisor and/or the Regional Review Committee in their task of evaluating the implementation of this plan within this Region.

3.1 REGION DEFINED

Region 25 is the State of Montana. This region was defined by the Federal Communications Commission as a result of recommendations made in the National Public Safety Planning Advisory Committee (NPSPAC) Final Report as submitted and 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.

3.2 REGION 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. (See Appendix B)

The population of the state is 799,065 (1990 Census), with approximately 53% (420,000) living in urbanized centers and 47% (380,000) living in rural areas. Population density is approximately 5.5 persons per square mile. Total population grew 1.6% from 1980 to 1990. This slow growth rate is expected to continue.

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 great land area of the state. There are nine population centers of 10,000 or more persons and only two 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 somewhat sparse and the concentrations of radio users for public safety activities are somewhat dispersed. All of these items were taken under consideration in the allocation plan.

3.3 USAGE GUIDELINES

Three levels of communications systems are distinguished here based on required coverage area: state, county/multiple municipality, and municipal.

3.3.1 State Level Systems

Public Safety communications at the state level, as it impacts Region 25, will be reviewed by the Regional Review Committee. Statewide public safety agencies will submit their communications plans for impact approval if they utilize 800 MHz communications systems within Region 25 and those portions of such systems must be compatible with the Regional Plan.

3.3.2 County/Multiple Municipality Systems

Systems which are designed to provide countywide or communication coverage for multiple municipalities must demonstrate their need to require such wide area coverage. This would apply in a situation in which a city requests coverage of an entire county. Communication coverage significantly beyond jurisdictional boundaries will not be approved 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 operationally.

County/multiple municipality systems, depending upon system loading and the need for multiple systems within an area, must provide intercommunications among area-wide systems. As a minimum this shall include use of the International Common Channels as specified here under Section 4. In a multi-agency environment, a lead agency shall be designated and shall be responsible for coordinating implementation of Common Channels in the 800 MHz band as mandated by the National Plan. Such implementation must be reviewed and approved by the Local APCO Frequency Advisor, and at his/her discretion, the Regional Review Committee.

3.3.3 Municipal Systems

The term "municipal" is used to define the level below countywide. Municipal communications for public safety and public services purposes must provide only the communications needed within the municipal boundaries. However, if the total number of radios in service does not reach minimum loading criteria for a trunked system, that municipality must consider utilizing the next higher system level if 800 MHz trunked radio is available in the area. As countywide or regional systems reach capacity, the smaller communications system in public safety and public service should consider consolidating their communications systems.

Where smaller conventional 800 MHz systems are requested, those frequencies to be utilized must not interfere with nearby trunked systems. Any co-channel interference within an authorized area of coverage will be resolved on a case by case basis by the Regional Review Committee.

3.4 TECHNICAL DESIGN REQUIREMENTS FOR LICENSING

Specific technical design requirements affecting spectrum utilization are discussed here. General system requirements are covered under Section 4.2 below.

3.4.1 Definition of Effective Coverage Area

The effective coverage of a radio transmitter or combination of transmitters in a system under this plan shall be defined as that area in which the received signal strength is equal to or greater than 40 dBμ.

3.4.2 System Coverage Limitations

Effective system coverage shall be limited to the jurisdictional area of the applicant plus no more than five (5) additional miles in all directions extending from the boundaries of definition. This limitation shall assure maximum frequency reuse. In the case of regional or area-wide, multi-jurisdictional systems, the coverage area shall be the combined area of all jurisdictions participating in the combined system. 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 such service to the Local APCO Frequency Advisor, who may request Regional Review Committee review, for consideration.

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

3.4.3 Estimation Of Coverage

The Modified Egli Method[1] shall be used to estimate the area of coverage. This method allows calculations based on system parameters and corresponds closely to other methods of estimating the 40 dBμ signal level contours, including the Okamura/Hata method used for Region 25 frequency assignments. An irregular terrain correction factor has been added to the Egli Method to accommodate the terrain irregularities of Region 25.

The formula for estimating range in miles[2] is:

$$R = R_{SE}e^{-0.07\sqrt{\blacktriangle h/he}}$$

where R_{SE} is the smooth earth estimate,

$$R_{SE}=10^{x}$$

and

$$x = {}^{1}/_{40}(P_T + G_T + G_R - L_{TT} - L_{RT} - L_P - L_N - 117 - S + 20 \log H_T H_R - 20 \log f)$$

P_T	=	Power of base transmitter, dBW
G_T	=	Gain of base transmitter antenna, dB
G_R	=	Gain of mobile transmitter antenna, dB
L_{TT}	=	Loss of base transmission line, duplexer, etc., dB
L_{RT}	=	Loss of mobile system, dB
L_P	=	Reliability degradation loss[3], dB
L_N	=	Noise degradation, dB (assumed 0 dB at 850 MHz for Region 25)
S	=	Sensitivity of mobile receiver, EIA SINAD, dBW
H_T	=	Base station antenna height above average terrain, ft
H_R	=	Mobile antenna height, ft
f	=	Base station transmit frequency, MHz
▲h	=	Terrain irregularity, ft
h_e	=	Effective antenna height, ft (assume H_T)

Alternately, estimated coverage may be shown by recognized terrain-based propagation models, plotted on the maps. The Regional Review Committee may require additional showing of the validity of any coverage estimation.

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1 Singer, E. "*Land Mobile Radio Systems*", 1989.

2 To determine ▲h one uses the procedure described in NTIA Report 82-100, "A Guide to the Use of the ITS Irregular Terrain Model in the Area Prediction Mode", p. 21, calculating the median elevation variation for a set of regular or random paths from the transmitter.

3 For a 90% probability of communication, a reliability degradation loss of 19 dB may be used. If ▲h and h_e are unknown, add 6 dB to L_p and use the smooth earth estimate.

3.4.4 Annexations And Other Expansions

When an expansion of the corporate limits of any municipality currently using an 800 megahertz system occurs, the existing system may have to be expanded and its range increased. This shall be a permitted system modification.

The increased range of the system shall be determined at the time of modification to assure non-interference with other co-channel systems. Where interference is likely, the use of alternate methods of expansion, such as satellite receiver 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.

3.4.5 Coverage Area Description

Each applicant shall provide, with its application, 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. U.S. Geological Survey (USGS) topographical maps shall be used for this purpose, with 1:62,500 scale maps used for municipal systems, 1:250,000 scale for county, and 1:500,000 scale for statewide systems. Regardless of the type map used, the name of the applicant and the scale of the map shall be displayed on the map.

An estimated coverage area of each fixed transmitter shall be shown on the maps. The estimated range shall be calculated according to Section 3.4.3 above.

3.4.6 Reassignment Of Frequencies

All agencies participating in the use of the new 800 megahertz spectrum shall prepare and submit a plan for the abandonment of their currently licensed frequencies in the lower bands. These released frequencies shall be available for reassignment to those agencies not migrating to 800 MHz at this time.

A released frequency shall be returned to the radio service from which it was assigned. These frequencies shall then be available for reassignment via the assignment/coordination criteria in effect for that particular service by the FCC authorized coordinator for that service. Relinquished frequencies shall not be handed down automatically to another agency within the respective jurisdiction. The Regional Review Committee may make reassignment recommendations on released frequencies.

It is recommended that any jurisdiction wishing to "hand down" frequencies to another agency submit the proper coordination and application forms with the document of release. This will put the applicant in a better posture for reassignment of the frequency in question. It should be noted that even though this procedure is followed, there is no guarantee that a particular frequency will be assigned to the returning jurisdiction.

The time frame allowed for phasing into 800 MHz and out of the lower currently licensed bands will be considered on a case by case basis by the Review Committee. Generally one year will be considered acceptable in most cases, with two years as a maximum. Any agency requiring more than two years shall provide documents stating the reasons for the delay, and give the estimated time of completion.

3.5 INITIAL SPECTRUM ALLOCATION

3.5.1 Frequency Sorting Methodology

The initial spectrum allocation for Region 25 was determined by a computerized frequency sorting process performed by C.E.T., Inc. of Edgewater, Florida. The purpose of the computer program, which assigns

frequencies to specific eligibles and to pools for future assignments, is two-fold:

A) The assignments must be made in a manner which results in high spectrum utilization, and

B) The assignments must be made in manner which results in a low probability of co-channel and adjacent channel interference.

Since the desired output is a geographic sorting of frequencies, a method of defining geography must be part of the input. A list of the number of channels to be assigned in each geographic area is also required, along with the name of the eligible or pool.

Acceptable interference probabilities are determined for Region 25. Frequency assignments are then made using a computer program which satisfies the goals of spectrum efficiency and interference protection. The following narrative describes the factors and process used by the computer program.

3.5.2 Geographic Area

For the purpose of this frequency sort, a geographic area is defined as a set of circles of equal radius. To the degree practical, the set of circles should include the entire area of the eligible's geopolitical boundary, but not exceed the boundary by more than three (3) miles. Thus the procedure is to gather maps of sufficient detail, outline the areas to be defined, determine the coordinates and radii of the circles which define each area, and tabulate the data.

3.5.3 Environment Definition

The environment of each system is defined according to the Okumura/Hata method classifications. For purposes of frequency allocation, all of Region 25 has been considered open terrain. Very little signal attentuation due to man-made structures can be planned for in assigning Region 25 channels.

3.5.4 Blocked Channels

Forty-seven (47) channels shall be blocked for statewide allocation. This includes the five International Common Channels, twenty Interagency Incident Management channels, sixteen State of Montana channels, and six wide-area channels for statewide administrative use. Since the International Common Channels are spaced at 0.5 MHz intervals and have built-in adjacent channel protection, the remaining blocked channels shall be grouped along these intervals to minimize impact on smaller system allocations.

3.5.5 Transmitter Combining

The computer program is designed to provide a minimum frequency separation between any two channels assigned to the same eligible at the same site. This separation is provided in order to enable more efficient combining of multiple transmitters feeding a single antenna. These separated blocks of frequencies also have a maximum size. That is, if the eligible has more frequencies than the maximum size of the combining block, then a second compatible block shall be created, and so on. Each of these parameters is adjustable in the program on a global basis. The default parameters chosen are 0.25MHz minimum spacing and blocks of five channels.

3.5.6 Special Considerations

There are licensees in the 806-821/852-866 Mhz spectrum who plan to expand existing systems into the 821-824/866-869 MHz bands. Existing radio units are unable to operate on 12.5 KHz separated carrier frequencies. The result is that these radios can only operate on "even" FCC numbered channels in the 821-824/866-869 MHz band. The computer program is able to take this into account when making assignments.

3.5.7 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 Desired/Undesired signal ratio for co-channel assignments, and 15 dB Desired/Undesired ratio for the adjacent channel case. These ratios provide an acceptable probability of interference for Public Safety Services.

3.5.8 Unused Spectrum

Due to the fact that all of the frequency spectrum is not needed at this time, the excess channel pairs will be returned to a reserve pool. Frequencies in this pool will be used for resolving allocation conflicts and unanticipated needs. This does not imply that these frequencies are unavailable, only that before they can be utilized they must be coordinated via the regular APCO coordination process and within the guidelines set forth in this plan. Whenever possible, the channels designated for a jurisdiction in this plan shall be used.

3.5.9 Adjacent Region Coordination

This plan has been coordinated with all adjacent regions. Those adjacent regions are: Idaho (Region 12), Wyoming (Region 46), Washington (Region 43), South Dakota (Region 38), North Dakota (Region 32), and Canada. Specific channel allocations have been coordinated with Regions 43 and 46, which are the only two to have completed plans. The coordination was conducted automatically through each Region's reliance on the C.E.T packing program. Allocations affected by proximity to Canada were coordinated automatically by the program, as well.

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.

(SEE ATTACHED LETTERS APPENDIX C)

Use of the five International Common Channels has not been coordinated with adjacent regions.

4.0 COMMUNICATIONS REQUIREMENTS

4.1 MUTUAL AID AND COMMON CHANNELS

Region 25 has a great need for communications interoperability due to its large geographic area, sparse population, and numerous public safety entities. Interagency response to emergencies and disasters is common. Consequently, a sizeable block of frequencies is designated for mutual aid and common communications.

The five International Common Channels shall be used as originally recommended by NPSPAC and ordered by the FCC under General Docket 87-112. They shall be used as the primary interoperability channels for small and large incidents.

An additional twenty channels shall be assigned statewide as the Region 25 Interagency Incident Management (IIM) Channels. Recent experience during large-scale emergencies and natural disasters has shown that five common channels alone are inadequate. The forest fires of 1988 and a Helena train derailment in 1989 brought hundreds and, in some cases, thousands of emergency responders together. Growing use of the National Interagency Incident Management System (NIIMS) Incident Command System (ICS) to manage such large groups has led the Region 25 Planning Committee to allocate enough channels for complex incidents.

Six more channels shall be allocated statewide for wide-area administrative use by state, county, and municipal entities. Approved uses will include paging and other routine communications not allowed on the International Common Channels.

4.1.1 Implementation

Implementation of the International Common Channels shall follow the guidelines set forth by the Federal Communications Commission by its approval of the National Plan. The International Common Channels are accessible by all levels of government and shall be used only in accordance with the National Plan.

Implementation of the Region 25 Interagency Incident Management and the Wide-Area Administrative Channels shall follow the guidelines set forth in this Plan and as modified in the future by the Regional Review Committee. The State of Montana may adopt future operational plans for use of these channels under its statutory authority and submit them to the Regional Review Committee for formal inclusion in this Plan.

All mobile and portable units shall be equipped to operate in a "talk-around" (simplex) mode when required on all common and mutual aid channels.

4.1.1.1 International Calling Channel

The International Calling Channel (821/866.0125 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 NPSPAC 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 International Tactical Channels

The four International 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 Interagency Incident Management Channels

The twenty Interagency Incident Management Channels shall be implemented as are the 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 Regional Review Committee, in a specific service or function (police, 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 730 (822/867.7125 MHz) shall be used for a dedicated channel between the incident commander and the emergency operations center (EOC) which directly supports the incident. Channel 732 (822/867.7375 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.

4.1.2 Operations

The International Common Channels and Region 25 Interagency Incident Management Channels shall be available for use throughout Region 25. No specific assignments are deemed necessary. They shall be used only for activities requiring communications among agencies not sharing any other compatible communications system. They shall not be used by any agency for routine, daily operations or for interagency communications not requiring interoperability.

Police, fire, and providers of basic and advanced life support services will be the primary using agencies. If radio channels are available, other entities provided for in the Public Safety Radio and Special Emergency Radio Services may also participate to the extent required to insure the safety of the public. These agencies include the Montana Departments of Transportation and Institutions, local public works departments, and other public service agencies not normally involved in day to day public safety operations.

Private disaster relief and emergency management services, including licensed amateur radio operators, may be authorized under specific incident communication plans.

These channels shall be operated with CTCSS using the Common Channel tone frequency of 156.7 Hz. Individual agencies, however, may operate in a mobile-to-mobile, talk-around (simplex) mode without CTCSS (See Sections 4.1.4 and 4.7).

4.1.2.1 General Procedures

Plain English will be used at all times on mutual aid and common channels. The use of unfamiliar terms, phrases, 10-signals or codes will not be allowed.

The ICS 205 "Incident Radio Communications Plan" and its derivatives, completed at the time of the incident, are considered adequate communications plans as discussed under this part. Incident commanders and others responsible for assigning radio frequencies during multi-agency incidents must understand the rules, regulations, and binding procedures that affect those frequencies.

All use of the Region 25 Interagency Incident Management Channels and all non-public safety use of the International Common Channels must be covered by a specific, written communications plan.

