Friday, January 22, 2016

Federal Communications Commission
Office of the Secretary
445 12th Street, SW
Washington, DC 20554

Attention: Chief, Public Safety and Homeland Security Bureau

Subject: WTB Docket No. 02-378, Region 38 - 700 MHz Regional Plan

Dear Sir/Madam Secretary:

On behalf of Regional Planning Committee 38 ("Region 38"), I am pleased to submit the Plan[1] for the use of the 700 MHz public safety narrowband voice frequencies pursuant to the rules of Federal Communications Commission. The Region 38 Plan has been developed in conformance with the Second Report and Order[2] as well as the related and applicable Orders of the Commission. In addition, the table of 700 MHz channels[3] has been updated to include the new allotments as developed by the Computer Assisted Pre-coordination Resource and Database System ("CAPRAD")[4].

Region 38 believes that this Plan sufficiently addresses each of the common elements required under the Commission's rules[5]. In the compilation of the Plan, Region 38 provided notice of all meetings, opportunities for comment, and how we reasonably considered the views expressed by participants. The Plan was coordinated with each of the neighboring Regional Planning Committees[6]. This Plan is representative of all public safety entities in Region 38 and the details of the Region's activities to meet the requirements of the Commission[7] relative to Plan development are offered within the body of this document.

The Region requests the Commission's approval of this Plan as so licenses for critically needed land mobile radio systems in the 769-775 and 799-805 MHz bands supporting homeland security and public safety can be submitted.

Respectfully submitted,

Mr. Todd Dravland, Chair
Regional Planning Committee 38

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[1] See 47 CFR §90.527(a)(1)

[2] See FCC 07-132

[3] See 47 CFR §90.531(b)(6)

[4] See DA 07-4587 Appendix Bullet Point One, Page 3

[5] See 47 CFR §90.527(a)

[6] See 47 CFR §90.527(a)(5)

[7] See 47 CFR §90.527(a)(6)

9. Certification from 47 CFR §90.531 (a)(8)

Pursuant to the provisions of 47 CFR §90.531 (a)(8), I hereby certify that all planning committee meetings, including subcommittee or executive committee meetings were open to the public. A summary of the deliberations of the Committee pursuant to adopting this Plan can be found in Appendix D, in the minutes of the Regional Planning meeting.

Todd Dravland
Chair, Region 38

01/25/2016
Date

Table of Contents

1. 700 MHz Regional Plan for Regional Planning Committee 38

This document is the 769-775 and 799-805 MHz Plan for Regional Planning Committee 38 (South Dakota) describing how the General Use frequencies as defined in 47 CFR §90.531(b) (6) will be allocated and implemented in the Region. This section is provided in compliance with 47 CFR §90.527 (a) (1). Unless stated otherwise, any reference to "700 MHz" in this Plan means the 769-775 and 799-805 MHz frequencies established for public safety general use in 47 CFR 90.531(b)(6) and other subparts for which Regional Planning Committees have responsibility.

1.1 Regional Chair and Officers

The Regional Chair of Region 38:

Todd Dravland
State Radio Engineering
1302 E. Hwy. 14, Suite 8
Pierre, SD 57501
(605) 773-4635
Todd.Dravland@state.sd.us

The Vice-Chair of Region 38: Jeff Pierce, Engineering Manager of Bureau of Information Technology, State of South Dakota, Pierre, SD 57501, (605) 773-4347.

The Secretary of Region 38: Adam Scott, Radio Tech, Pennington County, South Dakota

The Technical and Regulatory Committee Chair: Adam Scott, Ted Backlund, John Dalldorf, and Jeff Pierce

1.2 RPC Membership

Membership in the Region 38 Regional Planning Committee is open to any interested party. Committee Officer Offices, voting procedures, and membership attendance requirements are listed in the Region 38 Planning Committee bylaws. The Region's membership information is contained in the Appendices to the Plan. Voting and operating procedures are described in the bylaws of this plan. Prior to the first meeting of the 700 MHz Committee, thirty (30) business days of notice was provided to all interested parties and all sessions have been open to the public.

1.3 Plan Development and Regional Participation

Region 38 developed the 700 MHz Plan through extensive intra-regional participation as well as through coordination through its regional neighbors that had convened and made substantive progress in the development of their plans. To construct the Plan, the Regional Chair convened a Task Force composed primarily of the Technical Committee and its members as well as himself and the Region's Secretary.

The group responsible for Plan development conducted a series of meetings in which defined progress was made relative to specific sections of the Plan. Progress reports were assessed through conference calls and in-person meetings. The work of the group culminated with adoption of the Plan.

1.4 Composition and Role of Committees

A. Regulatory Committee

The Regulatory Committee is charged with the responsibility to:

1. Conduct annual reviews of the regulatory issues promulgated by the Commission and propose compliance revisions of the Region 38 Plan for 700 MHz

2. File notices or comments with the Commission as required by the Region's By-laws.

3. Develop responses to any notices issued by the FCC impacting Regional Planning Committee Region 38.

B. Technical Committee

The Technical Committee is charged with the responsibility to:

1. Conduct annual reviews of the technical matters impacting the Region 38 Plan for 700 MHz.

2. Review and take action on applications from within Region 38 for 769-775 and 799-805 MHz channels.

3. Review and take action on 700 MHz applications from adjacent Regional Planning Committees.

1.5 Major Elements of the Plan – from 47 CFR §90.527 (a) (2)

The major elements of the Plan are those required to conform to the requirements of the Commission as contained in 47 CFR §90 Subpart R. Each of the elements as contained in the rules of the Commission is specifically notated in this Plan to facilitate regulatory review. Internally, compliance with the Commission's requirements was assessed utilizing the documentation provided by NPSTC as well as the former National Coordinating Committee formed following the 4th NPRM from Docket WT 96-86. Appendix K also depicts the Region's compliance with 47 CFR §90.527 (a) (2) by depicting the Plan "check-off" sheet provided by the NCC.

1.6 Opportunities for Participation in the Plan's Development - from 47 CFR §90.527 (a) (2)

Region 38 encouraged the participation of all Part 90 licensees and others with an interest in the development of a Plan for 700 MHz and other issues related thereto. The Region determined that there are

federally registered tribes of Native Americans within the State of South Dakota (please see http://www.aicco.org/modules/mastop_publish/?tac=tribal_governments).

The region first convened during a meeting on January 15th, 2009. In this meeting, information on the strategies used in other regions was presented as well as a PowerPoint presentation documenting the Commission's requirements for Plan development as provided in 47 CFR §90.527.

The minutes for meetings are contained in Appendix D.

2. Region 38 Description[8]

The State of South Dakota offers diverse geography from the Badlands and Black Hills in the west and crystalline lakes and rolling prairie to the east. The state's name is derived from the Lakota and Dakota Sioux American Indian tribes. The Missouri River is the largest and longest river in the state and divides it into two distinct halves. Other major South Dakota rivers include the Cheyenne, the James, the Big Sioux, and the White. South Dakota has many natural lakes, mostly occurring in the eastern part of the state. Additionally dams on the Missouri River create four large reservoirs: Lake Oahe, Lake Sharpe, Lake Francis Case and Lewis and Clark Lake.

South Dakota has historically been dominated by an agricultural economy and rural lifestyle. Ranching is the predominant agricultural activity in the west; in the east a variety of crops are grown. More recently the state has sought to diversify its economy. Leading manufactured products in the state are computers and computer components, food processing, machinery, transportation equipment, and fabricated metal products. Important mined products include gravel, petroleum, gypsum and natural gas. Several large financial companies have operations located in the state.

South Dakota is a popular tourist destination providing outdoor activities such as skiing, snowmobiling, hiking, biking, backpacking, golf, hunting and kayaking to name a few. The Badlands, Mount Rushmore and Custer State Park provide educational as well as recreational facilities. In August millions of motorcycle enthusiasts rumble through the state to attend the Sturgis Motorcycle Rally.

South Dakota contains several sites that are protected by the National Park Service. Two national parks have been established in South Dakota, both of which are located in the southwestern part of the state. Badlands National Park; Wind Cave National Park; Mount Rushmore National Memorial. Other areas managed by the National Park service include Jewel Cave National Monument, Lewis and Clark National Historic Trail, Minuteman Missile National Historic Site which contains a decommissioned nuclear missile silo, and the Missouri National Recreational River. The largest city is Sioux Falls; Rapid City is the second largest. Federal installations include:

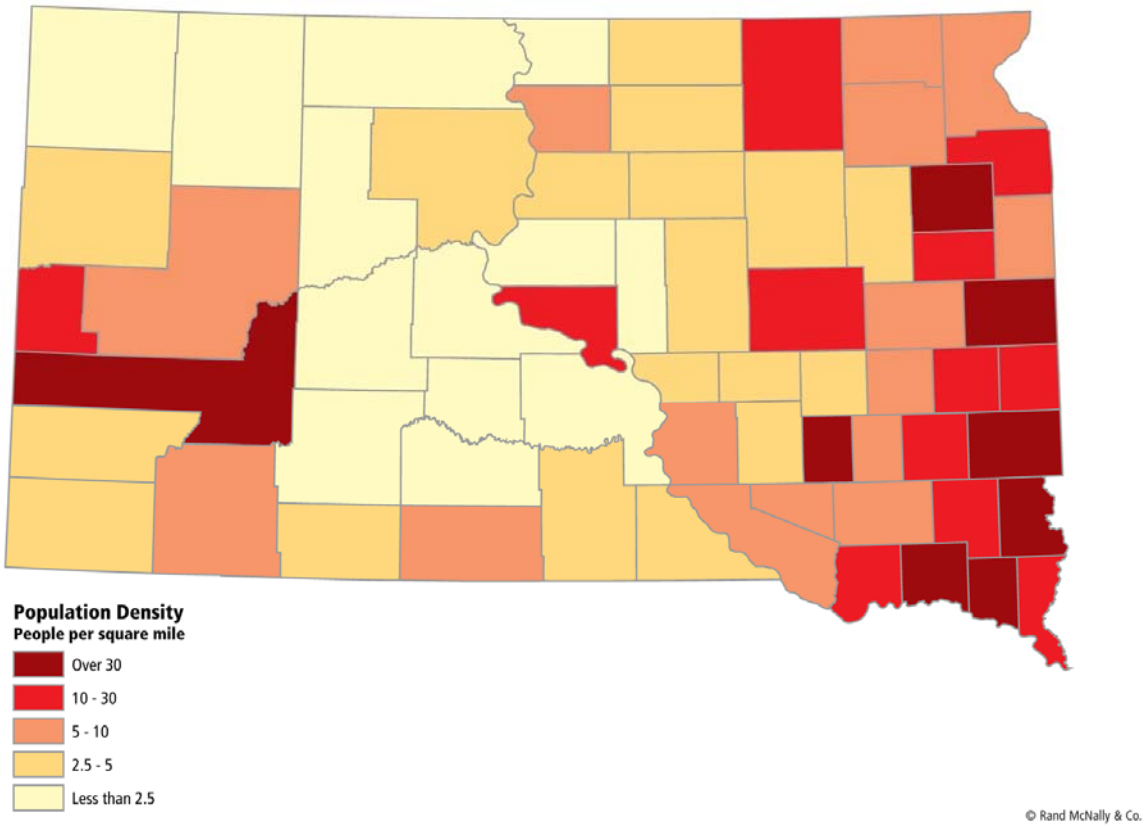
Native Americans, largely Lakota, Dakota, and Nakota (Sioux) are predominant in several counties. South Dakota has the third highest proportion of Native Americans of any state. Five

of the state's counties lie entirely within Indian Reservations.

The population of the state is approximately 781,919 (2006 census) which ranks it 5th lowest in population density in the nation. The urban population is some 65.3 percent and the rural population is 34.7 percent.

The major population areas are:
Sioux Falls
Rapid City

There are 66 counties in the state with a total land mass of 77,166 square miles making it the 17th largest state.



[8] The Description of Region 38 was obtained from the Statewide Communications Interoperability Plan (SCIP) for South Dakota (http://www.ok.gov/homeland/documents/Statewide%20Communications%20Interoperability%20Plan%20SCIP%20V1.01.doc)

As is shown above, the population of the state is unevenly distributed across the land area. 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 which generally indicates that the concentration of radio users for public safety activities is also sparse. The presence of federal facilities adds complexity to the public safety framework within South Dakota. All of these items were taken under consideration in the allocation plan

2.1 Notification Process

Because of the Region's close coordination with the adjacent (convened) Regional Planning Committees, all of the adjacent Chairs were familiar with the work of Region 38 to develop the 700 MHz Plan. In addition, Region 38 has reviewed and approved the Plans of Regions 7, 16, 24, and 40. The Chair of Region 38 has continued to keep the Chairs of the adjoining convener regions up-to-date with progress relative to the development of the 700 MHz Plan.

All meetings were published in the Commission's Daily Digest as well as Regional email lists from the 800 MHz planning process. A comprehensive contact list was developed specifically for 700 MHz planning based on contact information listed on Part 90 public safety licenses.

2.2 Future Meetings

During the period following the Commission's approval of the Region 38 Plan, it is anticipated that meetings will be held with greater frequency as initial actions are taken relative to actions on applications for channel assignments.

There shall be no less than thirty (30) days of notice provided prior to a meeting with the sufficiency of notice measured by the posting of the meeting's information in the Daily Digest of the Commission.

2.3 Operations of the Region

Region 38 employs Robert's Rules of Order to conduct meetings. Voting member considerations are listed in the Region 38 By-Laws. The meetings are open to all interested persons and public input time can be provided for anyone to express a viewpoint or to have input to the Regional Planning process.

A minimum of one (1) full committee meeting will be held every twelve months. The Region 38 Chair has the authority to call an additional meeting at a time when he/she deems necessary or when he/she deems it in the best interest of the Region to convene. For the convenience of Region 38 members, attempts will be made to coordinate 700 MHz meetings with Region 38 800 MHz meetings.

As provided in the bylaws, the Chair shall call a meeting of the Regional Planning Committee to elect a Chair, Vice Chair and Secretary.

A chronological list of meetings, summary of minutes, meeting announcements and agendas outlining Region 38 progress in 700 MHz development is located in Appendix D of this document.

Emergency medical services may be provided by municipal or volunteer fire departments as well as volunteer rescue squads and commercial ambulance services.

3. Regional Plan Administration and Frequency Coordination

3.1 General Description of Spectrum Allocation – from 47 CFR §90.527 (a) (3)

A. Region 38 believes that it has two principle responsibilities to the members and adjacent regions. First, the Regional Plan is predicated upon an attempt to provide as much spectrum to an applicant as the facts and circumstances of the application support. To this end, the Region will consider in totality the current spectral resources of the applicant as well as other potential requirements of other licensees within the applicant's area of operation.

The review will also consider the issue of spectrum (in any band) to be returned by the applicant, if any, and the funding available to implement a system. All of these steps are under-taken to ensure that the Region carefully manages and becomes a good steward of the spectrum for which it is responsible. To the greatest extent possible, the Region desires to demonstrate to both applicants and potential applicants the highest levels of reasonableness in the management of spectral resources for which it is responsible.

To ensure that channels have been allocated appropriately with respect to geographical areas within Region 38, the CAPRAD table of assignments will be utilized as the initial baseline from which assignments are initiated. If necessary, the Region may augment the CAPRAD assignments provided that any changes in assignment(s) conform fully to the technical requirements of the Commission, fulfill coordination requirements with adjoining Regions, and serve the public interest.

As part of its review of an applicant's request, in addition to considering the potential impact upon other eligible users within a geographic area, the Technical Committee will also review the application to ensure that, if approved, the document does not negatively impact other eligible applicants within or adjacent to the Region.

However, after the Region 38 Plan has been approved for a period of three years, no active application will be rejected solely due to interference that may be caused to geographic allocations in areas where there is no active intent to pursue licensing in the 700 MHz band. Secondly, the Region must protect adjacent and co-channel users in other regions from harmful interference as defined in the applicable rules of the Commission.

Upon FCC approval of this Plan, Region 38 will announce to the region that the initial window of 700 MHz public safety spectrum is available in the Region and that channels will be initially assigned on a geographical basis within phases, also known as "windows". All available methods will be used to notify public safety entities of channel availability in the Region (see Section 2.1).

For the initial allocation of channels, Region 38 proposes a modified set of National Coordination Committee (NCC) Pre-Assignment Rules and Recommendations listed in Appendix F to the extent appropriate. However and when in the public interest, the Region may modify the means of channel allocation in order to provide eligible licensees with the number of channels required to implement land mobile radio systems in the frequencies for which this Plan is responsible.

B. Notwithstanding the provisions of paragraph A, when in the opinion of any officer of Region 38 that it is in the public interest, applications for channels will be received and processed in compliance with

the other provisions of this Plan.

C. Applications for channels in Region 38 shall be submitted to the Chair of the Technical Committee. The Technical Committee chair shall be responsible to comply with the provisions of 47 CFR §90.176 (c)–(h) relative to the notification of the adjacent region of applications for channels as well as compliance with the provisions of 47 CFR §90 Subpart R.

D. In order to maintain accurate records in the CAPRAD database, applicants will provide Region 38 with electronic copies of their application along with associated documentation for adjacent Regional Planning Committee review. Upon approval of an application and if the applicant has not done so, the Technical Committee will enter the FCC 601 form into the CAPRAD database before the application is forwarded to the FCC certified coordinators.

3.2 Application Requirements

Each application package must contain enough information that evaluators can determine the strength of the application relative to its competing peer applications, as well as its technical validity. Applicants should review these recommendations prior to preparing applications for submission.

3.2.1 Application Content Summary

A complete application package must include the following items:

A. Completed FCC 601 form(s)

B. Completed supplemental application requirements including:

a. Manufacturer and model of transmitting antenna, if available
b. Degrees of electrical downtilt, if available
c. Orientation of the antenna, if other than omnidirectional, if available
d. Degrees of mechanical downtilt applied to the antenna mounting, if available
e. A written description of the service area
f. Justification of any extension of the service area beyond the jurisdictional limits of the applicant
g. Project implementation plan/schedule

C. Signed Letter of Intent agreeing to implement system as proposed; conditioned on relinquishing any FCC license upon default of system construction.

D. Coverage and interference-prediction contours that are calculated by methods described in TIA TSB-88B (or a subsequent later version), using Okumura-Hata-Davidson propagation modeling, relative to a suburban environment. The modeling is to be based on a 1 arc second terrain data. Land Use-Land Cover (LULC) losses are to be applied; however, the diffraction portion of the modeling, where it can serve to artificially limit the size of the contour, must be disabled. The Region 38 Committee will provide reference propagation plot based upon specific listed technical parameters (see Appendix F). Applicants will replicate this reference propagation with their specific analysis software to illustrate that generally equivalent results

are obtained.

3.2.2 Application Submission Format

All material provided as part of the application package must be submitted electronically.

3.2.3 Grounds for Dismissal of Application

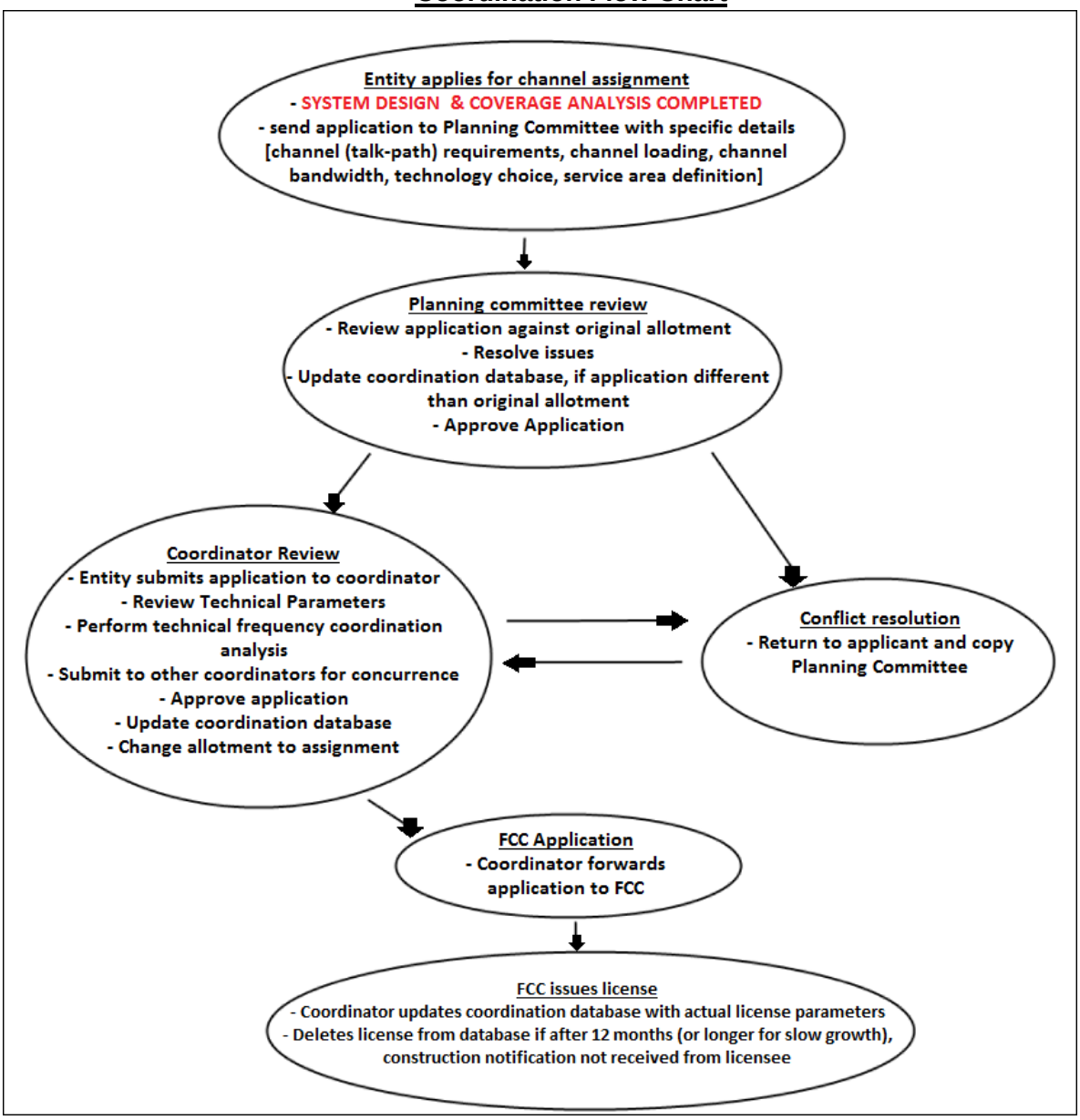
At the discretion of the Technical Committee, applicants may be afforded the opportunity to provide any essential missing application information so applications can continue to undergo the evaluation process. The Chair of the Technical Committee shall notify the applicant via written or electronic mail if the application package does not meet the requirements stated in this Plan. Applications may be dismissed and returned to the applicant if the required information is not provided. The applicant will then have the option to complete and resubmit the application during the next filing-window period.

3.2.4 Appeal of Dismissal

Normally the actions of the Technical Committee, with respect to the dismissal of an application for channels, shall be considered final in accordance with Section 3.2.3 of this Plan. However, upon action of the applicant or at the request of any officer of the Regional Planning Committee, the Chair, or Vice-Chair, acting in the absence of the Chair, may intervene and consider the merits of such application *de novo*. If in the opinion of the Chair, or the Vice-Chair acting in the absence of the Chair, that such condition exists as to merit a processing of the application, the Technical Committee shall continue to process the application provided that the applicant brings forward any documentation required, as may be necessary, to conduct an appropriate evaluation of the application.

3.2.5 Application Process

Coordination Flow Chart



The applicant's current frequency holdings (if any) are reviewed by the Committee.

Next, the frequency pool is allotted, and interregional concurrence occurs as necessary. The Plan is then sent to the FCC for review and approval. Upon acceptance by the FCC, the RPC notifies the applicant of its channel allotment(s). The applicant shall file the station license(s) with its preferred frequency coordinator, who coordinates with the FCC.

Simultaneously, the applicant shall send a copy of its application to the RPC. Upon confirming that the application for license matches the application for channel allotment, the RPC shall submit a Regional Plan Control Number to the coordinator, and the Regional Plan, RPC, and CAPRAD databases are updated. Finally, the FCC grants the license(s) to the successful applicant.

3.2.6 Follow-up after Initial Approval

The FCC allows the applicant/licensee up to five (5) years to implement the system.

System implementation is monitored by the Region 38 Technical Subcommittee to determine if progress is being made (see Block #30 in Figure 8). Monitoring of system implementation by the Region 38 Technical Subcommittee will take place at a minimum of six-month intervals until implementation is complete. If progress is being made, the system is ultimately implemented (Block #32). If progress is not made, the applicant/licensee is warned of the potential consequences of its lack of progress (Block #31).

The Region 38 Technical Subcommittee continues to monitor progress on the implementation of the system. If monitoring indicates that progress is still not being made, the applicant/licensee is notified (Block #33) of pending action to withdraw the channel allotment(s). The notified applicant/licensee can request an extension (Block #34) of time from the RPC to complete its slow-growth plan or can allow the application to be cancelled (Block #35). If the applicant/licensee requests an extension, and the RPC agrees, a concurrence letter acknowledging the applicant's request will be produced by the RPC and sent to the FCC.

If the RPC grants an extension to the applicant/licensee, the system implementation monitoring process will continue and the activities in blocks #30 - #33 will reoccur. If the RPC does not grant an extension, the applicant/licensee and FCC will be notified (Block #36). The notified applicant/licensee can appeal this action or allow the license to be withdrawn (Block #37). If the allotted frequencies are withdrawn, they are added back into the frequency pool (Block #38) and the process begins a second iteration, starting back at Block #1.

If the applicant/licensee appeals the RPC's decision, the FCC appeal process will ensue (Block #39). If the FCC denies the appeal, the RPC and applicant/licensee will be notified (Block #40). If the FCC grants the appeal with channel-allotment changes, the process reverts to Block #22 (frequency pool is allotted). If there is no channel-allotment change, the process reverts to Block #30 (system implementation is monitored by the RPC).

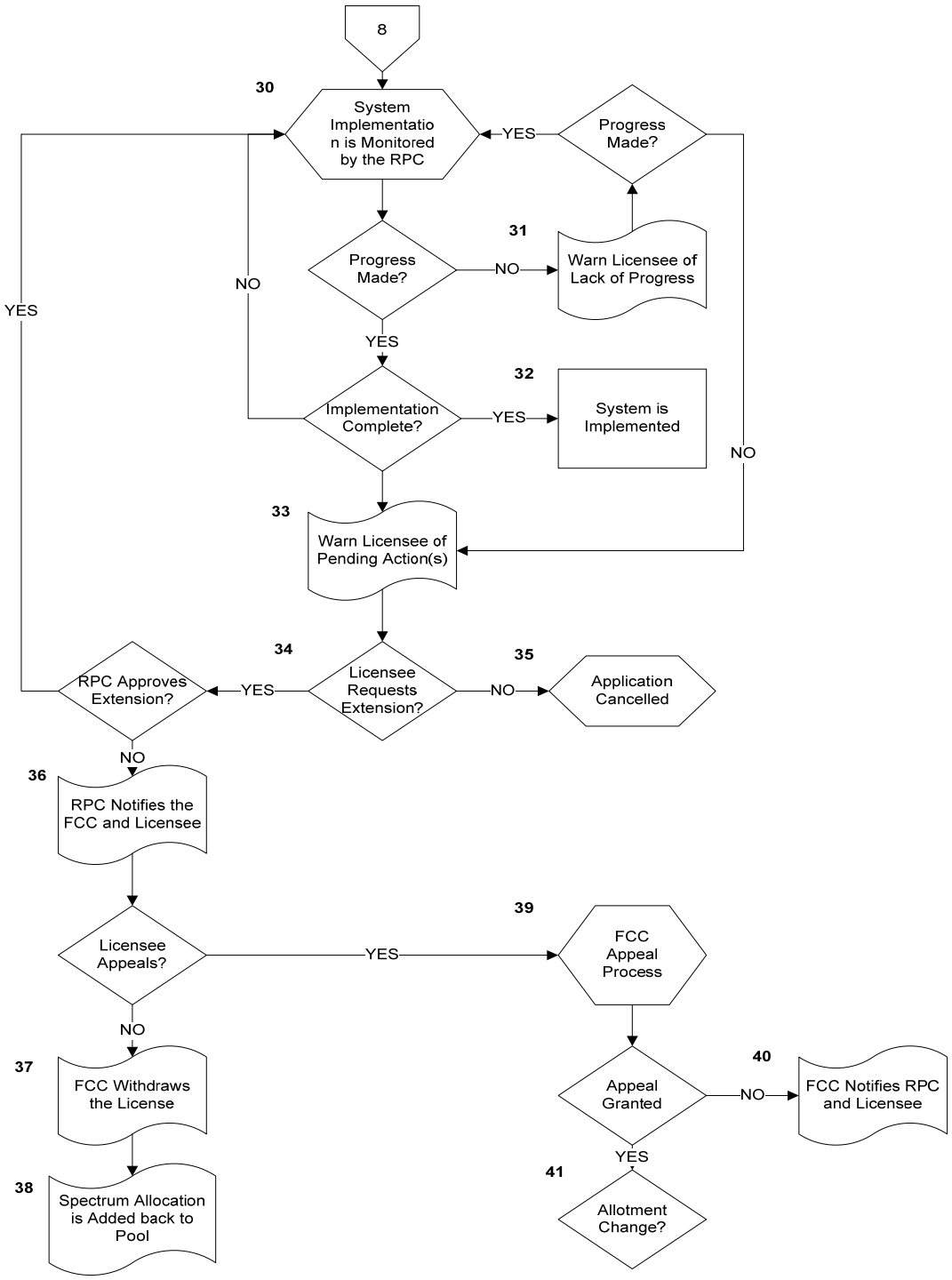


Figure 8 - Application Review Flowchart

3.3 Technical Evaluation of Applications

Complete application packages shall undergo a technical review according to the procedures described in this section.

In order for an application to pass the technical evaluation process, it must:

A. Contain the required technical parameters
B. Be consistent with the CAPRAD 700 MHz National pre-allotment channel pool for Region 38 and/or an alternative approach acceptable to the RPC
C. Protect licensed assignments and unlicensed allotments under past filing windows

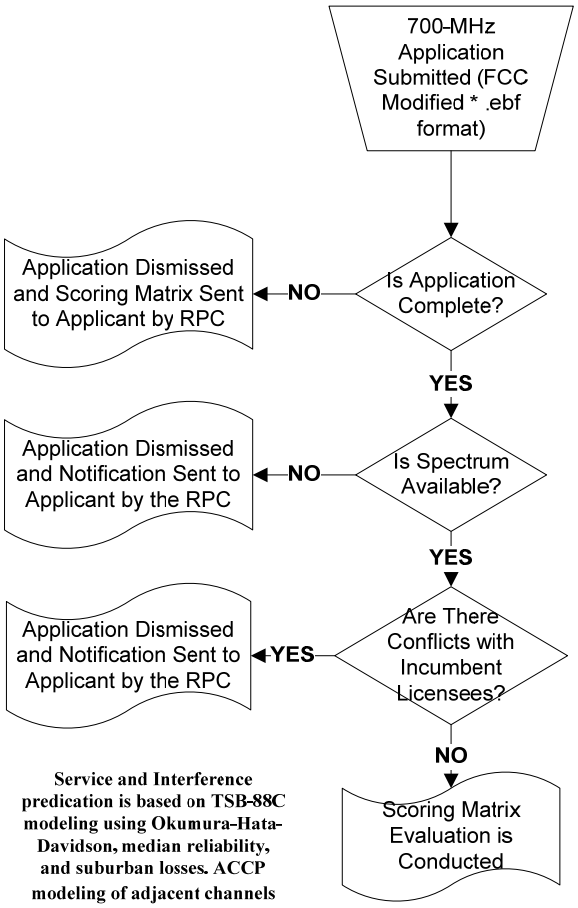


Figure 9 – Overview of Technical Review Process

3.4 Coordination with Adjacent Regions – from 47 CFR §90.527 (a) (5)

Each application will be checked by the RPC 38 Technical Subcommittee to ensure that its acceptance would not cause harmful interference to existing licensed systems and allotments.

Each application must be consistent with the CAPRAD 700 MHz National pre-allotment channel pool for Region 38. Any application packages that do not provide the appropriate pool protection as required will be returned to the applicant, with information regarding other impacting applications. The applicant will be allowed thirty (30) days to respond.

