



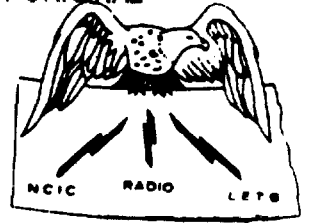
STATE RADIO COMMUNICATIONS

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January 4, 1993

Ms. Donna Searcy
Secretary
Federal Communications Commission
Washington, D.C. 20554

Dear Ms. Searcy:

As chairperson of the Region 32 National Public Safety Planning Advisory Committee (NPSPAC), I am proud to present for your consideration our committee's Frequency Utilization Plan for the State of North Dakota formulated in accordance with FCC Dockets 87-112 and 87-359.

On September 29, 1992, the Region 32 convenor issued a Public Notice that an initial Region 32 Public Safety Planning meeting would be held on October 7, 1992, at the ND Heritage Center Auditorium (See Appendix B). In addition to this notice, invitations were sent to all the Sheriff's Departments, Police Departments, Fire and Ambulance Services, and several state agencies. This initial regional planning meeting officially established the Region 32 Planning Committee with Lyle Gallagher elected as Chairperson. Participants in that meeting represented Public Safety Radio Services, Special Emergency Radio Service and Vendor Community. Please note that the vendors participation was encouraged, but they were not allowed to vote. As chairperson of Region 32, I compiled all the inputs from the Regional Planning Committee Members and developed the final draft.

Sincerely,

Lyle V. Gallagher, Chairperson Region 32
North Dakota State Radio Communications
Box 5511
Bismarck, North Dakota 58502-5511
(701)224-2127

**ITEMS TO CHECK PERTAINING THE PLAN
REGION 32**

- 1) Cover page - identifying the region
- 2) Chairperson - name, address, phone number and signature
See page Cover Page.
- 3) Committee members - name, organizational affiliation, address, phone numbers. See page 33
- 4) Summary of major elements of the plan. See page i-i.i
- 5) General description of how spectrum is allotted among users. See page 6/7&21
- 6) Explanation of how the requirements of all eligibles are considered and met. See page 2/3.
- 7) Explanation of how eligibles are prioritized in areas where not all eligibles may receive licenses.
See page 30.
- 8) Explanation of how the plan has been coordinated with adjacent regions. See page 11.
- 9) Description of how the plan puts spectrum to best possible use by
 - I. requiring system design with minimum coverage areas (see page 7/9)
 - II. Assigning frequencies so that maximum frequency reuse and offset channel use may be made (see page 7/9)

III. making use of trunking (see page 16)

IV requiring small entities with minimal requirements to join together on a single system where possible (see page 17)

- 10) Explanation of how interoperability channels are managed (see page 3/4)
- 11) "Slow Growth" language. See Page 19 .
- 12) Does the plan refer to **Give-Back** frequencies? If yes, give page number 10 .
- 13) Use the APCO. ~~Sorting~~ program. See page 11 .
- 14) Appeal Process. See page 30 .
- 15) Does the plan provide for regional mutual aid channels, in addition to the five (5) common channels. If so, are there guards bands for these channels. NO
- 16) Similar to the Generic Plan describe the formation of the committee;
 - I. Advertising - copy should be attached to legal notice, letters to the industry, etc.
 - II. Who could vote? and what procedure was used after first meeting? see page 3/20 .
 - III. How was the final plan adopted. Was it by members attending a meeting or mail ballot? See Page 20

PUBLIC SAFETY RADIO

COMMUNICATIONS PLAN

FOR

*** REGION 32 ***

THE STATE OF NORTH DAKOTA

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1.0 SCOPE

1.1 Introduction

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

The National Public Safety Planning Advisory Committee provided an opportunity for the public safety community and other interested members of the public to participate in an overall spectrum management approach by recommending policy guidelines, technical standards, and procedures to satisfy public safety needs for the foreseeable future. After consideration of NPSPAC's Final Report and comments filed in Docket No. 87-112, a Report and Order was released by the FCC in December 1987, which established a structure for the National Plan that consists of guidelines for the development of regional plans.