4.1.2.2 International Calling Channel (ICALL):

The International Calling Channel shall be used to establish contact with other users in Region 25 who can render assistance at an incident. This channel shall not be utilized as a working channel. Once contact has been established between agencies, an agreed upon tactical or mutual aid channel shall be used for continued communications.

ICALL shall be monitored by any activated Emergency Operations Center (EOC) capable of 800 MHz operations and by designated Incident Communications Centers, as defined under the Incident Command System "Operational System Description", ICS-120.

4.1.2.3 International Tactical Channels (ITAC 1 - ITAC 4):

These frequencies are reserved for use by agencies involved in interagency communications. Incidents requiring multi-agency participation shall utilize these frequencies as directed by the control agency assuming responsibility for an incident or area of concern. In major emergencies, one or more tactical channels may be assigned by the incident commander or unified incident command as defined under ICS-120.

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 ITAC-1 through ITAC-4 be used when possible.

ITAC-1 Highest level of operational command;

ITAC-2 Highest level of law enforcement command;

ITAC-3 Highest level of fire command;

ITAC-4 Highest level of EMS command;

4.1.2.4 Interagency Incident Management Channels

These frequencies are reserved for multi-agency incidents where interoperable communications needs are not satisfied by the ITAC channels alone. Operations on these channels shall be conducted only under a specific incident communications plan. One or more channels may be assigned by the incident commander or unified incident command as with the ITAC channels and only after the ITAC assignments have been made.

The Interagency Incident Management Channels may be used during incidents for cross-banding or bridging to other public safety systems or wide-area communications facilities.

4.1.3 Tone Coded Squelch

All equipment capable of operating on mutual aid and common channels shall be equipped to operate with the National Common Squelch Tone of 156.7 Hz. Mobile relay control stations on these channels, if authorized, may use additional tones or digital squelch codes for the purpose of selecting individual mobile relay stations, provided the National Common Squelch Tone is used on the output. If such an arrangement is used, provision must be made for their activation by the 156.7 Hz tone to ensure access by transient units.

4.1.4 Cross-Band Operation

Any jurisdiction operating base stations on the International Common Channels (ICALL and ITAC) is encouraged to enable cross-band operation to allow users of VHF High Band mutual aid channels (e.g. 155.475, 153.905, 154.280 MHz, etc.) to communicate with Common Channel users in inter-agency operations.

4.1.5 Network Operations

Communications systems on ITAC 1 through ITAC 4 will be implemented on a voluntary basis by 800 MHz system users distributed throughout Region 25. The assignment of these ITAC systems shall be coordinated by the Local APCO Frequency Coordinator. Every primary geographic area of Region 25 is intended to be covered by at least one ITAC channel. In many areas the International Common Channels will be utilized on a mobile-to-mobile talk-around basis. Mobile relays on ITAC 1 through ITAC 4 will be of a limited coverage design to permit reuse of the channel several times within Region 25 and in adjacent regions. Since Region 25 will probably not have a large number of stationary ITAC stations, the implementation of mobile relay or repeaters is desired. 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.

4.2 GENERAL SYSTEM REQUIREMENTS

All systems operating in Region 25 which have five or more channels shall be trunked. Those systems having four or less channels may be conventional or trunked. 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 which do not meet FCC loading standards may be required to share frequencies on a non-exclusive basis. Those agencies requesting data-only channels can be required to share channels with adjacent agencies wherever feasible or limit coverage to their geographic area. Exceptions will be considered on a case-by-case basis by the Review Committee.

A single municipality or agency must restrict design and implementation of its 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 the minimum criteria for a trunked system, the user must consider participating in 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 a single trunked system.

A requesting applicant for radio communications in the 800 MHz public safety services in Region 25 will be required to conform to the 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 geographical area (Section 3.5.2) 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 shall be taken to gain maximum reuse of the limited 800 MHz spectrum.

4.2.1 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 will 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 Regional Review Committee "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 or provide a "Traffic Loading Analysis" that meets the criteria as outlined below.

4.2.1.1 Loading Tables

EMERGENCY				NON-EMERGENCY			
# CHANNELS			UNITS/CHANNEL	# CHANNELS			UNITS/CHANNEL
1	-	5	70	1	-	5	80
6	-	10	75	6	-	10	90
11	-	15	80	11	-	15	105
16	-	20	85	16	-	20	120

Agencies which request additional frequencies must demonstrate that they meet or exceed the required number of units per channel (from the above table) necessary to justify an additional channel(s). Should a demand for frequencies exist after assignable frequencies become exhausted, any system which has frequencies assigned under this plan four or more years previously and not loaded to at least 70 percent of the tabular unit loading requirements 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.

4.2.1.2 Traffic Loading Analysis

In lieu of using the loading tables in 4.2.1.1, a jurisdiction (countywide or municipal) may provide a traffic analysis which has determined the Grade of Service (GOS) of its present radio system (see Glossary in Appendix D for all terms used in this section). An additional frequency(ies) may be allowed:

1. If the GOS is less than 0.85 at peak busy hour (PBH)

2. If the GOS is less than 0.92 at the bouncing busy hour (BBH).

3. If the GOS is less than 0.95 at the time consistent busy hour (TCBH).

The determination of these grades of service may be made:

1. Manually by recording, by means of a stop watch, the number and length of all transmitted and received radio messages for a period of:

   a. Sixty (60) days if PBH data is used to justify additional channel(s).

   b. Thirty (30) days if BBH or TCBH is used to justify additional channel(s).

2. Automatically, by means of a suitable traffic recording device, the number and length of all transmitted and received radio messages for a period of:

   a. Ninety (90) days if PBH data is used to justify additional channel(s).

   b. Thirty (30) days if BBH or TCBH is used to justify additional channel(s).

If a traffic analysis is performed, separate counts shall be made for each channel unless the system is trunked. Moreover, raw traffic data must be maintained and made available to the Local APCO Frequency Coordinator upon request.

Data justifying the requirement shall be submitted in the format of Appendix E.

The Local APCO Frequency Coordinator will use the Erlang C method to compute the GOS for each application for additional channels.

4.2.2 Slow Growth

All systems in the 821-824/866-869 MHz bands under this Plan will be 'slow growth' in accordance with Section 90.269 of the FCC Rules and Regulations.

4.2.3 Use of Long Range Communications

During incidents of major proportions, where Public Safety requirements might include the need for long-range communications in and out of a disaster area, alternate radio communications plans are to be addressed by Primary Public Safety agencies within this sub-region. These agencies should integrate the appropriate interface to the long distance communications providers. Such long distance radio communications might be amateur radio operations, satellite communications and/or long range emergency preparedness communications systems, any or all of which should be incorporated as part of the communications plans of those lead agencies. This procedure would provide system users with the means to communicate outside the area for themselves and the smaller agencies who might need assistance. Instances as addressed in the National Public Safety Planning Advisory Committee's Plan, such as earthquakes, hurricanes, floods, widespread forest fires, or nuclear reactor problems could be a cause for such long-range communications needs.

4.2.4 Expansion of Existing Systems

Existing systems which are to be expanded to include the frequency bands of 821-824/866-869 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 to +/- 4 KHz. Existing base stations in the frequency bands 806-821/851-866 MHz may not be used in the frequency bands 821-824/866-869 MHz.

4.2.5 Tone Squelch

All systems implemented under this plan shall operate with a continuous tone coded squelch system (CTCSS) according to the tone plan included in the frequency plan in Appendix F. Any municipal, county-wide or regional jurisdiction may authorize mobile-mobile talk-around (simplex) traffic without CTCSS for tactical operations within the jurisdiction.

5.0 IMPLEMENTATION AND PROCEDURES

5.1 NOTIFICATION

Several methods of notification were used to invite interested parties to participate in the development of this plan. Initially, personal contact was made by the convenor to all of the major State of Montana communications users. Announcements were made at various group meetings such as the Montana Sheriffs and Peace Officers Association, Fire Chiefs Association, and Fire Wardens Association.

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 and notify all public safety radio using agencies and organizations within the county 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 was issued April 3, 1991. (See Appendix A.)

During the initial meeting, names, addresses and telephone numbers of those individuals present who wished to either participate in the planning process, or who wanted to be kept informed on the progress of the planning effort were taken. These individuals or agencies were sent all announcements for meetings and bulletins of progress.

When the work on the plan was completed, a final planning committee meeting was called. This meeting was held in Bozeman on March 12, 1992. Each member of the planning committee had previously received a final draft copy of this document. The final draft was unanimously adopted during this meeting.

A public notice was placed in Montana's five major daily newspapers announcing the completion of the plan and the intention to file with the Federal Communications Commission. The announcement, included here in Appendix A, was placed in the Helena *Independent Record*, Great Falls *Tribune*, Missoula *Missoulian*, Butte *Montana Standard*, and Billings *Gazette*.

This same announcement was also run over the Criminal Justice Information Network.

5.2 FREQUENCY ALLOCATION PROCESS

APCO/C.E.T. computerized method was used to "pack" Region 25's frequencies, as described under Section 3.5.1, "Frequency Sorting Methodology".

The packing was successful on its first run, indicating that all requested assignments could be accommodated within the available spectrum. Sixty-six (66) channels were left completely unassigned and twelve (12) more were unassigned, but used as guard channels.

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:

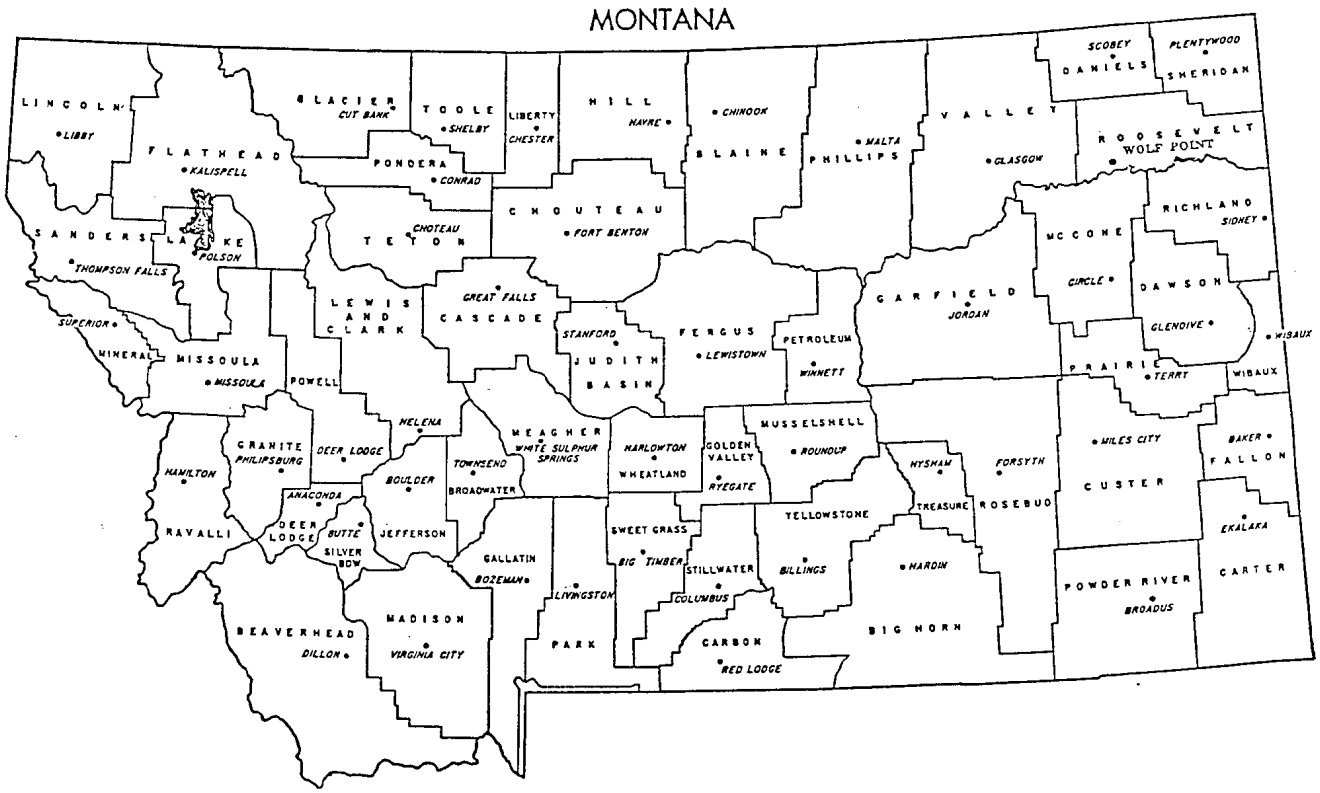
Cascade	8 channels
Flathead	7 channels
Gallatin	6 channels
Lewis & Clark	6 channels
Missoula	8 channels
Silver Bow	6 channels
Yellowstone	9 channels

- 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 International 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 (6) statewide administrative channels are grouped into two blocks of three. They are for non-emergency, 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).

5.3 MONTANA COUNTIES MAP



5.4 FREQUENCY ALLOCATION LISTINGS

Below is the data, or packing plan generated by APCO/CET via the computerized packing program. First is assignments by channel number, followed by assignments by county. State of Montana, Interagency Incident Management, and Statewide Administrative blocks are shown in the first listing.