3.5 Use of the CAPRAD Pre-Assignment Table

The Region believes that the CAPRAD Pre-Assignment Table represents an appropriate strategy as the initial basis to assign channels in the first window of applications from within the Region. CAPRAD was established to ensure an appropriate distribution of channels on the basis of geographic population. Additionally, the channels were assigned to minimize the potential of co-channel and adjacent channel interference. However, CAPRAD did not differentiate the channel assignments based upon geographical areas already enjoying advanced digital trunked radio services in the 800 MHz band and contrast those assignments with users in highly populated areas utilizing older conventional technologies. It is often the users of older conventional systems that may have the greatest need for spectrum to construct modern digital trunked radio systems. CAPRAD's use of geographical separations of channels also does not consider the actual system technical parameters or service area. As an example, the listing of a specific channel to a county geographic area does not consider that the channels may in actuality be used by a city in that county with a significantly smaller service area. Additionally CAPRAD does not consider RF path loss between reuse areas (i.e. terrain obstacles). In both of these examples, the reuse criteria of CAPRAD can be significantly reduced. This highlights the Region 38 position that CAPRAD is a starting point, not an end point, in channel allocations.

As a principle, the Region will utilize CAPRAD as the fundamental basis to make initial channel assignments to an eligible user within a geographic area. The Region recognizes and interprets the Commission's rules to mean that channels are assigned geographically and as an example, not to specific political entities such as a county government, but to any eligible user within a county. To illustrate further, if a CAPRAD assignment is to (hypothetical) Smith County, any eligible user within Smith County may apply for use of the channel as may be consistent with 47 CFR § 90 Subpart R.

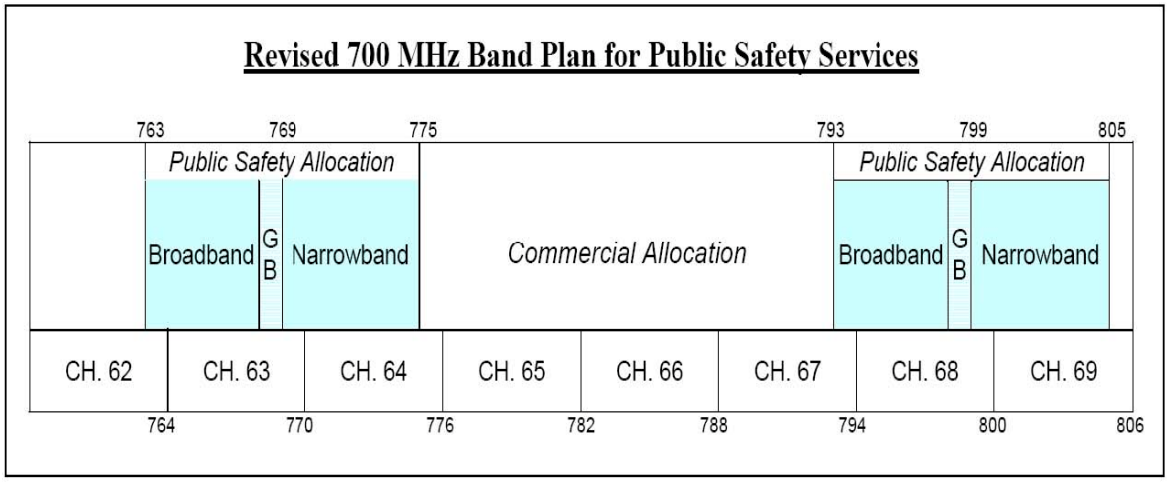
If an eligible user in Region 38 requires more channels than are available within CAPRAD and the facts and circumstances of the user's request justify the channels, the Region will endeavor to meet the applicant's requirements provided that the applicant provides documentation to support the need for additional channels. The documentation shall be provided at the expense of the applicant and may include "Grade of Service" studies, proposed channel loading data, fleet maps, and other documents demonstrating the need for additional channels.

The Region believes that the most efficient use of spectrum curtails the arbitrary assignment of voice channels in four blocks of adjacent 6.25 KHz channels. As will be detailed in the Plan, the Region supports a "technology-neutral" strategy that permits an applicant to specify the spectral requirements of the

proposed system which may deviate from the CAPRAD table of assignments.

To minimize the likelihood of "orphan" channels, the Region will permit the appropriate exchange of CAPRAD-assigned channels between eligible users desiring 12.5 KHz assignments as consistent with Section 6.3 of this Plan.

Region 38 will assign channels pursuant to the Commission's Second Report and Order to Docket WT 96-86 released August 10, 2007 as depicted below.



3.6 Allocation Disputes

An eligible licensee may protest a proposed system within 30 calendar days of the Window 1 notification. CAPRAD geographic area allocations will only be considered protected for a period of three years from the date the FCC approved the Region 38 Plan, after which time only FCC licensed allocations receive protection. Protests will only be considered if the allocation does not conform to the Region 38 Plan or the objecting agency or the Chairperson can show harmful interference is likely based on the information submitted by the agency requesting the new allocation. If an agency with pre-licensed/Region approved co-channel or adjacent channel allocations objects to a proposed allocation due to concerns about potential interference, the objecting agency may request field tests be done to confirm or refute interference potential. The completion of these field tests will be required for Regional application approval. Coverage area service/interference contours of the proposed system(s) should meet values designated in Section 6.1 of this document. Any costs associated with field tests or any other requirement to obtain Region 38 plan approval is the responsibility of the agency submitting the application to Region 38.

The parties involved must resolve the allocation dispute pursuant to the Plan and notify the Region Chair of such resolution within 30 calendar days. If the parties involved cannot resolve the allocation dispute within that timeframe, then a special full Committee meeting will be scheduled to consider and vote on the protest. If approved, the application will be submitted through the CAPRAD database to the applicant's chosen FCC-certified frequency coordinator for processing.

3.7 Lower Power "Campus Eligible" General Use Channels

With the implementation of 700 MHz public safety spectrum throughout Region 38, there may be opportunities for increased channel reuse when developing radio systems for "campus" type operations. Examples of those who may capitalize on this opportunity include hospitals, stadiums, malls, or other places of public gathering, universities, transit systems, and ports. While these channels have been designated in jurisdictional pool allotments with proper designations, they do not enjoy the benefits of wide area channels in that they are not cleared for usage over a wide area. In many instances, facilities require a smaller or more specific geographical coverage area than assumed in the initial channel packing plan and may be able to be reused more efficiently.

These "campus" type systems also, in many cases, require in-building or confined space/tunnel radio coverage or communications along a linear pathway, such as a maintenance or right of way. Public safety channels can be allotted to this type of operation in a region and can lead to effective system development, along with increased spectral efficiency, if power levels and Area of Protection (AOP) of the area are taken into account in system planning. These parameters must be established appropriate to the area of coverage. In order to facilitate this effective method of system implementation, channels have been identified in certain areas of Region 38 that may be utilized in a smaller service area. These channels may not be eligible to be utilized throughout the jurisdiction to which they are allotted and the following criteria must be adhered to when requesting channels from Region 38 for operations of this type:

a. The 40 dBμ F (50, 50) service contour[9] of the proposed system must not exceed an area more than 2 miles from the proposed transmitter site. When this 2-mile distance extends to an adjacent region, the applicant must obtain concurrence from the adjacent region. Reduced external antenna height, along with reduced effective radiated power (ERP), directional antennae, distributed antenna systems, and radiating "leaky coax," are all tools that should be utilized in the development of these type systems.

b. Region 38 will ensure that the development of these types of systems will in no way interfere with co-channel or adjacent channel users within Region 38 or Region 38's adjacent neighbors. The Chair of the Region or its Technical subcommittee, or a majority of the members of the region, has the authority to request and require engineering studies from the applicant that indicates no harmful interference will be introduced to any co-channel or adjacent channel existing user prior to application approval.

c. For 12.5/25 KHz co-channel assignments, the 40 dBμ F (50, 50) service contour of the proposed stations will be allowed to extend beyond the transmitter site for a distance no greater than 2 miles. An adjacent/alternate 12.5/25 KHz channel shall be allowed to have its 60 dBμ (50, 50) contour touch, but not overlap the 40 dBμ service (50, 50) contour of an adjacent/alternate system being protected. Evaluations should be made in both directions to ensure compliance. The approval of systems utilizing jurisdictional allotment channels labeled "Campus" is subject to approval of the Region 38 700 MHz

[9] Contours are calculated using methods described in TIA TSB-88B (or a subsequent later version), by using Okumura-Hata-Davidson propagation modeling, relative to suburban environment. The modeling is to be based on a 3 arc second terrain data. Land Use-Land Cover (LULC) losses are to be applied; however the diffraction portion of the modeling, where it can serve to artificially limit the size of the contour, must be disabled.

regional planning committee. They are the final authority on parameters associated with "campus" type operations.

If Region 38 receives an application for low power fixed use and the proposed service contour encroaches onto an adjacent region prior to the channel allotted to the region being implemented in a specific system, the application must be modified. Through the modifications, the service contour shall not encroach into the adjacent region unless the applicant provides the Region 38 Planning Committee with written concurrence from the adjacent region permitting the original design.

3.8 Management of Channel Assignments

All channels approved by Region 38 for licensees under its jurisdiction should be placed into operation pursuant to the provisions of 47 CFR §90.551. The Region 38 Plan requires that prior to request for approval to use channels, the licensee must be actively preparing for the development of a 700 MHz radio system. Attributes of the licensee's intent to use the channels includes but is not limited to:

A. Completion of a Needs Assessment study documenting the need for channels in the 700 MHz band and/or

B. Development **and/or** issuance of a Request for Proposals (RFP) **or** other procurement document designed to acquire a 700 MHz land mobile radio system **and/or**

C. Approval of funding for the radio project

Pursuant to 47 CFR § 90.551 (Construction requirements), each station authorized to operate in the 769-775 MHz and 799-805 MHz frequency bands must be constructed and placed into operation within 12 months from the date of grant of the authorization. However, licensees may request a longer construction period, up to but not exceeding 5 years, pursuant to § 90.155(b).

In the event that a licensee has not taken substantial steps to implement the 700 MHz radio system in accordance with the provisions of this section of the Plan, Region 38 reserves the right to support the return of the channels to the general pool for reassignment to other licensees.

Notwithstanding the provisions above, the recommendation of channel use shall not be rescinded until the licensee has been notified of such intent to withdraw Regional support for use of channels ninety (90) days prior to such action. The licensee shall be afforded an opportunity to request in writing an extension of time to maintain Regional support related to use of the channels. Such request shall detail the justifications for maintaining the channels and indicate when such channels shall be placed on the air for the purposes of testing or operations.

Once notified by the Region of its intent to rescind support for use of the channels, the burden is placed upon the licensee to request in writing an extension of time. If the licensee does not file such an extension within ninety (90) days of notice issuance or if the request of the licensee is determined by the Region to be without merit, the Region will support return of channels to the general pool at the end of the ninety (90) day notice period.

3.9 How Region 38 Maximized Spectrum – from 47 CFR §90.527 (a) (6)

The Region is very cognizant of the need to utilize spectrum efficiently. Of equal importance, the Region believes that the assignment of spectrum should be "technology neutral" and tailored to the requirements of the applicant. The Region takes note of the fact that the United States Department of Homeland Security has adopted the Project 25 (P25) standard as the preferred technological standard for public safety radio systems. The Region appreciates and supports the need for public safety interoperability that is manifested in the P25 standard.

P25 FDMA systems utilize "one-half" blocks or 12.5 KHz channels as opposed to the 25 KHz "full" blocks of channels contained with the CAPRAD assignments. 12.5 KHz TDMA systems employ two 6.25 KHz equivalent talk paths yield 6.25 KHz equivalency. To arbitrarily assign 25 KHz blocks of channels to applicants developing P25 Frequency Division Multiple Access (FDMA)[10] or TDMA compliant systems potentially results in a waste of spectrum and the creation of orphan channels. To avoid the creation of orphan channels and equally, to maximize the spectrum available to Region 38 users, the Plan calls upon the Technical Committee to assign channels based upon the applicant's proposed technology reflecting the vendor neutral philosophy of the Region.

Applicants considering the use of 25 KHz spaced channels with four time slot TDMA may request that the full allocation be granted, however the number of channels granted will be based upon the number of justified talk paths not RF channels. Thus, a 12.5 KHz channel is assumed to provide 2 talk paths and a 25 KHz channel 4 talk paths.

As indicated in the Region's Plan, CAPRAD will be the initial basis upon which channels are assigned. When only two of the four consecutive channels in CAPRAD are required, the Technical Committee will assign the remaining channels to another applicant provided that the Commission's rules relative to co-channel and adjacent channel interference are observed. Similarly, when four (4) consecutive 6.25 KHz equivalent channels are requested by an applicant, the Technical Committee will utilize the full CAPRAD assignment pursuant to this Plan.

In the event that all potential applicants within a geographical area plan to utilize a P25 technology or waive claim to the assigned channels during the first assignment window, the Technical Committee may assign the channels to another geographical area or applicant pursuant to Section 6.3 of this Plan.

3.10 Low Power Channels

The Plan provides guidelines relative to the use of the low power 700 MHz channels under the authority of the Regional Planning Committee (RPC) as defined by 47 CFR §90.531(b)(3).

[10] The Plan recognizes that the use of FDMA technology would be limited pursuant to 47 CFR §90.535(d)(1) and 47 CFR §90.535 (d)(2)

Eligibility

The following entities are eligible to use low-power channels under the control of the Regional Planning Committee pursuant to 47 CFR §90.523(a) and (b).

(a) *State or local government entities.*

Any territory, possession, state, city, county, town, or similar State or local governmental entity is eligible to hold authorizations in the 769–775 MHz and 799–805 MHz frequency bands.

(b) *Nongovernmental organizations.*

A nongovernmental organization (NGO) that provides services, the sole or principal purpose of which is to protect the safety of life, health, or property, is eligible to hold an authorization for a system operating in the 769–775 MHz and 799–805 MHz frequency bands for transmission or reception of communications essential to providing such services if (and only for so long as) the NGO applicant/licensee:

(1) Has the ongoing support (to operate such system) of a state or local governmental entity whose mission is the oversight of or provision of services, the sole or principal purpose of which is to protect the safety of life, health, or property;

(2) Operates such authorized system solely for transmission of communication essential to providing services the sole or principal purpose of which is to protect the safety of life, health, or property; and

(3) All applications submitted by NGOs must be accompanied by a new, written certification of support (for the NGO applicant to operate the applied for system) by the state or local governmental entity referenced in paragraph (b) (1) of this section.

Low-power 700 MHz Channel Use

Frequencies will be used in a simplex or repeater mode as specified within this provision of the Region's Plan for 700 MHz. The Plan will combine two channels as contained in 47 CFR §90.531(b) (3) to yield a 12.5 KHz simplex operating frequency. In the repeater mode, four 700 MHz channels shall be combined to yield a 12.5 KHz transmit and 12.5 KHz receive frequency. The ERP must not exceed 2 watts.

Use within the Region

Low-power 700 MHz frequencies are limited to transmissions with the effective radiated power (ERP) allowed per FCC Part 90.531. These frequencies can be used at the broad discretion of eligible users in one of two methodologies, direct radio-to-radio or simplex operation and as an Incident Area Network (IAN) or other low power technology providing a repeater capability. The use of these frequencies for official public safety or public service communications is permitted by a single public safety agency or prior to the actual invocation of interoperable communications between two or more public safety agencies. Communications of a personal non-official purpose are prohibited.

Assignment of Frequencies

First responders have broad discretion in the use of these channels. However, if an incident is of sufficient scale to invoke the National Incident Management System (NIMS), the Incident Commander shall determine which low-power channels shall be used for first responders as well as the use of simplex and/or IAN repeater technology.

Modulation

Pursuant to 47 CFR §90.525(a), operation on these channels may utilize digital or analog modulation. For the purpose of this Plan, analog operations will be utilized. Analog operations will utilize the 11K0F3E emission type.

Programming of Frequencies

Eligible licensees are encouraged to program related frequencies into 700 MHz capable mobile and portable radios as may be practical pursuant to the Service Assignment tables on the following pages. This programming is not mandatory as some licensees may have insufficient capacity in subscriber devices to accommodate these frequencies.

Service Assignments

A table of repeater and direct or simplex assignments is found below and on the following pages. These assignments notate specific frequencies reserved for EMS, fire, and law enforcement users. For all other users, Generic Public Safety/Public Service frequencies exist that can be used by any eligible licensee as defined in 47 CFR §90.523.

Repeater/Incident Area Network Operation

From the Department of Homeland Security SAFECOM Statement of Requirements[11], ***An incident area network (IAN) is a network created for a specific incident. This network is temporary in nature***. For the IAN or other repeater operation, the Region will follow the national deployment model; the lower frequency shall be used for the Repeater transmitter frequency while the upper frequency is employed for mobile/portable transmissions. Repeater operation is identified by the "2" (2-channel) behind the service name, e.g. "7TAC**2**1 meaning 700 MHz (7) Tactical (TAC) Frequency with Repeater (2) frequency 1 (1).

Frequency Name	Repeater TX	Repeater RX	Applicable Service
7TAC21	Channels 1-2	Channels 961-962	Generic Public Safety/Service
7TAC22	Channels 3-4	Channels 963-964	Generic Public Safety/Service
7TAC23	Channels 957-958	Channels 1917-1918	Generic Public Safety/Service

[11] SAFECOM Statement of Requirements, March 10, 2004, page 6.

7FIRE21	Channels 5-6	Channels 965-966	Fire
7FIRE22	Channels 7-8	Channels 967-968	Fire
7MED21	Channels 949-950	Channels 1909-1910	EMS
7MED22	Channels 951-952	Channels 1911-1912	EMS
7LAW21	Channels 953-954	Channels 1913-1914	Law Enforcement
7LAW22	Channels 955-956	Channels 1915-1916	Law Enforcement
7TAC21	Channels 961-962	Channels 1-2	Generic Public Safety/Service
7TAC22	Channels 963-964	Channels 3-4	Generic Public Safety/Service
7TAC23	Channels 1917-1918	Channels 957-958	Generic Public Safety/Service
7FIRE21	Channels 965-966	Channels 5-6	Fire (1)
7FIRE22	Channels 967-968	Channels 7-8	Fire (1)
7MED21	Channels 1909-1910	Channels 949-950	EMS (2)
7MED22	Channels 1911-1912	Channels 951-952	EMS (2)
7LAW21	Channels 1913-1914	Channels 953-954	Law Enforcement (3)
7LAW22	Channels 1915-1916	Channels 955-956	Law Enforcement (3)

(1) These frequencies only programmed into mobile and portable radios used in the fire radio service.

(2) These frequencies only programmed into mobile and portable radios used in the EMS radio service.

(3) These frequencies only programmed into mobile and portable radios used in the law enforcement radio service.

Direct Radio-to Radio or Simplex Operation

Direct or simplex operation is identified by the "1" (1-channel) behind the service name, e.g. "7TAC**1**1 meaning 700 MHz (7) Tactical (TAC) Frequency with "Direct" or simplex communications (1) on frequency 1 (1).

Use (Notes)	**Channels**	**Name**
Generic Public Safety/Service	Channels 1-2	7TAC11D
Generic Public Safety/Service	Channels 3-4	7TAC12D
Generic Public Safety/Service	Channels 961-962	7TAC13D
Generic Public Safety/Service	Channels 963-964	7TAC14D
Generic Public Safety/Service	Channels 957-958	7TAC15D

Generic Public Safety/Service	Channels 1917-1918	7TAC16D
Fire Incident Management (1)	Channels 5-6	7FIRE11D
Fire Incident Management (1)	Channels 7-8	7FIRE12D
Fire Incident Management (1)	Channels 965-966	7FIRE13D
Fire Incident Management (1)	Channels 967-968	7FIRE14D
EMS (2)	Channels 949-950	7MED11D
EMS (2)	Channels 951-952	7MED12D
EMS (2)	Channels 1909-1910	7MED13D
EMS (2)	Channels 1911-1912	7MED14D
Law Enforcement (3)	Channels 953-954	7LAW11D
Law Enforcement (3)	Channels 955-956	7LAW12D
Law Enforcement (3)	Channels 1913-1914	7LAW13D
Law Enforcement (3)	Channels 1915-1916	7LAW14D

(1) These frequencies only programmed into mobile and portable radios used in the fire radio service.

(2) These frequencies only programmed into mobile and portable radios used in the EMS radio service.

(3) These frequencies only programmed into mobile and portable radios used in the law enforcement radio service.

3.11 Air-to-Ground

These 700 MHz secondary trunking channels were re-designated and reserved for air-to-ground communication between low-altitude aircraft and associated ground stations. The creation of designated air-ground channels does not affect the general Part 90 rule allowing secondary airborne transmissions (at up to 10 watts) so long as they do not interfere with other licensees' ground-based operations. Nonetheless, as the 700 MHz band becomes more congested, it is believed that it will become increasingly difficult to use 700MHz channels other than secondary trunking channels for airborne communications without interfering with terrestrial facilities. Therefore, any licensee planning airborne use of 700 MHz channels is encouraged to consider the newly designated air-ground channels as a first option.

FCC Channel Number	Base Frequency	Mobile Frequency Center
21-22	769.13125 MHz	799.13125 MHz

101-102	769.63125 MHz	799.63125 MHz
181-182	770.13125 MHz	800.13125 MHz
261-262	770.63125 MHz	800.63125 MHz
659-660	773.11875 MHz	803.11875 MHz
739-740	773.61875 MHz	803.61875 MHz
819-820	774.11875 MHz	804.11875 MHz
899-900	774.61875 MHz	804.61875 MHz

3.12 Wideband Data

Pursuant to the Commission's Second Report and Order to Docket WT 96-86 released on August 10, 2007, Region 38 will delete all reference to the 700 MHz wideband channels as contained in the original provisions of 47 C.F.R. §90.531(c).

3.13 Dispute Resolution - Intra-Regional[12]

In the event an agency disputes the implementation of this plan or the Federal Communications Commission approval of this plan or parts of this plan, the disputing agency representative must notify the Chair of the Region in writing. This section does not apply to protests over new spectrum allocations. The Chair will attempt to resolve the dispute on an informal basis. If Chair is not successful in resolving the dispute, he/she will apply the methodology as outlined in Appendix J.

3.14 Protection of TV/DTV stations

Region 38 anticipates that no licensees will begin operations until June 12, 2009.

3.15 47 CFR §90.545 TV/DTV Interference Protection Criteria

The transition period ended on June 12, 2009. After that time, unless otherwise directed by the Commission, public safety stations will no longer be required to protect reception of co-channel or adjacent channel TV/DTV stations on TV Channels 62, 63, 64, 65, 67, 68 or 69.

[12] See Appendix J for dispute resolution procedures.

3.16 Reserve Channels

Per CFR §90.531 (b)(2), twenty-four 12.5 kHz bandwidth channel pairs (Reserve Channels) are reserved for future designation, more specifically to meet developing needs of the 700 MHz spectrum. These 700 MHz Reserve Channels are added to the General Use pool and made available as seen fit by the Region 38. The following list is the twenty-four (24) channel pairs per CFR §90.531 (b)(2):

Class	Band Width	Channel	Base Frequency	Mobile Frequency
Reserve	12.5 kHz	37-38	769.23125	799.23125
Reserve	12.5 kHz	61-62	769.38125	799.38125
Reserve	12.5 kHz	77-78	769.48125	799.48125
Reserve	12.5 kHz	117-118	769.73125	799.73125
Reserve	12.5 kHz	141-142	769.88125	799.88125
Reserve	12.5 kHz	157-158	769.98125	799.98125
Reserve	12.5 kHz	197-198	770.23125	800.23125
Reserve	12.5 kHz	221-222	770.38125	800.38125
Reserve	12.5 kHz	237-238	770.48125	800.48125
Reserve	12.5 kHz	277-278	770.73125	800.73125
Reserve	12.5 kHz	301-302	770.88125	800.88125
Reserve	12.5 kHz	317-318	770.98125	800.98125
Reserve	12.5 kHz	643-644	773.01875	803.01875
Reserve	12.5 kHz	683-684	773.26875	803.26875
Reserve	12.5 kHz	699-700	773.36875	803.36875
Reserve	12.5 kHz	723-724	773.51875	803.51875
Reserve	12.5 kHz	763-764	773.76875	803.76875
Reserve	12.5 kHz	779-780	773.86875	803.86875
Reserve	12.5 kHz	803-804	774.01875	804.01875
Reserve	12.5 kHz	843-844	774.26875	804.26875
Reserve	12.5 kHz	859-860	774.36875	804.36875
Reserve	12.5 kHz	883-884	774.51875	804.51875
Reserve	12.5 kHz	923-924	774.76875	804.76875
Reserve	12.5 kHz	939-940	774.86875	804.86875

Per FCC 14-172, Region 38 must appropriately balance the needs of all users and afford T-Band incumbents priority access to these channels. In non T-Band areas, up to eight of the 12.5 kHz Reserve Channels can be dedicated for temporary deployable trunked use and the remaining channels for General Use. In T-Band markets, all Reserve Channels will be available for General Use with priority given to T-Band incumbents that commit to return an equal amount of T-Band channels. The Commission encourages that in areas other than Affected T-Band Markets, up to eight Reserve Channel Pairs be set aside to support deployable trunked systems.

4. Process for Handling Unformed Regions

All Regional Planning Committees adjoining Regional Planning Committee 38 have convened. These include regions 15, 22, 25, 26, 32, and 46.

5. Coordination with Adjacent Regions

The Regions adjacent to Region 38 are listed below:

Region 15 - Iowa

Leslie E. Fish
Chairperson
5912 NW 2nd St., Des Moines, IA 50313-1307
Phone: 515-281-8804
Email: fish@dps.state.ia.us

Region 22 - Minnesota

James R. Mohn P.E.
Chairperson
Chief Engineer, Office of Statewide Radio Communications,
Minnesota Department of Transportation
1500 West County Road B2, Mailstop 730 Roseville, MN 55113
Phone: 651-234-7969
Mobile: 651-234-7960
Email: jim.mohn@state.mn.us

Region 25 - Montana

Dale Osborne
Chairperson
Montana Highway Patrol
2550 Prospect, Helena, MT
Phone: 406-444-4274
Email: dosborne@mt.gov

Dan Sullivan
Public Safety Services Bureau, State of Montana
P.O. Box 200113, Helena, MT 59620
Phone: 406-444-3581
Email: dsullivan@mt.gov

Region 26 - Nebraska

Michael Jeffres
Chairperson
Office of the CIO
501 S. 14th Street, Lincoln, NE 68508
Phone: 402-471-3719
Fax: 402-471-3339
Email: mike.jeffres@nebraska.gov

Region 32 - North Dakota

Mike Lynk
Chair
ND Division of State Radio Communications Director, Vice Chair of ND State Interoperability Executive Committee
Phone: 701-328-8100
Fax: 701-328-8181
Email: mlynk@nd.gov

Janell Quinlan
Vice Chair
ND Division of State Radio Communications Frequency Coordinator
Phone: 701-328-8180
Fax: 701-328-8181
Email: jquinlan@nd.gov

Region 46 - Wyoming

William Walter
Chairperson
Wyoming Public Safety Communications Commission,
5500 Bishop Blvd Cheyenne, Wyoming 82002
Phone: 307-777-5065
Fax: 307-635-6017

REGION 15 INTERREGIONAL CONCURRENCE NOTIFICATION

Mr. Todd Dravland, Chairman
Region 38 700 MHz Regional Planning Committee
BIT - State Radio Engineering
1302 E. HWY 14, Suite 8
Pierre, SD 57501
(605) 773-4635Todd.Dravland@state.sd.us

Dear Chairman Dravland,

On June 28, 2015 Regional Planning Committee (RPC) 38 (South Dakota) electronically submitted its plan for the 700 MHz General Use channels in the 769-775 and 799-805 MHz Bands for approval to the Region 15 700 MHz Regional Planning Committee.

RPC Region 15 has completed a thorough review of the proposed Plan and hereby provides this correspondence to serve as the official, written concurrence of the proposed Region 38 700 MHz Plan.

Please call or email me if you require additional information.

Regards,

Tuesday, August 25, 2015
Region 15

X MR. Leslie E. Fish

Mr Leslie e. Fish
Region 15 Chairman

CC:
Alireza "Ali" Shahnami, Consultant
Region 38
ACD Telecom, LLC, Vice President
103 Commerce Street, Unit 180
Lake Mary, Fl 32746
Phone: 407.333.2300 (Work)
Fax: 407.333.2310
Email: ali.shahnami@acdtelecom.com

700 MHz Regional Planning Committee

Minnesota Region 22 Review Committee

INTERREGIONAL CONCURRENCE NOTIFICATION

July 30, 2015

Mr. Todd Dravland, Chairman
Region 38 700 MHz Regional Planning Committee
BIT - State Radio Engineering
1302 E. HWY 14, Suite 8
Pierre, SD 57501
(605) 773-4635Todd.Dravland@state.sd.us

Dear Chairman Dravland,

On June 28, 2015 Regional Planning Committee (RPC) 38 (South Dakota) electronically submitted its plan for the 700 MHz General Use channels in the 769-775 and 799-805 MHz Bands for approval to the Region 22 700 MHz Regional Planning Committee.

RPC Region 22 has completed a thorough review of the proposed Plan and hereby provides this correspondence to serve as the official, written concurrence of the proposed Region 38 700 MHz Plan.

Please call or email me if you require additional information.

Regards,

James R. Mohn, P.E.
700 MHz Region 22 RPC Chair
1500 W. County Road B2
Roseville, MN 55113
651-234-7969
Jim.mohn@state.mn.us

CC:
Alireza "Ali" Shahnami, Consultant
Region 38
ACD Telecom, LLC, Vice President
103 Commerce Street, Unit 180
Lake Mary, Fl 32746
Phone: 407.333.2300 (Work)
Fax: 407.333.2310
Email: ali.shahnami@acdtelecom.com

MONTANA REGION 25 700 MHZ

INTERREGIONAL CONCURRENCE NOTIFICATION

Mr. Todd Dravland, Chairman
Region 38 700 MHz Regional Planning Committee
BIT - State Radio Engineering
1302 E. HWY 14, Suite 8
Pierre, SD 57501
(605) 773-4635Todd.Dravland@state.sd.us

Dear Chairman Dravland,

On June 28, 2015 Regional Planning Committee (RPC) 38 (South Dakota) electronically submitted its plan for the 700 MHz General Use channels in the 769-775 and 799-805 MHz Bands for approval to the Region 25 700 MHz Regional Planning Committee.

RPC Region 25 has completed a thorough review of the proposed Plan and hereby provides this correspondence to serve as the official, written concurrence of the proposed Region 38 700 MHz Plan.

Please call or email me if you require additional information.

Regards,

Dale Osborne
Region 25 Montana
700 MHZ Acting Chairman

CC:
Alireza "Ali" Shahnami, Consultant
Region 38
ACD Telecom, LLC, Vice President
103 Commerce Street, Unit 180
Lake Mary, Fl 32746
Phone: 407.333.2300 (Work)
Fax: 407.333.2310
Email: ali.shahnami@acdtelecom.com

Pete Ricketts
Governor

State of Nebraska
Office of the Chief Information Officer
Ed Toner
Chief Information Officer
P.O. Box 95045
Lincoln, Nebraska 68509-5045
402-471-3560

INTERREGIONAL CONCURRENCE NOTIFICATION

Mr. Todd Dravland, Chairman
Region 38 700 MHz Regional Planning Committee
BIT - State Radio Engineering
1302 E. HWY 14, Suite 8
Pierre, SD 57501
(605) 773-4635Todd.Dravland@state.sd.us

Dear Chairman Dravland,

On June 28, 2015 Regional Planning Committee (RPC) 38 (South Dakota) electronically submitted its plan for the 700 MHz General Use channels in the 769-775 and 799-805 MHz Bands for approval to the Region 26 700 MHz Regional Planning Committee.

Region 26 RPC has reviewed the proposed Plan and hereby provides this letter as concurrence of the proposed Region 38 700 MHz Plan.

Please contact me if you require further correspondence.

Regards,

Michael Jeffres, Chair
RPC Region 26
501 S. 14th Street
Lincoln, NE 68508

cc:
Alireza "Ali" Shahnami, Consultant
Region 38
ACD Telecom, LLC, Vice President
103 Commerce Street, Unit 180
Lake Mary, Fl 32746
Phone: 407.333.2300 (Work)
Fax: 407.333.2310
Email: ali.shahnami@acdtelecom.com

Mr. Todd Dravland, Chairman
Region 38 700 MHz Regional Planning Committee
BIT - State Radio Engineering
1302 E. HWY 14, Suite 8
Pierre, SD 57501
(605) 773-4635Todd.Dravland@state.sd.us

Dear Chairman Dravland:

On June 28, 2015 Regional Planning Committee (RPC) 38 (South Dakota) electronically submitted its plan for the 700 MHz General Use channels in the 769-775 and 799-805 MHz Bands for approval to the Region 32 700 MHz Regional Planning Committee.