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

1.2 Purpose

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

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

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

2.0 AUTHORITY

2.1 Regional Planning Committee

The development of the Public-Safety Radio Communications Plan for Region 32, the State of North Dakota, has followed the requirements of the FCC's Report and Order as issued in the matter of General Docket 87-112.

In accordance with the FCC's Report and Order 87-112, the Associated Public-Safety Communications Officers Inc. (APCO) recommended to the Commission the appointment of a "Convenor" for North Dakota Region 32. The Convenor served as the coordinator for the assembly and formation of the planning committee.

Participants in the formation of the Regional Planning Committee represent interested parties from both the Public Safety and Special Emergency Radio Services. A total of 28 individuals have participated in the development process. The list herein contains the names, organizational affiliations, mailing addresses and phone numbers of all participants in the Regional Planning Committee.

The committee was selected by attendance at the organizational meeting. Each member of the Committee representing an eligible licensee under the Public Safety Radio Services and the Special Emergency Radio Services was entitled to one vote in all Committee matters. Except as may be provided elsewhere in the Plan, the majority of those present at a scheduled meeting constituted a majority for all business. The final approval of the plan prior to submission to the FCC required a vote by all in attendance at our regular meeting. In this case the vote was conducted by those who had participated in the planning process. This way, the finished plan was reviewed and accepted by the widest, within reason, group of public safety/public service users.

2.2 Planning Committee Formation

The process of forming the Planning Committee was conducted in the following steps:

1. Presentations concerning the requirements for a regional planning committee were presented and discussed at state organization meetings. At each presentation there was an opportunity for persons to place themselves and/or their agency on the mailing list.
2. Letters of announcement were mailed to each major state agency radio users, those placed on the mailing list, as well as to state organizations composed of local government level public safety/public service users. Letters were also sent to all members of the North Dakota Chapter of APCO.
3. Public notices were placed in 5 newspapers with state wide distribution, for the first organizational committee meeting. This first meeting was held at the Heritage Center Auditorium a public facility. (See Appendix B)
4. One organizational meeting was held before the chairperson was elected.
5. Committee membership was left open to any person or agency which may not have been notified or decided to join the committee later.
6. Vendors participation was encouraged, but vendors were not allowed a vote.

2.3 National Interrelationships

The Regional Plan is in conformity with the National Plan. If there is a conflict between the two plans, the National Plan will govern. It is expected that Regional Plans for other areas of the country may differ from this plan due to the broad differences in circumstance, geography, and population density. By officially sanctioning this plan the Federal Communications Commission agrees to its conformity to the National Plan. Nothing in the Plan is to interfere with the proper functions and duties of the organizations appointed by the FCC for frequency coordination in the Private Land Mobile Radio Services, but rather it provides procedures that are the consensus of the Public Safety Radio Services and Special Emergency Radio Service user agencies in this Region. If there is a perceived conflict then the judgment of the FCC will prevail.

2.4 Federal Interoperability

Interoperability between the Federal, State and Local Governments during both daily and disaster operations will primarily take place on the five common channels identified in the National Plan. Additionally, through the use of S-160 or equivalent agreements, a licensee may permit Federal use of a non-Federal communications system. Such use, on other than the five identified common channels, is to be in full compliance with FCC requirements for government use of non-government frequencies (Title 47 CFR, - sec 2.103). It is permissible for a non-Federal government licensee to increase channel requirements to account for 2-10 percent increase in mobile units, dependent on the amount of Federal Government Agencies involvement in its area, provided that written documentation from Federal agencies supports at least that number of increased units.

2.5 Regional Review Committee

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

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

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

This committee shall meet at least once annually to review the implementation of the plan. This review shall consist of examination of any and all license activity.

3.0 SPECTRUM UTILIZATION

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

3.1 Region Defined

Region 32 is the State of North Dakota. This region is the result of definition by the Federal Communications Commission as a result of recommendations made in the National Public Safety Planning Advisory Committee (NPSPAC) plan as submitted and approved and contained in Docket 87-112. For purposes of this plan the State of North Dakota shall be defined as all the lands and waters contained within the boundaries of the State of North Dakota.