Channel Number	601 Mobile Frequency 821.0125 Mz	Base Frequency 866.0125 Mz	Mutual aid
Channel Number	602 Mobile Frequency 821.0375 Mz	Base Frequency 866.0375 Mz	WIBAUX
Channel Number	602 Mobile Frequency 821.0375 Mz	Base Frequency 866.0375 Mz	JUDITH BASIN
Channel Number	602 Mobile Frequency 821.0375 Mz	Base Frequency 866.0375 Mz	MINERAL
Channel Number	602 Mobile Frequency 821.0375 Mz	Base Frequency 866.0375 Mz	TREASURE
Channel Number	603 Mobile Frequency 821.0500 Mz	Base Frequency 866.0500 Mz	TETON
Channel Number	603 Mobile Frequency 821.0500 Mz	Base Frequency 866.0500 Mz	JEFFERSON
Channel Number	603 Mobile Frequency 821.0500 Mz	Base Frequency 866.0500 Mz	PETROLEUM
Channel Number	604 Mobile Frequency 821.0625 Mz	Base Frequency 866.0625 Mz	PRAIRIE
Channel Number	604 Mobile Frequency 821.0625 Mz	Base Frequency 866.0625 Mz	MEAGHER
Channel Number	604 Mobile Frequency 821.0625 Mz	Base Frequency 866.0625 Mz	RAVALLI
Channel Number	605 Mobile Frequency 821.0750 Mz	Base Frequency 866.0750 Mz	RICHLAND
Channel Number	605 Mobile Frequency 821.0750 Mz	Base Frequency 866.0750 Mz	POWELL
Channel Number	605 Mobile Frequency 821.0750 Mz	Base Frequency 866.0750 Mz	FERGUS
Channel Number	606 Mobile Frequency 821.0875 Mz	Base Frequency 866.0875 Mz	FALLON
Channel Number	606 Mobile Frequency 821.0875 Mz	Base Frequency 866.0875 Mz	STILLWATER
Channel Number	606 Mobile Frequency 821.0875 Mz	Base Frequency 866.0875 Mz	BROADWATER
Channel Number	607 Mobile Frequency 821.1000 Mz	Base Frequency 866.1000 Mz	SILVER BOW
Channel Number	607 Mobile Frequency 821.1000 Mz	Base Frequency 866.1000 Mz	LAKE
Channel Number	607 Mobile Frequency 821.1000 Mz	Base Frequency 866.1000 Mz	GARFIELD
Channel Number	608 Mobile Frequency 821.1125 Mz	Base Frequency 866.1125 Mz	WHEATLAND
Channel Number	608 Mobile Frequency 821.1125 Mz	Base Frequency 866.1125 Mz	DAWSON
Channel Number	608 Mobile Frequency 821.1125 Mz	Base Frequency 866.1125 Mz	GRANITE
Channel Number	609 Mobile Frequency 821.1250 Mz	Base Frequency 866.1250 Mz	YELLOWSTONE
Channel Number	609 Mobile Frequency 821.1250 Mz	Base Frequency 866.1250 Mz	MADISON
Channel Number	609 Mobile Frequency 821.1250 Mz	Base Frequency 866.1250 Mz	SANDERS
Channel Number	610 Mobile Frequency 821.1375 Mz	Base Frequency 866.1375 Mz	CARTER
Channel Number	610 Mobile Frequency 821.1375 Mz	Base Frequency 866.1375 Mz	DEER LODGE
Channel Number	610 Mobile Frequency 821.1375 Mz	Base Frequency 866.1375 Mz	SWEET GRASS
Channel Number	610 Mobile Frequency 821.1375 Mz	Base Frequency 866.1375 Mz	MCCONE
Channel Number	611 Mobile Frequency 821.1500 Mz	Base Frequency 866.1500 Mz	YELLOWSTONE
Channel Number	611 Mobile Frequency 821.1500 Mz	Base Frequency 866.1500 Mz	CASCADE
Channel Number	611 Mobile Frequency 821.1500 Mz	Base Frequency 866.1500 Mz	MISSOULA
Channel Number	612 Mobile Frequency 821.1625 Mz	Base Frequency 866.1625 Mz	CUSTER
Channel Number	613 Mobile Frequency 821.1750 Mz	Base Frequency 866.1750 Mz	MUSSELSHELL
Channel Number	613 Mobile Frequency 821.1750 Mz	Base Frequency 866.1750 Mz	CASCADE
Channel Number	613 Mobile Frequency 821.1750 Mz	Base Frequency 866.1750 Mz	MISSOULA
Channel Number	614 Mobile Frequency 821.1875 Mz	Base Frequency 866.1875 Mz	Unassigned
Channel Number	615 Mobile Frequency 821.2000 Mz	Base Frequency 866.2000 Mz	GOLDEN VALLEY
Channel Number	615 Mobile Frequency 821.2000 Mz	Base Frequency 866.2000 Mz	GALLATIN
Channel Number	616 Mobile Frequency 821.2125 Mz	Base Frequency 866.2125 Mz	CARBON
Channel Number	616 Mobile Frequency 821.2125 Mz	Base Frequency 866.2125 Mz	LEWIS & CLARK

Channel Number 617	Mobile Frequency 821.2250 Mz	Base Frequency 866.2250 Mz	POWDER RIVER
Channel Number 617	Mobile Frequency 821.2250 Mz	Base Frequency 866.2250 Mz	BEAVERHEAD
Channel Number 618	Mobile Frequency 821.2375 Mz	Base Frequency 866.2375 Mz	PARK
Channel Number 619	Mobile Frequency 821.2500 Mz	Base Frequency 866.2500 Mz	ROSEBUD
Channel Number 620	Mobile Frequency 821.2625 Mz	Base Frequency 866.2625 Mz	GALLATIN
Channel Number 621	Mobile Frequency 821.2750 Mz	Base Frequency 866.2750 Mz	Unassigned
Channel Number 622	Mobile Frequency 821.2875 Mz	Base Frequency 866.2875 Mz	WIBAUX
Channel Number 622	Mobile Frequency 821.2875 Mz	Base Frequency 866.2875 Mz	JUDITH BASIN
Channel Number 622	Mobile Frequency 821.2875 Mz	Base Frequency 866.2875 Mz	MINERAL
Channel Number 622	Mobile Frequency 821.2875 Mz	Base Frequency 866.2875 Mz	TREASURE
Channel Number 623	Mobile Frequency 821.3000 Mz	Base Frequency 866.3000 Mz	TETON
Channel Number 623	Mobile Frequency 821.3000 Mz	Base Frequency 866.3000 Mz	JEFFERSON
Channel Number 623	Mobile Frequency 821.3000 Mz	Base Frequency 866.3000 Mz	PETROLEUM
Channel Number 624	Mobile Frequency 821.3125 Mz	Base Frequency 866.3125 Mz	PRAIRIE
Channel Number 624	Mobile Frequency 821.3125 Mz	Base Frequency 866.3125 Mz	MEAGHER
Channel Number 624	Mobile Frequency 821.3125 Mz	Base Frequency 866.3125 Mz	RAVALLI
Channel Number 624	Mobile Frequency 821.3125 Mz	Base Frequency 866.3125 Mz	BIG HORN
Channel Number 625	Mobile Frequency 821.3250 Mz	Base Frequency 866.3250 Mz	RICHLAND
Channel Number 625	Mobile Frequency 821.3250 Mz	Base Frequency 866.3250 Mz	POWELL
Channel Number 625	Mobile Frequency 821.3250 Mz	Base Frequency 866.3250 Mz	FERGUS
Channel Number 626	Mobile Frequency 821.3375 Mz	Base Frequency 866.3375 Mz	FALLON
Channel Number 626	Mobile Frequency 821.3375 Mz	Base Frequency 866.3375 Mz	STILLWATER
Channel Number 626	Mobile Frequency 821.3375 Mz	Base Frequency 866.3375 Mz	BROADWATER
Channel Number 627	Mobile Frequency 821.3500 Mz	Base Frequency 866.3500 Mz	SILVER BOW
Channel Number 627	Mobile Frequency 821.3500 Mz	Base Frequency 866.3500 Mz	LAKE
Channel Number 627	Mobile Frequency 821.3500 Mz	Base Frequency 866.3500 Mz	GARFIELD
Channel Number 628	Mobile Frequency 821.3625 Mz	Base Frequency 866.3625 Mz	WHEATLAND
Channel Number 628	Mobile Frequency 821.3625 Mz	Base Frequency 866.3625 Mz	DAWSON
Channel Number 628	Mobile Frequency 821.3625 Mz	Base Frequency 866.3625 Mz	GRANITE
Channel Number 629	Mobile Frequency 821.3750 Mz	Base Frequency 866.3750 Mz	YELLOWSTONE
Channel Number 629	Mobile Frequency 821.3750 Mz	Base Frequency 866.3750 Mz	MADISON
Channel Number 629	Mobile Frequency 821.3750 Mz	Base Frequency 866.3750 Mz	SANDERS
Channel Number 630	Mobile Frequency 821.3875 Mz	Base Frequency 866.3875 Mz	CARTER
Channel Number 630	Mobile Frequency 821.3875 Mz	Base Frequency 866.3875 Mz	DEER LODGE
Channel Number 630	Mobile Frequency 821.3875 Mz	Base Frequency 866.3875 Mz	SWEET GRASS
Channel Number 630	Mobile Frequency 821.3875 Mz	Base Frequency 866.3875 Mz	MCCONE
Channel Number 631	Mobile Frequency 821.4000 Mz	Base Frequency 866.4000 Mz	YELLOWSTONE
Channel Number 631	Mobile Frequency 821.4000 Mz	Base Frequency 866.4000 Mz	CASCADE
Channel Number 631	Mobile Frequency 821.4000 Mz	Base Frequency 866.4000 Mz	MISSOULA
Channel Number 632	Mobile Frequency 821.4125 Mz	Base Frequency 866.4125 Mz	CUSTER
Channel Number 633	Mobile Frequency 821.4250 Mz	Base Frequency 866.4250 Mz	MUSSELSHELL
Channel Number 633	Mobile Frequency 821.4250 Mz	Base Frequency 866.4250 Mz	CASCADE
Channel Number 633	Mobile Frequency 821.4250 Mz	Base Frequency 866.4250 Mz	MISSOULA
Channel Number 634	Mobile Frequency 821.4375 Mz	Base Frequency 866.4375 Mz	Unassigned
Channel Number 635	Mobile Frequency 821.4500 Mz	Base Frequency 866.4500 Mz	GOLDEN VALLEY
Channel Number 635	Mobile Frequency 821.4500 Mz	Base Frequency 866.4500 Mz	GALLATIN
Channel Number 636	Mobile Frequency 821.4625 Mz	Base Frequency 866.4625 Mz	CARBON
Channel Number 636	Mobile Frequency 821.4625 Mz	Base Frequency 866.4625 Mz	LEWIS & CLARK

Channel Number 637	Mobile Frequency 821.4750 Mz	Base Frequency 866.4750 Mz	BEAVERHEAD
Channel Number 638	Mobile Frequency 821.4875 Mz	Base Frequency 866.4875 Mz	PARK
Channel Number 639	Mobile Frequency 821.5125 Mz	Base Frequency 866.5125 Mz	Mutual aid
Channel Number 640	Mobile Frequency 821.5375 Mz	Base Frequency 866.5375 Mz	Unassigned
Channel Number 641	Mobile Frequency 821.5500 Mz	Base Frequency 866.5500 Mz	Unassigned
Channel Number 642	Mobile Frequency 821.5625 Mz	Base Frequency 866.5625 Mz	JUDITH BASIN
Channel Number 643	Mobile Frequency 821.5750 Mz	Base Frequency 866.5750 Mz	JEFFERSON
Channel Number 644	Mobile Frequency 821.5875 Mz	Base Frequency 866.5875 Mz	PRAIRIE
Channel Number 645	Mobile Frequency 821.6000 Mz	Base Frequency 866.6000 Mz	POWDER RIVER
Channel Number 645	Mobile Frequency 821.6000 Mz	Base Frequency 866.6000 Mz	RICHLAND
Channel Number 645	Mobile Frequency 821.6000 Mz	Base Frequency 866.6000 Mz	POWELL
Channel Number 645	Mobile Frequency 821.6000 Mz	Base Frequency 866.6000 Mz	FERGUS
Channel Number 646	Mobile Frequency 821.6125 Mz	Base Frequency 866.6125 Mz	Unassigned
Channel Number 647	Mobile Frequency 821.6250 Mz	Base Frequency 866.6250 Mz	SILVER BOW
Channel Number 647	Mobile Frequency 821.6250 Mz	Base Frequency 866.6250 Mz	GARFIELD
Channel Number 648	Mobile Frequency 821.6375 Mz	Base Frequency 866.6375 Mz	WHEATLAND
Channel Number 648	Mobile Frequency 821.6375 Mz	Base Frequency 866.6375 Mz	LAKE
Channel Number 649	Mobile Frequency 821.6500 Mz	Base Frequency 866.6500 Mz	YELLOWSTONE
Channel Number 650	Mobile Frequency 821.6625 Mz	Base Frequency 866.6625 Mz	CARTER
Channel Number 650	Mobile Frequency 821.6625 Mz	Base Frequency 866.6625 Mz	DEER LODGE
Channel Number 650	Mobile Frequency 821.6625 Mz	Base Frequency 866.6625 Mz	SWEET GRASS
Channel Number 651	Mobile Frequency 821.6750 Mz	Base Frequency 866.6750 Mz	MCCONE
Channel Number 652	Mobile Frequency 821.6875 Mz	Base Frequency 866.6875 Mz	BIG HORN
Channel Number 653	Mobile Frequency 821.7000 Mz	Base Frequency 866.7000 Mz	MUSSELSHELL
Channel Number 654	Mobile Frequency 821.7125 Mz	Base Frequency 866.7125 Mz	Unassigned
Channel Number 655	Mobile Frequency 821.7250 Mz	Base Frequency 866.7250 Mz	ROSEBUD
Channel Number 656	Mobile Frequency 821.7375 Mz	Base Frequency 866.7375 Mz	CARBON
Channel Number 656	Mobile Frequency 821.7375 Mz	Base Frequency 866.7375 Mz	LEWIS & CLARK
Channel Number 657	Mobile Frequency 821.7500 Mz	Base Frequency 866.7500 Mz	Unassigned
Channel Number 658	Mobile Frequency 821.7625 Mz	Base Frequency 866.7625 Mz	Unassigned
Channel Number 659	Mobile Frequency 821.7750 Mz	Base Frequency 866.7750 Mz	Unassigned
Channel Number 660	Mobile Frequency 821.7875 Mz	Base Frequency 866.7875 Mz	Unassigned
Channel Number 661	Mobile Frequency 821.8000 Mz	Base Frequency 866.8000 Mz	Unassigned
Channel Number 662	Mobile Frequency 821.8125 Mz	Base Frequency 866.8125 Mz	Unassigned
Channel Number 663	Mobile Frequency 821.8250 Mz	Base Frequency 866.8250 Mz	Unassigned
Channel Number 664	Mobile Frequency 821.8375 Mz	Base Frequency 866.8375 Mz	Unassigned
Channel Number 665	Mobile Frequency 821.8500 Mz	Base Frequency 866.8500 Mz	POWDER RIVER
Channel Number 666	Mobile Frequency 821.8625 Mz	Base Frequency 866.8625 Mz	Unassigned

Channel Number	667	Mobile Frequency 821.8750 Mz	Base Frequency 866.8750 Mz	Unassigned
Channel Number	668	Mobile Frequency 821.8875 Mz	Base Frequency 866.8875 Mz	Unassigned
Channel Number	669	Mobile Frequency 821.9000 Mz	Base Frequency 866.9000 Mz	Unassigned
Channel Number	670	Mobile Frequency 821.9125 Mz	Base Frequency 866.9125 Mz	Unassigned
Channel Number	671	Mobile Frequency 821.9250 Mz	Base Frequency 866.9250 Mz	Unassigned
Channel Number	672	Mobile Frequency 821.9375 Mz	Base Frequency 866.9375 Mz	BIG HORN
Channel Number	673	Mobile Frequency 821.9500 Mz	Base Frequency 866.9500 Mz	Unassigned
Channel Number	674	Mobile Frequency 821.9625 Mz	Base Frequency 866.9625 Mz	Unassigned
Channel Number	675	Mobile Frequency 821.9750 Mz	Base Frequency 866.9750 Mz	Unassigned
Channel Number	676	Mobile Frequency 821.9875 Mz	Base Frequency 866.9875 Mz	Unassigned
Channel Number	677	Mobile Frequency 822.0125 Mz	Base Frequency 867.0125 Mz	Mutual aid
Channel Number	678	Mobile Frequency 822.0375 Mz	Base Frequency 867.0375 Mz	Unassigned
Channel Number	679	Mobile Frequency 822.0500 Mz	Base Frequency 867.0500 Mz	Unassigned
Channel Number	680	Mobile Frequency 822.0625 Mz	Base Frequency 867.0625 Mz	Unassigned
Channel Number	681	Mobile Frequency 822.0750 Mz	Base Frequency 867.0750 Mz	Unassigned
Channel Number	682	Mobile Frequency 822.0875 Mz	Base Frequency 867.0875 Mz	Unassigned
Channel Number	683	Mobile Frequency 822.1000 Mz	Base Frequency 867.1000 Mz	Unassigned
Channel Number	684	Mobile Frequency 822.1125 Mz	Base Frequency 867.1125 Mz	Unassigned
Channel Number	685	Mobile Frequency 822.1250 Mz	Base Frequency 867.1250 Mz	Unassigned
Channel Number	686	Mobile Frequency 822.1375 Mz	Base Frequency 867.1375 Mz	Unassigned
Channel Number	687	Mobile Frequency 822.1500 Mz	Base Frequency 867.1500 Mz	Unassigned
Channel Number	688	Mobile Frequency 822.1625 Mz	Base Frequency 867.1625 Mz	Unassigned
Channel Number	689	Mobile Frequency 822.1750 Mz	Base Frequency 867.1750 Mz	Unassigned
Channel Number	690	Mobile Frequency 822.1875 Mz	Base Frequency 867.1875 Mz	Unassigned
Channel Number	691	Mobile Frequency 822.2000 Mz	Base Frequency 867.2000 Mz	Unassigned
Channel Number	692	Mobile Frequency 822.2125 Mz	Base Frequency 867.2125 Mz	Unassigned
Channel Number	693	Mobile Frequency 822.2250 Mz	Base Frequency 867.2250 Mz	Unassigned
Channel Number	694	Mobile Frequency 822.2375 Mz	Base Frequency 867.2375 Mz	Unassigned
Channel Number	695	Mobile Frequency 822.2500 Mz	Base Frequency 867.2500 Mz	Unassigned
Channel Number	696	Mobile Frequency 822.2625 Mz	Base Frequency 867.2625 Mz	Unassigned
Channel Number	697	Mobile Frequency 822.2750 Mz	Base Frequency 867.2750 Mz	Unassigned
Channel Number	698	Mobile Frequency 822.2875 Mz	Base Frequency 867.2875 Mz	Unassigned
Channel Number	699	Mobile Frequency 822.3000 Mz	Base Frequency 867.3000 Mz	Unassigned
Channel Number	700	Mobile Frequency 822.3125 Mz	Base Frequency 867.3125 Mz	Unassigned