RPC Region 32 has completed a thorough review of the proposed Plan and hereby provides this correspondence to serve as the official, written concurrence of the proposed Region 38 700 MHz Plan.

Please call or email me if you require additional information.

Regards,

Michael Lynk, Chair of RPC Region 32
Phone: (701) 328-8100
Fax: (701) 328-8181
Email: mlynk@nd.gov

CC:
Alireza "Ali" Shahnami, Consultant
Region 38
ACD Telecom, LLC, Vice President
103 Commerce Street, Unit 180
Lake Mary, Fl 32746
Phone: 407.333.2300 (Work)
Fax: 407.333.2310
Email: ali.shahnami@acdtelecom.com

Matthew H. Mead
Governor

Mark Harshman
Chairman

State of Wyoming

Public Safety Communications Commission

Region 46 (Wyoming) 700 MHz Regional Planning Committee

INTERREGIONAL CONCURRENCE NOTIFICATION

December 9, 2015

Mr. Todd Dravland, Chairman
Region 38 700 MHz Regional Planning Committee
BIT - State Radio Engineering
1302 E. HWY 14, Suite 8
Pierre, SD 57501

Dear Chairman Dravland:

On June 28, 2015 Regional Planning Committee (RPC) 38 (South Dakota) electronically submitted its plan for the 700 MHz General Use channels in the 769-775 and 799-805 MHz Bands for approval to the Region 46 (Wyoming) 700 MHz Regional Planning Committee.

RPC Region 46 has completed a thorough review of the proposed Plan and hereby provides this correspondence to serve as the official, written concurrence of the proposed Region 38 700 MHz Plan.

Please call or email me if you require additional information.

Regards,

William Walter

William Walter, Chair of RPC Region 46
% Wyoming Public Safety Communications Commission
5500 Bishop Blvd
Cheyenne, Wyoming 82002

CC:
Alireza "Ali" Shahnami, Consultant Region 38
ACD Telecom, LLC, Vice President
103 Commerce Street, Unit 180
Lake Mary, FL 32746

Office of Homeland Security — 5500 Bishop Blvd — Cheyenne, WY 82002
Telephone: 307-777-5065 Fax: 307-635-6017

6 System Design/Efficiency Requirements

6.1 Interference Protection

Applicants are expected to design their systems for maximum signal levels within their coverage area and minimum levels in the coverage area of other co-channel users. Quality system engineering, the use of directional antennae, and the advocacy of multiagency/multi-discipline systems that promote interoperability should be employed by applicants to accomplish this goal. An applicant's coverage area is normally the geographical boundaries of the areas Agency(s) served plus five miles area beyond.

The Region notes the extensive use of mutual aid agreements by jurisdictions within RPC38 and will accommodate the requests of applicants for wider coverage areas when appropriate provided that any extension does not result in harmful co-channel or adjacent channel interference. When required, the Region will coordinate with an adjacent Region to ensure that an interstate or intrastate mutual aid requirement is met.

In extraordinary circumstances impacted by the need to provide wider areas of coverage to meet the potential of national, regional emergencies, or mutual aid agreements, the Region may also permit the coverage area to extend beyond the normal limits reflected in the paragraphs above provided that such extension does not cause harmful co-channel or adjacent channel interference to any licensee or potential licensee employing a channel in an identified geographical assignment within the Region 38 Plan. The Region will not permit such a level of extraordinary coverage into an adjacent region without the expressed and written approval of the adjacent region.

6.1.1 Coverage Area vs. Protected Service Area

System coverage should be designed as Interference Limited with minimum signal strength of 40 dBμ F(50,50) in the system coverage area while minimizing signal power out of the coverage area. This may require patterned antennas and extra sites compared to a design that assumes Noise Limited coverage. The methodologies included within TIA TSB88 (most recent version) will be used to determine harmful interference utilizing a protected service area defined as a 40 dBμ F(50,50) signal. Protection of existing systems will be such that the 40 dBμ (F50,50) protected service area is not degraded by the co-channel 5 dBμ F(50,50) signal or the adjacent channel 60 dBμ F(50,50) signal to the extent that the protected service area is degraded in excess of 2% of the geographic area, provided such degradation exists in the defined coverage area of the applicant (i.e.: degradation over water will not be considered unless the body of water was defined in the existing system coverage area). Region 38 will comply with National Coordination Committee recommendations of the Regional Planning Committee Guidelines.

To maximize spectrum utilization, prudent engineering practices and receivers of the highest quality should be used in all systems. Given a choice of radios to choose from in a given technology family, agencies should use the units with the best specifications. This plan will not protect agencies from interference if their systems are under-constructed (i.e. areas with the established coverage area having minimum signal strength below 50 dBμ), or the systems utilize low quality receivers. The applicant's implementation of prudent engineering practices will be encouraged by Region 38 at all times.

6.2 Spectrum Efficiency Standards

Initial allotments will be made on the basis of the 25 KHz channel blocks incorporated in CAPRAD and then modified as consistent with this Plan to provide 12.5 or 25 KHz blocks of channels.

It is the eventual goal of the FCC and the public safety community for radio equipment to meet the requirement of one voice path per 6.25 KHz of spectrum. The Region has weighted its award criteria to jurisdictions employing spectrally efficient radios as noted in the Plan. As Region 38 does not anticipate awarding allotments until late 2014, it is expected that all applicants will initially build to a 6.25 KHz efficiency standard. An applicant may request by waiver allocations based on a 12.5 KHz standard upon showing of good cause and a firm migration path within 5 years to 6.25 KHz efficiency.

In situations where a licensee builds to an efficiency standard under the Commissions blanket waver permitting one talk path in 12.5 KHz of spectrum, and the Region 38 Committee allots a specific number of channels based upon loading in the 12.5 KHz efficiency standard, upon conversion to the Commission required 6.25 KHz talk path efficiency standard, the licensee must justify continued license for the amount of spectrum originally allotted. The Region 38 Committee may consider a take back of spectrum if the licensee cannot justify loading of the system with a 6.25 KHz efficiency standard.

For narrowband mobile data requests, one mobile data channel will consist of two (2) 6.25 KHz channels resulting in one (1) 12.5 KHz channel. Narrowband 6.25 KHz channels can be aggregated for data use to a maximum bandwidth of 25 KHz.

As 6.25 KHz migration evolves, an applicant whose request creates any "orphaned" 6.25 KHz channels should realize that these channels will be allocated to nearby agencies requesting channels pursuant to Section 6.3 of the Plan to maintain consistent groupings and the general utilization of 12.5 or 25 KHz blocks within the Region.

In compliance with 47 CFR §90.527 (a)(6), Region 38 encourages small agencies to partner with other agencies in multi-agency or regional systems as they promote spectrum efficiency and both small and large agency capacity needs can be met. Loading criteria can also be achieved in multi-agency systems that will allow greater throughput for all agencies involved than that which could be achieved individually.

The Region 38 Committee will utilize a loading factor of 100 units per voice path for the first 10 voice paths, and 150 units per channel for any additional voice paths, to determine the maximum number of channels allotted to a system. Data usage of narrowband channels will require 19,200 kbps per 25 KHz of spectrum.

6.3 Orphaned Channels

The narrowband pool allotments within Region 38 will have a channel bandwidth of 12.5 and 25 KHz as required by the applicant. These 12.5 and 25 KHz allotments have been characterized as "technology neutral" and flexible enough to accommodate multiple technologies utilizing multiple bandwidths.

An orphaned channel may be used at another location within or proximate to the geographical area where it was originally approved, provided that it meets co-channel and adjacent channel protection (ACP)

interference criteria in 47 CFR §90.543.

Region 38 will utilize the term "county area" as a guideline for channel implementation within Region 38. The definition of "county area" in this plan is the geographical/political boundaries of a given city or county, plus a distance of up to 5 miles outside of such boundaries of the county area of assignment. The Region intends that this provision should be interpreted by the Technical Committee permissively with the intent to reuse channels to the greatest extent practical as consistent with the provisions of 47 CFR §90 Subpart R.

By extending the "geographic area" into an adjacent county or city by a designated distance, it is anticipated this will increase the possibility that orphaned channel remainders will still be able to be utilized and reduce the potential for channel remainders to be forced to lay dormant**.** These movements will be documented on the CAPRAD database by the Region 38 Technical Committee.

If the "orphaned channel" remainder does not meet co-channel and adjacent channel interference criteria by moving it within the "geographic area" as listed above, and it is determined by the region that the "orphaned channel" cannot be utilized in the region without exceeding the distance described above, Region 38 will submit a plan amendment to the FCC to repack the channel to a location where its potential use will maintain maximum spectral efficiency. This FCC plan amendment will require affected region concurrence.

When in the best interest of public safety communications and efficient spectrum use within the Region, the Region 38 Regional Planning Committee shall have the authority to move orphaned channel allotments and/or co-/adjacent-channel allotments affected by the movement of orphaned channels, within its "geographic areas", which are defined above. This is to retain spectrum efficiency and/or minimize co-channel or adjacent channel interference between existing allotments within the region utilizing disparate bandwidths and technologies.

6.4 System Implementation

With Congressional passage of the Public Law 109-171, *Deficit Reduction Act of 2005* Title III Section 3002, *Digital Television Transition and Public Safety Act of 2005* further amended by the *DTV Delay Act* and the President's signature on the legislation, commercial broadcasting in the frequencies encompassed by 47 CFR §90 Subpart R ended on June 12 2009[13]. There are no incumbent high power broadcast TV stations in South Dakota; however, there are two low power or translator TV stations across the state. These low power stations are secondary to primary public safety operations; therefore, all agencies within the state can immediately implement any 700 MHz spectrum for which they receive FCC authorizations. Region 38 has informed the low power TV and TV translator licensees in the Region that the 700 MHz Regional Planning process has begun. The notification reiterates these stations' secondary status.

[13] Except as relates to certain television stations in South Dakota granted an extension pursuant to the Commission's rules.

7 Interoperability Channels

There are many public safety and homeland security agencies, full-time and volunteer, operating throughout Region 38. The Region adjoins other Regions containing many first responder agencies. The need for interoperability is critical and Region 38 encourages support for Interoperability Calling and Tactical Channels in all relevant frequency bands.

7.1 Selection of Radios and Programming of Interoperability Channels

As required by 47 CFR § 90.547 (Narrowband Interoperability channel capability requirement) except as noted in Subpart R, mobile and portable transmitters operating on narrowband channels in the 769-775 MHz and 799-805 MHz frequency bands must be capable of operating on all of the designated nationwide narrowband Interoperability channels pursuant to the standards specified in 47 CFR§ 90.548.

7.2 Tactical Channels

At this time, Region 38 will not set aside additional channels for interoperability use within the region other than as stated in the Plan. It is anticipated the FCC designated interoperability channels will be sufficient to provide interoperability (voice and data) within Region 38.

All mobile and portable units operating under this Plan and utilizing 700 MHz channels must be programmed with the minimum number of channels called for either in NCC guidelines or as the relevant Statewide Interoperability Executive Committee specifies. The channel display in these radios will be in accordance with the NCC guidelines that have common alphanumeric nomenclature to avoid any misinterpretation of use within Region 38. The South Dakota Public Safety Communications Council (PSCC) is the final authority on the interpretation of the distribution of the 700 MHz interoperability channels.

7.3 Deployable Systems

In this Plan, Region 38 supports use of deployable systems, both conventional and trunked. Deployable systems are prepackaged systems that can deploy by ground or air to an incident to provide additional coverage and capacity on designated 700 MHz interoperability channels and/or agency specific General Use Channels. This will minimize the expense of installing extensive fixed infrastructure in areas while still providing mission critical functionalities as the Region recognizes the difficulty of providing complete coverage in all areas due to financial, demographic, and geographical constraints.

Agencies should have conventional deployable systems capable of being operated on any of the FCC designated/NCC recommended interoperability tactical channels. The agencies that are part of a multi-agency trunked system and commonly provide mutual aid to each other are encouraged to have trunked deployable systems that operate on the tactical channels designated by the FCC for this use. The South Dakota PSCC will develop the operational details for deploying these systems.

It is expected that the tactical channels set aside for trunked operation will be heavily used by deployable systems. Therefore, the tactical channels cannot be assigned to augment general use trunked systems.

7.4 Monitoring of Interoperability 700 MHz Calling and Tactical Channels

For the immediate future, Region 38 believes that it is appropriate for any new licensees using 700 MHz frequencies to monitor and have access to the current channels identification by the National Public Safety Planning Advisory Committee (NPSPAC) in the 800 MHz band.

Accordingly, and until amended by the Region or superseded by order of the Commission, Region 38 may require applicants to install fixed network transceivers capable of monitoring the NPSPAC 800 MHz calling and four (4) tactical channels. Applicants may utilize a central agency to monitor the NPSPAC calling channel on their behalf.

Notwithstanding the other provisions of this section of the Plan, Region 38 may supplement the four (4) traditional NPSPAC tactical channels in 800 MHz with additional tactical channels in the 700 MHz band as provided by the Commission or the South Dakota PSCC.

7.5 Interoperability with Federal Government

First responders within Region 38 may also interoperate with first responders and Homeland Security officials during a disaster or related event. Information pertaining to interoperability with the agencies of the federal government is found in Appendix L.

8 Future Planning – from 47 CFR §90.531 (a)(7)

The initial process of assignments will be known as Window One. In this window, the CAPRAD pre-coordination database will be employed as the initial basis of channel allotments for geographical areas within Region 38, including the independent cities using criteria such as current population, 2000 Census data, height above average terrain (HAAT), and public safety use curves generated by the Public Safety Wireless Advisory Committee (PSWAC) to provide spectrally efficient frequency allotments.

In Window One, all channels identified in this Plan will be available to applicants operating in the geographical areas as found in Appendix G. In addition, channels may be provided to an applicant pursuant to the provisions of this Plan as found in Sections 3.11 and 6.3 of the document.

Applications for channels shall be submitted to the Technical Committee and reviewed by the Regional Committee for vote at the next scheduled meeting.

The initial window will be open from time of Commission approval of the Plan and further from that date, for a period of three (3) years. Three (3) years after the approval of the Plan by the Commission, Window One will close.

8.1 Windows of Future Channel Assignments

In the future, Region 38 will issue channels in 700 MHz under a continual process in which there will be a second filing window for applicants. This window for applications will be known as Window Two and will become effective upon the expiration of Window One.

When Window Two opens in the future, any channel in any geographical area not assigned to a licensee becomes open and available to any other applicant provided that no harmful co-channel and/or adjacent channel user is created through a reassignment of the channel, subject to overall regional planning committee review. As an integral part of the Plan, any orphan channels will be identified and reassigned pursuant to the provision of Section 6.3 of this Plan.

8.2 Review of the Plan's Effectiveness

As a standing agenda item for every meeting of Region 38, the Chair of the Technical Committee shall provide a report to the membership detailing the use of the spectrum and any administrative or operational issues arising from this Plan. In addition, the meeting Chair shall invite comments from members and any other persons in attendance at meetings relative to the effectiveness of the Plan.

At any time in which the Region Chair or the Chair of the Technical Committee has reason to believe that a provision of the Plan is adversely affecting public safety communications within Region 38, the Chair or Vice Chair operating in their absence has an affirmative responsibility to report the issues to the appropriate Committee for immediate attention.

Upon review of the reported conflict no later than sixty (60) days after the initial allegation; the appropriate Chair shall report the Committee's findings to the Region 38 Chair. The Region 38 Chair shall review the

findings of the Committee reviewing the allegation. Depending upon the findings of the Chair of Region 38, one of three possible outcomes will be initiated.

A. Allegation Unfounded – No further action is required. The person reporting the alleged issue shall be informed of the Region's decision.

B. Allegation Founded – Immediate action not required. When there is an affirmative finding of a problem with the Region's Plan and the matter can be appropriately deferred until placed on the agenda of the next meeting, the deferral of action is appropriate.

C. Allegation Founded – Immediate action required. When the Chair of Region 38 finds that a provision of the Plan is causing or may cause adverse impact to an applicant or potential applicant, the Chair may take executive action and grant relief by temporarily suspending a provision of this Plan until a Regional Meeting can be called. In the event that executive action is taken and a provision of this Plan is suspended, the effective period of suspension shall not extend beyond sixty (60) days unless ratified by the Region at a meeting called in response to the Chair's findings and executive action.

8.3 Inter-Regional Dispute Resolution Process

In the event that a dispute arises between Region 38 and an adjacent Region or Regions regarding spectrum allocations or implementation that cannot be resolved within 60 days, the parties to the dispute will request a hearing by the National Regional Planning Oversight Committee. Additional details are located in Appendix M.

8.4 Modifications to the Plan – from 47 CFR §90.527 (b)

In recognition that there will be amendments made to the Plan, the bylaws of the Region 38 700 MHz Planning Committee incorporate provisions permitting the amendments as may be necessary.

The Region 38 Plan will be modified when required by submitting a written request, signed by the regional planning committee, to the Chief, Public Safety and Homeland Security Bureau. The request will contain the full text of the modification, and certify that successful coordination of the modification with all adjacent regions has occurred and that all such regions concur with the modification.

9. Certification from 47 CFR §90.531 (a)(8)

Pursuant to the provisions of 47 CFR §90.531 (a)(8), I hereby certify that all planning committee meetings, including subcommittee or executive committee meetings were open to the public. A summary of the deliberations of the Committee pursuant to adopting this Plan can be found in Appendix D, in the minutes of the Regional Planning meeting.

_____
Todd Dravland
Chair, Region 38

_____
Date

Appendix A – Bylaws of Region 38

THE BYLAWS OF REGION 38 700 MHz REGIONAL PLANNING COMMITTEE Adopted – December, 5, 2013

ARTICLE I NAME & PURPOSE

1.1 Name and purpose: The name of this Region shall be Region 38 and the Committee shall be known as ***"The Region 38 – 700 MHz Regional Planning Committee"***. Its primary purpose is to foster cooperation, planning, development of regional plans and the implementation of these plans in the 700 MHz Public Safety Band.

ARTICLE II MEMBERS

For purposes of this Article, the term "member," unless otherwise specified, refers to both voting and non-voting members.

2.1 Number, Election and Qualification: The Regional Committee shall have two classes of members, "voting members" and "non-voting members." New members may be added at annual, special, or regular meetings.

A. **Voting Members:** Voting members shall consist of one representative from any single agency engaged in public safety within Region 38, eligible to hold a license under 47 CFR 90.20, or 47 CFR 90.523. All State Agencies and all Political Subdivisions shall be allowed no more than one vote. In voting on any issue the individual must identify themselves and the State Agency or Political Subdivisions which they represent. Voting members may not vote on issues involving their entity.

B. **Non-Voting Members:** Non-voting members are all others interested in furthering the goals of public safety communications.

2.2 Tenure: In general, each member shall hold MEMBERSHIP from the date of acceptance until resignation or removal.

2.3 Powers and Rights: In addition to such powers and rights as are vested in them by law, or these bylaws, the members shall have such other powers and rights as the membership may determine.

2.4 Suspension and Removal: A Member may be suspended or removed with cause by vote of a majority of members after reasonable notice and opportunity to be heard. Failure to attend 50% of meetings held in a calendar year shall be a specific cause for removal from the membership.

2.5 Resignation: A member may resign by delivering written resignation to the Chair, vice-Chair, secretary/treasurer of the Regional Committee or to a meeting of the members.

2.6 Annual Meetings: The annual meeting of the members shall be held at a location to be determined, each year after the adoption date of this document, within one month of the anniversary date. If an annual meeting is not held as herein provided, a special meeting of the members may be held in place thereof with the same force and effect as the annual meeting, and in such case all references in these bylaws, except in this Section 2.6, to the annual meeting of the members shall be deemed to refer to such special meeting. Any such special meeting shall be called and notice shall be given as provided in Section 2.7 and 2.8.

2.7 Special Meetings: Special meetings of the members may be held at any time and at any place within the Regional Committee area. Special meetings of the members may be called by the Chair or by the vice-Chair, or in case of death, absence, incapacity, by any other officer or, upon written application of two or more members.

2.8 Call and Notice:

A. Annual meetings: Reasonable notice of the time and place of all meetings shall be given to each member. Such notice need not specify the purposes of a meeting, unless otherwise required by law or these bylaws or unless there is to be considered at the meeting (i) amendments to these bylaws, (ii) an increase or decrease in the number of members, or (iii) removal or suspension of a member who is an officer.

B. Reasonable and sufficient notice: Except as otherwise expressly provided, it shall be reasonable and sufficient notice to a member to send notice by mail at least ten business days or by e-mail/facsimile at least ten business days before the meeting, addressed to such member at his or her usual or last known business address, or, to give notice to such member in person or by telephone at least ten business days before the meeting.

2.9 Quorum: A majority of the regional planning committee officers shall constitute a quorum at any meeting of the members provided the Chair or Vice Chair is one of those present. Any meeting may be adjourned to such date or dates not more than ninety days after the first session of the meeting by a majority of the votes cast upon the question, whether or not a quorum is present, and the meeting may be held as adjourned without further notice.

2.10 Action by Vote: Each voting member, representing a particular agency (one vote per agency) shall have one vote; non-voting members have no right to vote. When a quorum is present at any meeting, a majority of the votes properly cast by voting members present shall decide any question, including election to any office, unless otherwise provided by law or these bylaws.

2.11 Action by Writing: Any action required or permitted to be taken at any meeting of the members may be taken without a meeting if all members entitled to vote on the matter consent to the action in writing and the written consents are filed with the records of the meetings of the members. Such consents shall be treated for all purposes as a vote at a meeting.

2.12 Proxies: Voting members may vote either in person or by written proxy dated not more than one month before the meeting named therein, which proxies shall be filed before being noted with the secretary or other person responsible for recording the proceedings of the meeting. Unless otherwise specifically limited by their terms, such proxies shall entitle the holders thereof to vote at any adjournment of the meeting by the proxy shall terminate after the final adjournment of such meeting.

2.13 Voting on One's Own Application: At no time shall a voting member vote on his/her application.

2.14 Special Interest Voting: A voting member cannot have a commercial interest in any of his/her region and/or adjacent regions application(s) on which he/she is reviewing, approving and/or voting.

ARTICLE III OFFICERS AND AGENTS

3.1 Number and Qualification: The officers of the Regional Committee shall be a Chair, Vice-Chair, Secretary/Treasurer, all Committee Chairs, and such other officers, if any, as the voting members may determine. All officers must be voting members of the Regional Committee.

3.2 Election: The officers shall be elected by the voting members at their first meeting and, thereafter, at the annual meeting of the members.

3.3 Tenure: The officers shall each hold office until the annual meeting of the members held within one year from the adoption of these bylaws, or until their successor, if any, is chosen, or in each case until he or she sooner dies, resigns, is removed or becomes disqualified.

3.4 Chair and Vice Chair: The Chair shall be the chief executive officer of the Regional Committee and, subject to the control of the voting members, shall have general charge and supervision of the affairs of the Regional Committee. The Chair shall preside at all meetings of the Regional Committee.

The Vice Chair shall have such duties and powers, as the voting members shall determine. The Vice-Chair shall have and may exercise all the powers and duties of the Chair during the absence of the Chair or in the event of his or her inability to act.

3.5 Secretary/Treasurer: The Secretary/Treasurer shall be the chief financial officer and the chief accounting officer of the Regional Committee. The Secretary/Treasurer shall be in charge of its financial affairs, funds, and valuable papers and shall keep full and accurate records thereof. The Secretary/Treasurer shall record and maintain records of all proceedings of the members in a file or series of files kept for that purpose, which file or files shall be kept within the Region and shall be open at all reasonable times to the inspection of any member. Such file or files shall also contain records of all meetings and the original, or attested copies, of bylaws and names of all members and the address (including e-mail address, if available) of each. If the Secretary/Treasurer is absent from any meeting of the members, a temporary Secretary/Treasurer chosen at the meeting shall exercise the duties of the secretary at the meeting.

3.6 **Suspension or Removal:** An officer may be suspended with cause by vote of a majority of the voting members.

3.7 **Committees:** Sub-Committees shall be appointed by the Chair. They shall consist of the Technical Committee, and the Regulatory Committee. Other Committees may be added at the discretion of the Chair. All Committee Chairs will sit as voting members of the Executive Committee.

3.8 **Resignation:** An officer may resign by delivering his or her written resignation to the Chair, Vice-Chair, or Secretary/Treasurer of the Regional Committee. Such resignation shall be effective upon receipt (unless specified to be effective at some other time), and acceptance thereof shall not be necessary to make it effective unless it so states.

3.9 **Vacancies:** If the position of any officer becomes vacant, the voting members may elect a successor. Each such successor shall hold office for the remainder terms and in the case of the Chair, Vice Chair, and Secretary/Treasurer until his or her successor is elected and qualified, or in each case until he or she sooner dies, resigns, is removed or become disqualified.

ARTICLE IV
AMENDMENTS

4.1 **Amendments:** The voting members present may by a two-thirds vote, alter, amend, or repeal any bylaws adopted by the Regional Committee members or otherwise adopt, alter, amend or repeal any provision which FCC regulation or these bylaws requires action by the voting members.

ARTICLE V
DISSOLUTION

5.1 **Dissolution:** This Regional Committee may be dissolved by the consent of two-thirds plus one of the members in good standing at a special meeting called for such purpose. The FCC shall be notified.

ARTICLE VI
RULES OF PROCEDURES

6.1 **Rules of Procedures:** The Conduct of Regional Meetings including without limitation, debate, voting and any other issue not covered by the Bylaws, shall be governed by Robert's Rules of Order, newly revised 1990 edition, ninth edition, Sarah Corbin Robert, Henry M. Robert III, and William J. Evans.

Appendix B – Region 38 Member List and Contact Information

Todd Dravland, Chair
Region 38-700 Mhz
1302 E. Hwy. 14, Suite 8
Pierre, SD 57501
605-773-4635(w)
605-280-0870(c)
Todd.dravland@state.sd.us

Paul Dockter, Member
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pauld@pennco.org

Jeff Pierce, Vice-Chair
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Ted Backlund, Member
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Appendix C – List of Counties within Region 38

County	Population
Aurora	2,710
Beadle	17,398
Bennett	3,431
Bon Homme	7,070
Brookings	31,965
Brown	36,531
Brule	5,255
Buffalo	1,912
Butte	10,110
Campbell	1,466
Charles Mix	9,129
Clark	3,691
Clay	13,864
Codington	27,227
Corson	4,050
Custer	8,216
Davison	19,504
Day	5,710
Deuel	4,364
Dewey	5,301
Douglas	3,002
Edmunds	4,071

Fall River	7,094
Faulk	2,364
Grant	7,356
Gregory	4,271
Haakon	1,937
Hamlin	5,903
Hand	3,431
Hanson	3,331
Harding	1,255
Hughes	17,022
Hutchinson	7,343
Hyde	1,420
Jackson	3,031
Jerauld	2,070
Jones	1,006
Kingsbury	5,148
Lake	11,200
Lawrence	24,097
Lincoln	44,828
Lyman	3,755
Marshall	4,656
McCook	5,618
McPherson	2,459
Meade	25,434

Mellette	2,048
Miner	2,389
Minnehana	169,468
Moody	6,486
Pennington	100,948
Perkins	2,982
Potter	2,329
Roberts	10,149
Sanborn	2,355
Shannon	13,586
Spink	6,451
Stanley	2,966
Sully	1,373
Todd	9,612
Tripp	5,644
Turner	8,347
Union	14,399
Walworth	5,438
Yankton	22,438
Ziebach	2,801

Appendix D – Meeting Notices and Related Documentation from FCC

State of South Dakota
State Radio
Bureau of Information & Telecommunications

REGION 38 (SOUTH DAKOTA) 700 MHZ REGIONAL PLANNING COMMITTEE ANNOUNCES FIRST MEETING

The Region 38 (South Dakota) 700 Mhz Public Safety Regional Planning Committee (RPC) Convenor announces that the initial meeting of Region 38 700 Mhz Public Safety Regional Planning Committee will be held on Thursday, January 15th, 2009, at 9:00 a.m. CST, at the Cedar Shores Resort, 1500 Shoreline Drive, Oacoma, South Dakota. The purpose of the meeting is to elect a 700 Mhz Chairperson, and other RPC officers as necessary, and to establish working committees for the development of the Region 38 700 Mhz plan.

The Region 38 700 Mhz RPC meeting is open to the public. All public safety providers whose sole or principal purpose is to protect the safety of life, health, or property in Region 38 are eligible to utilize these frequencies. It is essential that public safety agencies in all areas of government, including state, municipality, county, and Native American Tribal, and non-governmental organizations eligible under Section 90.523 of the Commission's rules, 47 C.F.R. 90.523, be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process. Administrators who are not oriented in the communications field should delegate someone with this knowledge to attend, participate, and represent their agencies needs.

All interested parties wishing to participate in planning for the use of public safety spectrum in the 700 Mhz band within Region 38 should plan to attend. For further information, please contact:

Todd Dravland, Convenor
Region 38 700 Mhz Public Safety Regional Planning Committee
System Engineer, BIT/State Radio Communications Engineering
1302 E. Hwy. 14, Suite 8
Pierre, South Dakota 57501
(605) 773-4635
Todd.Dravland@state.sd.us

Region 38 (South Dakota) 700Mhz Planning Committee

The initial planning meeting for the Region 38 (South Dakota) planning committee (RPC) held to develop a 700Mhz plan for the region was held January 15th 2009 at the Cedar Shores Resort in Oacoma, South Dakota.

Region 38 convener Todd Dravland called the meeting to order and gave a brief overview of the reason for the committee. Following his presentation, an in-depth presentation by Bette Rinehart of Motorola followed with an outline of the process.

At the conclusion of the presentations, and election was held to establish officers and Todd Dravland was elected Chairman and Jeff Pierce Vice-Chair.

Discussion was held on future meetings and an agreement to hold future meetings in concert with regional and statewide meeting of the different public safety disciplines was reached. This will reduce the need for additional travel and help ensure better participation.

In attendance at the meeting were:
Mandee Brinkman, State of South Dakota (BIT)
Greg Fuller, State of South Dakota (DOT)
Andy Alban, State of South Dakota (GFP)
Craig Price, State of South Dakota (DCI)
Daren Ketcham, Director Metro Communications
Lynn DeYoung, Minnehaha County Emergency Manager
Curtis Rees, Western Communications
Rod Bowar, Kennebec Telephone Co.
Mark Benton, Midstate Communications
Dennis Gorton, Pennington County Fire
Brad Steifvater, McCook County Emergency Manager
David Atherton, South Dakota APCO/NENA Chapter
Dayton Myers, South Dakota National Guard
Fred Lamphere, Butte County Sheriff
Jeff Ball, Sioux Falls 2-Way
Jon Groen, Sioux Falls Fire
Matt Tooley, Metro Communications
Steve Christensen, Platte Police Chief

Bette Rinehart, Motorola
Myrna Trimble, Rosebud Sioux Tribe
Todd Dravland, State of South Dakota (SRC)
Jeff Pierce, State of South Dakota (BIT)
Chris Lewis, US Dept of Interior
Larry Jandreau, Lower Brule Sioux Tribe
Ken Wesche, State of South Dakota (DOA)
Lee Axdahl, South Dakota 911 Coordinator
Mike Larson, Larson Communications
Mike Harmon, State of South Dakota (DHS)
Dale Miller, Blackhawk Fire
Dennis Mallow, Blackhawk Fire
Kristi Turman, State of South Dakota (OEM)
Bob VanWinsen, State of South Dakota (OEM)
Doug Hinkle, State of South Dakota (OEM)
Bill Davis, Motorola
Sonny Hagseth, Motorola

PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ANNOUNCES REGION 38 (SOUTH DAKOTA) PUBLIC SAFETY REGIONAL PLANNING COMMITTEE TO HOLD 700 MHZ REGIONAL PUBLIC SAFETY PLANNING MEETING

Attention: All State, County, City and Tribal Public Safety Telecommunications Personnel

Notice: 700 MHz Regional Planning Committee Meeting

Date: December 5, 2013

Time: 09:00-12:00 CST

Location: Mickelson Public Safety Center
DCI Large Conference Room
1302 E. Hwy 14
Pierre, SD 57501

The purpose of the meeting is to initiate the public safety Region 38 (South Dakota) planning process for frequencies located in the 700 MHz frequency band. The FCC requires that each public safety region develop a comprehensive regional plan that dictates how channels in the 700 MHz frequency band will be assigned and dispersed within each public safety region.