3.2 Region Profile (Demographic Information)

The purpose of this section is to provide the basis for the assignment of frequencies, and their re-use. Since the frequency allocation formula used is based on population within a county, it is necessary to provide this information within this plan. Below is the data used in the determination of frequency allocations.

3.2.1 State Of North Dakota Population And Expected Growth Percentage. (See Exhibit D)

The population of the state of North Dakota is 638,800 (1990 census), with approximately 340,490 living in urbanized centers and 298,310 living in rural areas. Population density is approximately 9.3 persons per square mile. Total population decreased -2.1% from 1980 to 1990.

3.2.2 Geographical Description

There are 53 counties in the state with a total land mass of 70,350 square miles. The largest county is McKenzie, with a total of 2,827 square miles.

As shown, the population of the state is 638,800 distributed across the land area contained in the state. 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. All of these items were taken under consideration in the allocation plan.

3.3 Usage Guidelines

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

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

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

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

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

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

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

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

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

3.4 Technical Design Requirements For Licensing

3.4.1 Definition of Coverage Area or Area of Jurisdiction

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

3.4.2 System Coverage Limitations

System coverage shall be limited to the coverage area defined as listed above plus no more than five (5) additional miles in all directions extending from said boundaries of definition. This limitation shall assure maximum frequency reuse. The only exception to this rule shall be those applicants wishing to offer service or system use to areas outside of their jurisdictional boundaries. In these situations the applicant shall provide a proposal of said service to the Local APCO Frequency Advisor, who may request Regional Review Committee consideration, for approval.

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

3.4.3 Determination Of Coverage

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

Received Signal Strength:

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

Antenna Height:

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

Effective Radiated Power (ERP):

The ERP is the transmitter output power times the net gain of the antenna system. The actual formula is: $ERP (w) = \text{Power}(w) \times \text{Antilog}(\text{net gain in dB divided by } 10)$.

Environment Type:

OKUMURA/HATA METHOD - The Okumura method uses four different classifications to describe the average terrain around a transmitter site or area. The classifications are:

1-URBAN; Which is built-up city-crowded with large buildings or closely interspersed with houses and thickly-grown trees. This would include the downtown area of a major city.

2-SUBURBAN; Which is a city of highway scattered with trees, houses and buildings. This would include the downtown area of a large city.

3-QUASI-OPEN; Is an area between suburban and open areas. This includes areas outside of city limits that have few buildings and houses.

4-OPEN; Is an area where there are no obstacles such as tall trees or buildings in the propagation path or a plot of land which is cleared of anything for 300 to 400 meters ahead. This would include farm land, open fields, etc.

3.4.4 Annexations And Other Expansions

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

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

3.4.5 Coverage Area Description

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

The following table lists the field strength in dBu/KW versus distance and antenna height for the suburban environment. The adjustment factors for the other environments relative to the suburban environment are: Urban = Suburban - 9.7 dB, Quasi-open = Suburban + 9.2 dB, Open = Suburban + 18.4 dB

3.4.6 Give Back Frequencies

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

These released frequencies shall be returned to the radio service from which it was assigned. These frequencies shall then be available for reassignment by the assignment / coordination criteria in effect for that particular service by the regular FCC authorized coordinator for that service.

Frequencies which are to be abandoned by an agency shall not be handed down to another agency within the respective jurisdiction. Though this may seem a convenient method to re-use existing radio equipment, the reassignment must be handled through the normal process. It is recommended that any jurisdiction wishing to "hand down" frequencies to another agency submit the proper coordination and application forms with the document of release. This will put the applicant in a better posture for reassignment of the frequency in question. It should be noted that even though this procedure is followed, there is no guarantee that a particular frequency will be assigned to the returning jurisdiction.

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

3.4.7 Unused Spectrum

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

3.4.8 Adjacent Region Considerations

Coordination with adjacent regions shall be an on-going process until all region plans have been finalized. At present, all adjacent regions have been coordinated with and no conflicts have been identified. The adjacent regions with which coordination has been conducted are: Montana (Region 25); Minnesota (Region 22); South Dakota (Region 38); and Wyoming (Region 46). (SEE ATTACHED LETTERS APPENDIX C)

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

3.5 Initial Spectrum Allocation

3.5.1 Frequency Sorting Methodology

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

- A) The assignments must result in a high degree of spectrum efficiency, and
- B) The assignments must result in a low probability of co-channel and adjacent channel interference.