Channel Number	701 Mobile Frequency 822.3250 Mz	Base Frequency 867.3250 Mz	Unassigned
Channel Number	702 Mobile Frequency 822.3375 Mz	Base Frequency 867.3375 Mz	Unassigned
Channel Number	703 Mobile Frequency 822.3500 Mz	Base Frequency 867.3500 Mz	Unassigned
Channel Number	704 Mobile Frequency 822.3625 Mz	Base Frequency 867.3625 Mz	Unassigned
Channel Number	705 Mobile Frequency 822.3750 Mz	Base Frequency 867.3750 Mz	Unassigned
Channel Number	706 Mobile Frequency 822.3875 Mz	Base Frequency 867.3875 Mz	Unassigned
Channel Number	707 Mobile Frequency 822.4000 Mz	Base Frequency 867.4000 Mz	Unassigned
Channel Number	708 Mobile Frequency 822.4125 Mz	Base Frequency 867.4125 Mz	Unassigned
Channel Number	709 Mobile Frequency 822.4250 Mz	Base Frequency 867.4250 Mz	ROSEBUD
Channel Number	710 Mobile Frequency 822.4375 Mz	Base Frequency 867.4375 Mz	Unassigned
Channel Number	711 Mobile Frequency 822.4500 Mz	Base Frequency 867.4500 Mz	Unassigned
Channel Number	712 Mobile Frequency 822.4625 Mz	Base Frequency 867.4625 Mz	Unassigned
Channel Number	713 Mobile Frequency 822.4750 Mz	Base Frequency 867.4750 Mz	LEWIS & CLARK
Channel Number	714 Mobile Frequency 822.4875 Mz	Base Frequency 867.4875 Mz	BEAVERHEAD
Channel Number	715 Mobile Frequency 822.5125 Mz	Base Frequency 867.5125 Mz	Mutual aid
Channel Number	716 Mobile Frequency 822.5375 Mz	Base Frequency 867.5375 Mz	LIBERTY
Channel Number	716 Mobile Frequency 822.5375 Mz	Base Frequency 867.5375 Mz	ROOSEVELT
Channel Number	716 Mobile Frequency 822.5375 Mz	Base Frequency 867.5375 Mz	FLATHEAD
Channel Number	717 Mobile Frequency 822.5500 Mz	Base Frequency 867.5500 Mz	BLAINE
Channel Number	718 Mobile Frequency 822.5625 Mz	Base Frequency 867.5625 Mz	DANIELS
Channel Number	718 Mobile Frequency 822.5625 Mz	Base Frequency 867.5625 Mz	TOOLE
Channel Number	718 Mobile Frequency 822.5625 Mz	Base Frequency 867.5625 Mz	MISSOULA
Channel Number	719 Mobile Frequency 822.5750 Mz	Base Frequency 867.5750 Mz	LINCOLN
Channel Number	719 Mobile Frequency 822.5750 Mz	Base Frequency 867.5750 Mz	HILL
Channel Number	720 Mobile Frequency 822.5875 Mz	Base Frequency 867.5875 Mz	SHERIDAN
Channel Number	720 Mobile Frequency 822.5875 Mz	Base Frequency 867.5875 Mz	PHILLIPS
Channel Number	720 Mobile Frequency 822.5875 Mz	Base Frequency 867.5875 Mz	PONDERA
Channel Number	721 Mobile Frequency 822.6000 Mz	Base Frequency 867.6000 Mz	Unassigned
Channel Number	722 Mobile Frequency 822.6125 Mz	Base Frequency 867.6125 Mz	VALLEY
Channel Number	722 Mobile Frequency 822.6125 Mz	Base Frequency 867.6125 Mz	CHOUTEAU
Channel Number	722 Mobile Frequency 822.6125 Mz	Base Frequency 867.6125 Mz	FLATHEAD
Channel Number	723 Mobile Frequency 822.6250 Mz	Base Frequency 867.6250 Mz	Reserved for GUARD
Channel Number	724 Mobile Frequency 822.6375 Mz	Base Frequency 867.6375 Mz	Reserved for IIM BLOCK 1
Channel Number	725 Mobile Frequency 822.6500 Mz	Base Frequency 867.6500 Mz	Reserved for IIM BLOCK 1
Channel Number	726 Mobile Frequency 822.6625 Mz	Base Frequency 867.6625 Mz	Reserved for IIM BLOCK 1
Channel Number	727 Mobile Frequency 822.6750 Mz	Base Frequency 867.6750 Mz	Reserved for IIM BLOCK 1
Channel Number	728 Mobile Frequency 822.6875 Mz	Base Frequency 867.6875 Mz	Reserved for IIM BLOCK 1
Channel Number	729 Mobile Frequency 822.7000 Mz	Base Frequency 867.7000 Mz	Reserved for GUARD
Channel Number	730 Mobile Frequency 822.7125 Mz	Base Frequency 867.7125 Mz	Reserved for STATEWIDE ADMIN

Channel Number	731 Mobile Frequency 822.7250 Mz	Base Frequency 867.7250 Mz	Reserved for STATEWIDE ADMIN
Channel Number	732 Mobile Frequency 822.7375 Mz	Base Frequency 867.7375 Mz	Reserved for STATEWIDE ADMIN
Channel Number	733 Mobile Frequency 822.7500 Mz	Base Frequency 867.7500 Mz	Reserved for GUARD
Channel Number	734 Mobile Frequency 822.7625 Mz	Base Frequency 867.7625 Mz	GLACIER
Channel Number	734 Mobile Frequency 822.7625 Mz	Base Frequency 867.7625 Mz	ROSEBUD
Channel Number	735 Mobile Frequency 822.7750 Mz	Base Frequency 867.7750 Mz	FERGUS
Channel Number	736 Mobile Frequency 822.7875 Mz	Base Frequency 867.7875 Mz	LIBERTY
Channel Number	736 Mobile Frequency 822.7875 Mz	Base Frequency 867.7875 Mz	ROOSEVELT
Channel Number	736 Mobile Frequency 822.7875 Mz	Base Frequency 867.7875 Mz	FLATHEAD
Channel Number	737 Mobile Frequency 822.8000 Mz	Base Frequency 867.8000 Mz	BLAINE
Channel Number	738 Mobile Frequency 822.8125 Mz	Base Frequency 867.8125 Mz	DANIELS
Channel Number	738 Mobile Frequency 822.8125 Mz	Base Frequency 867.8125 Mz	TOOLE
Channel Number	738 Mobile Frequency 822.8125 Mz	Base Frequency 867.8125 Mz	BEAVERHEAD
Channel Number	739 Mobile Frequency 822.8250 Mz	Base Frequency 867.8250 Mz	LINCOLN
Channel Number	740 Mobile Frequency 822.8375 Mz	Base Frequency 867.8375 Mz	SHERIDAN
Channel Number	740 Mobile Frequency 822.8375 Mz	Base Frequency 867.8375 Mz	CUSTER
Channel Number	740 Mobile Frequency 822.8375 Mz	Base Frequency 867.8375 Mz	GALLATIN
Channel Number	740 Mobile Frequency 822.8375 Mz	Base Frequency 867.8375 Mz	PHILLIPS
Channel Number	740 Mobile Frequency 822.8375 Mz	Base Frequency 867.8375 Mz	PONDERA
Channel Number	741 Mobile Frequency 822.8500 Mz	Base Frequency 867.8500 Mz	SANDERS
Channel Number	742 Mobile Frequency 822.8625 Mz	Base Frequency 867.8625 Mz	TETON
Channel Number	742 Mobile Frequency 822.8625 Mz	Base Frequency 867.8625 Mz	VALLEY
Channel Number	743 Mobile Frequency 822.8750 Mz	Base Frequency 867.8750 Mz	Reserved for GUARD
Channel Number	744 Mobile Frequency 822.8875 Mz	Base Frequency 867.8875 Mz	Reserved for STATEWIDE ADMIN
Channel Number	745 Mobile Frequency 822.9000 Mz	Base Frequency 867.9000 Mz	Reserved for STATEWIDE ADMIN
Channel Number	746 Mobile Frequency 822.9125 Mz	Base Frequency 867.9125 Mz	Reserved for STATEWIDE ADMIN
Channel Number	747 Mobile Frequency 822.9250 Mz	Base Frequency 867.9250 Mz	Reserved for GUARD
Channel Number	748 Mobile Frequency 822.9375 Mz	Base Frequency 867.9375 Mz	Reserved for IIM BLOCK 2
Channel Number	749 Mobile Frequency 822.9500 Mz	Base Frequency 867.9500 Mz	Reserved for IIM BLOCK 2
Channel Number	750 Mobile Frequency 822.9625 Mz	Base Frequency 867.9625 Mz	Reserved for IIM BLOCK 2
Channel Number	751 Mobile Frequency 822.9750 Mz	Base Frequency 867.9750 Mz	Reserved for IIM BLOCK 2
Channel Number	752 Mobile Frequency 822.9875 Mz	Base Frequency 867.9875 Mz	Reserved for IIM BLOCK 2
Channel Number	753 Mobile Frequency 823.0125 Mz	Base Frequency 868.0125 Mz	Reserved for GUARD
Channel Number	754 Mobile Frequency 823.0250 Mz	Base Frequency 868.0250 Mz	CHOUTEAU
Channel Number	754 Mobile Frequency 823.0250 Mz	Base Frequency 868.0250 Mz	MISSOULA
Channel Number	755 Mobile Frequency 823.0375 Mz	Base Frequency 868.0375 Mz	Unassigned
Channel Number	756 Mobile Frequency 823.0500 Mz	Base Frequency 868.0500 Mz	LIBERTY
Channel Number	756 Mobile Frequency 823.0500 Mz	Base Frequency 868.0500 Mz	GARFIELD
Channel Number	756 Mobile Frequency 823.0500 Mz	Base Frequency 868.0500 Mz	FLATHEAD
Channel Number	757 Mobile Frequency 823.0625 Mz	Base Frequency 868.0625 Mz	BLAINE
Channel Number	757 Mobile Frequency 823.0625 Mz	Base Frequency 868.0625 Mz	GOLDEN VALLEY
Channel Number	757 Mobile Frequency 823.0625 Mz	Base Frequency 868.0625 Mz	CASCADE

Channel Number	758 Mobile Frequency 823.0750 Mz	Base Frequency 868.0750 Mz	GLACIER
Channel Number	758 Mobile Frequency 823.0750 Mz	Base Frequency 868.0750 Mz	BIG HORN
Channel Number	759 Mobile Frequency 823.0875 Mz	Base Frequency 868.0875 Mz	MUSSELSHELL
Channel Number	759 Mobile Frequency 823.0875 Mz	Base Frequency 868.0875 Mz	GRANITE
Channel Number	759 Mobile Frequency 823.0875 Mz	Base Frequency 868.0875 Mz	PARK
Channel Number	759 Mobile Frequency 823.0875 Mz	Base Frequency 868.0875 Mz	LINCOLN
Channel Number	759 Mobile Frequency 823.0875 Mz	Base Frequency 868.0875 Mz	HILL
Channel Number	760 Mobile Frequency 823.1000 Mz	Base Frequency 868.1000 Mz	SHERIDAN
Channel Number	760 Mobile Frequency 823.1000 Mz	Base Frequency 868.1000 Mz	CUSTER
Channel Number	760 Mobile Frequency 823.1000 Mz	Base Frequency 868.1000 Mz	BROADWATER
Channel Number	760 Mobile Frequency 823.1000 Mz	Base Frequency 868.1000 Mz	PONDERA
Channel Number	761 Mobile Frequency 823.1125 Mz	Base Frequency 868.1125 Mz	DAWSON
Channel Number	761 Mobile Frequency 823.1125 Mz	Base Frequency 868.1125 Mz	PETROLEUM
Channel Number	761 Mobile Frequency 823.1125 Mz	Base Frequency 868.1125 Mz	DEER LODGE
Channel Number	761 Mobile Frequency 823.1125 Mz	Base Frequency 868.1125 Mz	SWEET GRASS
Channel Number	761 Mobile Frequency 823.1125 Mz	Base Frequency 868.1125 Mz	SANDERS
Channel Number	762 Mobile Frequency 823.1250 Mz	Base Frequency 868.1250 Mz	Reserved for GUARD
Channel Number	763 Mobile Frequency 823.1375 Mz	Base Frequency 868.1375 Mz	Reserved for STATE OF MONTANA
Channel Number	764 Mobile Frequency 823.1500 Mz	Base Frequency 868.1500 Mz	Reserved for STATE OF MONTANA
Channel Number	765 Mobile Frequency 823.1625 Mz	Base Frequency 868.1625 Mz	Reserved for STATE OF MONTANA
Channel Number	766 Mobile Frequency 823.1750 Mz	Base Frequency 868.1750 Mz	Reserved for STATE OF MONTANA
Channel Number	767 Mobile Frequency 823.1875 Mz	Base Frequency 868.1875 Mz	Reserved for STATE OF MONTANA
Channel Number	768 Mobile Frequency 823.2000 Mz	Base Frequency 868.2000 Mz	Reserved for STATE OF MONTANA
Channel Number	769 Mobile Frequency 823.2125 Mz	Base Frequency 868.2125 Mz	Reserved for STATE OF MONTANA
Channel Number	770 Mobile Frequency 823.2250 Mz	Base Frequency 868.2250 Mz	Reserved for STATE OF MONTANA
Channel Number	771 Mobile Frequency 823.2375 Mz	Base Frequency 868.2375 Mz	Reserved for GUARD
Channel Number	772 Mobile Frequency 823.2500 Mz	Base Frequency 868.2500 Mz	Reserved for IIM BLOCK 3
Channel Number	773 Mobile Frequency 823.2625 Mz	Base Frequency 868.2625 Mz	Reserved for IIM BLOCK 3
Channel Number	774 Mobile Frequency 823.2750 Mz	Base Frequency 868.2750 Mz	Reserved for IIM BLOCK 3
Channel Number	775 Mobile Frequency 823.2875 Mz	Base Frequency 868.2875 Mz	Reserved for IIM BLOCK 3
Channel Number	776 Mobile Frequency 823.3000 Mz	Base Frequency 868.3000 Mz	Reserved for IIM BLOCK 3
Channel Number	777 Mobile Frequency 823.3125 Mz	Base Frequency 868.3125 Mz	Reserved for GUARD
Channel Number	778 Mobile Frequency 823.3250 Mz	Base Frequency 868.3250 Mz	LIBERTY
Channel Number	778 Mobile Frequency 823.3250 Mz	Base Frequency 868.3250 Mz	MADISON
Channel Number	778 Mobile Frequency 823.3250 Mz	Base Frequency 868.3250 Mz	FLATHEAD
Channel Number	779 Mobile Frequency 823.3375 Mz	Base Frequency 868.3375 Mz	CASCADE
Channel Number	780 Mobile Frequency 823.3500 Mz	Base Frequency 868.3500 Mz	DANIELS
Channel Number	780 Mobile Frequency 823.3500 Mz	Base Frequency 868.3500 Mz	FALLON
Channel Number	780 Mobile Frequency 823.3500 Mz	Base Frequency 868.3500 Mz	LAKE
Channel Number	780 Mobile Frequency 823.3500 Mz	Base Frequency 868.3500 Mz	HILL
Channel Number	781 Mobile Frequency 823.3625 Mz	Base Frequency 868.3625 Mz	GLACIER
Channel Number	781 Mobile Frequency 823.3625 Mz	Base Frequency 868.3625 Mz	GALLATIN
Channel Number	781 Mobile Frequency 823.3625 Mz	Base Frequency 868.3625 Mz	PHILLIPS