The FCC's release of channels in the 700 MHz frequency band presents the prime opportunity to address existing spectrum shortfalls and secure spectrum to build out entirely new communications systems. All state, county, city, and tribal public safety agencies wishing to learn more about 700 MHz or to have a voice in the planning process should plan on attending.

Agenda:

- Introduction
- Record of attendance
- Introduction to Region 38 700 MHz planning presentation presented by the region's consultant, ACD Telecom, LLC
- Open discussion on what is needed to develop the Region 38 700 MHz plan
- Description of planning committee roles and duties
- Election of third member of Region 38 700 MHz planning committee. Also, assign sub-committees and their members
- Review of action items and schedule for next meeting

For further information, please contact:

Todd Dravland, Chair
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State Radio Engineering
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PUBLIC NOTICE

News media information 202 / 418-0500
TTY 202 / 418-2555
Internet: http://www.fcc.gov

Federal Communications Commission
445 12th St., S.W.
Washington, D.C. 20554

DA 13-2326

December 4, 2013

PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ANNOUNCES CANCELLATION OF DECEMBER 5, 2013 REGION 38 (SOUTH DAKOTA) 700 MHZ REGIONAL PLANNING COMMITTEE MEETING DUE TO SEVERE WEATHER

The Region 38 (South Dakota) 700 MHz Public Safety Regional Planning Committee (RPC) Chairman Todd Dravland has cancelled the **Thursday, December 5, 2013[1] meeting,** due to severe weather conditions in South Dakota and the Upper Midwest.

Chairman Dravland further advises that South Dakota's open meeting laws do not permit holding a Webinar on short notice without providing the public sufficient prior notice to participate. The meeting will be **rescheduled in the near future.**

For questions concerning the Region 38 700 MHz RPC activities contact:

Todd Dravland, Chairman
Region 38 (South Dakota) 700 MHz Public Safety RPC
State Radio Engineering
1302 E. Highway 14, Suite 8
Pierre, South Dakota
(605) 773-4635
Todd.Dravland@state.sd.us.

- FCC -

[1] *See* Public Safety and Homeland Security Bureau Announces Region 38 (South Dakota) 700 MHz Public Safety Regional Planning Committee to Hold Meeting, *Public Notice*, DA 13-2155 (rel. Nov. 12, 2013) (announcing meeting to initiate the planning process for development of a Plan for the General Use spectrum in the 769-775/799-805 MHz band).

Capital Journal
333 W Dakota Ave, PO Box 878
Pierre SD 57501
(605)224-7301

Advertising Invoice and Statement

1| Billing Period	2| Advertiser/Client Name
NOVEMBER 2013	STATE RADIO ENGINEERING 99

23| Total Amount Due	*Unapplied Amount	3| Terms of Payment
208.58		30 DAYS

21| Current Net Amount Due	22| 30 Days	60 Days	Over 90 Days
208.58	0.00	0.00	0.00

4| Page Number	5| Billing Date	6| Billed Account Number	7| Advertiser/Client Number
1	11/30/13	4180	4180

8| Billed Account Name and Address	9| Remittance Address
STATE RADIO ENGINEERING ATTN: TODD DRAVLAND 1302 E. HWY 14, SUITE 8 PIERRE,SD 57501 57501	CAPITAL JOURNAL PO BOX 878 333 W DAKOTA PIERRE, SD 57501

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		PREVIOUS BALANCE			0.00	0.00
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Statement of Account - Aging of Past Due Amounts

21| Current Net Amount Due	22| 30 Days	60 Days	Over 90 Days	*Unapplied Amount	23| Total Amount Due
208.58	0.00	0.00	0.00		208.58

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234		4180	4180	STATE RADIO ENGINEERING

Capital Journal

AFFIDAVIT OF PUBLICATION

State of South Dakota, County of Hughes

Ona Arnold of said county, being, first duly sworn, on oath, says: That he/she is the publisher or an employee of the publisher of the Capital Journal, a daily newspaper published in the City of Pierre in said County of Hughes and State of South Dakota; that he/she has full and personal knowledge of the facts herein stated, that said newspaper is a legal newspaper as defined in SDCL 17-2-2.1 through 17-2-2.4 inclusive, that said newspaper has been published within the said County of Hughes and State of South Dakota, for at least one year next prior to the first publication of the attached public notice, and that the legal/display advertisement headed Public Safety & Homeland Security Bureau Announces Region . . . . Meeting a printed copy of which, taken from the paper in which the same was published, and which is hereto attached and made a part of this affidavit, was published in said newspaper for one successive week(s) to wit:

November 8	2013		20
	20		20
	20		20
	20		20
	20		20

That the full amount of the fee charged for the publication of the attached public notice inures to the sole benefit of the publisher or publishers; that no agreement or understanding for the division thereof has been made with any other person, and that no part thereof has been agreed to be paid to any person whomsoever; that the fees charged for the publication thereof are: $ 208.58

Signed: Ona Arnold

subscribed and sworn to before me this 3 day of December 2013

Mary L. Baker

Notary Public in and for the County of Hughes, South Dakota.
My Commission expires 2-19, 2015.

Flood

From A1

pictures what the town was experiencing.

Richard C. Miller was a good fit for the job – a man who loved taking photographs with a Graflex camera that shot big 5-by-7 negatives. He was the son of a portrait photographer in Clark, S.D., who learned more about photography as a soldier during World War I as part of the Signal Corps. Later, Richard Miller sold photography equipment along the Gulf Coast. But in 1921, Richard Miller came over to Pierre and bought a studio on the east side of Pierre Street. He stayed there until moving to a new location across the street in 1956."

Marshall Miller recalls that even when he was growing up, part of the business model remained the same: Document important events or scenes from the area and sell the images as postcards.

"I used to spend a great deal of my time when I was in high school just printing postcards. It was all done by hand," he said.

Picturing the 1927 flood

Pierre and Fort Pierre have lived through some epic floods, with those on the Missouri River in 1952 and 2011 getting most of the attention in the history books. But the surge on the Bad River in 1927 also caused quite a stir at the time.

Bad River flood in Fort Pierre in 1927. *(Photo by Richard Miller)*

"HEAVY RAINFALL CAUSES BAD RIVER FLOOD," trumpets the headline in the Daily Capital Journal of May 9, 1927, with the subhead leading the reader over to the story down the right side of the page: "BAD RIVER LEAPS OUT OF ITS BANKS – DRIVES MANY FROM HOMES – BIG MUDDY CONTINUES TO COME UP." And yet a third deck: "RAILROAD TRACKS WASHED OUT BY HEAVY RAINFALL."

In a rare move for the Capital Journal of the time, the newspaper even prints a photo of flooding on page 6, the only photo in the entire newspaper. But it is actually a photo from July 1905 to remind readers that the Bad River flooding of that earlier year hit a similar area, washing 41 houses out of the flats in a famous summer flood.

Living up to its name

The rain which caused the May 1927 flood on the Bad River had been falling for more than three days when the Daily Capital Journal published its issue of Monday, May 9. A total of 3.17 inches had been recorded at the Pierre weather bureau since the previous Friday at that point.

The wet weather extended far and wide; the same issue of the paper notes that Aberdeen had been swamped by heavy rainfall, while the Milwaukee Road tracks had been washed out near Presho, leaving many homeless.

And in Fort Pierre?

"Treacherous Bad River lived up to its Indian name Sunday when it suddenly overflowed its banks after a three-day's rain and forced eight families living on the 'Millett Bend' to abandon their homes and seek refuge with the neighbors," the Daily Capital Journal reported. "The Fort Pierre tourist park, together with a portion of the road leading to the highway bridge across Bad River, were overflowed and the water rose to within a few feet of the track in a railroad trestle above the Millett bend."

Up the river

The damage wasn't limited to Fort Pierre. All railroad operations west of Fort Pierre came to a halt as the rampaging river washed out several hundred feet of track at Midland, Nowlin and Powell. Railroad bridges were washed out at Wasta, Midland and Wendt.

"Highways were absolutely impassable west of Fort Pierre and telephone connections were poor," the Daily Capital Journal reported, while several washouts had occurred on the gravel road between Pierre and Fort Pierre – mainly on the approaches to the Missouri River bridge.

The Missouri River had risen to its highest mark since 1921, according to that May 9 report; but in the issue of May 10, the Daily Capital Journal reported that the Missouri River was now at its highest elevation since 1913. "BAD RIVER UP – MENACE TO ALL LOWLANDS," reads one of the headlines of that day.

But the flood is fast, as well as furious.

By Wednesday, May 11, 1927, the newspaper was reporting the Bad River, or Teton, and the Missouri were receding: "MISSOURI AND TETON RIVERS RETURN TO BANKS AFTER DAYS OF THREATENING HIGH WATER – BAD RIVER FALLING."

Snapshots of a busy year

Marshall Miller said Richard Miller had plenty of other things to keep him busy in 1927.

"That was a busy year for my dad. That was the year Charles Lindbergh came here, and he took a lot of pictures of that. There was the flood. And I was born in March of that year."

There were probably quite a few photos of that big event around the Miller studio, too.

Bridge

From A1

either the north or south, which means current access routes would need to be realigned. Part of the discussion moving forward will be how that realignment could potentially impact utilities, buildings and businesses on either side of the river.

The DOT's study limits for the new bridge run between Yellowstone Street in Fort Pierre and Poplar Avenue in Pierre, and from the railroad bridge spanning the river to just south of the current bridge.

Kevin Goeden, the chief bridge engineer with the DOT, said he doesn't anticipate the new bridge will be longer than the current 1,836-foot structure. What's not known at this time – and will be the main driver of cost – is the width of the new bridge.

Questions of how many lanes it will have, whether it will be divided and if there will be center median will all go into determining a dollar amount for the project. The DOT is hoping for normal bridge financing, with 80 percent paid by federal dollars and 20 percent by the state, he said.

As for design, Goeden said the new bridge will need to blend in and match its surroundings, such as the iconic railroad bridge. There is also the issue of aesthetics versus costs to consider.

"A form-follows function structure would be attractive to us," he said.

The current bridge was completed in 1962 and designed with a 50-year life span. In 2009 a $1.8 million rehabilitation project was conducted to expand the life of the bridge until it could be replaced in 2025.

The average daily traffic count on the bridge in 2012 was 15,365 cars.

Since it is a major Missouri River crossing, the new bridge is being designed with a 100-year lifespan, as opposed to the standard 75-year lifespan.

The current intent is to have the final study done by December of next year and then move into the design phase.

PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ANNOUNCES REGION 38
(SOUTH DAKOTA) PUBLIC SAFETY REGIONAL PLANNING COMMITTEE TO
HOLD 700 MHZ REGIONAL PUBLIC SAFETY PLANNING MEETING

Attention: All State, County, City and Tribal Public Safety Telecommunications Personnel

Notice	700 MHz Regional Planning Committee Meeting
Date	December X, 2013
Time	09:00-12:00 CST
Location	Mickelson Public Safety Center DCI Large Conference Room 1302 E. Hwy 14 Pierre, SD 57501

The purpose of the meeting is to initiate the public safety Region 38 (South Dakota) planning process for frequencies located in the 700 MHz frequency band. The FCC requires that each public safety region develop a comprehensive regional plan that dictates how channels in the 700 MHz frequency band will be assigned and dispersed within each public safety region.

The FCC's release of channels in the 700 MHz frequency band presents the prime opportunity to address existing spectrum shortfalls and secure spectrum to build out entirely new communications systems. All state, county, city, and tribal public safety agencies wishing to learn more about 700 MHz or to have a voice in the planning process should plan on attending.

Agenda

- Introduction
- Record of attendance
- Introduction to Region 38 700 MHz planning presentation presented by the region's consultant, ACD Telecom, LLC
- Open discussion on what is needed to develop the Region 38 700 MHz plan
- Description of planning committee roles and duties
- Election of third member of Region 38 700 MHz planning committee. Also, assign sub-committees and their members
- Review of action items and schedule for next meeting

For further information, please contact:

Todd Dreyland, Chair
Region 38 700 MHz RPC
State Radio Engineering
1302 E. Hwy. 14, Suite 8
Pierre, SD 57501
(605) 773-4635
Todd.Dreyland@state.sd.us

Published one time at the approximate cost of $208.58.

Prices

From A1

The Wildlife Division doesn't receive any general support from the Legislature while the Division of Parks and Recreation gets a small share.

That means pay raises and health insurance increases passed by the Legislature for state government generally have to come from within the Game, Fish and Parks budget.

Wildlife Division director Tony Leif said the license increases would generate about $3 million.

He said approximately $2.5 million of spending is being shifted from state sources to federal grants which have increased.

The division also plans cuts and deferments that he said will save about $2.4 million.

Some license fees were raised last year for nonresidents. They were supposed to produce about $1 million but license sales are down this fall because of low pheasant numbers.

Leif said this is the first time in nine years that the division is seeking a general increase in license prices. He said most prices remained steady for so long because the money wasn't needed.

Camping fees were last increased in 2011, according to the parks division's Bob Schneider. This round of increases is expected to produce about $665,000.

Schneider said the division's approach is to make modest increases every few years to stay abreast of rising costs for operating the campgrounds. "So we don't get behind the eight ball," he said.

The campsite increases generally would be less than $5, with some under $1. A firewood bundle would rise to $5 from $4.

Seventy percent of the camp sites in the state system would cost $19 per night – $15 for a preferred site plus $4 for electricity service.

For South Dakota residents, the annual fishing license would increase to $28 from $25; the annual small-game license would go to $33 from $30; and the combination license (fishing and small game) would be $55, a $5 increase.

Big-game license prices would change too. Standard deer and antelope licenses would increase by $4.

Cattle

From A1

"At least they were not lying in water and their lungs were full of fluid," he said. "There was a common thought or misconception out there – that they must have breathed all that in. That it must have settled in their lungs."

That is not the case, he said. Rain drenched the livestock for 12 to 18 hours before the blizzard's strong winds and wet snow delivered the killing blow.

"Those cows likely got hypothermic. They were cold," Oedekoven said.

Oedekoven said he thinks there are still ranchers who have not reported their losses from the storm.

A fund set up to help ranchers restock their herds has received more than $700,000 in donations, according to the South Dakota Stockgrowers Executive Director Silvia Christen.

"It's been pretty incredible and impressive to see that grow," she said. "It's humbling to see where all the people are and where it's coming from and how many people care about what's happening out here."

Dravland, Todd

To: Jeannie Benfaida
Subject: FW: Emailing: DA-14-511A1.pdf

Jeannie,

This is what went out B99, which is to all public safety statewide entities. Thanks.

Todd

From: Price, Gene
Sent: Thursday, April 17, 2014 3:07 PM
To: Dravland, Todd
Subject: RE: Emailing: DA-14-511A1.pdf

MRI 0013149 IN D07 00020 04/17/2014 15:00:06 OUT 04/17/2014 15:00:06 D05 00035
AM.SD051035Y.B99.TXT

PUBLIC NOTICE DA 14-511 APRIL 16 , 2014

PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ANNOUNCES
REGION 38 (SOUTH DAKOTA) 700 MHZ PUBLIC SAFETY REGIONAL PLANNING COMMITTEE TO HOLD MEETING

THE REGION 38 (SOUTH DAKOTA) 700 MHZ PUBLIC SAFETY REGIONAL PLANNING COMMITTEE
(RPC) WILL HOLD ITS NEXT MEETING ON THURSDAY, MAY 15, 2014, FROM 9:00 A.M. TO
12:00, MDT AT THE SOUTH DAKOTA DIVISION OF WILDLAND FIRE, AIRPORT OLD TERMINAL
BUILDING, 4250 FIRE STATE ROAD, 24 CONFERENCE ROOM A,
RAPID CITY, SOUTH DAKOTA 57703.
THE PURPOSE OF THE MEETING IS TO INITIATE THE PUBLIC SAFETY REGION 38 PLANNING PROCESS FOR THE GENERAL USE1 (769-775/799-805) FREQUENCIES LOCATED IN
THE 700 MHZ FREQUENCY BAND.

THE AGENDA FOR THE MEETING INCLUDES:
- INTRODUCTIONS AND RECORD OF ATTENDANCE
- REGION 38 700 MHZ PLANNING -- PRESENTATION BY THE REGIONS CONSULTANT, ACD
TELECOM, LLC
- OPEN DISCUSSION ON WHAT IS NEEDED TO DEVELOP THE REGION 38 700 MHZ PLAN
- DESCRIPTION OF PLANNING COMMITTEE ROLES AND DUTIES
- ELECT THIRD MEMBER TO THE PLANNING COMMITTEE, AND IDENTIFY AND ASSIGN MEMBERS
TO OTHER SUBCOMMITTEES
- REVIEW ACTION ITEMS AND SCHEDULE NEXT MEETING

THE REGION 38 700 MHZ RPC MEETING IS OPEN TO THE PUBLIC. IT IS ESSENTIAL THAT
PUBLIC SAFETY AGENCIES IN ALL AREAS OF GOVERNMENT, INCLUDING STATE, MUNICIPALITY, COUNTY, AND NATIVE AMERICAN TRIBAL,AND NON-GOVERNMENTAL ORGANIZATIONS ELIGIBLE UNDER SECTION 90.523 OF THE COMMISSIONS RULES, 47 C.F.R.
90.523, BE REPRESENTED IN ORDER TO ENSURE THAT EACH AGENCYS FUTURE SPECTRUM
NEEDS ARE CONSIDERED IN THE ALLOCATION PROCESS. ADMINISTRATORS WHO ARE NOT ORIENTED IN THE COMMUNICATIONS FIELD SHOULD DELEGATE SOMEONE WITH THIS KNOWLEDGE TO ATTEND, PARTICIPATE, AND REPRESENT THEIR AGENCYS NEEDS.

ALL INTERESTED PARTIES WISHING TO PARTICIPATE IN THE PLANNING FOR THE USE OF
PUBLIC SAFETY SPECTRUM IN THE 700 MHZ BAND WITHIN REGION 38 SHOULD PLAN TO ATTEND.

FOR FURTHER INFORMATION, PLEASE CONTACT:

TODD DRAVLAND, CHAIRMAN
REGION 38 (SOUTH DAKOTA) 700 MHZ PUBLIC SAFETY RPC
STATE RADIO ENGINEERING, 1302 E. HIGHWAY 14, SUITE 8, PIERRE, SOUTH DAKOTA 57501
(605) 773-4635 OR TODD.DRAVLAND@STATE.SD.US

****
-FCCNEWS
MEDIA INFORMATION 202 / 418-0500
TTY 202 / 418-2555
INTERNET: HTTP://WWW.FCC.GOV

1 THE GENERAL USE SPECTRUM IS ADMINISTERED BY REGIONAL PLANNING COMMITTEES AND
IS LICENSED FOR PUBLIC SAFETY
SERVICES ON A SITE-BY-SITE BASIS IN ACCORDANCE WITH THE RELEVANT COMMISSION-APPROVED REGIONAL PLAN AND FREQUENCY
COORDINATION.

END OF PUBLIC NOTICE AUTH BIT4

//

From: Dravland, Todd
Sent: Thursday, April 17, 2014 12:59 PM
To: Price, Gene
Subject: Emailing: DA-14-511A1.pdf

Gene,

Would you send out this Public Notice as a B-99 since it will be held out in your area? I also need a copy back from you what you sent out on Teletype so I can put in the file. Thanks.

Todd

PUBLIC NOTICE

News media information 202 / 418-0500
TTY 202 / 418-2555
Internet: http://www.fcc.gov

Federal Communications Commission
445 12th St., S.W.
Washington, D.C. 20554

DA 14-511
April 16 , 2014

PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ANNOUNCES REGION 38 (SOUTH DAKOTA) 700 MHZ PUBLIC SAFETY REGIONAL PLANNING COMMITTEE TO HOLD MEETING

The Region 38 (South Dakota) 700 MHz Public Safety Regional Planning Committee (RPC) will hold its next meeting on Thursday, May 15, 2014, from 9:00 a.m. to 12:00, MDT at the South Dakota Division of Wildland Fire, Airport Old Terminal Building, 4250 Fire State Road, 24 Conference Room A, Rapid City, South Dakota 57703. The purpose of the meeting is to initiate the public safety Region 38 planning process for the General Use[1] (769-775/799-805) frequencies located in the 700 MHz frequency band.

The agenda for the meeting includes:

- Introductions and record of attendance
- Region 38 700 MHz planning -- presentation by the Region's consultant, ACD Telecom, LLC
- Open discussion on what is needed to develop the Region 38 700 MHz Plan
- Description of Planning Committee roles and duties
- Elect third member to the Planning Committee, and identify and assign members to other subcommittees
- Review action items and schedule next meeting

The Region 38 700 MHz RPC meeting is open to the public. It is essential that public safety agencies in all areas of government, including state, municipality, county, and Native American Tribal, and non-governmental organizations eligible under Section 90.523 of the Commission's rules, 47 C.F.R. § 90.523, be represented in order to ensure that each agency's future spectrum needs are considered in the allocation process. Administrators who are not oriented in the communications field should delegate someone with this knowledge to attend, participate, and represent their agency's needs.

All interested parties wishing to participate in the planning for the use of public safety spectrum

[1] The General Use spectrum is administered by regional planning committees and is licensed for public safety services on a site-by-site basis in accordance with the relevant Commission-approved regional plan and frequency coordination.

-FCC-

in the 700 MHz band within Region 38 should plan to attend. For further information, please contact:

Todd Dravland, Chairman
Region 38 (South Dakota) 700 MHz Public Safety RPC
State Radio Engineering, 1302 E. Highway 14, Suite 8, Pierre, South Dakota 57501
(605) 773-4635 or Todd.Dravland@state.sd.us

PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ANNOUNCES REGION 38 (SOUTH DAKOTA) PUBLIC SAFETY REGIONAL PLANNING COMMITTEE TO HOLD 700 MHZ REGIONAL PUBLIC SAFETY PLANNING MEETING

Attention:	All State, County, City and Tribal Public Safety Telecommunications Personnel
Notice:	700 MHz Regional Planning Committee Meeting
Date:	May 5, 2015
Time:	10:00 CT - 12:00 CT
Location:	Region 38 700 MHz RPC State Radio Engineering 1302 E. Hwy. 14, Suite 8 Pierre, SD 57501

The purpose of the meeting is to initiate the public safety Region 38 (South Dakota) planning process for frequencies located in the 700 MHz frequency band. The FCC requires that each public safety region develop a comprehensive regional plan that dictates how channels in the 700 MHz frequency band will be assigned and dispersed within each public safety region.

The FCC's release of channels in the 700 MHz frequency band presents the prime opportunity to address existing spectrum shortfalls and secure spectrum to build out entirely new communications systems. All state, county, city, and tribal public safety agencies wishing to learn more about 700 MHz or to have a voice in the planning process should plan on attending.

Agenda:

- Introduction
- Record of attendance
- Review and approval of the region 38 plan for submission to the adjacent regions for their approval

For further information, please contact:

Todd Dravland, Chair
Region 38 700 MHz RPC
State Radio Engineering
1302 E. Hwy. 14, Suite 8
Pierre, SD 57501
(605) 773-4635
Todd.Dravland@state.sd.us

Meeting Sign-In Sheet

Project: Region 38 – 700 MHz Planning
Address:
SD Division of Wildland Fire -
Airport old Terminal Building
4250 Fire State Road
Rapid City, SD 57703

Meeting Date: May 15, 20140 @ 0900 MDT
Place/Room:
SD Division of Wildland Fire
24 Conference Room A

	Please Print and Include all Information		
Attendee Name:	Todd Dravland	**Phone:**	605.773.4635
Agency Name:	State of South Dakota - BIT	**Email:**	Todd.Dravland@state.sd.us
Address:	State Radio Engineering, 1302 E. Hwy. 14, Suite 8 Pierre, SD 57501	**Fax:**	605
Attendee Name:	Ali Shahnami	**Phone:**	407.333.2300
Agency Name:	ACD Telecom, LLC	**Email:**	ali.shahnami@acdtelecom.com
Address:	103 Commerce Street, Unit 180, Lake Mary, Fl 32746	**Fax:**	407.333.2300
Attendee Name:	ADAM SCOTT	**Phone:**	605-394-6954
Agency Name:	Pennington County 9-1-1	**Email:**	adamsco@penco.org
Address:	300 Kansas City ST, Suite 201, RAPID CITY SD 57701	**Fax:**	605-394-6795
Attendee Name:	Rich Patton	**Phone:**	605-381-7048
Agency Name:	South Dakota State Radio	**Email:**	richard.patton@state.sd.us
Address:		**Fax:**	
Attendee Name:	John Waters	**Phone:**	605-381-7047
Agency Name:	South Dakota State Radio	**Email:**	John.Waters@state.sd.us
Address:		**Fax:**	
Attendee Name:		**Phone:**	
Agency Name:		**Email:**	
Address:		**Fax:**	
Attendee Name:		**Phone:**	
Agency Name:		**Email:**	
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Attendee Name:		**Phone:**	
Agency Name:		**Email:**	
Address:		**Fax:**	
Attendee Name:		**Phone:**	

PUBLIC SAFETY AND HOMELAND SECURITY BUREAU ANNOUNCES REGION 38 (SOUTH DAKOTA) PUBLIC SAFETY REGIONAL PLANNING COMMITTEE TO HOLD 700 MHZ REGIONAL PUBLIC SAFETY PLANNING MEETING

Attention: All State, County, City and Tribal Public Safety Telecommunications Personnel

Notice: 700 MHz Regional Planning Committee Meeting

Date: May 15, 2014

Time: 09:00-12:00 MDT

Location: SD Division of Wildland Fire
Airport old Terminal Building
4250 Fire State Road
Rapid City, SD 57703
24 Conference Room A

The purpose of the meeting is to initiate the public safety Region 38 (South Dakota) planning process for frequencies located in the 700 MHz frequency band. The FCC requires that each public safety region develop a comprehensive regional plan that dictates how channels in the 700 MHz frequency band will be assigned and dispersed within each public safety region.

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- Review of action items and schedule for next meeting

For further information, please contact:

Todd Dravland, Chair
Region 38 700 MHz RPC
State Radio Engineering
1302 E. Hwy. 14, Suite 8
Pierre, SD 57501
(605) 773-4635
Todd.Dravland@state.sd.us

SD 700 MHz Planning Committee Meeting
Minutes
May 15, 2014

Present: Todd Dravland, John Waters, Rich Patton, Ali Shahnami, Adam Scott

Meeting brought to order – 9:15am: Todd Dravland, chairman

1. Todd introduced Ali Shahnami, the SD frequency and spectrum consultant from ACD Telcom, LLC. Todd mentioned that Ali Shahnami was a prior director of APCO Spectrum Management, and now is the CEO of his own company. Ali was directly involved in the frequency engineering of SD's State Digital Radio System. After this introduction, Todd turned over the meeting to Ali.

Remarks from Mr. Ali Shahnami, CEO, ACD Telcom, LLC:

1. This meeting is an open meeting and anybody can attend.
2. Todd and Ali worked on SD's 700MHz plan over the last few months
3. A cover letter and the copy of the plan will be sent to the FCC for approval
4. 700 MHz is not developed yet in SD, but it could be in the future
5. One potential use is for MDT (Mobile Data Terminals)
6. 700 MHz is not as broadband capable as the Verizon Air Cards, but would enable local network control
7. Ali responded to a question from Todd, which was: How does 700MHz compare with FirstNet? Ali responded that 700MHz will be running on 6.25MHz narrowband.
8. At this time Ali presented the Region 38 draft letter to the FCC for the committed to review.
9. Ali stated that the Chairman of the Region 38 700MHz Planning Committee was Todd Dravland, the Vice Chairman was Jeff Pierce, and the Secretary position was unfilled. Ali asked if anyone wanted to fill that position, and Adam Scott volunteered.
10. Ali declared that Adam was now the secretary of the Region 38 700MHz Planning Committee.

Ali starts going over the 700MHz plan:

1. Committee meets a minimum of annually
2. Committee follows Robert's Rules of Order
3. Committee uses CAPRAD to research, approve or disapprove Region 38 700MHz frequency requests
4. CAPRAD is a computer-assisted frequency assignment program, and the committee members will be given login access to process frequency request
5. CAPRAD takes neighboring states and countries into account when evaluating frequencies.
6. After analyzing a frequency request in CAPRAD, the request is voted on by the 700MHz Planning Committee executive board. Board members may not vote on their own applications.
7. Ali described the appeal process and coordination chart, however coordination can't start until the cover letter is received at the FCC from the Region 38 chairperson.

Ali gives additional information on 700MHz spectrum:

SD 700 MHz Planning Committee Meeting
Minutes
May 15, 2014

1. 700MHz has 30MHz separation between base and mobile transmits, similar to the 5MHz separation between base and mobile transmits in the UHF frequency band.
2. 700MHz has specific channels allocated for low power radio operation

Ali talks about application windows:

1. Application Window One starts when the cover letter is received by the FCC and lasts for 3 years.
2. Application Window Two starts immediately after window one terminates and continues for a time yet to be determined.

Ali started talking about the appendixes in the 700MHz plan

1. Ali asked what in-coverage building ordinances were in place in the county, and suggested that we think of enacting some. If buildings were engineered to be 700MHz-friendly at the time of initial planning, then 700MHz devices and radios would work efficiently and properly in the building, in the future.
2. Ali mentioned that 700MHz would need to be operating in 6.25KHz narrowband mode by 1 Jan 2016, although there are waiver requests submitted to the FCC, which may or may not delay the narrow banding mandate.

Plan approval:

1. Rich Patton motioned that the Region 38 700MHz Plan be approved with changes and submitted to the full region for their review and comments.
2. John Waters seconded the motion.
3. No discussion of the motion was noted.
4. The Committee voted on the motion and it passed unanimously, none opposed.

Next Meeting:

1. A webinar meeting was proposed for Thursday morning, 9:00am MDT, 5 June 2014, to finalize the 700MHz plan and review it.
2. The webinar will be on Gotomeeting.com

Motion to adjourn:

1. Adam Scott motioned to adjourn the meeting.
2. Rich Patton seconded the motion.
3. No discussion of the motion was noted.
4. The Committed voted on the motion and it passed unanimously, none opposed.

Dravland, Todd

To:	Waters, John; Patton, Richard; Backlund, Ted; Pfeffer, Daniel; Ali Shahnami (ali.shahnami@acdtelecom.com); Scott Adam (adamsco@pennco.org); Dockter Paul (pauld@pennco.org)
Cc:	Dravland, Todd
Subject:	700 Mhz meeting notes 5/5/2015, 10:00 AM CDT

Meeting notes as I have them, additions/ deletions as needed, any comments let the group know. Thanks.

Todd

Intro:

- Todd Dravland, Region 38 Chair, called meeting to order at 10:05 PM CDT, 5/5/2015.
- Todd introduced Ali Shahnami, ACD Telecom, as the Consultant into the group.
- Todd recorded attendance as follows:
- Richard Patton, SD BIT/SRC Engineering— Region 38 , 700 Mhz Committee member, Rapid City, SD
- John Waters, SD BIT/SRC Engineering—Region 38, 700 Mhz Committee member, Rapid City, SD
- Dan Pfeffer, SD BIT/SRC Engineering—Region 38, 700 Mhz Committee member, Pierre, SD
- Ted Backlund, SD BIT/SRC Engineering—Region 38, 700 Mhz Committee member, Pierre, SD
- Absent from meeting:
- Adam Scott, Pennington county—Region 38, 700 Mhz Committee member, Rapid City, SD
- Paul Dockter, Pennington County---Region 38, 700 Mhz Committee member, Rapid City, SD

- Discussed the Region 38, 700 Mhz plan document.

- Adam Scott had written Questions about page 37 of the plan, which deals with Adjacent Region approval. We discussed and will leave that in place, with minor changes.

- Richard Patton had no additional comments. Approved as submitted with no changes.

- John Waters, no additional comments. Approved as submitted with no changes.

- Dan Pfeffer, no additional comments. Approved as submitted with no changes.

- Ted Backlund, no additional comments. Approved as submitted with no changes.

- Chairman Dravland had no changes to the body of the Region 38 document, just mentioned minor changes on dates and committee listings.

- Motion made to approve the Region 38, 700 Mhz document by Richard Patton, seconded by John Waters.. APPROVED.

- Chairman Dravland made motion to Adjourn meeting.. Meeting Adjourned at 10:16 AM CDT, 5/15/2015.

Todd Dravland, Region 38 Chair, 700/800 Mhz.