Since the desired output is a geographic sorting of frequencies, a method of defining geography must be part of the input. A list of the number of channels to be assigned in each geographic area is also required, along with the name of the eligible or pool. Acceptable interference probabilities are determined for the Region. Frequency assignments are then made using a computer program which satisfies the goals of spectrum efficiency and interference protection. The following narrative describes the factors and process used by the computer program.

3.5.2 Geographic Area

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

3.5.3 Blocked Channels

In the Region there are five mutual aid channels which must be blocked out to prevent the computer from making assignments on these channels. (Since the mutual aid channels are spaced at 0.5 MHz intervals, other Region-wide systems are spaced at 0.5 MHz and placed adjacent to the mutual aid channels. This procedure reduces the impact of blocked adjacent channels by virtue of the fact that the channel plan already has protection spacing on each side of the mutual aid channels.)

These Region-wide blocked channels are identified by FCC channel number, tabulated and they become input to the computer program.

3.5.4 Transmitter Combining

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

3.5.5 Special Considerations

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

3.5.6 Protection Ratios

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

4.0 COMMUNICATIONS REQUIREMENTS

4.1 Common Channel Implementation

The implementation of the International Common Channels must follow the guidelines as set forth by the Federal Communications Commission by the approval of the National Plan. These five common channels are accessible by all levels of government and shall be used in accordance with the provisions of the National Plan. All mobile and portable equipment must be equipped to operate in the "talk around mode" when required on the International Channels.

The International calling channel (821/866.0125 MHz) shall be implemented as a full mobile relay. Wide area coverage transmitters will be installed where applicable within a system. Large system users (5 channels or more) of 800 MHz shall be required to monitor this channel at all times. The area of coverage for this channel shall be equal to the area covered by the licensed system. This may or may not require the use of satellite receivers within the area to meet this requirement.

The four International Tactical (ITAC) Channels will be assigned State-wide, for use as needed by all eligible licensees. These channels are to be used in accordance with the National Plan and in compliance with the regulations as set forth by the Federal Communications Commission. These channels require no special licensing, only that the users be eligible for licensing on the other Public Safety 800 MHz channels as specified in section 90.616 (a) of the FCC Rules and Regulations.

4.1.1 Areas of Operation

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

4.1.2 Operation on The Common Channels

Normally, the five interoperable channels are to be used only for activities requiring inter-communications between agencies not sharing any other compatible communications system. Interoperable channels are not to be used by any level agency for routine, daily operations. In major emergency situations, one or more ITAC channels may be assigned by the primary Public Safety Agency within that area of operation. The primary Public Safety agency in each county, if not defined elsewhere in the plan, shall be the County Sheriff's Department or Public Safety Department or the lead agency, which may be any agency licensed to operate in this spectrum, or "on-scene" commander. The primary

Public Safety agency shall be the city level Public Safety Department in situations which occur within the corporate limits of said city. These primary agencies will assign one or more of the ITAC channels for use according to need during each special situation requiring the use of these channels.

Participants in the interoperable channels include Federal, State, and Local Disaster Management agencies. Police, Fire, and providers of Basic and Advanced Life support services will be the primary using agencies. If radio channels are available, other services provided in the Public Safety Radio Services and the Special Emergency Radio Services may also participate to the extent required to insure the safety of the public. These agencies include the Highway Department, Motor Vehicle Comptroller, Forestry, Wildlife and other special service agencies not normally involved in day-to-day public safety operations.

4.1.3 Operation Procedures

On all Common Channels, plain English will be used at all times, and the use of unfamiliar terms, phrases, or codes will not be allowed.