Channel Number	782 Mobile Frequency 823.3750 Mz	Base Frequency 868.3750 Mz	CARBON
Channel Number	782 Mobile Frequency 823.3750 Mz	Base Frequency 868.3750 Mz	RAVALLI
Channel Number	782 Mobile Frequency 823.3750 Mz	Base Frequency 868.3750 Mz	CHOUTEAU
Channel Number	782 Mobile Frequency 823.3750 Mz	Base Frequency 868.3750 Mz	ROOSEVELT
Channel Number	782 Mobile Frequency 823.3750 Mz	Base Frequency 868.3750 Mz	LINCOLN
Channel Number	783 Mobile Frequency 823.3875 Mz	Base Frequency 868.3875 Mz	MEAGHER
Channel Number	783 Mobile Frequency 823.3875 Mz	Base Frequency 868.3875 Mz	TREASURE
Channel Number	784 Mobile Frequency 823.4000 Mz	Base Frequency 868.4000 Mz	WIBAUX
Channel Number	784 Mobile Frequency 823.4000 Mz	Base Frequency 868.4000 Mz	STILLWATER
Channel Number	784 Mobile Frequency 823.4000 Mz	Base Frequency 868.4000 Mz	MINERAL
Channel Number	784 Mobile Frequency 823.4000 Mz	Base Frequency 868.4000 Mz	TOOLE
Channel Number	784 Mobile Frequency 823.4000 Mz	Base Frequency 868.4000 Mz	VALLEY
Channel Number	785 Mobile Frequency 823.4125 Mz	Base Frequency 868.4125 Mz	BLAINE
Channel Number	786 Mobile Frequency 823.4250 Mz	Base Frequency 868.4250 Mz	MISSOULA
Channel Number	787 Mobile Frequency 823.4375 Mz	Base Frequency 868.4375 Mz	Unassigned
Channel Number	788 Mobile Frequency 823.4500 Mz	Base Frequency 868.4500 Mz	ROSEBUD
Channel Number	788 Mobile Frequency 823.4500 Mz	Base Frequency 868.4500 Mz	LEWIS & CLARK
Channel Number	789 Mobile Frequency 823.4625 Mz	Base Frequency 868.4625 Mz	MCCONE
Channel Number	790 Mobile Frequency 823.4750 Mz	Base Frequency 868.4750 Mz	LEWIS & CLARK
Channel Number	790 Mobile Frequency 823.4750 Mz	Base Frequency 868.4750 Mz	FERGUS
Channel Number	791 Mobile Frequency 823.4875 Mz	Base Frequency 868.4875 Mz	GARFIELD
Channel Number	792 Mobile Frequency 823.5000 Mz	Base Frequency 868.5000 Mz	GOLDEN VALLEY
Channel Number	792 Mobile Frequency 823.5000 Mz	Base Frequency 868.5000 Mz	CASCADE
Channel Number	792 Mobile Frequency 823.5000 Mz	Base Frequency 868.5000 Mz	MISSOULA
Channel Number	793 Mobile Frequency 823.5125 Mz	Base Frequency 868.5125 Mz	BEAVERHEAD
Channel Number	794 Mobile Frequency 823.5250 Mz	Base Frequency 868.5250 Mz	TETON
Channel Number	794 Mobile Frequency 823.5250 Mz	Base Frequency 868.5250 Mz	MUSSELSHELL
Channel Number	794 Mobile Frequency 823.5250 Mz	Base Frequency 868.5250 Mz	CUSTER
Channel Number	794 Mobile Frequency 823.5250 Mz	Base Frequency 868.5250 Mz	PARK
Channel Number	795 Mobile Frequency 823.5375 Mz	Base Frequency 868.5375 Mz	GRANITE
Channel Number	795 Mobile Frequency 823.5375 Mz	Base Frequency 868.5375 Mz	BROADWATER
Channel Number	795 Mobile Frequency 823.5375 Mz	Base Frequency 868.5375 Mz	BIG HORN
Channel Number	796 Mobile Frequency 823.5500 Mz	Base Frequency 868.5500 Mz	CARTER
Channel Number	796 Mobile Frequency 823.5500 Mz	Base Frequency 868.5500 Mz	PETROLEUM
Channel Number	796 Mobile Frequency 823.5500 Mz	Base Frequency 868.5500 Mz	SWEET GRASS
Channel Number	796 Mobile Frequency 823.5500 Mz	Base Frequency 868.5500 Mz	PONDERA
Channel Number	797 Mobile Frequency 823.5625 Mz	Base Frequency 868.5625 Mz	JUDITH BASIN
Channel Number	797 Mobile Frequency 823.5625 Mz	Base Frequency 868.5625 Mz	YELLOWSTONE
Channel Number	797 Mobile Frequency 823.5625 Mz	Base Frequency 868.5625 Mz	DAWSON
Channel Number	797 Mobile Frequency 823.5625 Mz	Base Frequency 868.5625 Mz	DEER LODGE
Channel Number	798 Mobile Frequency 823.5750 Mz	Base Frequency 868.5750 Mz	SHERIDAN
Channel Number	798 Mobile Frequency 823.5750 Mz	Base Frequency 868.5750 Mz	POWDER RIVER
Channel Number	798 Mobile Frequency 823.5750 Mz	Base Frequency 868.5750 Mz	LIBERTY
Channel Number	798 Mobile Frequency 823.5750 Mz	Base Frequency 868.5750 Mz	MADISON
Channel Number	798 Mobile Frequency 823.5750 Mz	Base Frequency 868.5750 Mz	SANDERS
Channel Number	799 Mobile Frequency 823.5875 Mz	Base Frequency 868.5875 Mz	RICHLAND
Channel Number	799 Mobile Frequency 823.5875 Mz	Base Frequency 868.5875 Mz	YELLOWSTONE
Channel Number	799 Mobile Frequency 823.5875 Mz	Base Frequency 868.5875 Mz	CASCADE

Channel Number	800 Mobile Frequency 823.6000 Mz	Base Frequency 868.6000 Mz	DANIELS
Channel Number	800 Mobile Frequency 823.6000 Mz	Base Frequency 868.6000 Mz	FALLON
Channel Number	800 Mobile Frequency 823.6000 Mz	Base Frequency 868.6000 Mz	WHEATLAND
Channel Number	800 Mobile Frequency 823.6000 Mz	Base Frequency 868.6000 Mz	POWELL
Channel Number	800 Mobile Frequency 823.6000 Mz	Base Frequency 868.6000 Mz	HILL
Channel Number	801 Mobile Frequency 823.6125 Mz	Base Frequency 868.6125 Mz	GLACIER
Channel Number	801 Mobile Frequency 823.6125 Mz	Base Frequency 868.6125 Mz	GALLATIN
Channel Number	801 Mobile Frequency 823.6125 Mz	Base Frequency 868.6125 Mz	PHILLIPS
Channel Number	802 Mobile Frequency 823.6250 Mz	Base Frequency 868.6250 Mz	PRAIRIE
Channel Number	802 Mobile Frequency 823.6250 Mz	Base Frequency 868.6250 Mz	CARBON
Channel Number	802 Mobile Frequency 823.6250 Mz	Base Frequency 868.6250 Mz	SILVER BOW
Channel Number	802 Mobile Frequency 823.6250 Mz	Base Frequency 868.6250 Mz	LAKE
Channel Number	802 Mobile Frequency 823.6250 Mz	Base Frequency 868.6250 Mz	CHOUTEAU
Channel Number	802 Mobile Frequency 823.6250 Mz	Base Frequency 868.6250 Mz	ROOSEVELT
Channel Number	803 Mobile Frequency 823.6375 Mz	Base Frequency 868.6375 Mz	MEAGHER
Channel Number	803 Mobile Frequency 823.6375 Mz	Base Frequency 868.6375 Mz	TREASURE
Channel Number	803 Mobile Frequency 823.6375 Mz	Base Frequency 868.6375 Mz	RAVALLI
Channel Number	804 Mobile Frequency 823.6500 Mz	Base Frequency 868.6500 Mz	WIBAUX
Channel Number	804 Mobile Frequency 823.6500 Mz	Base Frequency 868.6500 Mz	STILLWATER
Channel Number	804 Mobile Frequency 823.6500 Mz	Base Frequency 868.6500 Mz	MINERAL
Channel Number	804 Mobile Frequency 823.6500 Mz	Base Frequency 868.6500 Mz	TOOLE
Channel Number	804 Mobile Frequency 823.6500 Mz	Base Frequency 868.6500 Mz	JEFFERSON
Channel Number	804 Mobile Frequency 823.6500 Mz	Base Frequency 868.6500 Mz	VALLEY
Channel Number	805 Mobile Frequency 823.6625 Mz	Base Frequency 868.6625 Mz	Reserved for GUARD
Channel Number	806 Mobile Frequency 823.6750 Mz	Base Frequency 868.6750 Mz	Reserved for STATE OF MONTANA
Channel Number	807 Mobile Frequency 823.6875 Mz	Base Frequency 868.6875 Mz	Reserved for STATE OF MONTANA
Channel Number	808 Mobile Frequency 823.7000 Mz	Base Frequency 868.7000 Mz	Reserved for STATE OF MONTANA
Channel Number	809 Mobile Frequency 823.7125 Mz	Base Frequency 868.7125 Mz	Reserved for STATE OF MONTANA
Channel Number	810 Mobile Frequency 823.7250 Mz	Base Frequency 868.7250 Mz	Reserved for STATE OF MONTANA
Channel Number	811 Mobile Frequency 823.7375 Mz	Base Frequency 868.7375 Mz	Reserved for STATE OF MONTANA
Channel Number	812 Mobile Frequency 823.7500 Mz	Base Frequency 868.7500 Mz	Reserved for STATE OF MONTANA
Channel Number	813 Mobile Frequency 823.7625 Mz	Base Frequency 868.7625 Mz	Reserved for STATE OF MONTANA
Channel Number	814 Mobile Frequency 823.7750 Mz	Base Frequency 868.7750 Mz	Reserved for GUARD
Channel Number	815 Mobile Frequency 823.7875 Mz	Base Frequency 868.7875 Mz	TETON
Channel Number	815 Mobile Frequency 823.7875 Mz	Base Frequency 868.7875 Mz	GOLDEN VALLEY
Channel Number	815 Mobile Frequency 823.7875 Mz	Base Frequency 868.7875 Mz	GRANITE
Channel Number	815 Mobile Frequency 823.7875 Mz	Base Frequency 868.7875 Mz	BROADWATER
Channel Number	815 Mobile Frequency 823.7875 Mz	Base Frequency 868.7875 Mz	MCCONE
Channel Number	816 Mobile Frequency 823.8000 Mz	Base Frequency 868.8000 Mz	CARTER
Channel Number	816 Mobile Frequency 823.8000 Mz	Base Frequency 868.8000 Mz	PETROLEUM
Channel Number	816 Mobile Frequency 823.8000 Mz	Base Frequency 868.8000 Mz	SILVER BOW
Channel Number	816 Mobile Frequency 823.8000 Mz	Base Frequency 868.8000 Mz	PARK
Channel Number	817 Mobile Frequency 823.8125 Mz	Base Frequency 868.8125 Mz	JUDITH BASIN
Channel Number	817 Mobile Frequency 823.8125 Mz	Base Frequency 868.8125 Mz	YELLOWSTONE
Channel Number	817 Mobile Frequency 823.8125 Mz	Base Frequency 868.8125 Mz	DAWSON
Channel Number	817 Mobile Frequency 823.8125 Mz	Base Frequency 868.8125 Mz	FLATHEAD
Channel Number	818 Mobile Frequency 823.8250 Mz	Base Frequency 868.8250 Mz	SHERIDAN
Channel Number	818 Mobile Frequency 823.8250 Mz	Base Frequency 868.8250 Mz	POWDER RIVER
Channel Number	818 Mobile Frequency 823.8250 Mz	Base Frequency 868.8250 Mz	MADISON
Channel Number	818 Mobile Frequency 823.8250 Mz	Base Frequency 868.8250 Mz	BLAINE

Channel Number	819 Mobile Frequency 823.8375 Mz	Base Frequency 868.8375 Mz	RICHLAND
Channel Number	819 Mobile Frequency 823.8375 Mz	Base Frequency 868.8375 Mz	YELLOWSTONE
Channel Number	819 Mobile Frequency 823.8375 Mz	Base Frequency 868.8375 Mz	PONDERA
Channel Number	820 Mobile Frequency 823.8500 Mz	Base Frequency 868.8500 Mz	DANIELS
Channel Number	820 Mobile Frequency 823.8500 Mz	Base Frequency 868.8500 Mz	FALLON
Channel Number	820 Mobile Frequency 823.8500 Mz	Base Frequency 868.8500 Mz	POWELL
Channel Number	820 Mobile Frequency 823.8500 Mz	Base Frequency 868.8500 Mz	LINCOLN
Channel Number	820 Mobile Frequency 823.8500 Mz	Base Frequency 868.8500 Mz	HILL
Channel Number	821 Mobile Frequency 823.8625 Mz	Base Frequency 868.8625 Mz	WHEATLAND
Channel Number	821 Mobile Frequency 823.8625 Mz	Base Frequency 868.8625 Mz	GLACIER
Channel Number	821 Mobile Frequency 823.8625 Mz	Base Frequency 868.8625 Mz	PHILLIPS
Channel Number	822 Mobile Frequency 823.8750 Mz	Base Frequency 868.8750 Mz	PRAIRIE
Channel Number	822 Mobile Frequency 823.8750 Mz	Base Frequency 868.8750 Mz	SILVER BOW
Channel Number	822 Mobile Frequency 823.8750 Mz	Base Frequency 868.8750 Mz	CHOUTEAU
Channel Number	822 Mobile Frequency 823.8750 Mz	Base Frequency 868.8750 Mz	ROOSEVELT
Channel Number	823 Mobile Frequency 823.8875 Mz	Base Frequency 868.8875 Mz	MEAGHER
Channel Number	823 Mobile Frequency 823.8875 Mz	Base Frequency 868.8875 Mz	TREASURE
Channel Number	823 Mobile Frequency 823.8875 Mz	Base Frequency 868.8875 Mz	RAVALLI
Channel Number	823 Mobile Frequency 823.8875 Mz	Base Frequency 868.8875 Mz	FLATHEAD
Channel Number	824 Mobile Frequency 823.9000 Mz	Base Frequency 868.9000 Mz	WIBAUX
Channel Number	824 Mobile Frequency 823.9000 Mz	Base Frequency 868.9000 Mz	STILLWATER
Channel Number	824 Mobile Frequency 823.9000 Mz	Base Frequency 868.9000 Mz	MINERAL
Channel Number	824 Mobile Frequency 823.9000 Mz	Base Frequency 868.9000 Mz	TOOLE
Channel Number	824 Mobile Frequency 823.9000 Mz	Base Frequency 868.9000 Mz	JEFFERSON
Channel Number	824 Mobile Frequency 823.9000 Mz	Base Frequency 868.9000 Mz	VALLEY
Channel Number	825 Mobile Frequency 823.9125 Mz	Base Frequency 868.9125 Mz	Reserved for GUARD
Channel Number	826 Mobile Frequency 823.9250 Mz	Base Frequency 868.9250 Mz	Reserved for IIM BLOCK 4
Channel Number	827 Mobile Frequency 823.9375 Mz	Base Frequency 868.9375 Mz	Reserved for IIM BLOCK 4
Channel Number	828 Mobile Frequency 823.9500 Mz	Base Frequency 868.9500 Mz	Reserved for IIM BLOCK 4
Channel Number	829 Mobile Frequency 823.9625 Mz	Base Frequency 868.9625 Mz	Reserved for IIM BLOCK 4
Channel Number	830 Mobile Frequency 823.9750 Mz	Base Frequency 868.9750 Mz	Reserved for IIM BLOCK 4