Todd Dravland

Pierre, SD 57501
605-773-4635(o)
605-280-0870(c)

Appendix E – Common Air Interface

Project 25 Common Air Interface Interoperability Channel Parameters

Certain common P25 parameters need to be defined to ensure digital radios operating on the 700 MHz Interoperability Channels can communicate. This is analogous to defining the common CTCSS tone used on NPSPAC analog Interoperability channels.

Network Access Code

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

Use of corresponding NAC code $293 is required for the 700 MHz Interoperability Channel NAC code.

Talk group ID

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

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

Manufacturer's ID

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

Message ID

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

Encryption Algorithm ID and Key ID

The Project 25 Common Air Interface allows the ability to define specific encryption algorithms and encryption keys. In order to ensure that all users can communicate, encryption should not be used on the Interoperability Calling Channels. All units should use the default Algorithm ID for unencrypted messages of $80 and default Key ID for unencrypted messages 0000. These same defaults may be used for the other Interoperability channels when encryption is not used.

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

Appendix F – Simplified 700 MHz Pre-Assignment Rules

1. Introduction

This section describes a process for coordinating the initial block assignments of 700 MHz channels. The allocation of spectrum provided by CAPRAD is for planning purposes, particularly defining the minimum channel usage at the border of Region 38 and neighboring Regions. Channel packing beyond CAPRAD will be based upon actual technical parameters and jurisdictional coverage requirements of the specific licensees. As such, CAPRAD provides a starting point for channel allotment not the most efficient utilization of the spectrum. The Region 38 Committee has the authority to utilize specific engineering analysis to move beyond CAPRAD to satisfy the spectrum requirements of public safety licensees.

2. Overview

Assignments will be based on a defined service area for each applicant. This will normally be an area defined by geographical or political boundaries such as city, county or by a data file consisting of line segments creating a polygon that encloses the defined area. The service contour is normally allowed to extend slightly beyond the geo/political boundaries such that systems can be designed for maximum signal levels within the boundaries, or coverage area. Systems must also be designed to minimize signal levels outside their geo/political boundaries to avoid interference into the coverage area of other co-channel users.

Definition: Service area is the actual geographic area serviced by the licensee. This includes the jurisdictional area and any extension of the jurisdictional area required to support primary communications requirements as justified to the Region 38 Committee.

Definition: Coverage area is the service area plus a general 3-5 mile buffer, known as the extended service area

The signal level permitted at the edge of the coverage area is no more than 40 dBμ. Protection of an existing system is based upon signal strength at the edge of the coverage area of 40 dBμ.

For co-channel assignments, the 40 dBμ service contour will be allowed to extend beyond the defined service area by 5 miles, depending on the type of environment: urban, suburban or rural. The co-channel 5 dBμ interfering contour will not be allowed to overlap the 40 dBμ service contour of the system. For adjacent and alternate channels, the 60 dBμ interfering contour will not be allowed to overlap the 40 dBμ service contour of the system. The service contour reliability is defined at F(50,50), while the interference contours are defined at F(50,50).

3. Discussion

Based upon the ERP/HAAT limitations referenced in 47CFR ¶ 90.541(a), the maximum field strength will

be limited to 40 dB relative to 1μV/m (customarily denoted as 40 dBμ). It is assumed that this limitation will be applied similar to the way it is applied in the 821-824/866-869 MHz band. That is, a 40 dBμ field strength can be deployed up to a defined distance (extended service area) beyond the edge of the service area, based on the size of the service area or type of applicant, i.e. city, county or statewide system. The value of 40 dBμ in the 700 MHz band corresponds to a signal of -92.7 dBm, received by a half-wavelength dipole antenna.

Two primary concerns are addressed by the Region 38 Committee:

- Public safety systems must provide reliable ubiquitous coverage within the service area
- Public safety systems must be cost effective and not prohibitive to construct and operate

The Committee has chosen to define the service area to the public safety standard 40 dBμ at 50% faded reliability to an extended service area 5 miles outside of the licensee jurisdictional area. This provides a proper balance between the need to conserve and reuse spectrum, and the necessity to provide reliable service coverage at an affordable infrastructure cost.

4. Portable In-Building Coverage

Most Public Safety communications systems today are designed for portable in building coverage and the requirement for a typical coverage reliability of 95%. Buildings of 20 dB or greater penetration loss can be located at any point within the jurisdictional polygon of the licensee. The permitting of the service contour to extend 5 miles beyond the jurisdictional polygon at 40 dBμ faded 90% reliability will improve the ability to communicate into buildings located at the jurisdictional line. However, the Committee understands that this extended service area alone may not address the in-building requirements of all licensees, particularly when a very high loss building is located at or very close to such boundaries. In these cases, the licensee will need to specifically address the particular building with unique and innovative approaches.

5. Service Contour Extension Recommendation

The resulting recommendation for extending the 40 dBμ service contour beyond the service area boundary is:

Urban (20 dB Buildings): 5 miles
Suburban (15 dB Buildings): 4 miles
Rural (10 dB Buildings): 3 miles

The Region 38 Committee may waive these limits upon demonstration by the licensee that the urbanization classification does not properly address the licensee's situation; however the maximum distance of the service area extension is 5 miles in all situations.

6. Interfering Contour

The coverage and protected areas of an existing system are plotted at different signal strengths. The coverage signal strength is permitted at 40 dBμ, while the system will be protected from co-channel and adjacent channel system, both within and outside of Region 38, by the nationally accepted value of 40 dBμ.

Signal levels are calculated using methods described in TIA TSB-88B (or a subsequent later version), by using Okumura-Hata-Davidson propagation modeling, median reliability and relative to a suburban environment. The modeling is to be based on at least 3 arc second terrain data.

The diffraction portion of the modeling, where it can serve to artificially limit the size of the plot, must be disabled[14].

7. Co-Channel Interfering Contour Recommendation

The Committee will allow the constructed 40 dBμ F(50,50) service contour to extend beyond the edge of the defined service area by the distance indicated in paragraph 5. A co-channel shall be allowed to have its 5 dBμ (50,50) interfering contour overlap the 40 dBμ extended service contour of the system being evaluated only if the reduction of overlap of the extended service area does not exceed 2% and does not overlap into the jurisdictional service area.

8. Adjacent and Alternate Channel Considerations

Adjacent and alternate channels are treated as being on channel signals reduced by the value of Adjacent Channel Coupled Power (ACCP). This assumes that the primary mechanism for interference results from transmitter sideband noise appearing as an on-channel signal within the receiver bandwidth. Using the 47 CFR § 90.543 values of ACCP can facilitate the coordination of adjacent and alternate channels.

Based on 47 CFR ¶ 90.543 and the P25 requirement for an ACCP 65 dB into a 6.0 KHz channel bandwidth and leaving room for a migration from Phase 1 to Phase 2, allows for making the simplifying assumption that 65 dB ACCP is available for both adjacent 25 KHz spectrum blocks. For spectrum blocks spaced farther away, it must be assumed that transmitter filtering, in addition to transmitter performance improvements due to greater frequency separation, will further reduce the ACCPR. Therefore, it is recommended that a consistent value of 65 dB ACCPR be used for the initial coordination of adjacent 25 KHz channel blocks. Rounding to be conservative due to the possibility of multiple sources allows the Adjacent Channel Interfering Contour to be approximately 20 dB above the 40 dBμ service contour, at 60 dBμ.

9. Adjacent Channel Interfering Contour Recommendation

An adjacent (25 KHz) channel shall be allowed to have its 60 dBμ (50,50) interfering contour overlap the 40 dBμ extended service contour of the system being evaluated only if the overlap degradation of the extended service area does not exceed 2% and does not overlap into the jurisdictional service area.

[14] Diffraction modeling may limit the size of the contour by drawing the contour line at the first point where the signal drops below the contour limit, even if the signal increases beyond that point.

10. Final Detailed Coordination

The coordination for frequencies prior to system procurement does not address the specific and unique circumstances of the particular system and is only adequate for presorting large blocks of spectrum to potential entities. A more detailed analysis should be included in the actual design phase to take all the issues into consideration. A detailed report to the Region 38 Committee is to be submitted by each license detailing the "As Built" system once it is completed for the purposes of subsequent channel assignment. This information is available to other potential licensees to assist with licensing and coordinating those new systems to avoid interference.

Additional factors that should be considered include:

- Degree of Service Area Overlap
- Different size of Service Areas
- Different ERPs and HAATs
- Actual Terrain and Land Usage
- Differing User Reliability Requirements
- Migration from 12.5 KHz to 6.25 KHz efficiency standard, as required
- Site Separation
- Actual ACCP
- Balanced Systems
- Mobiles vs. Portables
- Use of voting
- Use of simulcast
- Radio specifications
- Simplex Operation

Special attention needs to be paid to the use of simplex operation. In this case, an interferer can be on an offset adjacent channel and in extremely close proximity to the victim receiver. This is especially critical in public safety where simplex operations are frequently used at a fire scene or during police operation. Simplex operations, other than those on the low power or interoperable channels, are generally not offered protection from interference.

11. Carrier to Interference Requirements

There are two different ways that Interference is considered.

- Co Channel
- Adjacent and Alternate Channels

Co-channel C/I is defined as by the 40 and 5 dBμ contours for a difference of 35 dB.

Adjacent and alternate channel C/I is defined by the 40 and 60 dBμ contours for a difference of 20 dB.

Appendix G – Channel Assignments by Geographic Area

Class	Band Width	Channel	Base Frequency	Mobile Frequency
Aurora				
General Use	Voice 25.0KHz	373-376	771.3375	801.3375
General Use	Voice 25.0KHz	425-428	771.6625	801.6625
General Use	Voice 25.0KHz	465-468	771.9125	801.9125
General Use	Voice 25.0KHz	545-548	772.4125	802.4125
General Use	Voice 25.0KHz	613-616	772.8375	802.8375
General Use	Voice 25.0KHz	669-672	773.1875	803.1875
General Use	Voice 25.0KHz	785-788	773.9125	803.9125
State License	Voice 25.0KHz	25-28	769.1625	799.1625
State License	Voice 25.0KHz	685-688	773.2875	803.2875
State License	Voice 25.0KHz	725-728	773.5375	803.5375
Beadle				
General Use	Voice 25.0KHz	13-16	769.0875	799.0875
General Use	Voice 25.0KHz	93-96	769.5875	799.5875
General Use	Voice 25.0KHz	161-164	770.0125	800.0125
General Use	Voice 25.0KHz	201-204	770.2625	800.2625
General Use	Voice 25.0KHz	253-256	770.5875	800.5875
General Use	Voice 25.0KHz	293-296	770.8375	800.8375
General Use	Voice 25.0KHz	333-336	771.0875	801.0875
General Use	Voice 25.0KHz	377-380	771.3625	801.3625
General Use	Voice 25.0KHz	421-424	771.6375	801.6375
General Use	Voice 25.0KHz	461-464	771.8875	801.8875
General Use	Voice 25.0KHz	521-524	772.2625	802.2625
General Use	Voice 25.0KHz	569-572	772.5625	802.5625
General Use	Voice 25.0KHz	609-612	772.8125	802.8125
General Use	Voice 25.0KHz	701-704	773.3875	803.3875
General Use	Voice 25.0KHz	781-784	773.8875	803.8875
General Use	Voice 25.0KHz	865-868	774.4125	804.4125
General Use	Voice 25.0KHz	905-908	774.6625	804.6625
General Use	Voice 25.0KHz	945-948	774.9125	804.9125
State License	Voice 25.0KHz	29-32	769.1875	799.1875
State License	Voice 25.0KHz	145-148	769.9125	799.9125
State License	Voice 25.0KHz	185-188	770.1625	800.1625
State License	Voice 25.0KHz	265-268	770.6625	800.6625
State License	Voice 25.0KHz	645-648	773.0375	803.0375
State License	Voice 25.0KHz	805-808	774.0375	804.0375
State License	Voice 25.0KHz	893-896	774.5875	804.5875
State License	Voice 25.0KHz	933-936	774.8375	804.8375

Bennett				
General Use	Voice 25.0KHz	285-288	770.7875	800.7875
General Use	Voice 25.0KHz	445-448	771.7875	801.7875
General Use	Voice 25.0KHz	501-504	772.1375	802.1375
General Use	Voice 25.0KHz	561-564	772.5125	802.5125
General Use	Voice 25.0KHz	621-624	772.8875	802.8875
General Use	Voice 25.0KHz	781-784	773.8875	803.8875
General Use	Voice 25.0KHz	829-832	774.1875	804.1875
General Use	Voice 25.0KHz	869-872	774.4375	804.4375
State License	Voice 25.0KHz	145-148	769.9125	799.9125
State License	Voice 25.0KHz	225-228	770.4125	800.4125
State License	Voice 25.0KHz	925-928	774.7875	804.7875
Bon Homme				
General Use	Voice 25.0KHz	53-56	769.3375	799.3375
General Use	Voice 25.0KHz	333-336	771.0875	801.0875
General Use	Voice 25.0KHz	413-416	771.5875	801.5875
General Use	Voice 25.0KHz	461-464	771.8875	801.8875
General Use	Voice 25.0KHz	513-516	772.2125	802.2125
General Use	Voice 25.0KHz	597-600	772.7375	802.7375
General Use	Voice 25.0KHz	673-676	773.2125	803.2125
General Use	Voice 25.0KHz	789-792	773.9375	803.9375
State License	Voice 25.0KHz	29-32	769.1875	799.1875
State License	Voice 25.0KHz	69-72	769.4375	799.4375
State License	Voice 25.0KHz	729-732	773.5625	803.5625
Brookings				
General Use	Voice 25.0KHz	17-20	769.1125	799.1125
General Use	Voice 25.0KHz	57-60	769.3625	799.3625
General Use	Voice 25.0KHz	97-100	769.6125	799.6125
General Use	Voice 25.0KHz	165-168	770.0375	800.0375
General Use	Voice 25.0KHz	205-208	770.2875	800.2875
General Use	Voice 25.0KHz	245-248	770.5375	800.5375
General Use	Voice 25.0KHz	285-288	770.7875	800.7875
General Use	Voice 25.0KHz	365-368	771.2875	801.2875
General Use	Voice 25.0KHz	405-408	771.5375	801.5375
General Use	Voice 25.0KHz	477-480	771.9875	801.9875
General Use	Voice 25.0KHz	537-540	772.3625	802.3625
General Use	Voice 25.0KHz	585-588	772.6625	802.6625
General Use	Voice 25.0KHz	625-628	772.9125	802.9125
General Use	Voice 25.0KHz	717-720	773.4875	803.4875
General Use	Voice 25.0KHz	797-800	773.9875	803.9875

General Use	Voice 25.0KHz	877-880	774.4875	804.4875
General Use	Voice 25.0KHz	917-920	774.7375	804.7375
State License	Voice 25.0KHz	33-36	769.2125	799.2125
State License	Voice 25.0KHz	269-272	770.6875	800.6875
State License	Voice 25.0KHz	653-656	773.0875	803.0875
State License	Voice 25.0KHz	729-732	773.5625	803.5625
State License	Voice 25.0KHz	813-816	774.0875	804.0875
State License	Voice 25.0KHz	929-932	774.8125	804.8125
Brown				
General Use	Voice 25.0KHz	41-44	769.2625	799.2625
General Use	Voice 25.0KHz	93-96	769.5875	799.5875
General Use	Voice 25.0KHz	161-164	770.0125	800.0125
General Use	Voice 25.0KHz	201-204	770.2625	800.2625
General Use	Voice 25.0KHz	257-260	770.6125	800.6125
General Use	Voice 25.0KHz	297-300	770.8625	800.8625
General Use	Voice 25.0KHz	337-340	771.1125	801.1125
General Use	Voice 25.0KHz	393-396	771.4625	801.4625
General Use	Voice 25.0KHz	469-472	771.9375	801.9375
General Use	Voice 25.0KHz	533-536	772.3375	802.3375
General Use	Voice 25.0KHz	601-604	772.7625	802.7625
General Use	Voice 25.0KHz	673-676	773.2125	803.2125
General Use	Voice 25.0KHz	713-716	773.4625	803.4625
General Use	Voice 25.0KHz	757-760	773.7375	803.7375
General Use	Voice 25.0KHz	797-800	773.9875	803.9875
General Use	Voice 25.0KHz	865-868	774.4125	804.4125
General Use	Voice 25.0KHz	905-908	774.6625	804.6625
General Use	Voice 25.0KHz	945-948	774.9125	804.9125
State License	Voice 25.0KHz	33-36	769.2125	799.2125
State License	Voice 25.0KHz	109-112	769.6875	799.6875
State License	Voice 25.0KHz	185-188	770.1625	800.1625
State License	Voice 25.0KHz	265-268	770.6625	800.6625
State License	Voice 25.0KHz	313-316	770.9625	800.9625
State License	Voice 25.0KHz	645-648	773.0375	803.0375
State License	Voice 25.0KHz	685-688	773.2875	803.2875
State License	Voice 25.0KHz	813-816	774.0875	804.0875
State License	Voice 25.0KHz	893-896	774.5875	804.5875
Brule				
General Use	Voice 25.0KHz	17-20	769.1125	799.1125
General Use	Voice 25.0KHz	57-60	769.3625	799.3625
General Use	Voice 25.0KHz	213-216	770.3375	800.3375

General Use	Voice 25.0KHz	329-332	771.0625	801.0625
General Use	Voice 25.0KHz	417-420	771.6125	801.6125
General Use	Voice 25.0KHz	509-512	772.1875	802.1875
General Use	Voice 25.0KHz	557-560	772.4875	802.4875
General Use	Voice 25.0KHz	677-680	773.2375	803.2375
General Use	Voice 25.0KHz	757-760	773.7375	803.7375
General Use	Voice 25.0KHz	913-916	774.7125	804.7125
State License	Voice 25.0KHz	33-36	769.2125	799.2125
State License	Voice 25.0KHz	233-236	770.4625	800.4625
State License	Voice 25.0KHz	813-816	774.0875	804.0875
State License	Voice 25.0KHz	853-856	774.3375	804.3375
Buffalo				
General Use	Voice 25.0KHz	41-44	769.2625	799.2625
General Use	Voice 25.0KHz	165-168	770.0375	800.0375
General Use	Voice 25.0KHz	341-344	771.1375	801.1375
General Use	Voice 25.0KHz	441-444	771.7625	801.7625
General Use	Voice 25.0KHz	529-532	772.3125	802.3125
General Use	Voice 25.0KHz	573-576	772.5875	802.5875
General Use	Voice 25.0KHz	745-748	773.6625	803.6625
General Use	Voice 25.0KHz	833-836	774.2125	804.2125
State License	Voice 25.0KHz	113-116	769.7125	799.7125
State License	Voice 25.0KHz	153-156	769.9625	799.9625
Butte				
General Use	Voice 25.0KHz	13-16	769.0875	799.0875
General Use	Voice 25.0KHz	97-100	769.6125	799.6125
General Use	Voice 25.0KHz	137-140	769.8625	799.8625
General Use	Voice 25.0KHz	177-180	770.1125	800.1125
General Use	Voice 25.0KHz	217-220	770.3625	800.3625
General Use	Voice 25.0KHz	289-292	770.8125	800.8125
General Use	Voice 25.0KHz	345-348	771.1625	801.1625
General Use	Voice 25.0KHz	393-396	771.4625	801.4625
General Use	Voice 25.0KHz	437-440	771.7375	801.7375
General Use	Voice 25.0KHz	477-480	771.9875	801.9875
General Use	Voice 25.0KHz	521-524	772.2625	802.2625
General Use	Voice 25.0KHz	585-588	772.6625	802.6625
General Use	Voice 25.0KHz	625-628	772.9125	802.9125
General Use	Voice 25.0KHz	705-708	773.4125	803.4125
General Use	Voice 25.0KHz	753-756	773.7125	803.7125
General Use	Voice 25.0KHz	825-828	774.1625	804.1625
General Use	Voice 25.0KHz	901-904	774.6375	804.6375

General Use	Voice 25.0KHz	941-944	774.8875	804.8875
State License	Voice 25.0KHz	305-308	770.9125	800.9125
State License	Voice 25.0KHz	685-688	773.2875	803.2875
State License	Voice 25.0KHz	725-728	773.5375	803.5375
State License	Voice 25.0KHz	805-808	774.0375	804.0375
State License	Voice 25.0KHz	849-852	774.3125	804.3125
State License	Voice 25.0KHz	889-892	774.5625	804.5625
Campbell				
General Use	Voice 25.0KHz	97-100	769.6125	799.6125
General Use	Voice 25.0KHz	245-248	770.5375	800.5375
General Use	Voice 25.0KHz	333-336	771.0875	801.0875
General Use	Voice 25.0KHz	381-384	771.3875	801.3875
General Use	Voice 25.0KHz	421-424	771.6375	801.6375
General Use	Voice 25.0KHz	529-532	772.3125	802.3125
State License	Voice 25.0KHz	109-112	769.6875	799.6875
State License	Voice 25.0KHz	645-648	773.0375	803.0375
Charles Mix				
General Use	Voice 25.0KHz	81-84	769.5125	799.5125
General Use	Voice 25.0KHz	121-124	769.7625	799.7625
General Use	Voice 25.0KHz	169-172	770.0625	800.0625
General Use	Voice 25.0KHz	281-284	770.7625	800.7625
General Use	Voice 25.0KHz	321-324	771.0125	801.0125
General Use	Voice 25.0KHz	361-364	771.2625	801.2625
General Use	Voice 25.0KHz	449-452	771.8125	801.8125
General Use	Voice 25.0KHz	489-492	772.0625	802.0625
General Use	Voice 25.0KHz	533-536	772.3375	802.3375
General Use	Voice 25.0KHz	577-580	772.6125	802.6125
General Use	Voice 25.0KHz	621-624	772.8875	802.8875
General Use	Voice 25.0KHz	717-720	773.4875	803.4875
General Use	Voice 25.0KHz	837-840	774.2375	804.2375
General Use	Voice 25.0KHz	941-944	774.8875	804.8875
State License	Voice 25.0KHz	193-196	770.2125	800.2125
State License	Voice 25.0KHz	645-648	773.0375	803.0375
State License	Voice 25.0KHz	845-848	774.2875	804.2875
State License	Voice 25.0KHz	933-936	774.8375	804.8375
Clark				
General Use	Voice 25.0KHz	137-140	769.8625	799.8625
General Use	Voice 25.0KHz	345-348	771.1625	801.1625
General Use	Voice 25.0KHz	385-388	771.4125	801.4125
General Use	Voice 25.0KHz	509-512	772.1875	802.1875

General Use	Voice 25.0KHz	549-552	772.4375	802.4375
General Use	Voice 25.0KHz	621-624	772.8875	802.8875
General Use	Voice 25.0KHz	825-828	774.1625	804.1625
State License	Voice 25.0KHz	725-728	773.5375	803.5375
State License	Voice 25.0KHz	773-776	773.8375	803.8375
Clay				
General Use	Voice 25.0KHz	217-220	770.3625	800.3625
General Use	Voice 25.0KHz	293-296	770.8375	800.8375
General Use	Voice 25.0KHz	365-368	771.2875	801.2875
General Use	Voice 25.0KHz	409-412	771.5625	801.5625
General Use	Voice 25.0KHz	465-468	771.9125	801.9125
General Use	Voice 25.0KHz	525-528	772.2875	802.2875
General Use	Voice 25.0KHz	573-576	772.5875	802.5875
General Use	Voice 25.0KHz	637-640	772.9875	802.9875
General Use	Voice 25.0KHz	901-904	774.6375	804.6375
State License	Voice 25.0KHz	149-152	769.9375	799.9375
State License	Voice 25.0KHz	193-196	770.2125	800.2125
State License	Voice 25.0KHz	885-888	774.5375	804.5375
Codington				
General Use	Voice 25.0KHz	45-48	769.2875	799.2875
General Use	Voice 25.0KHz	85-88	769.5375	799.5375
General Use	Voice 25.0KHz	169-172	770.0625	800.0625
General Use	Voice 25.0KHz	209-212	770.3125	800.3125
General Use	Voice 25.0KHz	249-252	770.5625	800.5625
General Use	Voice 25.0KHz	321-324	771.0125	801.0125
General Use	Voice 25.0KHz	373-376	771.3375	801.3375
General Use	Voice 25.0KHz	433-436	771.7125	801.7125
General Use	Voice 25.0KHz	473-476	771.9625	801.9625
General Use	Voice 25.0KHz	525-528	772.2875	802.2875
General Use	Voice 25.0KHz	581-584	772.6375	802.6375
General Use	Voice 25.0KHz	661-664	773.1375	803.1375
General Use	Voice 25.0KHz	705-708	773.4125	803.4125
General Use	Voice 25.0KHz	745-748	773.6625	803.6625
General Use	Voice 25.0KHz	793-796	773.9625	803.9625
General Use	Voice 25.0KHz	833-836	774.2125	804.2125
General Use	Voice 25.0KHz	873-876	774.4625	804.4625
General Use	Voice 25.0KHz	941-944	774.8875	804.8875
State License	Voice 25.0KHz	153-156	769.9625	799.9625
State License	Voice 25.0KHz	225-228	770.4125	800.4125
State License	Voice 25.0KHz	649-652	773.0625	803.0625

State License	Voice 25.0KHz	693-696	773.3375	803.3375
State License	Voice 25.0KHz	733-736	773.5875	803.5875
State License	Voice 25.0KHz	809-812	774.0625	804.0625
State License	Voice 25.0KHz	889-892	774.5625	804.5625
Corson				
General Use	Voice 25.0KHz	49-52	769.3125	799.3125
General Use	Voice 25.0KHz	89-92	769.5625	799.5625
General Use	Voice 25.0KHz	173-176	770.0875	800.0875
General Use	Voice 25.0KHz	281-284	770.7625	800.7625
General Use	Voice 25.0KHz	321-324	771.0125	801.0125
General Use	Voice 25.0KHz	409-412	771.5625	801.5625
General Use	Voice 25.0KHz	477-480	771.9875	801.9875
General Use	Voice 25.0KHz	541-544	772.3875	802.3875
General Use	Voice 25.0KHz	585-588	772.6625	802.6625
General Use	Voice 25.0KHz	629-632	772.9375	802.9375
General Use	Voice 25.0KHz	745-748	773.6625	803.6625
General Use	Voice 25.0KHz	913-916	774.7125	804.7125
State License	Voice 25.0KHz	233-236	770.4625	800.4625
State License	Voice 25.0KHz	273-276	770.7125	800.7125
State License	Voice 25.0KHz	313-316	770.9625	800.9625
State License	Voice 25.0KHz	725-728	773.5375	803.5375
State License	Voice 25.0KHz	765-768	773.7875	803.7875
Custer				
General Use	Voice 25.0KHz	85-88	769.5375	799.5375
General Use	Voice 25.0KHz	293-296	770.8375	800.8375
General Use	Voice 25.0KHz	345-348	771.1625	801.1625
General Use	Voice 25.0KHz	393-396	771.4625	801.4625
General Use	Voice 25.0KHz	433-436	771.7125	801.7125
General Use	Voice 25.0KHz	473-476	771.9625	801.9625
General Use	Voice 25.0KHz	513-516	772.2125	802.2125
General Use	Voice 25.0KHz	589-592	772.6875	802.6875
General Use	Voice 25.0KHz	633-636	772.9625	802.9625
General Use	Voice 25.0KHz	749-752	773.6875	803.6875
General Use	Voice 25.0KHz	825-828	774.1625	804.1625
General Use	Voice 25.0KHz	873-876	774.4625	804.4625
State License	Voice 25.0KHz	69-72	769.4375	799.4375
State License	Voice 25.0KHz	109-112	769.6875	799.6875
State License	Voice 25.0KHz	149-152	769.9375	799.9375
Davison				
General Use	Voice 25.0KHz	45-48	769.2875	799.2875

General Use	Voice 25.0KHz	97-100	769.6125	799.6125
General Use	Voice 25.0KHz	177-180	770.1125	800.1125
General Use	Voice 25.0KHz	217-220	770.3625	800.3625
General Use	Voice 25.0KHz	297-300	770.8625	800.8625
General Use	Voice 25.0KHz	365-368	771.2875	801.2875
General Use	Voice 25.0KHz	405-408	771.5375	801.5375
General Use	Voice 25.0KHz	457-460	771.8625	801.8625
General Use	Voice 25.0KHz	497-500	772.1125	802.1125
General Use	Voice 25.0KHz	537-540	772.3625	802.3625
General Use	Voice 25.0KHz	605-608	772.7875	802.7875
General Use	Voice 25.0KHz	661-664	773.1375	803.1375
General Use	Voice 25.0KHz	749-752	773.6875	803.6875
General Use	Voice 25.0KHz	821-824	774.1375	804.1375
General Use	Voice 25.0KHz	861-864	774.3875	804.3875
General Use	Voice 25.0KHz	901-904	774.6375	804.6375
State License	Voice 25.0KHz	73-76	769.4625	799.4625
State License	Voice 25.0KHz	149-152	769.9375	799.9375
State License	Voice 25.0KHz	273-276	770.7125	800.7125
State License	Voice 25.0KHz	653-656	773.0875	803.0875
State License	Voice 25.0KHz	693-696	773.3375	803.3375
State License	Voice 25.0KHz	889-892	774.5625	804.5625
State License	Voice 25.0KHz	929-932	774.8125	804.8125
Day				
General Use	Voice 25.0KHz	57-60	769.3625	799.3625
General Use	Voice 25.0KHz	125-128	769.7875	799.7875
General Use	Voice 25.0KHz	353-356	771.2125	801.2125
General Use	Voice 25.0KHz	417-420	771.6125	801.6125
General Use	Voice 25.0KHz	457-460	771.8625	801.8625
General Use	Voice 25.0KHz	541-544	772.3875	802.3875
General Use	Voice 25.0KHz	593-596	772.7125	802.7125
General Use	Voice 25.0KHz	637-640	772.9875	802.9875
State License	Voice 25.0KHz	233-236	770.4625	800.4625
State License	Voice 25.0KHz	305-308	770.9125	800.9125
State License	Voice 25.0KHz	765-768	773.7875	803.7875
Deuel				
General Use	Voice 25.0KHz	257-260	770.6125	800.6125
General Use	Voice 25.0KHz	349-352	771.1875	801.1875
General Use	Voice 25.0KHz	493-496	772.0875	802.0875
General Use	Voice 25.0KHz	573-576	772.5875	802.5875
General Use	Voice 25.0KHz	633-636	772.9625	802.9625

General Use	Voice 25.0KHz	821-824	774.1375	804.1375
General Use	Voice 25.0KHz	909-912	774.6875	804.6875
State License	Voice 25.0KHz	25-28	769.1625	799.1625
State License	Voice 25.0KHz	73-76	769.4625	799.4625
Dewey				
General Use	Voice 25.0KHz	17-20	769.1125	799.1125
General Use	Voice 25.0KHz	57-60	769.3625	799.3625
General Use	Voice 25.0KHz	129-132	769.8125	799.8125
General Use	Voice 25.0KHz	213-216	770.3375	800.3375
General Use	Voice 25.0KHz	253-256	770.5875	800.5875
General Use	Voice 25.0KHz	293-296	770.8375	800.8375
General Use	Voice 25.0KHz	365-368	771.2875	801.2875
General Use	Voice 25.0KHz	441-444	771.7625	801.7625
General Use	Voice 25.0KHz	497-500	772.1125	802.1125
General Use	Voice 25.0KHz	577-580	772.6125	802.6125
General Use	Voice 25.0KHz	665-668	773.1625	803.1625
General Use	Voice 25.0KHz	705-708	773.4125	803.4125
General Use	Voice 25.0KHz	757-760	773.7375	803.7375
General Use	Voice 25.0KHz	797-800	773.9875	803.9875
General Use	Voice 25.0KHz	941-944	774.8875	804.8875
State License	Voice 25.0KHz	33-36	769.2125	799.2125
State License	Voice 25.0KHz	73-76	769.4625	799.4625
State License	Voice 25.0KHz	193-196	770.2125	800.2125
State License	Voice 25.0KHz	305-308	770.9125	800.9125
State License	Voice 25.0KHz	685-688	773.2875	803.2875
State License	Voice 25.0KHz	845-848	774.2875	804.2875
State License	Voice 25.0KHz	933-936	774.8375	804.8375
Douglas				
General Use	Voice 25.0KHz	257-260	770.6125	800.6125
General Use	Voice 25.0KHz	353-356	771.2125	801.2125
General Use	Voice 25.0KHz	477-480	771.9875	801.9875
General Use	Voice 25.0KHz	525-528	772.2875	802.2875
General Use	Voice 25.0KHz	585-588	772.6625	802.6625
General Use	Voice 25.0KHz	637-640	772.9875	802.9875
General Use	Voice 25.0KHz	709-712	773.4375	803.4375
State License	Voice 25.0KHz	265-268	770.6625	800.6625
State License	Voice 25.0KHz	313-316	770.9625	800.9625
State License	Voice 25.0KHz	765-768	773.7875	803.7875
Edmunds				
General Use	Voice 25.0KHz	13-16	769.0875	799.0875