4.1.3(I) International Calling Channel (ICALL):

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

4.1.3(II) International Tactical Channels (ITAC-1 - ITAC-4):

These frequencies are reserved for use by those agencies involved in inter-agency communications. Incidents requiring multi-agency participation will utilize these frequencies as directed by the control agency assuming responsibility for an incident or area of concern. These frequencies may be subdivided according to function in an incident or by geographical location in response to an incident. It is recommended that the following assignments for ITAC-1 through ITAC-4 be used when possible.

ITAC-1.....	Law Enforcement
ITAC-2	Fire Services
ITAC-3	Emergency Medical Services
ITAC-4	Command and Control

4.1.4 Coded Squelch

All equipment capable of operating on the five (5) common channels shall be equipped with the National Common Tone Squelch of 156.7 Hz. Mobile relays on these channels, if authorized, may use additional tone or digital squelch codes for the purpose of selecting individual mobile relay stations, provided the National Common Tone Squelch Code is used on the output. If such an arrangement is utilized, provision must also be made for certain centralized, high level sites to be activated by the 156.7 tone to ensure emergency access by transient units.

4.2 Network Operating Methods

Communications systems on ITAC-1 thru ITAC-4 will be implemented by agencies who volunteer on a distributed coordinated basis. Every primary geographic section of the Region is intended to be covered by at least one of the ITAC channels. In many areas the common channels will be utilized on a mobile to mobile talk-around basis. Mobile relays on ITAC-1 thru ITAC-4 will be on a limited coverage design to permit reuse of the channel several times within the Region and in adjacent regions. Since Region 32 will probably not have a large number of stationary ITAC Channel stations, the implementation of mobile relay or repeaters is strongly encouraged. This will fill an "on-scene" requirement for most multi-agency response situations. Adjacent region coordination will be via existing mutual aid coordination procedures with the requesting region establishing the tactical frequency assignment.

4.3 Requirements For Trunking

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

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

Systems that do not meet FCC loading standards can be required to share such frequencies on a non-exclusive basis. Those agencies requesting Data channels only can be required to share channels with adjacent agencies wherever feasible or limit coverage to their geographic area. Exceptions will be considered on a case-by-case basis by the Regional Review Committee.

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

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

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

4.4 Channel Loading Requirements

An agency/jurisdiction requesting a single frequency to replace a frequency currently in use that will be turned back for reassignment will not be required to meet loading requirements in order to obtain the new frequency. However, if the single frequency is not loaded to more than 50 units within three years after the license is granted, the frequency will be available for assignment to other agencies on a shared basis in the event that other frequencies meeting the criteria for assignment are exhausted. Shared use of a frequency is not interference free. Users of single frequency systems may be required to provide the Regional Review Committee "confirmation of loading" for mobiles and portables as a method of validating system

loading. This exception shall apply to agencies having only one system and a single frequency. Agencies/jurisdictions requesting multiple frequencies or employing trunking technology shall comply with the loading standards as outlined below or provide a "Traffic Loading Study" that meets the criteria as outlined below.

4.4.1 Loading Tables

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

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

4.4.2 Traffic Loading Study

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

4.4.3 Slow Growth

All systems in the 821-824/866-869 MHz bands under this plan will be slow growth in accordance with Section 90.629 of the Commission's rules.

4.5 Use of Long Range Communications

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

4.6 Expansion of Existing Systems

Existing systems that are to be expanded to include the frequency bands of 821-824/866-869 MHz will have the mobile radios "grandfathered", provided that they are modified in conformance with the Memorandum Opinion and Order, FCC Docket 87-112. Primarily this involves reducing the modulation to +/- 4 KHz. Existing base stations in the frequency bands 806-821/851-866 MHz may not be used in the frequency bands 821-824/866-869 MHz.

5.0 IMPLEMENTATION AND PROCEDURES

5.1 Notification

Several methods of notification were used to invite interested parties to participate in the development of this plan. Initially, personal contact was made by the "convenor" to all of the major State agency communications users in the State of North Dakota. Announcements were made at various group meetings such as the North Dakota Peace Officers Association, and letters were sent to all public safety agencies in the State of North Dakota.