5.5 ASSIGNED CHANNELS BY COUNTY

BEAVERHEAD	617 637 714 738 793
BIG HORN	624 652 672 758 795
BLAINE	717 737 757 785 818
BROADWATER	606 626 760 795 815
CARBON	616 636 656 782 802
CARTER	610 630 650 796 816
CASCADE	611 613 631 633 757 779 792 799
CHOUTEAU	722 754 782 802 822
CUSTER	612 632 740 760 794
DANIELS	718 738 780 800 820
DAWSON	608 628 761 797 817
DEER LODGE	610 630 650 761 797
FALLON	606 626 780 800 820
FERGUS	605 625 645 735 790
FLATHEAD	716 722 736 756 778 817 823
GALLATIN	615 620 635 740 781 801
GARFIELD	607 627 647 756 791
GLACIER	734 758 781 801 821
GOLDEN VALLEY	615 635 757 792 815
GRANITE	608 628 759 795 815
HILL	719 759 780 800 820
JEFFERSON	603 623 643 804 824
JUDITH BASIN	602 622 642 797 817
LAKE	607 627 648 780 802
LEWIS & CLARK	616 636 656 713 788 790
LIBERTY	716 736 756 778 798
LINCOLN	719 739 759 782 820
MADISON	609 629 778 798 818
MCCONE	610 630 651 789 815
MEAGHER	604 624 783 803 823
MINERAL	602 622 784 804 824
MISSOULA	611 613 631 633 718 754 786 792
MUSSELSHELL	613 633 653 759 794
PARK	618 638 759 794 816
PETROLEUM	603 623 761 796 816
PHILLIPS	720 740 781 801 821
PONDERA	720 740 760 796 819
POWDER RIVER	617 645 665 798 818
POWELL	605 625 645 800 820
PRAIRIE	604 624 644 802 822
RAVALLI	604 624 782 803 823
RICHLAND	605 625 645 799 819
ROOSEVELT	716 736 782 802 822
ROSEBUD	619 655 709 734 788
SANDERS	609 629 741 761 798
SHERIDAN	720 740 760 798 818
SILVER BOW	607 627 647 802 816 822
STILLWATER	606 626 784 804 824
SWEET GRASS	610 630 650 761 796
TETON	603 623 742 794 815
TOOLE	718 738 784 804 824
TREASURE	602 622 783 803 823
VALLEY	722 742 784 804 824
WHEATLAND	608 628 648 800 821
WIBAUX	602 622 784 804 824
YELLOWSTONE	609 611 629 631 649 797 799 817 819

5.6 ASSIGNMENT STATISTICS

Maximum field strength for co-channel operation is	5.00 dbμ
Maximum field strength for adj.-channel operation is	25.00 dbμ
Iterations required for solution	= 22
Number of channels used for solution	= 224
Total number of channels assigned	= 295
Total number of unassigned channels	= 62
Total number of reserved channels	= 54
Total number of co-channels assigned	= 185

Probability of interference with the nearest :

* Co-channel user is between 0 % and 1 % .
* Adj.-channel user is between 0 % and 1 % .

* Estimated assuming a 40 dbμ signal at the boundary.

5.7 EXPANSION OF INITIAL ALLOCATION

In the event that the allocation for any county becomes depleted, the Region 25 Review Committee shall meet to make further allocations to said county. Should this occur, the applying agency or entity shall submit the proper license and coordination applications with all applicable fees, as in any other licensing request. Allocations will be made based on the initial frequency allocation plan as mentioned above, taking into consideration the channels which were returned to the reserve pool.

5.8 PRIORITIZATION OF APPLICANTS

A very simple method of prioritization has been chosen for use in this Region. As there is no un-met spectrum requirement, there appears to be no great need for prioritization. In order to facilitate future problems which may arise, the following rating system shall be used. Prioritization shall be done according to a final score, based on applicant criteria. The highest score, in points, shall be given priority in a situation where spectrum is insufficient to fulfill the needs of all.

Public Safety Agencies	2 Points
Public Services Agencies	1 Point
Multi-agency Systems	2 Points
Multi-agency/Multi Jurisdiction Systems	3 Points
Single Agency/Jurisdiction Systems	1 Point

5.9 APPEAL PROCESS

At any time, any applicant may appeal an allocation rejection, or any limits placed on a particular application for any reason. The appeal process has two levels; the Region 25 Review Committee and the FCC. An applicant who decides to appeal a rejection should initiate that appeal immediately upon notification of rejection. In the event that an appeal reaches the second level, the FCC, their decision will be final and binding upon all parties.

6.0 REGION 25 PLANNING COMMITTEE

Bill Jameson, Region 25 Chairman *
Department of Electrical Engineering
Montana State University
Bozeman, MT 59717
(406) 994-5970

Dan Hawkins*
Department of Administration
Mitchell Bldg - Room 221
Helena, MT 59620
(406) 444-2700

Bob DeLange
Department of State Lands
2705 Spurgin Road
Missoula, MT 59801
(406) 542-4211

Homer Young
Mt. Disaster & Emergency Services Div.
P.O. Box 4789
Helena, MT 59604
(406) 444-6911

Clark Robinson
Gallatin County
P.O. Box 1765
Bozeman, MT 59771
(406) 587-9145 or 686-4950

Jim Adkins
Montana Deaconess Medical Center
1101 26th Street South
Great Falls, MT 59405
(406) 455-5899

Midge Warrington
Cascade County 9-1-1
P.O. Box 5021
Great Falls, MT 59403
(406) 727-5881

Charles W. Aron, Jr.*
Columbus Hospital
500 15th Avenue South
Great Falls, MT 59405
(406) 727-3333 ext 5533

Don Houghton
Gallatin County Sheriffs Office
615 South 16th Avenue
Bozeman, MT 59715
(406) 585-1495

Dick Boyer*
Montana Assoc. of Chiefs of Police
P.O. Box 640
Bozeman, MT 59715
(406) 586-3311

Rick Newby*
Miles City Police Department
1010 Main - Courthouse Annex
Miles City, MT 59301
(406) 232-7800 ext 2007

Bill Fleiner*
Montana Sheriffs & Peace Off. Assoc.
221 Breckenridge
Helena, MT 59601
(406) 447-8235

Douglas Pitt*
Montana State Fire Chiefs Association
105 9th Street South
Great Falls, MT 59401
(406) 727-5881 ext 463

John Benson
West Yellowstone EMS/Fire
P.O. Box 1242
West Yellowstone, MT 59758
(406) 646-9094

Jerry Dupler*
Department of Highways
2701 Prospect Avenue
Helena, MT 59620
(406) 444-6392

Ray Nordhagen
City of Missoula
435 Ryman
Missoula, MT 59802
(406) 721-7577

Allen Bertapelle*
Mt. Private Ambulance Operators
P.O. Box 23503
Billings, MT 59104
(406) 656-1212

Drew Dawson*
Department of Health - EMS Bureau
Cogswell Building
Helena, MT 59620
(406) 444-3895

Jesse Y. Gonzalez*
Billings 9-1-1
2305 8th Avenue North
Billings, MT 59101
(406) 657-8432

Dick Wessler*
Valley County DES
Valley County Courthouse
Glasgow, MT 59230
(406) 228-4333

Charlie Larson*
Department of Justice - MHP
303 N. Roberts
Helena, MT 59620
(406) 444-3284

John Skaggs*
Motorola
P.O. Box 4488
Helena, MT 59604
(406) 443-0428

Fred Guardipee
Blackfoot Tribal EMS
P.O. Box 1891
Browning, MT 59417
(406) 338-2600

Bob Cardwell*
General Electric
1925 Grand Ave. - Suite 108
Billings, MT 59102-2762
(406) 252-6329

Richard A. Nisbet*
City of Helena
316 North Park Avenue
Helena, MT 59623
(406) 447-8427

Chuck Rhodes*
Flathead County Search and Rescue
80 2nd Avenue West North
Kalispell, MT 59901
(406) 257-3384

Jim Kraft
Yellowstone County DES
P.O. Box 35004
Billings, MT 59107
(406) 256-2775

Elmer Davis
Fish, Wildlife, and Parks
1420 E. Sixth Avenue
Helena, MT 59620
(406) 444-2452

Franklin Mick Mills
Lincoln County DES
124 W. Cedar
Libby, MT 59923
(406) 293-4675

Burton Gigoux
Communication Services, Inc.
P.O. Box 31471
Billings, MT 59107
(406) 259-7575

* Member of the Working Committee

APPENDICES

APPENDIX A

Notification Information

PUBLIC NOTICE

FEDERAL COMMUNICATIONS COMMISSION
1919 M STREET N.W.
WASHINGTON, D.C. 20554

12458

News media information 202/632-5050. Recorded listing of releases and texts 202/632-0002.

April 3, 1991

ANNOUNCEMENT OF THE INITIAL REGIONAL PUBLIC SAFETY PLANNING MEETING FOR THE STATE OF MONTANA

The purpose of this Public Notice is to announce the initial meeting of the Montana Regional Planning Committee. The Committee will be responsible for developing a statewide plan for use of new spectrum in the 800 MHz frequency bands allocated to Public Safety. In addition, the Committee's plan must account for existing and future use of other frequencies by public entities wishing to use the new spectrum.

DATE/TIME: May 2, 1991, 1 PM

LOCATION: Department of Social and Rehabilitative Services Auditorium
111 Sanders Street
Helena, MT 59604

CONVENOR: Dan M. Hawkins
Office of Policy, Research and Development
Montana Department of Administration
Mitchell Building, Room 221
Helena, MT 59620

(406) 444-2700

All parties located in the State of Montana (Region 25) who are interested in participating in the public safety planning process are encouraged to contact the convenor listed above for further information and to allow for planning to accommodate the meeting.

MONTANA CHAPTER

ASSOCIATED PUBLIC-SAFETY COMMUNICATIONS OFFICERS

Notice of Public Safety Communications Planning

In December 1987, the Federal Communications Commission released its Final Report and Order on General Docket 87-112, calling for development and implementation of a national public safety communications plan. This plan is to be in accordance with a congressional mandate to develop interoperability between local, state, and federal agencies.

Report and Order 87-112 requires that separate plans be developed for each of 48 regions, covering the whole of the United States. Montana is designated as Region 25. The task of convening regional planning committees was assigned to the Associated Public-Safety Communications Officers, Inc. (APCO).

The Montana Regional Planning Committee will consist of representatives from all interested parties eligible to license public safety frequencies. It will be responsible for developing a statewide plan for use of new spectrum in the 800 MHz frequency bands allocated to Public Safety. In addition, the Committee's plan must account for existing and future use of other frequencies by public entities wishing to use the new spectrum. February 1, 1993 is the FCC's deadline for receipt of regional plans.

The first meeting of the Montana Regional Planning Committee will be held May 2, 1991 at 1:00 P.M. in Helena at the Department of Social and Rehabilitative Services Auditorium. Representatives from all agencies and organizations with an interest in public safety frequency utilization are invited to attend and participate in the planning process.

Contact Dan Hawkins, Region 25 Convenor, at (406)444-2700 for further information.

This Public Notice is in accordance with the FCC's Report and Order in General Docket 87-112, adopted by the FCC on November 24, 1987 and released December 18, 1987. Copies of both the Report and Order and the Final Report are available from the FCC's duplication contractor, Downtown Copy Center, 1114 21st N.W., Washington, D.C. 20036. Phone (202)452-1422.

MONTANA CHAPTER

ASSOCIATED PUBLIC-SAFETY COMMUNICATIONS OFFICERS

8 APR 91

Dear DES Coordinator:

The April 1991 DES Division newsletter contained articles about a new communications planning committee being formed. This committee will develop and submit a new radio frequency utilization plan directly to the Federal Communications Commission (FCC). I am asking for your assistance in notifying affected parties within your county. Membership is open.

Public safety frequencies in the 800 MHz bands will be the plan's subject. All state and local government entities are eligible to license public safety frequencies, so will ultimately be affected by the final plan. This includes police, fire, administration, public works, EMS, search and rescue, school buses, and DES.

This 800 MHz planning is for the future, especially for Montana. Few jurisdictions have immediate need for radio spectrum opened up by the plan, but most likely will in the years to come. When accepted by the FCC, the plan will have the force of law and only according to the plan will frequencies be available.

Representation in the planning process is critical. Advanced technology required for use of the new spectrum will also have a great impact on future public safety communications. This "trunked radio", as it is referred to, will change our communications concepts; participation in the planning process will also contribute to an understanding of this important new technology.

Would you notify the public safety agencies and organizations within your county of the initial regional planning meeting? I am relying on your knowledge of your own local structure and officials to see that interested parties are aware of what is going on.

Thank you for the assistance.

Sincerely,

Dan M. Hawkins, Convenor
Region 25 Planning Committee
Mitchell Building - Room 221
Helena, MT 59620

Montana DES Newsletter
4/91

COMMUNICATIONS PLANNING MEETING

The Federal Communications Commission Final Report and Order on General Docket 87-112 calls for development and implementation of a national public safety communications plan and requires that separate plans be developed for 48 different regions. Montana is designated as Region 25.

The first meeting of the Montana Regional Planning Committee will be held May 2, 1991 at 1:00 P.M. in Helena at the Department of Social and Rehabilitative Services Auditorium. Representatives from all agencies and organizations with an interest in public safety frequency utilization are invited to attend and participate in the planning process.

The Montana Regional Planning Committee will be responsible for developing a statewide plan for use of new spectrum in the 800 MHz frequency bands allocated to Public Safety. In addition, the plan must account for existing and future use of other frequencies by public entities wishing to use spectrum. February 1, 1993 is the FCC's deadline for receipt of regional plans.

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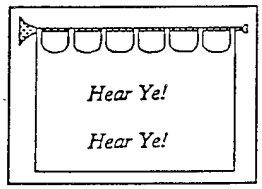
If you have questions about this public-safety planning, contact Homer Young at 444-6911 or Dan Hawkins at 444-2758.