General Use	Voice 25.0KHz	53-56	769.3375	799.3375
General Use	Voice 25.0KHz	133-136	769.8375	799.8375
General Use	Voice 25.0KHz	357-360	771.2375	801.2375
General Use	Voice 25.0KHz	413-416	771.5875	801.5875
General Use	Voice 25.0KHz	461-464	771.8875	801.8875
General Use	Voice 25.0KHz	501-504	772.1375	802.1375
General Use	Voice 25.0KHz	545-548	772.4125	802.4125
General Use	Voice 25.0KHz	589-592	772.6875	802.6875
General Use	Voice 25.0KHz	661-664	773.1375	803.1375
General Use	Voice 25.0KHz	701-704	773.3875	803.3875
General Use	Voice 25.0KHz	781-784	773.8875	803.8875
General Use	Voice 25.0KHz	829-832	774.1875	804.1875
State License	Voice 25.0KHz	153-156	769.9625	799.9625
State License	Voice 25.0KHz	225-228	770.4125	800.4125
State License	Voice 25.0KHz	805-808	774.0375	804.0375
State License	Voice 25.0KHz	925-928	774.7875	804.7875
Fall River				
General Use	Voice 25.0KHz	41-44	769.2625	799.2625
General Use	Voice 25.0KHz	169-172	770.0625	800.0625
General Use	Voice 25.0KHz	321-324	771.0125	801.0125
General Use	Voice 25.0KHz	361-364	771.2625	801.2625
General Use	Voice 25.0KHz	401-404	771.5125	801.5125
General Use	Voice 25.0KHz	449-452	771.8125	801.8125
General Use	Voice 25.0KHz	493-496	772.0875	802.0875
General Use	Voice 25.0KHz	533-536	772.3375	802.3375
General Use	Voice 25.0KHz	573-576	772.5875	802.5875
General Use	Voice 25.0KHz	617-620	772.8625	802.8625
General Use	Voice 25.0KHz	713-716	773.4625	803.4625
General Use	Voice 25.0KHz	901-904	774.6375	804.6375
General Use	Voice 25.0KHz	941-944	774.8875	804.8875
State License	Voice 25.0KHz	265-268	770.6625	800.6625
State License	Voice 25.0KHz	685-688	773.2875	803.2875
State License	Voice 25.0KHz	725-728	773.5375	803.5375
State License	Voice 25.0KHz	809-812	774.0625	804.0625
State License	Voice 25.0KHz	929-932	774.8125	804.8125
Faulk				
General Use	Voice 25.0KHz	249-252	770.5625	800.5625
General Use	Voice 25.0KHz	329-332	771.0625	801.0625
General Use	Voice 25.0KHz	445-448	771.7875	801.7875
General Use	Voice 25.0KHz	485-488	772.0375	802.0375

General Use	Voice 25.0KHz	525-528	772.2875	802.2875
General Use	Voice 25.0KHz	565-568	772.5375	802.5375
General Use	Voice 25.0KHz	617-620	772.8625	802.8625
General Use	Voice 25.0KHz	837-840	774.2375	804.2375
State License	Voice 25.0KHz	693-696	773.3375	803.3375
State License	Voice 25.0KHz	769-772	773.8125	803.8125
State License	Voice 25.0KHz	885-888	774.5375	804.5375
Grant				
General Use	Voice 25.0KHz	13-16	769.0875	799.0875
General Use	Voice 25.0KHz	293-296	770.8375	800.8375
General Use	Voice 25.0KHz	341-344	771.1375	801.1375
General Use	Voice 25.0KHz	381-384	771.3875	801.3875
General Use	Voice 25.0KHz	445-448	771.7875	801.7875
General Use	Voice 25.0KHz	505-508	772.1625	802.1625
General Use	Voice 25.0KHz	617-620	772.8625	802.8625
General Use	Voice 25.0KHz	669-672	773.1875	803.1875
General Use	Voice 25.0KHz	785-788	773.9125	803.9125
State License	Voice 25.0KHz	145-148	769.9125	799.9125
State License	Voice 25.0KHz	845-848	774.2875	804.2875
State License	Voice 25.0KHz	925-928	774.7875	804.7875
Gregory				
General Use	Voice 25.0KHz	49-52	769.3125	799.3125
General Use	Voice 25.0KHz	337-340	771.1125	801.1125
General Use	Voice 25.0KHz	401-404	771.5125	801.5125
General Use	Voice 25.0KHz	469-472	771.9375	801.9375
General Use	Voice 25.0KHz	541-544	772.3875	802.3875
General Use	Voice 25.0KHz	665-668	773.1625	803.1625
General Use	Voice 25.0KHz	741-744	773.6375	803.6375
General Use	Voice 25.0KHz	781-784	773.8875	803.8875
General Use	Voice 25.0KHz	829-832	774.1875	804.1875
State License	Voice 25.0KHz	65-68	769.4125	799.4125
State License	Voice 25.0KHz	689-692	773.3125	803.3125
State License	Voice 25.0KHz	773-776	773.8375	803.8375
Haakon				
General Use	Voice 25.0KHz	89-92	769.5625	799.5625
General Use	Voice 25.0KHz	321-324	771.0125	801.0125
General Use	Voice 25.0KHz	377-380	771.3625	801.3625
General Use	Voice 25.0KHz	421-424	771.6375	801.6375
General Use	Voice 25.0KHz	565-568	772.5375	802.5375
General Use	Voice 25.0KHz	613-616	772.8375	802.8375

General Use	Voice 25.0KHz	745-748	773.6625	803.6625
General Use	Voice 25.0KHz	865-868	774.4125	804.4125
State License	Voice 25.0KHz	153-156	769.9625	799.9625
State License	Voice 25.0KHz	805-808	774.0375	804.0375
Hamlin				
General Use	Voice 25.0KHz	217-220	770.3625	800.3625
General Use	Voice 25.0KHz	297-300	770.8625	800.8625
General Use	Voice 25.0KHz	393-396	771.4625	801.4625
General Use	Voice 25.0KHz	449-452	771.8125	801.8125
General Use	Voice 25.0KHz	517-520	772.2375	802.2375
General Use	Voice 25.0KHz	565-568	772.5375	802.5375
General Use	Voice 25.0KHz	677-680	773.2375	803.2375
General Use	Voice 25.0KHz	757-760	773.7375	803.7375
General Use	Voice 25.0KHz	901-904	774.6375	804.6375
State License	Voice 25.0KHz	65-68	769.4125	799.4125
State License	Voice 25.0KHz	189-192	770.1875	800.1875
Hand				
General Use	Voice 25.0KHz	49-52	769.3125	799.3125
General Use	Voice 25.0KHz	129-132	769.8125	799.8125
General Use	Voice 25.0KHz	353-356	771.2125	801.2125
General Use	Voice 25.0KHz	453-456	771.8375	801.8375
General Use	Voice 25.0KHz	493-496	772.0875	802.0875
General Use	Voice 25.0KHz	541-544	772.3875	802.3875
General Use	Voice 25.0KHz	597-600	772.7375	802.7375
General Use	Voice 25.0KHz	637-640	772.9875	802.9875
General Use	Voice 25.0KHz	709-712	773.4375	803.4375
General Use	Voice 25.0KHz	789-792	773.9375	803.9375
State License	Voice 25.0KHz	65-68	769.4125	799.4125
State License	Voice 25.0KHz	229-232	770.4375	800.4375
State License	Voice 25.0KHz	305-308	770.9125	800.9125
State License	Voice 25.0KHz	729-732	773.5625	803.5625
Hanson				
General Use	Voice 25.0KHz	241-244	770.5125	800.5125
General Use	Voice 25.0KHz	429-432	771.6875	801.6875
General Use	Voice 25.0KHz	469-472	771.9375	801.9375
General Use	Voice 25.0KHz	517-520	772.2375	802.2375
General Use	Voice 25.0KHz	565-568	772.5375	802.5375
General Use	Voice 25.0KHz	677-680	773.2375	803.2375
General Use	Voice 25.0KHz	757-760	773.7375	803.7375
State License	Voice 25.0KHz	109-112	769.6875	799.6875

State License	Voice 25.0KHz	189-192	770.1875	800.1875
Harding				
General Use	Voice 25.0KHz	53-56	769.3375	799.3375
General Use	Voice 25.0KHz	161-164	770.0125	800.0125
General Use	Voice 25.0KHz	373-376	771.3375	801.3375
General Use	Voice 25.0KHz	553-556	772.4625	802.4625
General Use	Voice 25.0KHz	613-616	772.8375	802.8375
General Use	Voice 25.0KHz	661-664	773.1375	803.1375
General Use	Voice 25.0KHz	861-864	774.3875	804.3875
General Use	Voice 25.0KHz	913-916	774.7125	804.7125
State License	Voice 25.0KHz	193-196	770.2125	800.2125
State License	Voice 25.0KHz	273-276	770.7125	800.7125
State License	Voice 25.0KHz	313-316	770.9625	800.9625
Hughes				
General Use	Voice 25.0KHz	13-16	769.0875	799.0875
General Use	Voice 25.0KHz	53-56	769.3375	799.3375
General Use	Voice 25.0KHz	93-96	769.5875	799.5875
General Use	Voice 25.0KHz	133-136	769.8375	799.8375
General Use	Voice 25.0KHz	209-212	770.3125	800.3125
General Use	Voice 25.0KHz	257-260	770.6125	800.6125
General Use	Voice 25.0KHz	333-336	771.0875	801.0875
General Use	Voice 25.0KHz	389-392	771.4375	801.4375
General Use	Voice 25.0KHz	429-432	771.6875	801.6875
General Use	Voice 25.0KHz	469-472	771.9375	801.9375
General Use	Voice 25.0KHz	517-520	772.2375	802.2375
General Use	Voice 25.0KHz	561-564	772.5125	802.5125
General Use	Voice 25.0KHz	609-612	772.8125	802.8125
General Use	Voice 25.0KHz	673-676	773.2125	803.2125
General Use	Voice 25.0KHz	713-716	773.4625	803.4625
General Use	Voice 25.0KHz	753-756	773.7125	803.7125
General Use	Voice 25.0KHz	821-824	774.1375	804.1375
General Use	Voice 25.0KHz	861-864	774.3875	804.3875
General Use	Voice 25.0KHz	901-904	774.6375	804.6375
General Use	Voice 25.0KHz	945-948	774.9125	804.9125
State License	Voice 25.0KHz	29-32	769.1875	799.1875
State License	Voice 25.0KHz	69-72	769.4375	799.4375
State License	Voice 25.0KHz	145-148	769.9125	799.9125
State License	Voice 25.0KHz	225-228	770.4125	800.4125
State License	Voice 25.0KHz	269-272	770.6875	800.6875
State License	Voice 25.0KHz	645-648	773.0375	803.0375

State License	Voice 25.0KHz	689-692	773.3125	803.3125
State License	Voice 25.0KHz	773-776	773.8375	803.8375
State License	Voice 25.0KHz	849-852	774.3125	804.3125
State License	Voice 25.0KHz	893-896	774.5875	804.5875
Hutchinson				
General Use	Voice 25.0KHz	89-92	769.5625	799.5625
General Use	Voice 25.0KHz	133-136	769.8375	799.8375
General Use	Voice 25.0KHz	205-208	770.2875	800.2875
General Use	Voice 25.0KHz	341-344	771.1375	801.1375
General Use	Voice 25.0KHz	389-392	771.4375	801.4375
General Use	Voice 25.0KHz	437-440	771.7375	801.7375
General Use	Voice 25.0KHz	553-556	772.4625	802.4625
General Use	Voice 25.0KHz	629-632	772.9375	802.9375
General Use	Voice 25.0KHz	909-912	774.6875	804.6875
State License	Voice 25.0KHz	229-232	770.4375	800.4375
State License	Voice 25.0KHz	305-308	770.9125	800.9125
State License	Voice 25.0KHz	809-812	774.0625	804.0625
Hyde				
General Use	Voice 25.0KHz	217-220	770.3625	800.3625
General Use	Voice 25.0KHz	297-300	770.8625	800.8625
General Use	Voice 25.0KHz	369-372	771.3125	801.3125
General Use	Voice 25.0KHz	505-508	772.1625	802.1625
General Use	Voice 25.0KHz	581-584	772.6375	802.6375
General Use	Voice 25.0KHz	909-912	774.6875	804.6875
State License	Voice 25.0KHz	189-192	770.1875	800.1875
Jackson				
General Use	Voice 25.0KHz	217-220	770.3625	800.3625
General Use	Voice 25.0KHz	389-392	771.4375	801.4375
General Use	Voice 25.0KHz	437-440	771.7375	801.7375
General Use	Voice 25.0KHz	477-480	771.9875	801.9875
General Use	Voice 25.0KHz	545-548	772.4125	802.4125
General Use	Voice 25.0KHz	585-588	772.6625	802.6625
General Use	Voice 25.0KHz	821-824	774.1375	804.1375
State License	Voice 25.0KHz	73-76	769.4625	799.4625
State License	Voice 25.0KHz	113-116	769.7125	799.7125
State License	Voice 25.0KHz	773-776	773.8375	803.8375
Jerauld				
General Use	Voice 25.0KHz	245-248	770.5375	800.5375
General Use	Voice 25.0KHz	393-396	771.4625	801.4625
General Use	Voice 25.0KHz	433-436	771.7125	801.7125

General Use	Voice 25.0KHz	473-476	771.9625	801.9625
General Use	Voice 25.0KHz	625-628	772.9125	802.9125
General Use	Voice 25.0KHz	797-800	773.9875	803.9875
State License	Voice 25.0KHz	105-108	769.6625	799.6625
State License	Voice 25.0KHz	769-772	773.8125	803.8125
Jones				
General Use	Voice 25.0KHz	49-52	769.3125	799.3125
General Use	Voice 25.0KHz	97-100	769.6125	799.6125
General Use	Voice 25.0KHz	169-172	770.0625	800.0625
General Use	Voice 25.0KHz	365-368	771.2875	801.2875
General Use	Voice 25.0KHz	449-452	771.8125	801.8125
General Use	Voice 25.0KHz	525-528	772.2875	802.2875
General Use	Voice 25.0KHz	637-640	772.9875	802.9875
General Use	Voice 25.0KHz	677-680	773.2375	803.2375
General Use	Voice 25.0KHz	833-836	774.2125	804.2125
General Use	Voice 25.0KHz	941-944	774.8875	804.8875
State License	Voice 25.0KHz	65-68	769.4125	799.4125
State License	Voice 25.0KHz	229-232	770.4375	800.4375
State License	Voice 25.0KHz	685-688	773.2875	803.2875
State License	Voice 25.0KHz	845-848	774.2875	804.2875
Kingsbury				
General Use	Voice 25.0KHz	49-52	769.3125	799.3125
General Use	Voice 25.0KHz	325-328	771.0375	801.0375
General Use	Voice 25.0KHz	437-440	771.7375	801.7375
General Use	Voice 25.0KHz	489-492	772.0625	802.0625
General Use	Voice 25.0KHz	529-532	772.3125	802.3125
General Use	Voice 25.0KHz	601-604	772.7625	802.7625
General Use	Voice 25.0KHz	709-712	773.4375	803.4375
General Use	Voice 25.0KHz	789-792	773.9375	803.9375
General Use	Voice 25.0KHz	837-840	774.2375	804.2375
State License	Voice 25.0KHz	113-116	769.7125	799.7125
State License	Voice 25.0KHz	313-316	770.9625	800.9625
State License	Voice 25.0KHz	689-692	773.3125	803.3125
Lake				
General Use	Voice 25.0KHz	121-124	769.7625	799.7625
General Use	Voice 25.0KHz	213-216	770.3375	800.3375
General Use	Voice 25.0KHz	337-340	771.1125	801.1125
General Use	Voice 25.0KHz	425-428	771.6625	801.6625
General Use	Voice 25.0KHz	465-468	771.9125	801.9125
General Use	Voice 25.0KHz	513-516	772.2125	802.2125

General Use	Voice 25.0KHz	557-560	772.4875	802.4875
General Use	Voice 25.0KHz	613-616	772.8375	802.8375
General Use	Voice 25.0KHz	669-672	773.1875	803.1875
General Use	Voice 25.0KHz	753-756	773.7125	803.7125
State License	Voice 25.0KHz	69-72	769.4375	799.4375
State License	Voice 25.0KHz	193-196	770.2125	800.2125
State License	Voice 25.0KHz	885-888	774.5375	804.5375
Lawrence				
General Use	Voice 25.0KHz	49-52	769.3125	799.3125
General Use	Voice 25.0KHz	89-92	769.5625	799.5625
General Use	Voice 25.0KHz	201-204	770.2625	800.2625
General Use	Voice 25.0KHz	257-260	770.6125	800.6125
General Use	Voice 25.0KHz	321-324	771.0125	801.0125
General Use	Voice 25.0KHz	361-364	771.2625	801.2625
General Use	Voice 25.0KHz	445-448	771.7875	801.7875
General Use	Voice 25.0KHz	489-492	772.0625	802.0625
General Use	Voice 25.0KHz	533-536	772.3375	802.3375
General Use	Voice 25.0KHz	573-576	772.5875	802.5875
General Use	Voice 25.0KHz	617-620	772.8625	802.8625
General Use	Voice 25.0KHz	669-672	773.1875	803.1875
General Use	Voice 25.0KHz	745-748	773.6625	803.6625
General Use	Voice 25.0KHz	789-792	773.9375	803.9375
General Use	Voice 25.0KHz	865-868	774.4125	804.4125
State License	Voice 25.0KHz	73-76	769.4625	799.4625
State License	Voice 25.0KHz	113-116	769.7125	799.7125
State License	Voice 25.0KHz	185-188	770.1625	800.1625
State License	Voice 25.0KHz	653-656	773.0875	803.0875
Lincoln				
General Use	Voice 25.0KHz	49-52	769.3125	799.3125
General Use	Voice 25.0KHz	97-100	769.6125	799.6125
General Use	Voice 25.0KHz	177-180	770.1125	800.1125
General Use	Voice 25.0KHz	245-248	770.5375	800.5375
General Use	Voice 25.0KHz	345-348	771.1625	801.1625
General Use	Voice 25.0KHz	393-396	771.4625	801.4625
General Use	Voice 25.0KHz	449-452	771.8125	801.8125
General Use	Voice 25.0KHz	497-500	772.1125	802.1125
General Use	Voice 25.0KHz	561-564	772.5125	802.5125
General Use	Voice 25.0KHz	621-624	772.8875	802.8875
General Use	Voice 25.0KHz	661-664	773.1375	803.1375
General Use	Voice 25.0KHz	837-840	774.2375	804.2375

State License	Voice 25.0KHz	65-68	769.4125	799.4125
State License	Voice 25.0KHz	273-276	770.7125	800.7125
State License	Voice 25.0KHz	653-656	773.0875	803.0875
State License	Voice 25.0KHz	845-848	774.2875	804.2875
Lyman				
General Use	Voice 25.0KHz	241-244	770.5125	800.5125
General Use	Voice 25.0KHz	349-352	771.1875	801.1875
General Use	Voice 25.0KHz	409-412	771.5625	801.5625
General Use	Voice 25.0KHz	549-552	772.4375	802.4375
General Use	Voice 25.0KHz	589-592	772.6875	802.6875
General Use	Voice 25.0KHz	629-632	772.9375	802.9375
General Use	Voice 25.0KHz	705-708	773.4125	803.4125
General Use	Voice 25.0KHz	869-872	774.4375	804.4375
State License	Voice 25.0KHz	309-312	770.9375	800.9375
State License	Voice 25.0KHz	885-888	774.5375	804.5375
State License	Voice 25.0KHz	925-928	774.7875	804.7875
Marshall				
General Use	Voice 25.0KHz	325-328	771.0375	801.0375
General Use	Voice 25.0KHz	401-404	771.5125	801.5125
General Use	Voice 25.0KHz	441-444	771.7625	801.7625
General Use	Voice 25.0KHz	485-488	772.0375	802.0375
General Use	Voice 25.0KHz	565-568	772.5375	802.5375
General Use	Voice 25.0KHz	613-616	772.8375	802.8375
General Use	Voice 25.0KHz	749-752	773.6875	803.6875
General Use	Voice 25.0KHz	837-840	774.2375	804.2375
State License	Voice 25.0KHz	25-28	769.1625	799.1625
State License	Voice 25.0KHz	729-732	773.5625	803.5625
State License	Voice 25.0KHz	885-888	774.5375	804.5375
McCook				
General Use	Voice 25.0KHz	249-252	770.5625	800.5625
General Use	Voice 25.0KHz	289-292	770.8125	800.8125
General Use	Voice 25.0KHz	329-332	771.0625	801.0625
General Use	Voice 25.0KHz	369-372	771.3125	801.3125
General Use	Voice 25.0KHz	453-456	771.8375	801.8375
General Use	Voice 25.0KHz	493-496	772.0875	802.0875
General Use	Voice 25.0KHz	589-592	772.6875	802.6875
State License	Voice 25.0KHz	773-776	773.8375	803.8375
State License	Voice 25.0KHz	853-856	774.3375	804.3375
McPherson				
General Use	Voice 25.0KHz	85-88	769.5375	799.5375

General Use	Voice 25.0KHz	177-180	770.1125	800.1125
General Use	Voice 25.0KHz	217-220	770.3625	800.3625
General Use	Voice 25.0KHz	373-376	771.3375	801.3375
General Use	Voice 25.0KHz	449-452	771.8125	801.8125
General Use	Voice 25.0KHz	509-512	772.1875	802.1875
General Use	Voice 25.0KHz	561-564	772.5125	802.5125
General Use	Voice 25.0KHz	633-636	772.9625	802.9625
State License	Voice 25.0KHz	65-68	769.4125	799.4125
State License	Voice 25.0KHz	733-736	773.5875	803.5875
State License	Voice 25.0KHz	849-852	774.3125	804.3125
Meade				
General Use	Voice 25.0KHz	41-44	769.2625	799.2625
General Use	Voice 25.0KHz	81-84	769.5125	799.5125
General Use	Voice 25.0KHz	125-128	769.7875	799.7875
General Use	Voice 25.0KHz	165-168	770.0375	800.0375
General Use	Voice 25.0KHz	209-212	770.3125	800.3125
General Use	Voice 25.0KHz	249-252	770.5625	800.5625
General Use	Voice 25.0KHz	297-300	770.8625	800.8625
General Use	Voice 25.0KHz	337-340	771.1125	801.1125
General Use	Voice 25.0KHz	385-388	771.4125	801.4125
General Use	Voice 25.0KHz	429-432	771.6875	801.6875
General Use	Voice 25.0KHz	469-472	771.9375	801.9375
General Use	Voice 25.0KHz	509-512	772.1875	802.1875
General Use	Voice 25.0KHz	549-552	772.4375	802.4375
General Use	Voice 25.0KHz	593-596	772.7125	802.7125
General Use	Voice 25.0KHz	637-640	772.9875	802.9875
General Use	Voice 25.0KHz	677-680	773.2375	803.2375
General Use	Voice 25.0KHz	717-720	773.4875	803.4875
General Use	Voice 25.0KHz	781-784	773.8875	803.8875
General Use	Voice 25.0KHz	877-880	774.4875	804.4875
General Use	Voice 25.0KHz	917-920	774.7375	804.7375
State License	Voice 25.0KHz	65-68	769.4125	799.4125
State License	Voice 25.0KHz	105-108	769.6625	799.6625
State License	Voice 25.0KHz	145-148	769.9125	799.9125
State License	Voice 25.0KHz	225-228	770.4125	800.4125
State License	Voice 25.0KHz	265-268	770.6625	800.6625
State License	Voice 25.0KHz	769-772	773.8125	803.8125
State License	Voice 25.0KHz	925-928	774.7875	804.7875
Mellette				
General Use	Voice 25.0KHz	17-20	769.1125	799.1125

General Use	Voice 25.0KHz	329-332	771.0625	801.0625
General Use	Voice 25.0KHz	397-400	771.4875	801.4875
General Use	Voice 25.0KHz	489-492	772.0625	802.0625
General Use	Voice 25.0KHz	533-536	772.3375	802.3375
General Use	Voice 25.0KHz	597-600	772.7375	802.7375
General Use	Voice 25.0KHz	661-664	773.1375	803.1375
General Use	Voice 25.0KHz	917-920	774.7375	804.7375
State License	Voice 25.0KHz	25-28	769.1625	799.1625
State License	Voice 25.0KHz	193-196	770.2125	800.2125
State License	Voice 25.0KHz	693-696	773.3375	803.3375
State License	Voice 25.0KHz	765-768	773.7875	803.7875
State License	Voice 25.0KHz	813-816	774.0875	804.0875
Miner				
General Use	Voice 25.0KHz	85-88	769.5375	799.5375
General Use	Voice 25.0KHz	169-172	770.0625	800.0625
General Use	Voice 25.0KHz	281-284	770.7625	800.7625
General Use	Voice 25.0KHz	397-400	771.4875	801.4875
General Use	Voice 25.0KHz	445-448	771.7875	801.7875
General Use	Voice 25.0KHz	505-508	772.1625	802.1625
General Use	Voice 25.0KHz	913-916	774.7125	804.7125
State License	Voice 25.0KHz	233-236	770.4625	800.4625
State License	Voice 25.0KHz	733-736	773.5875	803.5875
Minnehaha				
General Use	Voice 25.0KHz	41-44	769.2625	799.2625
General Use	Voice 25.0KHz	81-84	769.5125	799.5125
General Use	Voice 25.0KHz	137-140	769.8625	799.8625
General Use	Voice 25.0KHz	201-204	770.2625	800.2625
General Use	Voice 25.0KHz	257-260	770.6125	800.6125
General Use	Voice 25.0KHz	321-324	771.0125	801.0125
General Use	Voice 25.0KHz	361-364	771.2625	801.2625
General Use	Voice 25.0KHz	401-404	771.5125	801.5125
General Use	Voice 25.0KHz	473-476	771.9625	801.9625
General Use	Voice 25.0KHz	533-536	772.3375	802.3375
General Use	Voice 25.0KHz	581-584	772.6375	802.6375
General Use	Voice 25.0KHz	633-636	772.9625	802.9625
General Use	Voice 25.0KHz	705-708	773.4125	803.4125
General Use	Voice 25.0KHz	745-748	773.6625	803.6625
General Use	Voice 25.0KHz	785-788	773.9125	803.9125
General Use	Voice 25.0KHz	825-828	774.1625	804.1625
General Use	Voice 25.0KHz	865-868	774.4125	804.4125

General Use	Voice 25.0KHz	905-908	774.6625	804.6625
General Use	Voice 25.0KHz	945-948	774.9125	804.9125
State License	Voice 25.0KHz	25-28	769.1625	799.1625
State License	Voice 25.0KHz	105-108	769.6625	799.6625
State License	Voice 25.0KHz	145-148	769.9125	799.9125
State License	Voice 25.0KHz	185-188	770.1625	800.1625
State License	Voice 25.0KHz	265-268	770.6625	800.6625
State License	Voice 25.0KHz	309-312	770.9375	800.9375
State License	Voice 25.0KHz	645-648	773.0375	803.0375
State License	Voice 25.0KHz	685-688	773.2875	803.2875
State License	Voice 25.0KHz	725-728	773.5375	803.5375
State License	Voice 25.0KHz	765-768	773.7875	803.7875
State License	Voice 25.0KHz	805-808	774.0375	804.0375
State License	Voice 25.0KHz	925-928	774.7875	804.7875
Moody				
General Use	Voice 25.0KHz	293-296	770.8375	800.8375
General Use	Voice 25.0KHz	373-376	771.3375	801.3375
General Use	Voice 25.0KHz	413-416	771.5875	801.5875
General Use	Voice 25.0KHz	457-460	771.8625	801.8625
General Use	Voice 25.0KHz	521-524	772.2625	802.2625
General Use	Voice 25.0KHz	597-600	772.7375	802.7375
State License	Voice 25.0KHz	225-228	770.4125	800.4125
State License	Voice 25.0KHz	693-696	773.3375	803.3375
State License	Voice 25.0KHz	849-852	774.3125	804.3125
Pennington				
General Use	Voice 25.0KHz	17-20	769.1125	799.1125
General Use	Voice 25.0KHz	57-60	769.3625	799.3625
General Use	Voice 25.0KHz	133-136	769.8375	799.8375
General Use	Voice 25.0KHz	173-176	770.0875	800.0875
General Use	Voice 25.0KHz	241-244	770.5125	800.5125
General Use	Voice 25.0KHz	281-284	770.7625	800.7625
General Use	Voice 25.0KHz	353-356	771.2125	801.2125
General Use	Voice 25.0KHz	405-408	771.5375	801.5375
General Use	Voice 25.0KHz	453-456	771.8375	801.8375
General Use	Voice 25.0KHz	497-500	772.1125	802.1125
General Use	Voice 25.0KHz	557-560	772.4875	802.4875
General Use	Voice 25.0KHz	605-608	772.7875	802.7875
General Use	Voice 25.0KHz	661-664	773.1375	803.1375
General Use	Voice 25.0KHz	701-704	773.3875	803.3875
General Use	Voice 25.0KHz	757-760	773.7375	803.7375

General Use	Voice 25.0KHz	797-800	773.9875	803.9875
General Use	Voice 25.0KHz	905-908	774.6625	804.6625
General Use	Voice 25.0KHz	945-948	774.9125	804.9125
State License	Voice 25.0KHz	33-36	769.2125	799.2125
State License	Voice 25.0KHz	193-196	770.2125	800.2125
State License	Voice 25.0KHz	233-236	770.4625	800.4625
State License	Voice 25.0KHz	273-276	770.7125	800.7125
State License	Voice 25.0KHz	313-316	770.9625	800.9625
State License	Voice 25.0KHz	645-648	773.0375	803.0375
State License	Voice 25.0KHz	689-692	773.3125	803.3125
State License	Voice 25.0KHz	729-732	773.5625	803.5625
State License	Voice 25.0KHz	813-816	774.0875	804.0875
State License	Voice 25.0KHz	853-856	774.3375	804.3375
State License	Voice 25.0KHz	893-896	774.5875	804.5875
State License	Voice 25.0KHz	933-936	774.8375	804.8375
Perkins				
General Use	Voice 25.0KHz	201-204	770.2625	800.2625
General Use	Voice 25.0KHz	257-260	770.6125	800.6125
General Use	Voice 25.0KHz	361-364	771.2625	801.2625
General Use	Voice 25.0KHz	401-404	771.5125	801.5125
General Use	Voice 25.0KHz	461-464	771.8875	801.8875
General Use	Voice 25.0KHz	501-504	772.1375	802.1375
General Use	Voice 25.0KHz	573-576	772.5875	802.5875
General Use	Voice 25.0KHz	669-672	773.1875	803.1875
General Use	Voice 25.0KHz	869-872	774.4375	804.4375
State License	Voice 25.0KHz	113-116	769.7125	799.7125
State License	Voice 25.0KHz	185-188	770.1625	800.1625
State License	Voice 25.0KHz	693-696	773.3375	803.3375
State License	Voice 25.0KHz	733-736	773.5875	803.5875
Potter				
General Use	Voice 25.0KHz	241-244	770.5125	800.5125
General Use	Voice 25.0KHz	285-288	770.7875	800.7875
General Use	Voice 25.0KHz	349-352	771.1875	801.1875
General Use	Voice 25.0KHz	405-408	771.5375	801.5375
General Use	Voice 25.0KHz	533-536	772.3375	802.3375
General Use	Voice 25.0KHz	601-604	772.7625	802.7625
General Use	Voice 25.0KHz	749-752	773.6875	803.6875
General Use	Voice 25.0KHz	873-876	774.4625	804.4625
General Use	Voice 25.0KHz	917-920	774.7375	804.7375
State License	Voice 25.0KHz	113-116	769.7125	799.7125

State License	Voice 25.0KHz	649-652	773.0625	803.0625
State License	Voice 25.0KHz	853-856	774.3375	804.3375
Roberts				
General Use	Voice 25.0KHz	89-92	769.5625	799.5625
General Use	Voice 25.0KHz	177-180	770.1125	800.1125
General Use	Voice 25.0KHz	241-244	770.5125	800.5125
General Use	Voice 25.0KHz	369-372	771.3125	801.3125
General Use	Voice 25.0KHz	409-412	771.5625	801.5625
General Use	Voice 25.0KHz	465-468	771.9125	801.9125
General Use	Voice 25.0KHz	513-516	772.2125	802.2125
General Use	Voice 25.0KHz	553-556	772.4625	802.4625
General Use	Voice 25.0KHz	625-628	772.9125	802.9125
General Use	Voice 25.0KHz	701-704	773.3875	803.3875
General Use	Voice 25.0KHz	741-744	773.6375	803.6375
General Use	Voice 25.0KHz	861-864	774.3875	804.3875
General Use	Voice 25.0KHz	913-916	774.7125	804.7125
State License	Voice 25.0KHz	105-108	769.6625	799.6625
State License	Voice 25.0KHz	273-276	770.7125	800.7125
State License	Voice 25.0KHz	853-856	774.3375	804.3375
State License	Voice 25.0KHz	933-936	774.8375	804.8375
Sanborn				
General Use	Voice 25.0KHz	125-128	769.7875	799.7875
General Use	Voice 25.0KHz	209-212	770.3125	800.3125
General Use	Voice 25.0KHz	357-360	771.2375	801.2375
General Use	Voice 25.0KHz	481-484	772.0125	802.0125
General Use	Voice 25.0KHz	593-596	772.7125	802.7125
General Use	Voice 25.0KHz	829-832	774.1875	804.1875
General Use	Voice 25.0KHz	873-876	774.4625	804.4625
State License	Voice 25.0KHz	225-228	770.4125	800.4125
State License	Voice 25.0KHz	849-852	774.3125	804.3125
Shannon				
General Use	Voice 25.0KHz	49-52	769.3125	799.3125
General Use	Voice 25.0KHz	97-100	769.6125	799.6125
General Use	Voice 25.0KHz	161-164	770.0125	800.0125
General Use	Voice 25.0KHz	201-204	770.2625	800.2625
General Use	Voice 25.0KHz	253-256	770.5875	800.5875
General Use	Voice 25.0KHz	333-336	771.0875	801.0875
General Use	Voice 25.0KHz	373-376	771.3375	801.3375
General Use	Voice 25.0KHz	413-416	771.5875	801.5875
General Use	Voice 25.0KHz	465-468	771.9125	801.9125

General Use	Voice 25.0KHz	525-528	772.2875	802.2875
General Use	Voice 25.0KHz	597-600	772.7375	802.7375
General Use	Voice 25.0KHz	669-672	773.1875	803.1875
General Use	Voice 25.0KHz	741-744	773.6375	803.6375
General Use	Voice 25.0KHz	789-792	773.9375	803.9375
General Use	Voice 25.0KHz	837-840	774.2375	804.2375
General Use	Voice 25.0KHz	913-916	774.7125	804.7125
State License	Voice 25.0KHz	25-28	769.1625	799.1625
State License	Voice 25.0KHz	185-188	770.1625	800.1625
State License	Voice 25.0KHz	305-308	770.9125	800.9125
State License	Voice 25.0KHz	653-656	773.0875	803.0875
State License	Voice 25.0KHz	765-768	773.7875	803.7875
State License	Voice 25.0KHz	845-848	774.2875	804.2875
State License	Voice 25.0KHz	885-888	774.5375	804.5375
Spink				
General Use	Voice 25.0KHz	81-84	769.5125	799.5125
General Use	Voice 25.0KHz	173-176	770.0875	800.0875
General Use	Voice 25.0KHz	213-216	770.3375	800.3375
General Use	Voice 25.0KHz	285-288	770.7875	800.7875
General Use	Voice 25.0KHz	365-368	771.2875	801.2875
General Use	Voice 25.0KHz	405-408	771.5375	801.5375
General Use	Voice 25.0KHz	477-480	771.9875	801.9875
General Use	Voice 25.0KHz	577-580	772.6125	802.6125
General Use	Voice 25.0KHz	629-632	772.9375	802.9375
General Use	Voice 25.0KHz	741-744	773.6375	803.6375
General Use	Voice 25.0KHz	877-880	774.4875	804.4875
General Use	Voice 25.0KHz	917-920	774.7375	804.7375
State License	Voice 25.0KHz	73-76	769.4625	799.4625
State License	Voice 25.0KHz	193-196	770.2125	800.2125
State License	Voice 25.0KHz	273-276	770.7125	800.7125
State License	Voice 25.0KHz	653-656	773.0875	803.0875
State License	Voice 25.0KHz	853-856	774.3375	804.3375
Stanley				
General Use	Voice 25.0KHz	81-84	769.5125	799.5125
General Use	Voice 25.0KHz	121-124	769.7625	799.7625
General Use	Voice 25.0KHz	161-164	770.0125	800.0125
General Use	Voice 25.0KHz	201-204	770.2625	800.2625
General Use	Voice 25.0KHz	357-360	771.2375	801.2375
General Use	Voice 25.0KHz	401-404	771.5125	801.5125
General Use	Voice 25.0KHz	461-464	771.8875	801.8875

General Use	Voice 25.0KHz	537-540	772.3625	802.3625
General Use	Voice 25.0KHz	781-784	773.8875	803.8875
General Use	Voice 25.0KHz	877-880	774.4875	804.4875
State License	Voice 25.0KHz	109-112	769.6875	799.6875
State License	Voice 25.0KHz	185-188	770.1625	800.1625
State License	Voice 25.0KHz	653-656	773.0875	803.0875
State License	Voice 25.0KHz	725-728	773.5375	803.5375
Sully				
General Use	Voice 25.0KHz	45-48	769.2875	799.2875
General Use	Voice 25.0KHz	173-176	770.0875	800.0875
General Use	Voice 25.0KHz	417-420	771.6125	801.6125
General Use	Voice 25.0KHz	477-480	771.9875	801.9875
General Use	Voice 25.0KHz	593-596	772.7125	802.7125
General Use	Voice 25.0KHz	633-636	772.9625	802.9625
General Use	Voice 25.0KHz	741-744	773.6375	803.6375
State License	Voice 25.0KHz	233-236	770.4625	800.4625
State License	Voice 25.0KHz	313-316	770.9625	800.9625
State License	Voice 25.0KHz	733-736	773.5875	803.5875
State License	Voice 25.0KHz	809-812	774.0625	804.0625
Todd				
General Use	Voice 25.0KHz	45-48	769.2875	799.2875
General Use	Voice 25.0KHz	93-96	769.5875	799.5875
General Use	Voice 25.0KHz	165-168	770.0375	800.0375
General Use	Voice 25.0KHz	209-212	770.3125	800.3125
General Use	Voice 25.0KHz	257-260	770.6125	800.6125
General Use	Voice 25.0KHz	321-324	771.0125	801.0125
General Use	Voice 25.0KHz	369-372	771.3125	801.3125
General Use	Voice 25.0KHz	421-424	771.6375	801.6375
General Use	Voice 25.0KHz	461-464	771.8875	801.8875
General Use	Voice 25.0KHz	509-512	772.1875	802.1875
General Use	Voice 25.0KHz	577-580	772.6125	802.6125
General Use	Voice 25.0KHz	633-636	772.9625	802.9625
General Use	Voice 25.0KHz	673-676	773.2125	803.2125
General Use	Voice 25.0KHz	717-720	773.4875	803.4875
General Use	Voice 25.0KHz	757-760	773.7375	803.7375
General Use	Voice 25.0KHz	909-912	774.6875	804.6875
State License	Voice 25.0KHz	33-36	769.2125	799.2125
State License	Voice 25.0KHz	105-108	769.6625	799.6625
State License	Voice 25.0KHz	265-268	770.6625	800.6625
State License	Voice 25.0KHz	313-316	770.9625	800.9625

State License	Voice 25.0KHz	725-728	773.5375	803.5375
State License	Voice 25.0KHz	849-852	774.3125	804.3125
State License	Voice 25.0KHz	889-892	774.5625	804.5625
Tripp				
General Use	Voice 25.0KHz	85-88	769.5375	799.5375
General Use	Voice 25.0KHz	125-128	769.7875	799.7875
General Use	Voice 25.0KHz	177-180	770.1125	800.1125
General Use	Voice 25.0KHz	249-252	770.5625	800.5625
General Use	Voice 25.0KHz	289-292	770.8125	800.8125
General Use	Voice 25.0KHz	381-384	771.3875	801.3875
General Use	Voice 25.0KHz	437-440	771.7375	801.7375
General Use	Voice 25.0KHz	477-480	771.9875	801.9875
General Use	Voice 25.0KHz	569-572	772.5625	802.5625
General Use	Voice 25.0KHz	617-620	772.8625	802.8625
General Use	Voice 25.0KHz	749-752	773.6875	803.6875
General Use	Voice 25.0KHz	793-796	773.9625	803.9625
State License	Voice 25.0KHz	73-76	769.4625	799.4625
State License	Voice 25.0KHz	149-152	769.9375	799.9375
State License	Voice 25.0KHz	273-276	770.7125	800.7125
State License	Voice 25.0KHz	649-652	773.0625	803.0625
State License	Voice 25.0KHz	733-736	773.5875	803.5875
Turner				
General Use	Voice 25.0KHz	57-60	769.3625	799.3625
General Use	Voice 25.0KHz	165-168	770.0375	800.0375
General Use	Voice 25.0KHz	381-384	771.3875	801.3875
General Use	Voice 25.0KHz	421-424	771.6375	801.6375
General Use	Voice 25.0KHz	485-488	772.0375	802.0375
General Use	Voice 25.0KHz	541-544	772.3875	802.3875
General Use	Voice 25.0KHz	601-604	772.7625	802.7625
General Use	Voice 25.0KHz	793-796	773.9625	803.9625
General Use	Voice 25.0KHz	917-920	774.7375	804.7375
State License	Voice 25.0KHz	33-36	769.2125	799.2125
State License	Voice 25.0KHz	113-116	769.7125	799.7125
Union				
General Use	Voice 25.0KHz	85-88	769.5375	799.5375
General Use	Voice 25.0KHz	281-284	770.7625	800.7625
General Use	Voice 25.0KHz	353-356	771.2125	801.2125
General Use	Voice 25.0KHz	441-444	771.7625	801.7625
General Use	Voice 25.0KHz	509-512	772.1875	802.1875
General Use	Voice 25.0KHz	585-588	772.6625	802.6625

General Use	Voice 25.0KHz	749-752	773.6875	803.6875
State License	Voice 25.0KHz	225-228	770.4125	800.4125
State License	Voice 25.0KHz	693-696	773.3375	803.3375
State License	Voice 25.0KHz	769-772	773.8125	803.8125
Walworth				
General Use	Voice 25.0KHz	41-44	769.2625	799.2625
General Use	Voice 25.0KHz	121-124	769.7625	799.7625
General Use	Voice 25.0KHz	165-168	770.0375	800.0375
General Use	Voice 25.0KHz	205-208	770.2875	800.2875
General Use	Voice 25.0KHz	341-344	771.1375	801.1375
General Use	Voice 25.0KHz	389-392	771.4375	801.4375
General Use	Voice 25.0KHz	429-432	771.6875	801.6875
General Use	Voice 25.0KHz	469-472	771.9375	801.9375
General Use	Voice 25.0KHz	553-556	772.4625	802.4625
General Use	Voice 25.0KHz	609-612	772.8125	802.8125
General Use	Voice 25.0KHz	673-676	773.2125	803.2125
General Use	Voice 25.0KHz	713-716	773.4625	803.4625
General Use	Voice 25.0KHz	821-824	774.1375	804.1375
General Use	Voice 25.0KHz	865-868	774.4125	804.4125
General Use	Voice 25.0KHz	905-908	774.6625	804.6625
State License	Voice 25.0KHz	25-28	769.1625	799.1625
State License	Voice 25.0KHz	145-148	769.9125	799.9125
State License	Voice 25.0KHz	185-188	770.1625	800.1625
State License	Voice 25.0KHz	265-268	770.6625	800.6625
State License	Voice 25.0KHz	813-816	774.0875	804.0875
State License	Voice 25.0KHz	893-896	774.5875	804.5875
Yankton				
General Use	Voice 25.0KHz	17-20	769.1125	799.1125
General Use	Voice 25.0KHz	125-128	769.7875	799.7875
General Use	Voice 25.0KHz	173-176	770.0875	800.0875
General Use	Voice 25.0KHz	285-288	770.7875	800.7875
General Use	Voice 25.0KHz	357-360	771.2375	801.2375
General Use	Voice 25.0KHz	397-400	771.4875	801.4875
General Use	Voice 25.0KHz	445-448	771.7875	801.7875
General Use	Voice 25.0KHz	505-508	772.1625	802.1625
General Use	Voice 25.0KHz	617-620	772.8625	802.8625
General Use	Voice 25.0KHz	665-668	773.1625	803.1625
General Use	Voice 25.0KHz	713-716	773.4625	803.4625
General Use	Voice 25.0KHz	781-784	773.8875	803.8875
General Use	Voice 25.0KHz	829-832	774.1875	804.1875

General Use	Voice 25.0KHz	869-872	774.4375	804.4375
State License	Voice 25.0KHz	269-272	770.6875	800.6875
State License	Voice 25.0KHz	649-652	773.0625	803.0625
State License	Voice 25.0KHz	689-692	773.3125	803.3125
State License	Voice 25.0KHz	893-896	774.5875	804.5875
Ziebach				
General Use	Voice 25.0KHz	329-332	771.0625	801.0625
General Use	Voice 25.0KHz	393-396	771.4625	801.4625
General Use	Voice 25.0KHz	485-488	772.0375	802.0375
General Use	Voice 25.0KHz	529-532	772.3125	802.3125
General Use	Voice 25.0KHz	621-624	772.8875	802.8875
General Use	Voice 25.0KHz	789-792	773.9375	803.9375
General Use	Voice 25.0KHz	829-832	774.1875	804.1875
State License	Voice 25.0KHz	25-28	769.1625	799.1625
State License	Voice 25.0KHz	885-888	774.5375	804.5375

Appendix H – Sample Notifications by RPC to Secondary TV Stations

NOTIFICATION OF COMMENCEMENT OF PLANNING PROCESS

December 10, 2013

South Dakota Five County TV Translator District
P.O. Box 199, 4304 Fourth Ave.
Selby, South Dakota 57472-0199

To Whom It May Concern:

This letter serves as formal notification of the commencement of the 700 MHz Regional Planning process for the State of South Dakota. By this letter, WFUT-TV, channel 68, is put on notice that its operations are secondary to future, primary public safety land mobile operations. Low power TV stations and TV translators may not cause interference to public safety operations and must accept any interference they might receive from those operations.[15] You will be notified when Region 38's 700 MHz Plan has been approved by the FCC and again as public safety systems begin to be implemented in the band.

Sincerely,

_____
Todd Dravland
Chair, Region 38

County	Channel	Call Sign	Location	Latitude NAD83	Longitude NAD83

[15] The Report and Order on ET Docket No. 97-157 (FCC 97-421) for the "Reallocation of Television Channels 60-69, the 746-806 MHz Band," clearly defined Land Mobile operations as a "primary service" and that Low power TV and TV translator operations are secondary to all primary services in this band (see paragraphs 14 and 25-31).

Walworth County	62	DK62AV	Lowry	45°18'59"N	99°59'2"W
	68	DK68BM	Lowry	45°18'59"N	99°59'2"W

Appendix I – DTV Transition Procedures

DIGITAL TELEVISION (DTV) TRANSITION
Frequency Availability through the DTV Transition

Region 38 does not plan to authorize operations until after full power broadcasting stations cease operation. As such, Region 38 does not anticipate that any Full Power or Class "A" Analog or Digital television broadcasting will be impacted by the operation of public safety stations. Region 38 will take steps to alert low power and translator stations of their obligation to relocate from the public safety spectrum.

Appendix J – Dispute Resolution

INTRODUCTION

The Regional Committee is established under 47 CFR §90.527 of the FCC's rules and regulations which came into effect on June 22, 2001. It is an independent Committee apart from the Federal Communications Commission with authority to evaluate application for public safety uses of the spectrum allocated under FCC Docket 96-86. In addition, appeals from decisions made with respect to a variety of matters regulated by the Regional Committee will be heard. The formal requirements of the appeal process are set out below.

In order to ensure that the appeal process is open and understandable to the public, the Regional Committee has developed this procedure. Those involved in the appeal process can expect the Committee and its members to follow the procedures (as may be amended from time to time). Where any matter arises during the course of an appeal that is not dealt with in this document, the Committee will do whatever is necessary to enable it to adjudicate fairly, effectively and completely on the appeal. In addition, the Committee may dispense with compliance with any part or all of a particular procedure where it is appropriate in the circumstances. As the Committee gains experience, it will refine and, if necessary, change its policies. Any changes made to the procedure will require a modification to the Regional Plan and will be made available to the public.

The Regional Committee will make every effort to process appeals in a timely fashion and issue decisions expeditiously.

Appeals Committee

Members

The Regional Chair may organize the Committee into Sub-Committees, each comprised of one or more members; the Appeals Sub-Committee is one of those Sub-Committees.

Where an appeal is scheduled to be heard by this Sub-Committee the chair is determined as follows:

(a) If the chair of the Committee is on the Sub-Committee, he/she will be the chair;

(b) If the chair of the Committee is not on the Sub-Committee but the vice-chair is, the vice-chair will be the chair; and

(c) If neither the chair nor the vice-chair is on the Sub-Committee, the Regional Committee will designate one of the members to be the chair.

Withdrawal or Disqualification of a Committee Member on the Grounds of Bias

Where the chair or a Committee member becomes aware of any facts that would lead an informed person, viewing the matter reasonably and practically, to conclude that a member, whether consciously or unconsciously, would not decide a matter fairly, the member will be prohibited from conducting the appeal unless consent is obtained from all parties to continue. In addition, any party to an appeal may challenge a member on the basis of real or a reasonable apprehension of bias.

Correspondence (Communicating) with the Committee

To ensure the appeal process is kept open and fair to the participants, any correspondence to the Regional Committee must be sent to the Chair and be copied to all other Committee members and other parties to the appeal, if applicable.

Committee members will not contact a party on any matter relevant to the merits of the appeal, unless that member puts all other parties on notice and gives them an opportunity to participate. The appeal process is public in nature and all meetings regarding the appeal will be open to the public.

THE APPEAL PROCESS

Filing an Appeal

What can be Appealed

The Committee hears appeals from a determination or allocation and shall include the following: i.e. number of channels assigned, ranking in the assignment matrix, interference, or any other criteria that the region shall establish.

Who can Appeal

An official of the entity who filed the original application to the Regional Committee must be the person who files the appeal on behalf of the entity.

How to Appeal

A notice of appeal must be served upon the Regional Committee. The notice of appeal may be "delivered" by mail, courier, or hand delivered to the office of the Chair and Members of the Committee as listed in the Official Membership List. The Committee will also accept a notice of appeal by facsimile to the Chair and Secretary with the original copy of the notice of appeal served as indicated above.

Certain things must be included in a notice of appeal for it to be accepted. The notice of appeal **must** include:

1. The name and address of the appellant;
2. The name of the person, if any, making the request for an appeal on behalf of the appellant;
3. The address for service of the appellant;
4. The grounds for appeal (a detailed explanation of the appellant's objections to the determination - describe errors in the decision);

5. A description of the relief requested (What do you want the Committee to order at the end of the appeal?);
6. The signature of the appellant or the appellant's representative.

Time Limit for Filing the Appeal

To appeal a determination or allocation the entity who is subject to the determination must deliver a notice of appeal **within three weeks** after receiving the decision. If a notice of appeal is not delivered within the time required, the right to an appeal is lost. However, the Committee is allowed to extend the deadline, either before or after its expiration based upon a majority plus one vote of the Committee.

Extension of Time to Appeal

The Committee has the discretion to extend the time to appeal either before or after the three-week deadline. A request for an extension should be made to the Committee, in writing, and include the reasons for the delay in filing the notice of appeal and any other reasons which the requester believes support the granting of an extension of time to file the appeal. A request for an extension should accompany the notice of appeal.

In deciding whether to grant an extension, the Committee will consider whether fairness requires an extension. The Committee will take into account the length of the delay, the adequacy of the reasons for the delay, the prejudice to those affected by the delay and any impacts that may result from an extension. Other factors not identified could be relevant depending on the circumstances of the particular case.

Rejection of a Notice of Appeal

The Committee may reject a notice of appeal if:

(a) it is determined that the appellant does not have standing to appeal; or
(b) the Committee does not have jurisdiction over the subject matter or the remedy sought.

Before a notice of appeal is rejected, the Committee will inform the appellant of this in writing, with reasons, and give the appellant a three-week opportunity to make submissions and any potential parties with an opportunity to respond.

Adding Parties to the Appeal

In addition to the parties mentioned above, the Committee has the discretion to add any other person who may be "affected" by the appeal as a party to the appeal. Anyone wanting to obtain party status should make a written request to the Committee as early as possible. The written request should contain the following information:

d. The name, address, telephone and fax number, if any, of the person submitting the request;
e. A detailed description of how the person is "affected" by the notice of appeal and
f. The reasons why the person should be included in the appeal; and
g. The signature of the person submitting the request.

Intervener Status

The Committee may also invite or permit someone to participate in a hearing as an intervener. Interveners are generally individuals or groups that do not meet the criteria to become a party (i.e. "may be affected by the appeal") but have sufficient interest in, or some relevant expertise or view in relation to the subject matter of the appeal.

Someone wanting to take part in an appeal as an intervener should send a written request to the Committee. The written request should contain the following information: (to be determined by RPC)

Prior to inviting or permitting a person to participate in a proceeding as an intervener, or deciding on the extent of that participation, the Committee will provide all parties with an opportunity to make representations if they wish to do so.

Type of Appeal (written or oral) Hearing

An appeal may be conducted by way of written submissions, oral hearing or a combination of both. The Committee will determine the appropriate type of appeal after a complete notice of appeal has been received.

The Committee will normally conduct an oral hearing although it may order that a hearing proceed by way of written submissions in certain cases. Where a hearing by written submissions is being considered by the Committee, the Committee may request input from the parties.

Burden of Proof

The general rule is that the burden or responsibility for proving a fact is on the person who asserts it.

Notification of Expert Evidence

The Committee requires any party that intends to present expert evidence at a hearing to provide the Committee, and all other parties to the appeal, with reasonable advance notice that an expert will be called to give an opinion. The notice should include a brief statement of the expert's qualifications and areas of expertise.

If a party intends to produce, at a hearing, a written statement or report prepared by an expert, a copy of the statement or report should be provided to the Committee and all parties to the appeal within a reasonable time before the statement or report is given in evidence. Unless there are compelling reasons for later admission, expert reports should be distributed 30 days prior to the hearing date.

Documents

If a party will be referring to a document that was not provided to the Committee and all parties prior to the hearing, sufficient copies of the document must be brought to the hearing for the Committee and all other parties.

APPEALING THE APPEALS SUBCOMMITTEE'S DECISION

If a party is not satisfied with the decision of the Region's Appeals Subcommittee's Decision, he or she can appeal that decision to the 700 MHz National Planning Oversight Committee.

Appendix K – National Coordinating Committee "Check-off" Sheet

Regional Plan Element	Check	Rule Section	See Section #
Cover letter referencing Docket # 02-378 and identifying the document as the 700 MHz Regional Plan for the Region	**YES**	Public Notice DA-02-3497	Cover Letter
Name, Title, address, phone number, agency affiliation, email address of Chair	**YES**	90.527(a)(1)	1.1
Names, agency affiliations, voting status, mailing addresses, phone numbers, email addresses (if available) of other RPC officers	**YES**	90.527(a)(1)	1.1
A statement that at least 60 days' notice was given prior to the first meeting	**YES**	1st R&O, FN220	1.2
A summary of the major elements of the plan and an explanation of how all eligible entities w/in the Region were given an opportunity to participate and have their positions heard and considered fairly.	**YES**	90.527(a)(2)	1.5
Definition of the Region and its boundaries, a list of the counties and cities within the boundaries	**YES**	90.527(a)(2)	2., Appendix C
Overview of public safety entities that have jurisdiction within or over any or all portions of the Region (state agencies, federal agencies, etc.)	**YES**	90.527(a)(2)	2., 2.4
Description of the types of public safety, law enforcement, government, public service, or other entities (federal, county, regional, city, town etc.) that are included in the Region.	**YES**	90.527(a)(2)	2., 2.4
The dates and publications in which the meetings were announced	**YES**	90.527(a)(2)	Appendix D
The dates and websites on which the meetings were announced	**YES**	90.527(a)(2)	2.1
A description of the process by which comments were solicited from all eligible parties	**YES**	90.527(a)(2)	2.5
Summary of all comments and submissions obtained through the process	**YES**	90.527(a)(2)	Appendix D
A description of the process used to consider comments submitted from concerned parties	**YES**	90.527(a)(2)	1.6, 2.4
The guidelines and procedures for operation of the RPC	**YES**	90.527(a)(2)	2.3
The procedures for frequency coordination	**YES**	90.527(a)(2)	3., 3.1
Guidelines and procedures for protection of incumbent TV/DTV stations within the Region or near the Region's border during the DTV transition period	**YES**	90.527(a)(2)	3.14, 3.15
A copy of the RPC's bylaws	**YES**	90.527(a)(3)	Appendix A
The technical procedures for requesting channels	**YES**	90.527(a)(3)	3.2.1, 3.2.2
An overview of the application process	**YES**	90.527(a)(3)	3.2, 3.3
An explanation of how the RPC decided between competing agencies when more requests for spectrum were received than could be filled. What criteria was used to evaluate competing applications to determine which request was granted?	**YES**	90.527(a)(3)	3.3
An explanation of how the RPC decided how the spectrum would be allocated, e.g. by population; how applications were solicited, e.g. on a first-come, first-served basis or only during	**YES**	90.527(a)(4)	3.1

certain filing windows. An explanation of channel recovery methods will be applied w/in the Region.			
A description of how the applications are handled and reviewed, including an explanation of how the RPC applies the evaluation criteria listed in item 3	**YES**	90.527(a)(4)	3.3, 3.4
Spectrum utilization agreements with other Regions	**YES**	90.527(a)(5)	Appendix M
If the State bears responsibility for administering the interoperability channels, the Regional Plan must indicate how the Region will interact with the SIEC or similar body. If the RPC is responsible for administering the I/O channels, see the check points below the bold type.	**YES**	90.525(b)	7.2
Description of the pre-coordination allotment method used at the Region's borders	**YES**	90.527(a)(5)	3.1
Concurrence from the Chairs of the adjacent Regions **OR** evidence that the RPC used the NCC Implementation Subcommittee's 'pre-planning proposal' to reserve some portion of the 700 MHz spectrum at the RPC borders for the adjacent Region(s).	**YES**	90.527(a)(5)	5.
If any of the adjacent Regions have not yet convened or selected a convener, the Plan must include a waiver of 90.527(a)(5)	**N/A**	90.527(a)(5)	5.
An explanation of how the RPC encouraged spectrum re-use and promoted spectrally efficient technologies to make the most efficient use of the spectrum	**YES**	90.527(a)(6)	6.
An explanation of how the RPC will maintain the pre-coordination database, provide opportunities for future modifications of the plan	**YES**	90.527(a)(7)	8.
Inter-Regional Dispute Resolution agreements signed by the Chair of the Adjacent Region(s)	**YES**	90.527(a)(7)	Appendix M
A certification by the RPC chair that all RPC meetings were open to the public	**YES**	90.527(a)(8)	9.
Signature of the RPC chair	**YES**	90.527(a)(8)	Cover Letter, 9.
The following items would constitute a Section that would be required only if the RPC had assumed responsibility for administering the 700 MHz Interoperability Channels			

Appendix L – Interoperability with Federal Agencies

How to Use the National Interoperability Frequency Guide

What is the "National Interoperability Frequency Guide"?

The "National Interoperability Frequency Guide" (NIFG) is a listing of land mobile radio (LMR) frequencies that are often used in disasters or other incidents where radio interoperability is required.

The NIFG has three parts: general groups of frequencies; frequencies assigned to a particular function; and general conditions for use of these frequencies.

Terms used in this document:

FCC – Federal Communications Commission

FCC Rules – contained in Title 47, Code of Federal Regulations (47CFR)

Federal – used herein to differentiate between radio stations of the United States Government and those of any State, tribal, local, or regional governmental authority.
The NTIA Manual uses the terms "Government" and "non-Government". To avoid the possible confusion of State government officials thinking they are Government rather than non-Government, the term "Federal" is used.

NCC – the Public Safety National Coordination Committee (NCC), a Federal Advisory Committee formed by the FCC to advise it on interoperability

NPSTC – the National Public Safety Telecommunications Council is a federation of organizations whose mission is to improve public safety communications and interoperability through collaborative leadership.

NTIA – National Telecommunications and Information Administration

NTIA Manual – The NTIA "Manual of Regulations and Procedures for Federal Radio Frequency Management" http://www.ntia.doc.gov/osmhome/redbook/redbook.html

Don’t I need a license for these channels before programming them into radios?

A license (for non-Federal radio users) or an authorization (for Federal users) is required only to TRANSMIT on an LMR radio frequency. No license or authorization is required to program the frequencies into radios.

How can I use these frequencies if I don’t have a license for them?

There are six ways you can legally use these radio frequencies:

You or your employer may already have a Federal Communications Commission (FCC) license or a National Telecommunications and Information Administration (NTIA) authorization for some of these frequencies, or may be covered by a higher authority’s license.

The non-Federal National Mutual Aid Channels are covered by a “blanket authorization” from the FCC for mobile operation, but base stations and control stations still require individual licenses (see FCC 00-348, released 10/10/2000, paragraph 90). This applies to the “Non-Federal VHF National Mutual Aid Channels,” “Non-Federal UHF National Mutual Aid Repeater Channels,” and “Non-Federal 800 MHz National Mutual Aid Repeater Channels”.

In extraordinary circumstances, the FCC may issue a “Special Temporary Authority” (STA) for such use in a particular area.

In extraordinary circumstances, the NTIA may issue a “Temporary Assignment” for such use in a particular area.

If you are a FCC licensee, you may operate a mobile station on the Federal Interoperability Channels only when invited or approved to do so by a Federal Government radio station authorized by the NTIA to use those channels, and only for the purpose of interoperability with Federal Government radio stations. You may not use these channels for interoperability with other State, tribal, regional, or local radio stations – these are not a substitute for your regular mutual aid channels. Your use of these Federal channels is done under the auspices of your FCC license; any misuse subjects you or your employer to FCC fines and/or possible license revocation.

When necessary for the IMMEDIATE protection of life or property, radio users may use prudent measures beyond the specifics of their license:

(FCC rules)

47 CFR § 90.407 Emergency communications.

“The licensee of any station authorized under this part may, during a period of emergency in which the normal communication facilities are disrupted as a result of hurricane, flood, earthquake or similar disaster, utilize such station for emergency communications in a manner other than that specified in the station authorization or in the rules and regulations governing the operation of such stations. The Commission may at any time order the discontinuance of such special use of the authorized facilities.” [49 FR 36376, Sept. 17, 1984]

47 CFR § 90.411 Civil defense communications.

“The licensee of any station authorized under this part may, on a voluntary basis, transmit communications necessary for the implementation of civil defense activities assigned such station by local civil defense authorities during an actual or simulated emergency, including drills and tests. The Commission may at any time order the discontinuance of such special use of the authorized facilities”. [49 FR 36376, Sept. 17, 1984]

(NTIA rules)

7.3.1 Emergency Communications

In an emergency it is permissible to operate temporarily on regularly assigned frequencies in a manner other than that specified in the terms of an existing assignment or on other appropriate frequencies under the following special circumstances:

An emergency must actually exist or imminently threaten. An emergency for the purpose of this provision means a situation of temporary duration resulting directly or indirectly from a natural catastrophe or other occurrence that seriously affects the welfare of a community or of an area to the extent of endangering human life and property and in connection with which special communication facilities are required temporarily. Emergency operations shall be discontinued as soon as substantially normal communication facilities are restored.

7.3.4 Emergency Use of Non-Government Frequencies

In emergency situations a government radio station may utilize any frequency authorized to a non-government radio station, under Part 90 of the FCC Rules and Regulations, when such use is necessary for communications with non-government stations and is directly related to the emergency at hand. Such use is subject to the following conditions:

a. The non-government licensee has given verbal or written concurrence.
b. Operations are conducted in accordance with the FCC Rules and Regulations.
c. Use is restricted to the service area and station authorization of the licensee.
d. All operations are under the direct control of the licensee and shall be immediately terminated when directed by the licensee.
e. Operations do not exceed 60 days.
f. A written report of each such use shall be provided, through the agency's FAS representative, to the FCC as soon as practicable.