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APPENDIX A

Notification Information (cont.)

Final Public Notice Placed in the Helena *Independent Record*, Great Falls *Tribune*, Missoula *Missoulian*, Butte *Montana Standard*, and Billings *Gazette*

PUBLIC NOTICE

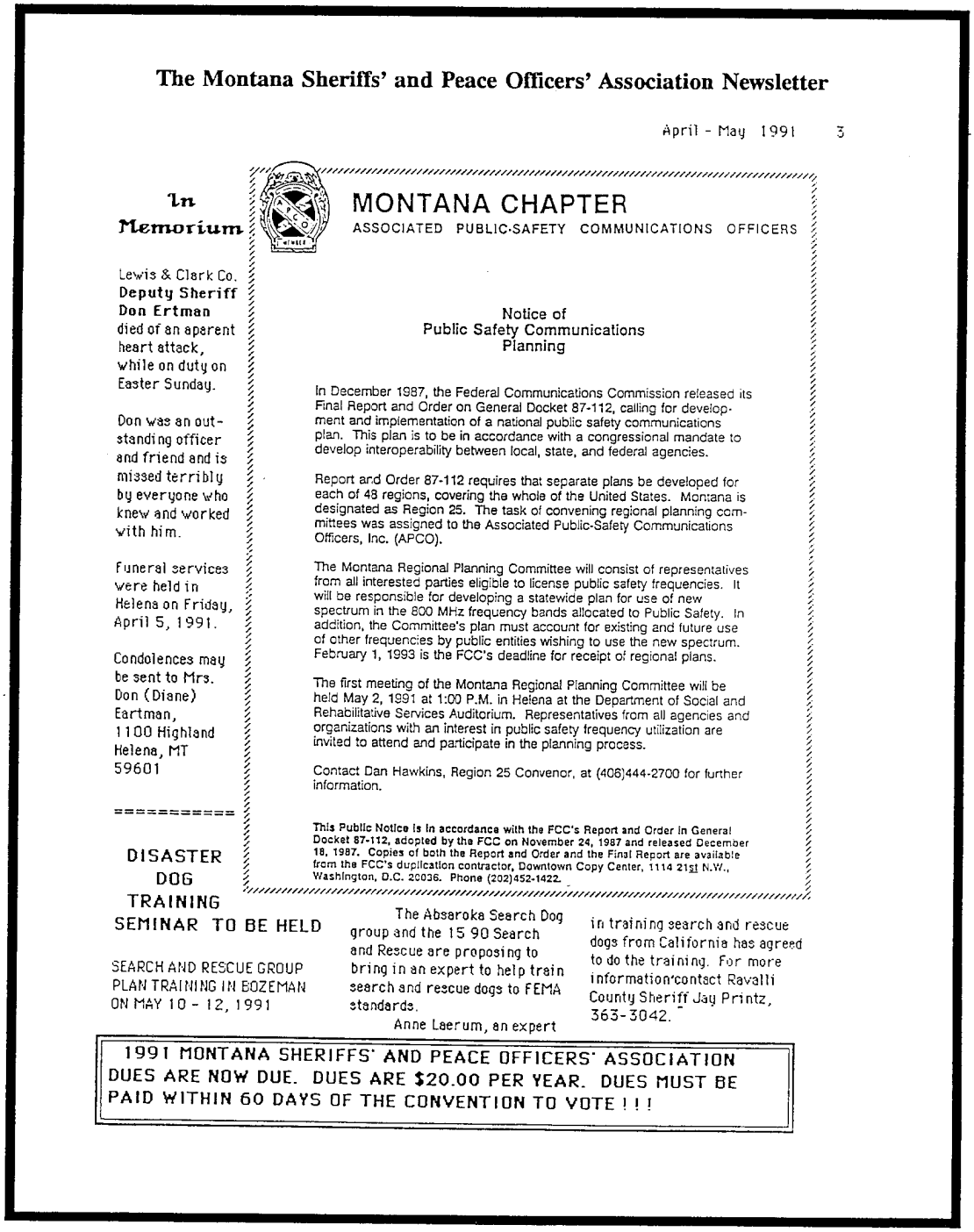
Having been duly certified to the Federal Communications Commission (FCC) by the Associated Public Safety Communications Officers, Inc. (APCO) as the Chairman of the Region 25 (Montana) Regional Planning Committee, I hereby give public notice of the completion of the Region 25 800 MHz Plan and intention to file it with the FCC. This plan provides for the use of radio frequencies in the 821-824 and 866-869 Megahertz bands allocated by the FCC for public safety entities.

The FCC's Report and Order in General Docket 87-112, adopted by the FCC on November 24, 1987 and released on December 18, 1987, established Regional planning authority for these frequency bands. The Report and Order was based in large part on the Final Report of the National Public Safety Planning Advisory Committee. Copies of both the Report and Order and the Final Report are available from the FCC's duplication contractor, Downtown Copy Center, 1114 21st N.W., Washington, D.C. 20036, (202) 452-1422.

Questions and requests for copies of the Region 25 Plan may be directed to the Chairman at the address below or to the Plan Coordinator, Dan Hawkins, at the Montana Department of Administration, Mitchell Building - Room 221, Helena, Montana, 59620, (406) 444-2700.

W.J. Jameson, Jr.,
Chairman
Department of
Electrical
Engineering
Montana State
University
Bozeman, MT 59717
(406) 994-5970

May 21, 1992



The Montana Sheriffs' and Peace Officers' Association Newsletter

April - May 1991 3

In Memorium

Lewis & Clark Co. **Deputy Sheriff Don Ertman** died of an aparent heart attack, while on duty on Easter Sunday.

Don was an outstanding officer and friend and is missed terribly by everyone who knew and worked with him.

Funeral services were held in Helena on Friday, April 5, 1991.

Condolences may be sent to Mrs. Don (Diane) Eartman, 1100 Highland Helena, MT 59601

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DISASTER DOG TRAINING SEMINAR TO BE HELD

SEARCH AND RESCUE GROUP PLAN TRAINING IN BOZEMAN ON MAY 10 - 12, 1991

The Absaroka Search Dog group and the 15 90 Search and Rescue are proposing to bring in an expert to help train search and rescue dogs to FEMA standards.

Anne Laerum, an expert in training search and rescue dogs from California has agreed to do the training. For more information contact Ravalli County Sheriff Jay Printz, 363-3042.

1991 MONTANA SHERIFFS' AND PEACE OFFICERS' ASSOCIATION DUES ARE NOW DUE. DUES ARE $20.00 PER YEAR. DUES MUST BE PAID WITHIN 60 DAYS OF THE CONVENTION TO VOTE ! ! !

MONTANA CHAPTER
ASSOCIATED PUBLIC-SAFETY COMMUNICATIONS OFFICERS

Notice of
Public Safety Communications
Planning

In December 1987, the Federal Communications Commission released its Final Report and Order on General Docket 87-112, calling for development and implementation of a national public safety communications plan. This plan is to be in accordance with a congressional mandate to develop interoperability between local, state, and federal agencies.

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The first meeting of the Montana Regional Planning Committee will be held May 2, 1991 at 1:00 P.M. in Helena at the Department of Social and Rehabilitative Services Auditorium. Representatives from all agencies and organizations with an interest in public safety frequency utilization are invited to attend and participate in the planning process.

Contact Dan Hawkins, Region 25 Convenor, at (406)444-2700 for further information.

This Public Notice is in accordance with the FCC's Report and Order in General Docket 87-112, adopted by the FCC on November 24, 1987 and released December 18, 1987. Copies of both the Report and Order and the Final Report are available from the FCC's duplication contractor, Downtown Copy Center, 1114 21st N.W., Washington, D.C. 20036. Phone (202)452-1422.

APPENDIX B

Montana Demographic Information

1990 Census of Population for Governmental Units: MONTANA
Released January 24, 1991 by the U.S. Bureau of the Census

AREA NAME	4/1/90 Census	4/1/80 Census	% Change, 80 to 90
MONTANA	799,065	786,690	1.6%
BEAVERHEAD COUNTY	8,424	8,186	2.9%
DILLON	3,991	3,976	0.4%
LIMA	265	272	-2.6%
BIG HORN COUNTY	11,337	11,096	2.2%
HARDIN	2,940	3,300	-10.9%
LODGE GRASS	517	499	3.6%
BLAINE COUNTY	6,728	6,999	-3.9%
CHINOOK	1,512	1,660	-8.9%
HARLEM	882	1,023	-13.8%
BROADWATER COUNTY	3,318	3,267	1.6%
TOWNSEND	1,635	1,587	3.0%
CARBON COUNTY	8,080	8,099	-0.2%
BEARCREEK	37	61	-39.3%
BRIDGER	692	724	-4.4%
FROMBERG	370	469	-21.1%
JOLIET	522	580	-10.0%
RED LODGE	1,958	1,896	3.3%
CARTER COUNTY	1,503	1,799	-16.5%
EKALAKA	439	620	-29.2%
CASCADE COUNTY	77,691	80,696	-3.7%
BELT	571	825	-30.8%
CASCADE	729	773	-5.7%
GREAT FALLS	55,097	56,884	-3.1%
NEIHART	53	91	-41.8%
CHOUTEAU COUNTY	5,452	6,092	-10.5%
BIG SANDY	740	835	-11.4%
FORT BENTON	1,660	1,693	-1.9%
GERALDINE	299	305	-2.0%

AREA NAME	4/1/90 Census	4/1/80 Census	% Change, 80 to 90
CUSTER COUNTY	11,697	13,109	-10.8%
ISMAY	19	31	-38.7%
MILES CITY	8,461	9,602	-11.9%
DANIELS COUNTY	2,266	2,835	-20.1%
FLAXVILLE	88	142	-38.0%
SCOBEY	1,154	1,382	-16.5%
DAWSON COUNTY	9,505	11,805	-19.5%
GLENDIVE	4,802	5,978	-19.7%
RICHEY	259	417	-37.9%
DEER LODGE COUNTY	10,278	12,518	-17.9%
ANACONDA-DEER LODGE	10,278	12,518	-17.9%
FALLON COUNTY	3,103	3,763	-17.5%
BAKER	1,818	2,354	-22.8%
PLEVNA	140	191	-26.7%
FERGUS COUNTY	12,083	13,076	-7.6%
DENTON	350	356	-1.7%
GRASS RANGE	159	139	14.4%
LEWISTOWN	6,051	7,104	-14.8%
MOORE	211	229	-7.9%
WINIFRED	150	155	-3.2%
FLATHEAD COUNTY	59,218	51,966	14.0%
COLUMBIA FALLS	2,942	3,112	-5.5%
KALISPELL	11,917	10,689	11.5%
WHITEFISH	4,368	3,703	18.0%
GALLATIN COUNTY	50,463	42,865	17.7%
BELGRADE	3,411	2,336	46.0%
BOZEMAN	22,660	21,645	4.7%
MANHATTAN	1,034	988	4.7%
THREE FORKS	1,203	1,247	-3.5%
WEST YELLOWSTONE	913	735	24.2%
GARFIELD COUNTY	1,589	1,656	-4.0%
JORDAN	494	485	1.9%
GLACIER COUNTY	12,121	10,628	14.0%
BROWNING	1,170	1,226	-4.6%
CUT BANK	3,329	3,688	-9.7%

AREA NAME	4/1/90 Census	4/1/80 Census	% Change, 80 to 90
GOLDEN VALLEY COUNTY	912	1,026	-11.1%
LAVINA	151	164	-7.9%
RYEGATE	260	273	-4.8%
GRANITE COUNTY	2,548	2,700	-5.6%
DRUMMOND	264	414	-36.2%
PHILIPSBURG	925	1,138	-18.7%
HILL COUNTY	17,654	17,985	-1.8%
HAVRE	10,201	10,891	-6.3%
HINGHAM	181	186	-2.7%
JEFFERSON COUNTY	7,939	7,029	12.9%
BOULDER	1,316	1,441	-8.7%
WHITEHALL	1,067	1,030	3.6%
JUDITH BASIN COUNTY	2,282	2,646	-13.8%
HOBSON	226	261	-13.4%
STANFORD	529	595	-11.1%
LAKE COUNTY	21,041	19,056	10.4%
POLSON	3,283	2,798	17.3%
RONAN	1,547	1,530	1.1%
ST. IGNATIUS	778	877	-11.3%
LEWIS & CLARK COUNTY	47,495	43,039	10.4%
EAST HELENA	1,538	1,647	-6.6%
HELENA	24,569	23,938	2.6%
LIBERTY COUNTY	2,295	2,329	-1.5%
CHESTER	942	963	-2.2%
LINCOLN COUNTY	17,481	17,752	-1.5%
EUREKA	1,043	1,119	-6.8%
LIBBY	2,532	2,748	-7.9%
REXFORD	132	130	1.5%
TROY	953	1,088	-12.4%
MCCONE COUNTY	2,276	2,702	-15.8%
CIRCLE	805	931	-13.5%
MADISON COUNTY	5,989	5,448	9.9%
ENNIS	773	660	17.1%
SHERIDAN	652	646	0.9%
TWIN BRIDGES	374	437	-14.4%
VIRGINIA CITY	142	192	-26.0%

AREA NAME	4/1/90 Census	4/1/80 Census	% Change, 80 to 90
MEAGHER COUNTY	1,819	2,154	-15.6%
WHITE SULPHUR SPRINGS	963	1,302	-26.0%
MINERAL COUNTY	3,315	3,675	-9.8%
ALBERTON	354	368	-3.8%
SUPERIOR	881	1,054	-16.4%
MISSOULA COUNTY	78,687	76,016	3.5%
MISSOULA	42,918	34,893	23.0%
MUSSELSHELL COUNTY	4,106	4,428	-7.3%
MELSTONE	166	238	-30.3%
ROUNDUP	1,808	2,119	-14.7%
PARK COUNTY	14,562	12,869	13.2%
CLYDE PARK	282	283	-0.4%
LIVINGSTON	6,701	6,994	-4.2%
PETROLEUM COUNTY	519	655	-20.8%
WINNETT	188	207	-9.2%
PHILLIPS COUNTY	5,163	5,367	-3.8%
DODSON	137	158	-13.3%
MALTA	2,340	2,367	-1.1%
SACO	261	252	3.6%
PONDERA COUNTY	6,433	6,731	-4.4%
CONRAD	2,891	3,074	-6.0%
VALIER	519	640	-18.9%
POWDER RIVER COUNTY	2,090	2,520	-17.1%
BROADUS	572	712	-19.7%
POWELL COUNTY	6,620	6,958	-4.9%
DEER LODGE	3,378	4,023	-16.0%
PRAIRIE COUNTY	1,383	1,836	-24.7%
TERRY	659	929	-29.1%
RAVALLI COUNTY	25,010	22,493	11.2%
DARBY	625	581	7.6%
HAMILTON	2,737	2,661	2.9%
PINESDALE	670	458	46.3%
STEVENSVILLE	1,221	1,207	1.2%