7.5.2 Frequencies Authorized by the FCC for Ship Stations

Frequencies authorized by the Federal Communications Commission for ship stations may be used by Government mobile stations to communicate with non-Government stations in the maritime mobile service.

7.5.3 Frequencies for the Safety of Life and Property

…
5. The frequency 40.5 MHz is designated as the military joint common frequency. Use of this channel is limited to communications necessary to establish contact when other channel information is not available and for emergency communications. This frequency also may be used for search and rescue communications. 6. The provisions of this Manual do not prevent mobile stations, or mobile earth stations, in distress from using any frequency at its disposal to attract attention, make known its position, and obtain help. (See ITU Radio Regulation Ap. 13 Part A1, § 3, 1.)

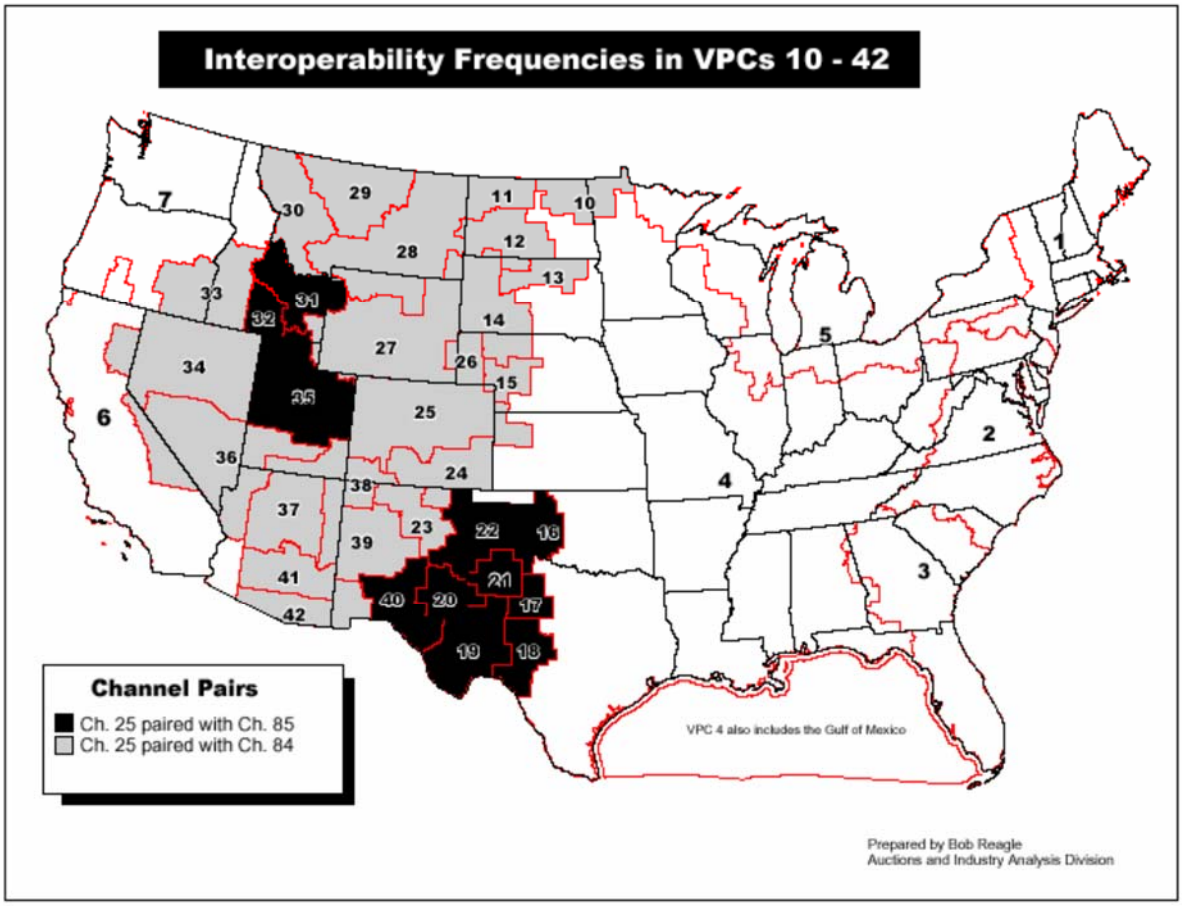
7.5.4 Frequencies for Coordinating Search and Rescue Operations

1. The frequency 123.1 MHz, using class A3E emission, may be used by stations of the aeronautical mobile service and by other mobile and land stations engaged in coordinated search and rescue operations.

2. The frequency 156.3 MHz may be used for communications between ship stations and aircraft stations, using G3E emission, engaged in coordinated search and rescue (SAR) operations. When control of the scene of a SAR incident is under a Coast Guard coast station, 156.3 MHz may be used by ship stations to communicate with that coast station.

Are these frequencies clear for this use nationwide?

Not all frequencies are available nationwide for use as described in the NIFG. In particular, the “RTAC” channels (“Non-Federal VHF Inland Mutual Aid Channels”) may only be used in certain inland parts of the country, away from coastal areas and major waterways (see the map titled “Interoperability Frequencies in VPCs 10 - 42” below for further details). Other channels in this plan may not be usable due to the potential for adjacent channel interference in some areas, or due to authorized on-channel uses that are different than the common uses described in the NIFG.



For a detailed list of which counties are in which VHF Public Coast (VPC) area, see:
http://www.fcc.gov/oet/info/maps/areas/cnty1990/vpccnty1990.txt

Who do I contact to use these channels?

These channels can be used where licensed/authorized by FCC/NTIA, or where authorized under an STA. As part of any coordinated disaster or incident response, there should be a "Frequency Manager" assigning functions to radio channels, and coordinating with the FCC and NTIA for authorization to use additional channels if needed. At a Federally-declared disaster or Incident of National Significance where a Joint Field Office (JFO) is established, in the Operations Section ESF #2 will have personnel filling the role of Spectrum Manager. Prior to the deployment of ESF #2 to the incident area, the JFO Communications Unit will have a DHS Spectrum Manager serving as the Frequency Manager. ESF #2 works on communications issues affecting the victims and the telecommunications industry; the JFO Communications Unit handles the communications requirements for the emergency responders working through the JFO. Because there will be significant overlap, all of the Spectrum Managers will work together very closely. Check with ESF #2 or the JFO Communications Unit once they are established. Before then, try the calling channels specified in the NIFG at or near the incident scene for all command and control questions.

Does the NIFG specify exactly how to program channels?

Since not all radios are the same, it's impossible to come up with a one-size-fits-all solution. The NIFG relies to a large part on the FCC's National Coordination Committee (NCC) channel nomenclature, and the report of the NPSTC Channel Naming Task Group. For most of the channels, the NCC/NPSTC nomenclature specifies a "direct" ("talk-around") channel for repeaters which takes up an additional memory slot. Some radios have a switch, which permits talk-around on a repeater channel. Using this feature would save memory slots. Similarly, some radios may have a switch or button to enable or disable receive CTCSS; for those radios that don't, another channel could be programmed so both modes would be available. Some of the common mutual aid channels used are wideband in some jurisdictions, but narrowband in others. The NCC/NPSTC nomenclature does not always address how to label the same frequencies with different bandwidths. We encourage programming the wideband interoperability channels with both wide and narrow bandwidths, but we leave it to the radio technicians as to how to distinguish between them on the radio display. Also, it would be advisable to program additional VHF Marine channels as possible interoperability channels (for use when properly authorized), based on local or regional use. In particular, channels used by drawbridge tenders and for Maritime Control may be appropriate; see http://wireless.fcc.gov/marine/vhfchanl.html or http://wireless.fcc.gov/marine/vhfchanl.pdf for authorized channel uses and http://www.navcen.uscg.gov/marcomms/vhf.htm for frequencies.

Should Fire/EMS radios have the Law Enforcement interoperability channels programmed and vice versa?

All radios should have as many of these interoperability channels programmed as possible. Interoperability means crossing over lines, not only jurisdictional but functional as well. On the Federal interoperability channels, "Incident Response" (IR) means everybody – Fire, Rescue, EMS, Public Works, Transportation, Law Enforcement, etc. The "Law Enforcement" (LE) channels will be used "primarily" for Law Enforcement activities, but could be designated for other incident support operations if that would not hamper Law Enforcement activities, and if assigned by the agency in control of the incident.

How do emergency responders use the calling channels?

As you approach the incident scene, attempt to make contact on one of the designated calling channels. If it is a repeater channel and you get no response, try the "direct" or "talk-around" mode if your radio has that capability. In some cases, the talk-around channel exists as a distinct channel on the radio. For example, the VHF Incident Response Federal Interoperability Channel is known as "NC 1 Calling" (or "1FCAL40" in the NCC nomenclature). The talk-around for this repeater channel is known as "IR 5" (or "1FCAL40D" in the NCC nomenclature). Using the NCC nomenclature (1FCAL40 / 1FCAL40D) it is easier to see the relationship between the channels. Try the FCC calling channels (VCALL10, UCALL40, and 8CALL90) and the Federal IR and LE calling channels: "NC 1 Calling" (direct: "IR 5), "NC 2 Calling" (direct: "IR 15"), "LE A", and "LE B". If you are unable to make contact on these channels, consider the wideband interoperability channels – if you are authorized to use them, or if your situation qualifies as "IMMEDIATE protection of life or property". You may be able to learn what you need without transmitting, by just listening to radio traffic on one of these channels.

How do Search and Rescue personnel on land, on watercraft, and on aircraft coordinate by radio?

Certain VHF Marine channels are designated in this plan for Search and Rescue (SAR) interoperability. Searchers on land, in boats, and in aircraft need to be able to communicate with each other to coordinate rescues. There is no VHF channel authorized and readily available to all three communities. Some aircraft involved in SAR have VHF Marine radios, as do most boaters; the VHF radios that many ground SAR groups use are capable of covering the VHF Marine frequencies. We recommend that all SAR participants have the channels in this plan pre-programmed in their radios. VHF Marine channels shall not be used for conventional, terrestrial search and rescue operations – they are in this plan due to the likelihood of boats being involved in SAR in coastal areas. Also, 155.16 MHz is

licensed to many SAR organizations. We encourage public safety entities to obtain licenses for this frequency to facilitate interoperability. Likewise, we encourage SAR organizations with VHF radios to program the appropriate VHF Marine channels in their radios and to exercise great restraint in using these channels only when authorized.

How can I get answers to questions about the "National Interoperability Frequency Guide" or this document, "How to Use the National Interoperability Frequency Guide", or how can I offer suggestions to improve them?

Please send your questions or comments to the U.S. Department of Homeland Security, Office of Emergency Communications, at OEC@DHS.GOV and include your name, agency or organization affiliation, and your e-mail address.

National Interoperability Frequency Guide

See page 4 for important information about use of the frequencies in this document. For non-Federal users, an FCC Part 90 license is required for use of these "National Mutual Aid Channels". This document is a recommendation for use of these radio channels. It does not establish any new authority; rules in FCC Part 90 and the NTIA Manual apply in all cases. Digital (P-25) operations on non-Federal interoperability channels should use Network Access Code (NAC) $293.

Non-Federal VHF National Mutual Aid Channels

Description	NPSTC ID	Former ID	Channel (MHz)	CTCSS Tone (Recommend) ±
Calling	VCALL10	VCALL	155.7525 base/mobile	CSQ /156.7 (5A)
Tactical	VTAC11 *	VTAC1 *	151.1375 base/mobile	CSQ /156.7 (5A)
Tactical	VTAC12 *	VTAC2 *	154.4525 base/mobile	CSQ /156.7 (5A)
Tactical	VTAC13	VTAC3	158.7375 base/mobile	CSQ /156.7 (5A)
Tactical	VTAC14	VTAC4	159.4725 base/mobile	CSQ /156.7 (5A)
*VTAC11 and VTAC12 may not be used in PR/VI.				
±Default operation should be carrier squelch receive, CTCSS transmit. If the user can enable/disable CTCSS without reprogramming the radio, the indicated CTCSS tone should also be programmed for receive, and the user instructed how and when to enable/disable.				

Non-Federal VHF Inland Mutual Aid Channels

Base stations: 50 watts max, antenna HAAT 400 feet. max. Mobile stations: 20 watts max, antenna HAAT 15 feet max.					
These channels use **Wideband** FM, and are available only in certain inland areas at least 100 miles from a major waterway					
These channels are VHF Maritime channel 25 (all 33 areas), channel 84 (22 areas), and channel 85 (11 areas). Use only where authorized.					
In these authorized areas, interoperability communications have priority over grandfathered public coast & public safety licensees.					
Description	**NPSTC ID**	**Former ID**	**Mobile TX (MHz)**	**Mobile RX (MHz)**	**VHF Marine Channel**
Tactical – wideband FM	VTAC17D	RTAC1	161.8500	161.8500	
Tactical – wideband FM	VTAC17	RTAC1a	157.2500	161.8500	25
Tactical – wideband FM	VTAC18D	RTAC2	161.8250	161.8250	
Tactical – wideband FM	VTAC18	RTAC2a	157.2250	161.8250	84
Tactical – wideband FM	VTAC19D	RTAC3	161.8750	161.8750	
Tactical – wideband FM	VTAC19	RTAC3a	157.2750	161.8750	85

Non-Federal UHF National Mutual Aid Repeater Channels

Description	NPSTC ID	Former ID	Mobile TX (MHz)	Mobile RX (MHz)	CTCSS Tone(Hz) (Recommend) ±
Calling	UCALL40	UCALL	458.2125	453.2125	CSQ/156.7 (5A)
Calling	UCALL40D	UCALL	453.2125	453.2125	CSQ/156.7 (5A)
Tactical	UCALL41	UTAC1	458.4625	453.4625	CSQ/156.7 (5A)
Tactical	UCALL41D	UTAC1	453.4625	453.4625	CSQ/156.7 (5A)
Tactical	UCALL42	UTAC2	458.7125	453.7125	CSQ/156.7 (5A)
Tactical	UCALL42D	UTAC2	453.7125	453.7125	CSQ/156.7 (5A)
Tactical	UCALL43	UTAC3	458.8625	453.8625	CSQ/156.7 (5A)
Tactical	UCALL43D	UTAC3	453.8625	453.8625	CSQ/156.7 (5A)
±Default operation should be carrier squelch receive, CTCSS transmit. If the user can enable/disable CTCSS without reprogramming the radio, the indicated CTCSS tone should also be programmed for receive, and the user instructed how and when to enable/disable.					

Non-Federal 800 MHz National Mutual Aid Repeater Channels*

Description	NPSTC ID	ID	Mobile TX (MHz)	Mobile RX (MHz)	CTCSS Tone (Hz) (Recommended)
Calling	8CALL90	ICALL	821.0125 (806.0125*)	866.0125 (851.0125*)	156.7 (5A)
Tactical	8TAC91	ITAC-1	821.5125 (806.5125*)	866.5125 (851.5125*)	156.7 (5A)

Tactical	8TAC92	ITAC-2	822.0125 (807.0125*)	867.0125 (852.0125*)	156.7 (5A)
Tactical	8TAC93	ITAC-3	822.5125 (807.5125*)	867.5125 (852.5125*)	156.7 (5A)
Tactical	8TAC94	ITAC-4	823.0125 (808.0125*)	868.0125 (853.0125*)	156.7 (5A)
Calling – Direct	8CALL90D	ICALL-D	866.0125 (851.0125*)	866.0125 (852.0125*)	156.7 (5A)
Tactical – Direct	8TAC91D	ITAC-1D	866.5125 (851.5125*)	866.5125 (851.5125*)	156.7 (5A)
Tactical – Direct	8TAC92D	ITAC-2D	867.0125 (852.0125*)	867.0125 (852.0125*)	156.7 (5A)
Tactical – Direct	8TAC93D	ITAC-3D	867.5125 (852.5125*)	867.5125 (852.5125*)	156.7 (5A)
Tactical – Direct	8TAC94D	ITAC-4D	868.0125 (853.0125*)	868.0125 (853.0125*)	156.7 (5A)
*The frequency in parenthesis, which is 15 MHz lower, will be the frequency used after rebanding.					

VHF Incident Response (IR) Federal Interoperability Channel Plan*

Assignment	NCC ID	Note	NTIA ID	Mobile TX(MHz)	Mobile RX(MHz)
Incident Calling	1FCAL40		NC 1 Calling	164.7125	169.5375
Incident Command 1	1FTAC41		IR 1	165.2500	170.0125
Medical Evacuation Control	1FTAC42		IR 2	165.9625	170.4125
Logistics Control	1FTAC43		IR 3	166.5750	170.6875
Interagency Convoy	1FTAC44		IR 4	167.3250	173.0375
Incident Calling (Direct)	1FCAL40D	Direct for NC 1 Calling	IR 5	169.5375 (S)	169.5375
Incident Command 1 (Direct)	1FTAC41D	Direct for IR 2	IR 6	170.0125 (S)	170.0125
Medical Evacuation Control (Direct)	1FTAC42D	Direct for IR 3	IR 7	170.4125 (S)	170.4125
Logistics Control (Direct)	1FTAC43D	Direct for IR 4	IR 8	170.6875 (S)	170.6875
Interagency Convoy (Direct)	1FTAC44D	Direct for IR 5	IR 9	173.0375 (S)	173.0375
*See "Conditions for Use of Federal Interoperability Channels" on page 4 of this document.					

UHF Incident Response (IR) Federal Interoperability Channel Plan*

Assignment	NCC ID	Note	NTIA ID	Mobile TX(MHz)	Mobile RX(MHz)
Incident Calling	4FCAL52		NC 2 Calling	419.2375	410.2375
Ad hoc assignment	4FTAC53		IR 10	419.4375	410.4375
Ad hoc assignment	4FTAC54		IR 11	419.6375	410.6375
SAR Incident Command	4FTAC55		IR 12	419.8375	410.8375
Ad hoc assignment	4FTAC56		IR 13	413.1875 (S)	413.1875
Interagency Convoy	4FTAC57		IR 14	413.2125 (S)	413.2125
Incident Calling (Direct)	4FCAL52D	Direct for NC 2 Calling	IR 15	410.2375 (S)	410.2375
Ad hoc assignment	4FTAC53D	Direct for IR 10	IR 16	410.4375 (S)	410.4375
Ad hoc assignment	4FTAC54D	Direct for IR 11	IR 17	410.6375 (S)	410.6375
SAR Incident Command (Direct)	4FTAC55D	Direct for IR 12	IR 18	410.8375 (S)	410.8375
*See "Conditions for Use of Federal Interoperability Channels" on page 4 of this document.					

VHF Law Enforcement (LE) Federal Interoperability Channel Plan*

Description	NCC ID	Note	NTIA ID	Mobile TX(MHz)	Mobile RX(MHz)
Calling	1FCAL35D		LE A	167.0875 (S)	167.0875
Tactical	1FCAL35		LE 1	162.0875	167.0875
Tactical	1FLAW36		LE 2	162.2625	167.2500
Tactical	1FLAW37		LE 3	162.8375	167.7500
Tactical	1FLAW38		LE 4	163.2875	168.1125
Tactical	1FLAW39		LE 5	163.4250	168.4625
Tactical	1FLAW36D	Direct for LE 2	LE 6	167.2500 (S)	167.2500
Tactical	1FLAW37D	Direct for LE 3	LE 7	167.7500 (S)	167.7500
Tactical	1FLAW38D	Direct for LE 4	LE 8	168.1125 (S)	168.1125
Tactical	1FLAW39D	Direct for LE 5	LE 9	168.4625 (S)	168.4625
*See "Conditions for Use of Federal Interoperability Channels" on page 4 of this document.					

UHF Law Enforcement (LE) Federal Interoperability Channel Plan*

Description	NCC ID	Note	NTIA ID	Mobile TX(MHz)	Mobile RX(MHz)
Calling	4FCAL45D		LE B	414.0375 (S)	414.0375
Tactical	4FLAW46		LE 10	418.9875	409.9875
Tactical	4FLAW47		LE 11	419.1875	410.1875
Tactical	4FLAW48		LE 12	419.6125	410.6125
Tactical	4FLAW49		LE 13	414.0625 (S)	414.0625
Tactical	4FLAW50		LE 14	414.3125 (S)	414.3125
Tactical	4FLAW51		LE 15	414.3375 (S)	414.3375
Tactical	4FLAW46D	Direct for LE 10	LE 16	409.9875 (S)	409.9875
Tactical	4FLAW47D	Direct for LE 11	LE 17	410.1875 (S)	410.1875
Tactical	4FLAW48D	Direct for LE 12	LE 18	410.6125 (S)	410.6125
*See "Conditions for Use of Federal Interoperability Channels" on page 4 of this document.					

Federal / Non-Federal SAR Incident Command Interoperability Plan *

NCC Identifier	ID	Mobile TX(MHz)	Mobile RX (MHz)
4FTAC55	IR 12	419.8375	410.8375
1CAL18	VCALL10	155.7525	155.7525
4CAL31	UCALL40	458.2125	453.2125
8CALL90	8CALL90	821.0125 (806.0125 after rebanding)	866.0125 (851.0125 after rebanding)
n/a	VHF Marine Ch. 6	156.3000	156.3000

Federal / Non-Federal VHF Incident Response Interoperability Channel Plan*

SAR Operations Network Frequencies (MHz)	
Ground Rescue Net (monitor and working)	155.1600 (wideband FM)
Water Rescue Net (monitor and working)	157.0500 (VHF Marine channel 21A, wideband FM)
Emergency Medical Services Net	155.3400 (wideband FM)
Medical Support Net (facility to facility)	155.3400 (wideband FM)
Air Rescue Net (deconfliction)	As specified on standard air chart
C3 Air Platform to Air Rescue Assets	123.1000 AM (civilian) 345.0000 AM (military)
Air Rescue Coordinator to C3 Air Platform	345.0000 AM (military)
Air Rescue Assets to Civilian Rescue Personnel	156.8000 (VHF Marine channel 16, wideband FM)
Air Rescue Assets (monitor and working)	157.1750 (83A)* 345.0000 AM (military)
For more information on VHF Marine channels, see http://www.navcen.uscg.gov/marcomms/vhf.htm	

Public Safety Mutual Aid or Common Channels in VHF and UHF Fixed and Mobile Bands Below 512 MHz *

Rules for use of these channels are contained in 47 CFR 90.20 and NTIA Manual Section 4.3.11 & 7.3.4.

See "Non-Federal VHF National Mutual Aid Channels" and "Non-Federal VHF Inland Mutual Aid Channels" on page 1 of this document.

Channel (MHz)	Usage	Wideband ID	Narrowband ID	Note
155.1600	Search and Rescue Common	SAR WFM	SAR NFM	Not designated by FCC; availability varies.
154.2650 mobile	Fire Mutual Aid	1FIR7	VFIRE22	Not available in Puerto Rico and the Virgin Islands
154.2725	Fire Mutual Aid		VFIRE24	
154.2800 base/mobile	Fire Mutual Aid	1FIR9	VFIRE21	
154.2875			VFIRE25	
154.2950 mobile	Fire Mutual Aid	1FIR11	VFIRE23	
154.3025			VFIRE26	
155.3400 base/mobile	EMS Mutual Aid	1EMS14	VMED28	May be designated for EMS Mutual Aid.
155.3475			VMED29	May be designated for EMS Mutual Aid.
155.4750 base/mobile	Law Enforcement Mutual Aid	1LAW16	VLAW31	
155.4825	Law Enforcement Mutual Aid		VLAW32	

Wideband		UHF MED Channels	Narrowband	
Mobile Rx/Tx (MHz)	ID	Use	Mobile Rx/Tx (MHz)	ID
462.950/467.950	MED-9	EMS Common Dispatch	462.9625/467.9625	MED-92
462.975/467.975	MED-10	EMS Common Dispatch	462.9875/467.9875	MED-102
463.000/468.000	MED-1	EMS Common	463.0125/468.0125	MED-12
463.025/468.025	MED-2	EMS Common	463.0375/468.0375	MED-22
463.050/468.050	MED-3	EMS Common	463.0625/468.0625	MED-32
463.075/468.075	MED-4	EMS Common	463.0875/468.0875	MED-42
463.100/468.100	MED-5	EMS Common	463.1125/468.1125	MED-52
463.125/468.125	MED-6	EMS Common	463.1375/468.1375	MED-62
463.150/468.150	MED-7	EMS Common	463.1625/468.1625	MED-72
463.175/468.175	MED-8	EMS Common	463.1875/468.1875	MED-82

*** See "General Conditions" and "Conditions for Use of Federal Interoperability Channels" on page 4 of this document.**

Weather Radio Broadcasts – Receive Only (WX1-WX7 US & Canada; WX8-WX9 Canada Marine Weather)							Marine 21B	Marine 83B
WX1	WX2	WX3	WX4	WX5	WX6	WX7	WX8	WX9
162.550	162.400	162.475	162.425	162.450	162.500	162.525	161.850	161.775

GENERAL CONDITIONS

1. The FCC and NTIA rules allow for some flexibility in frequency use by personnel directly involved in a situation where human life or property are endangered. This does NOT mean "In an emergency, anything goes."
2. For communications not covered by #1, your use of a radio frequency must be authorized by:
    a. Your (or your agency's) FCC license or NTIA authorization
    b. "License by rule" – a provision in FCC rules that authorizes use of a radio frequency under specified conditions without a specific license or authorization issued to the user
    c. A "Special Temporary Authority" provided by FCC
3. Digital (P-25) operations on non-Federal interoperability channels should use Network Access Code (NAC) $293.

CONDITIONS FOR USE OF FEDERAL INTEROPERABILITY CHANNELS

1. The "VHF Incident Response (IR) Federal Interoperability Channel Plan", the "UHF Incident Response (IR) Federal Interoperability Channel Plan", the "VHF Law Enforcement (LE) Federal Interoperability Channel Plan", and the "UHF Law Enforcement (LE) Federal Interoperability Channel Plan" show frequencies available for use by all Federal agencies to satisfy law enforcement and public safety incident response interoperability requirements. These frequencies will be referred to hereinafter as "Federal Interoperability Channels".
2. The Federal Interoperability Channels are available for use among Federal agencies and between Federal agencies and non-federal entities with which Federal agencies have a requirement to operate.
3. The channels are available to non-federal entities to enable joint Federal/non-federal operations for law enforcement and incident response, subject to the condition that harmful interference will not be caused to Federal stations. These channels are restricted to interoperability communications and are not authorized for routine or administrative uses.
4. Extended operations and congestion may lead to frequency conflicts. Coordination with NTIA may be required to resolve these conflicts in some areas.
5. Only narrowband emissions are to be used on the Federal Interoperability Channels.
6. Equipment used (transmitters and receivers) must meet the standards established in Section 5.3.5.2 of the NTIA Manual:
   TIA/EIA 603-B for narrowband analog;
   TIA TSB 102,CAAB-A for narrowband digital
7. A complete listing of conditions for use by Federal users can be found in Section 4.3.16 of the NTIA Manual.

INCIDENT RESPONSE PLANS

1. Frequencies 169.5375 MHz (paired with 164.7125 MHz) and 410.2375 MHz (paired with 419.2375 MHz) are designated as the calling channels for initial contact and will be identified in the radio as indicated in the Incident Response Federal Interoperability Channel Plans.
2. Initial contact will be established using narrowband analog FM emission (11KF3E).
3. To ensure access by stations from outside the normal area of operation, Continuous Tone-Controlled Squelch Systems (CTCSS) will not be used on the calling channels.
4. The interoperability channels will be identified in mobile and portable radios as indicated in the "VHF Incident Response (IR) Federal Interoperability Channel Plan" and the "UHF Incident Response (IR) Federal Interoperability Channel Plan".

LAW ENFORCEMENT PLANS

1. Frequencies 167.0875 MHz and 414.0375 MHz are designated as National Calling Channels for initial contact and will be identified in the radio as indicated in the Law Enforcement Federal Interoperability Channel Plans.
2. Initial contact communications will be established using narrowband analog FM emission (11KF3E).
3. The interoperability channels will be identified in mobile and portable radios as indicated in the Law Enforcement Federal Interoperability Channel Plans with Continuous Tone-Controlled Squelch Systems (CTCSS) frequency 167.9 Hz and/or Network Access Code (NAC) $68F.

Appendix M – Inter-Regional Dispute Procedures

Inter-Regional Coordination Procedures and
Procedures for Resolution of Disputes
That May Arise Under FCC Applications & Approved Plans

I. INTRODUCTION – COORDINATION PROCEDURES

This is a mutually agreed upon Inter-Regional Coordination Procedures Agreement ("Agreement") by and between the following 700 MHz Regional Planning Committees; Region 38, Region 15, Region 22, Region 25, Region 26, Region 32, Region 46.

II. INTER-REGIONAL COORDINATION AGREEMENT

The following is the specific procedure for inter-regional coordination which has been agreed upon by Region 38, Region 15, Region 22, Region 25, Region 26, Region 32, and Region 46, and which will be used by the Regions to coordinate with adjacent Regional Planning Committees.

a. An application filing window is opened or the Region announces that it is prepared to begin accepting applications on a first-come/first-served basis.

b. Applications by eligible entities are accepted.

c. An application filing window (if this procedure is being used) is closed after appropriate time interval.

d. Intra-regional review and coordination takes place, including a technical review resulting in assignment of channels.

e. After intra-regional review, a copy of those frequency-specific applications requiring adjacent Region approval, including a definition statement of proposed service area, shall then be forwarded to the adjacent Region(s) for review.[16] This information will be sent to the adjacent Regional chairperson(s) using the CAPRAD database.

f. The adjacent Region reviews the application. If the application is approved, a letter of concurrence shall be sent, via the CAPRAD database, to the initiating Regional chairperson within thirty (30) calendar days.

[16] If an applicant's proposed service area extends into an adjacent Public Safety Region(s), the application must be approved by the affected Region(s). Service area shall normally be defined as the area included within the geographical boundary of the applicant, plus three (3) miles. Other definitions of service area shall be justified with an accompanying *Memorandum of Understanding (MOU)* or other application documentation between agencies, I.e. mutual aid agreements

III. Dispute Resolution

If the adjacent Region(s) cannot approve the request, the adjacent Region shall document the reasons for partial or non-concurrence, and respond within 10 (Ten) calendar days via email. If the applying Region cannot modify the application to satisfy the objections of the adjacent Region then, a working group comprised of representatives of the two Regions shall be convened within thirty (30) calendar days to attempt to resolve the dispute. The working group shall then report its findings within thirty (30) calendar days to the Regional chairperson's email (CAPRAD database). Findings may include, but not be limited to:

(i) Unconditional concurrence;

(ii) Conditional concurrence contingent upon modification of applicant's technical parameters; or

(iii) Partial or total denial of proposed frequencies due to inability to meet co-channel/adjacent channel interference free protection to existing licensees within the adjacent Region.

If the Inter-Regional Working Group cannot resolve the dispute, then the matter shall be forwarded for evaluation to the National Regional Planning Council (NRPC). Each Region involved in the dispute shall include a detailed explanation of its position, including engineering studies and any other technical information deemed relevant. The NRPC will, within thirty (30) calendar days, report its recommendation(s) to the Regional chairpersons via the CAPRAD database. NRPC's decision may support either of the disputing Regions or it may develop a proposal that it deems mutually advantageous to each disputing Region.

Where adjacent Region concurrence has been secured, and the channel assignments would result in no change to the Region's currently Commission approved channel assignment matrix. The initiating Region may then advise the applicant(s) that their application may be forwarded to a frequency coordinator for processing and filing with the Commission.

Where adjacent Region concurrence has been secured, and the channel assignments would result in a change to the Region's currently Commission approved channel assignment matrix, then the initiating Region shall file with the Commission a *Petition to Amend* their current Regional plan's frequency matrix, reflecting the new channel assignments, with a copy of the *Petition* sent to the adjacent Regional chairperson(s).

Upon Commission issuance of an *Order* adopting the amended channel assignment matrix, the initiating Regional chairperson will send a courtesy copy of the *Order* to the adjacent Regional chairperson(s) and may then advise the applicant(s) that they may forward their applications to the frequency coordinator for processing and filing with the Commission.

III. CONCLUSION

IN AGREEMENT HERETO, Region 38, Region 15, Region 22, Region 25, Region 26, Region 32, and Region 46, do hereunto set their signatures the day and year first above written.

Respectfully,

Name of Regional Chair	**Region**	**Date**
Leslie E. Fish	15	08/25/2015
James R. Mohn P.E.	22	07/30/2015
Dale Osborne	25	08/31/2015
Michael Jeffres	26	08/06/2015
Mike Lynk	32	09/17/2015
William Walter	46	12/09/2015