AREA NAME	4/1/90 Census	4/1/80 Census	% Change, 80 to 90
RICHLAND COUNTY	10,716	12,243	-12.5%
FAIRVIEW	869	1,366	-36.4%
SIDNEY	5,217	5,726	-8.9%
ROOSEVELT COUNTY	10,999	10,467	5.1%
BAINVILLE	165	245	-32.7%
BROCKTON	365	374	-2.4%
CULBERTSON	796	887	-10.3%
FROID	195	323	-39.6%
POPLAR	881	995	-11.5%
WOLF POINT	2,880	3,074	-6.3%
ROSEBUD COUNTY	10,505	9,899	6.1%
FORSYTH	2,178	2,553	-14.7%
SANDERS COUNTY	8,669	8,675	-0.1%
HOT SPRINGS	411	601	-31.6%
PLAINS	992	1,116	-11.1%
THOMPSON FALLS	1,319	1,478	-10.8%
SHERIDAN COUNTY	4,732	5,414	-12.6%
MEDICINE LAKE	357	408	-12.5%
OUTLOOK	109	122	-10.7%
PLENTYWOOD	2,136	2,476	-13.7%
WESTBY	253	291	-13.1%
SILVER BOW COUNTY	33,941	38,092	-10.9%
BUTTE-SILVER BOW	33,336	37,205	-10.4%
WALKERVILLE	605	887	-31.8%
STILLWATER COUNTY	6,536	5,598	16.8%
COLUMBUS	1,573	1,439	9.3%
SWEET GRASS COUNTY	3,154	3,216	-1.9%
BIG TIMBER	1,557	1,690	-7.9%
TETON COUNTY	6,271	6,491	-3.4%
CHOTEAU	1,741	1,798	-3.2%
DUTTON	392	359	9.2%
FAIRFIELD	660	650	1.5%
TOOLE COUNTY	5,046	5,559	-9.2%
KEVIN	185	208	-11.1%
SHELBY	2,763	3,142	-12.1%
SUNBURST	437	476	-8.2%

AREA NAME	4/1/90 Census	4/1/80 Census	% Change, 80 to 90
TREASURE COUNTY	874	981	-10.9%
HYSHAM	361	449	-19.6%
VALLEY COUNTY	8,239	10,250	-19.6%
FORT PECK	325	293	10.9%
GLASGOW	3,572	4,455	-19.8%
NASHUA	375	495	-24.2%
OPHEIM	145	210	-31.0%
WHEATLAND COUNTY	2,246	2,359	-4.8%
HARLOWTON	1,049	1,181	-11.2%
JUDITH GAP	133	213	-37.6%
WIBAUX COUNTY	1,191	1,476	-19.3%
WIBAUX	628	782	-19.7%
YELLOWSTONE COUNTY	113,419	108,035	5.0%
BILLINGS	81,151	66,842	21.4%
BROADVIEW	133	120	10.8%
LAUREL	5,686	5,498	3.4%
YELLOWSTONE NAT'L PARK	52	66	-21.2%
BLACKFEET RESERVATION	8,549	6,660	28.4%
CROW RESERVATION	6,370	5,973	6.6%
FLATHEAD RESERVATION	21,259	19,628	8.3%
FORT BELKNAP RESERVATION	2,508	2,060	21.7%
FORT PECK RESERVATION	10,595	9,921	6.8%
NORTHERN CHEYENNE RESERVATION	3,923	3,664	7.1%
ROCKY BOY'S RESERVATION	1,954	1,650	18.4%
CROW/NORTHERN CHEYENNE AREA	7	8	-12.5%

APPENDIX C

Adjacent Region Approvals

National Public Safety Plan
FCC Region 25
Planning Committee

Bill Jameson, Chairman
Montana State University

Dan Hawkins, Plan Coordinator
Department of Administration

Committee-at-Large
Jim Adkins
Mt. Deaconess Medical Center
Charles Aron, Jr. †
Columbus Hospital
John Benson
West Yellowstone EMS/Fire
Allen Bertapelle †
Mt. Private Ambulance Operators
Bob Cardwell
General Electric
Drew Dawson †
EMS Bureau
Elmer Davis
Dept. of Fish, Wildlife, and Parks
Jerry Dupler
Department of Transportation
Bob DeLange
Department of State Lands
Bill Fleiner †
Mt. Sheriffs & Peace Off. Assoc.
Jesse Y. Gonzalez †
Billings 9-1-1
Fred Guardipee
Blackfoot Tribal EMS
Don Houghton
Gallatin Co. Sheriffs Office
Jim Kraft
Yellowstone County DES
Charlie Larson †
Montana Highway Patrol
Franklin Mick Mills
Lincoln County DES
Rick Newby †
Miles City Police Department
Richard A. Nisbet †
City of Helena
Ray Nordhagen
City of Missoula
Douglas Pitt †
Mt. State Fire Chiefs Association
Chuck Rhodes †
Flathead Co. Search and Rescue
Clark Robinson
Gallatin County
John Skaggs
Motorola
Midge Warrington
Cascade County 9-1-1
Homer Young
Mt. Disaster & Emergency Svcs. Div.

† Member of Working Committee

April 9, 1992

Stan Passey, Chairman
NPSPAC Region 12
Idaho Bureau of Communications
3311 W. State
Boise, ID 83720-0001

Dear Mr. Passey:

Enclosed is our final draft Public Safety Plan for Region 25, the State of Montana. This plan has been developed and approved by our Regional Planning Committee. It is submitted for your review and coordination as required by the F.C.C.

If your region does not find any conflicts with our proposal, please indicate by signing below and returning within thirty (30) days of the date of this letter.

Signature

Date 4/10/92

W. J. Jameson, Jr.
Region 25 Chairman

Region 12 has reviewed and concurs with the Region 25 National Public Safety Plan.

Signature

Date 4-24-92

National Public Safety Plan
FCC Region 25
Planning Committee

Bill Jameson, Chairman
Montana State University

Dan Hawkins, Plan Coordinator
Department of Administration

Committee-at-Large
Jim Adkins
Mt. Deaconess Medical Center
Charles Aron, Jr. †
Columbus Hospital
John Benson
West Yellowstone EMS/Fire
Allen Bertapelle †
Mt. Private Ambulance Operators
Bob Cardwell
General Electric
Drew Dawson †
EMS Bureau
Elmer Davis
Dept. of Fish, Wildlife, and Parks
Jerry Dupler
Department of Transportation
Bob DeLange
Department of State Lands
Bill Fleiner †
Mt. Sheriffs & Peace Off. Assoc.
Jesse Y. Gonzalez †
Billings 9-1-1
Fred Guardipee
Blackfoot Tribal EMS
Don Houghton
Gallatin Co. Sheriffs Office
Jim Kraft
Yellowstone County DES
Charlie Larson †
Montana Highway Patrol
Franklin Mick Mills
Lincoln County DES
Rick Newby †
Miles City Police Department
Richard A. Nisbet †
City of Helena
Ray Nordhagen
City of Missoula
Douglas Pitt †
Mt. State Fire Chiefs Association
Chuck Rhodes †
Flathead Co. Search and Rescue
Clark Robinson
Gallatin County
John Skaggs
Motorola
Midge Warrington
Cascade County 9-1-1
Homer Young
Mt. Disaster & Emergency Svcs. Div.

† Member of Working Committee

April 9, 1992

Todd Dravland, Convenor
NPSPAC Region 38
State Radio Communications
500 East Capitol
Pierre, SD 57501-5070

Dear Mr. Dravland:

Enclosed is our final draft Public Safety Plan for Region 25, the State of Montana. This plan has been developed and approved by our Regional Planning Committee. It is submitted for your review and coordination as required by the F.C.C.

If your region does not find any conflicts with our proposal, please indicate by signing below and returning within thirty (30) days of the date of this letter.

W J Jameson Jr 800 MHz
Signature

4/10/92
Date

W. J. Jameson, Jr.
Region 25 Chairman

Region 38 has reviewed and concurs with the Region 25 National Public Safety Plan.

Todd R. Dravland
Signature

5/05/92
Date

Washington State
Department of Transportation
Transportation Building KF-01
Olympia, Washington 98504-5201
(206) 753-6005

Duane Berentson
Secretary of Transportation

May 13, 1992

W. J. Jameson, Jr., Chairman
Region 25 NPSPAC Planning Committee
Department of Electrical Engineering
Montana State University
Bozeman, MT 59717

Dear Mr. Jameson:

Thank you for the opportunity to review and comment on the Region 25 NPSPAC Plan. You and your committee are to be congratulated for a job well done.

Our only other comment is that since your plan identifies specific sites which are located on very high mountains, we wish the opportunity to review any channel requests which may impact on the Eastern border of the State of Washington. Thank you.

We look forward to the early approval of the Region 25 NPSPAC Plan.

Sincerely,

Alan C. Hull

ALAN C. HULL
Chairman, Region 43

ACH:sn513

cc: Kevin Kerns, Chairman Region 43 Review Committee
Alireza Shahnami, APCO

Adjacent Region Approvals (cont.)

National Public Safety Plan
FCC Region 25
Planning Committee

Bill Jameson, Chairman
Montana State University

Dan Hawkins, Plan Coordinator
Department of Administration

April 9, 1992

Bill Smith, Chairman
NPSPAC Region 46
Wyoming Highway Department - Communications
P.O. Box 1708
Cheyenne, WY 82002-9019

Dear Mr. Smith:

Enclosed is our final draft Public Safety Plan for Region 25, the State of Montana. This plan has been developed and approved by our Regional Planning Committee. It is submitted for your review and coordination as required by the F.C.C.

If your region does not find any conflicts with our proposal, please indicate by signing below and returning within thirty (30) days of the date of this letter.

W. J. Jameson, Jr. 4/10/92
Signature Date

W. J. Jameson, Jr.
Region 25 Chairman

800 MHz

Region 46 has reviewed and concurs with the Region 25 National Public Safety Plan.

William H. Smith 4/27/92
Signature Date

National Public Safety Plan
FCC Region 25
Planning Committee

Bill Jameson, Chairman
Montana State University

Dan Hawkins, Plan Coordinator
Department of Administration

April 9, 1992

APR 1992
STATE RADIO COMMUNICATIONS

Lyle Gallagher, Chairman
NPSPAC Region 32
State Radio Communications
P.O. Box 5511
Bismark, ND 58502-5511

Dear Mr. Gallagher:

Enclosed is our final draft Public Safety Plan for Region 25, the State of Montana. This plan has been developed and approved by our Regional Planning Committee. It is submitted for your review and coordination as required by the F.C.C.

If your region does not find any conflicts with our proposal, please indicate by signing below and returning within thirty (30) days of the date of this letter.

W J Jameson Jr
Signature

4/10/92
Date

W. J. Jameson, Jr.
Region 25 Chairman

Region 32 has reviewed and concurs with the Region 25 National Public Safety Plan.

Lyle Gallagher
Signature

5/8/92
Date

APPENDIX D

Glossary of Terms

Blocking - Blocking occurs when all channels are busy and any new transmissions, by either a dispatcher or mobile unit, are "blocked" by existing traffic. The probability of blocking, PB, is expressed as a decimal and is the probability that a new transmission cannot be accomplished due to existing traffic using all channels. It is a measure of the potential delay in obtaining a channel. PB is not a constant, but is (time) dependent upon the amount of radio traffic being carried by the system at any given time. For example, at hours of the day or week when there is a large volume of radio traffic, PB may be fairly large indicating a possible delay in completing a radio message.

Bouncing Busy Hour (BBH) - If one measures system traffic over a period of time (typically 30 days) and determines the amount of traffic in Erlangs during the busiest hour of the day for each day (the busy hour will "bounce" from day-to-day) during the measurement period, then the BBH traffic is the average over the period of the daily peak traffic.

Erlang - A measure of communications traffic. One Erlang represents one hour of traffic. Hence, if one has one Erlang offered uniformly to three channels, each channel would carry 1/3 Erlang.

Erlang C - A formula used to determine the grade of service (GOS) for communications systems in which calls are delayed rather than lost (such as occurs with a telephone busy signal). In a public safety radio system in which the user can monitor existing traffic, calls are delayed until the channel is free. Hence, Erlang C is an appropriate traffic formula for such systems.

Grade of Service (GOS) - The grade of service of a communications system is a measure of the probability, expressed as a decimal, that a communication path (channel) is available (i.e. not blocked by other traffic). It can be expressed as GOS = 1 - PB. Note that the GOS is not the percent of time the channel(s) is available for use. This is due to the fact that calls (eg. radio calls) arrive in a random order. At some times there may be a large number of calls for service contending for channels; at other times no calls for service. Channel availability is clearly lower when there are a large number of users waiting to be served; higher when there is little demand for service. The GOS is a "statistical averaging" of these conditions.

Peak Busy Hour (PBH) - If one measures system traffic over a period of time (typically 90 days) and determines the amount of traffic in Erlangs during the busiest hour of the entire measurement period, then the PBH traffic is the number of Erlangs of traffic during the busiest hour of the measurement period.

Time Consistent Busy Hour (TCBH) - If one measures system traffic over a period of time (typically 30 days) and determines the amount of traffic in Erlangs during the each hour of the day for each day during the measurement period, then the TCBH traffic is the maximum of the average of the traffic for each hour of the day over the period of the daily peak traffic. That is, one finds the hourly average traffic for the measurement period between 0000 and 0100 hours, between 0100 and 0200 hours, etc., through 2300 and 2400 hours. The TCBH traffic is the largest of these 24 averages.

APPENDIX E

Traffic Loading Study & Analysis

Address _____

_____

Name of Communications Officer preparing this form:

_____

Telephone number_____

List agencies served by the communications system:

Agency	# Mobile Units
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

How many 800 MHz channels serve the present system? _____
Are they trunked? Yes_____ No_____

What method did you choose to measure system traffic?
PBH_____ BBH_____ TCBH_____

How many days did you collect data in the study?_____

What method did you use?
Manual data collection_____
Automated data collection_____
What type of device was used to collect the data?
_____

How many Erlangs of traffic were calculated:
a. Trunked system (total traffic, all channels)_____
b. Non-trunked system
Channel 1_____
Channel 2_____
Channel 3_____
Channel 4_____

<u>Data Summary by Day</u> (Complete as many forms as necessary to summarize your study)

<u>Traffic Measured During Peak Traffic Hour by Day (in Erlangs)</u>

Day #	Trunked System	Non-Trunked System Ch #1	Ch #2	Ch #3	Ch #4	Hour of Day

Page _____ of _____

APPENDIX F

Region 25 (Montana) CTCSS Tone Plan

Continuous Tone-Coded Squelch System (CTCSS) will be employed to protect Region 25 National Plan systems from co-channel and intermodulation interference.

Assignments

STATEWIDE - All radio equipment operating on 800 MHz frequencies under the Region 25 National Plan must be capable of using CTCSS 156.7 on the five International Common Channels.

County	Hz	County	Hz
Beaverhead	146.2	McCone	151.4
Big Horn	107.2	Meagher	107.2
Blaine	114.8	Mineral	156.7
Broadwater	100.0	Missoula	146.2
Carbon	114.8	Musselshell	131.8
Carter	114.8	Park	114.8
Cascade	141.3	Petroleum	100.0
Chouteau	131.8	Phillips	156.7
Custer	167.9	Pondera	100.0
Daniels	141.3	Powder River	156.7
Dawson	146.2	Powell	114.8
Deer Lodge	107.2	Prairie	156.7
Fallon	100.0	Ravalli	151.4
Fergus	162.2	Richland	114.8
Flathead	123.0	Roosevelt	131.8
Gallatin	192.8	Rosebud	151.4
Garfield	162.2	Sanders	162.2
Glacier	107.2	Sheridan	107.2
Golden Valley	151.4	Silver Bow	100.0
Granite	141.3	Stillwater	156.7
Hill	107.2	Sweet Grass	162.2
Jefferson	156.7	Teton	151.4
Judith Basin	114.8	Toole	162.2
Lake	107.2	Treasure	162.2
Lewis & Clark	203.5	Valley	162.2
Liberty	156.7	Wheatland	167.9
Lincoln	151.4	Wibaux	107.2
Madison	167.9	Yellowstone	146.2