Supplemental to the personal contact, advertisements were placed in State-wide newspapers several weeks prior to the initial meeting. Several announcements were printed on the North Dakota Crime Information Teletype network. All APCO Chapter members and a large number of other interested parties who had requested notification were sent letters of invitation. (SEE APPENDIX B)

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

When the work on the plan was completed, a final planning committee meeting was called. This meeting was held at the State Radio EOC Conference Room, Bismarck, North Dakota, on December 15, 1992. Each member of the planning committee had been sent a draft copy of the plan for review prior to this meeting. A vote on the final draft was taken at this meeting. As with the formation of the committee, a public notice was placed in five newspapers announcing the completion of the plan and the intention to file with the Federal Communications Commission.

This same announcement was also run over the North Dakota Computer Network.

5.2 Frequency Allocation Process

The method used for "packing" Region 32 was the APCO computerized method. The approximate geographical location for the center of each county, in latitude and longitude, were provided along with the environmental type of the county and the approximate radius to cover the county lines. Along with this information, a list of frequencies to block along the adjacent region's border was included. The actual assignment of frequencies is for four (4) channel-pairs per county.

This allocation is the minimum and only applies to counties with a population of 10,000 or less. One additional channel is allocated for each additional 10,000 of population. The state of North Dakota has reserved 70 channels State-wide. This leaves a reserve pool of channels for future assignment.

5.3 Frequency Allocation

Below is the data, or packing plan generated by APCO via the computerized packing program. The first section is county by county information provided, followed by the packing plan. The plan took adjacent regions into consideration, in addition, letters of concurrence were sent.

CHANNEL ASSIGNMENTS

CHANNEL NUMBER	COUNTIES/USE
602	Foster / Mercer / Ransom / Emmons / Adams /
603	Steele / Oliver /
604	McIntosh / Hettinger /
605	Oliver /
606	Stutsman /
607	Stark /
608	Stutsman /
609	Billings / Morton /
610	Cass /
611	Burleigh / Barnes /
622	Foster / Mercer / Emmons / Adams /
623	Steele / Oliver \ Sargent \
624	McIntosh / Hettinger /
626	Stutsman /
627	Stark \ Traill \

628 Stutsman \

 629 Billings \ Morton \

 630 Cass \

 631 Burleigh \

 640 Kidder \ Bowman \ McKenzie \

 641 Mercer \ Griggs \ Dickey \ Sioux \

 642 Kidder \ McKenzie \

 644 Stutsman \ Stark \

 645 Sheridan \

 646 Ransom \ Stark \

 647 Foster \

 648 Billings \ Morton \ Cass \

 649 Burleigh \

 660 Steele \ Sargent \ Kidder \ Bowman \
 McKenzie \

 661 Sioux \

 662 Oliver \ Stutsman \ Slope \

 663 Richland \

 664 Stutsman \ Stark \

 665 Traill \ Sheridan \

 666 Golden Valley \ LaMoure \ Grant \

 668 Billings \ Morton \ Burleigh \ Barnes \
 Logan \ Dunn \

 670 Burleigh \

 678 Steele \ Sargent \ Kidder \ Bowman \
 McKenzie \

 679 Sioux \

 680 Oliver \ Stutsman \ Slope \

 681 Richland \

682 Stutsman \ Stark

683 Sheridan \

684 Traill \ Golden Valley \ LaMoure \
Grant \

685 Foster \ Cass \ Griggs \ Richland \
Wells \ Eddy \

686 Burleigh \ Barnes \ Logan \ Dunn \

688 Burleigh \

698 Cass \ Kidder \ Bowman \ McKenzie \

699 Dickey \ Sioux \

700 McLean \

703 Stutsman \ Stark \

704 Traill \ Sheridan \ Golden Valley \
LaMoure \ Grant \

705 Cass \ Griggs \ Richland \ Wells \ Eddy

706 Burleigh \ Barnes \ Logan \ Dunn \

708 Burleigh \

716 Mercer \ Bowman \ Dickey \ Pierce \ Ward

717 Sioux \ Richland \ Ramsey \

718 Stutsman \ Slope \ McLean \ Ward \

719 Rolette \

720 Ransom \ Stark \ Ward \

721 Benson \

722 Sheridan \ Golden Valley \ LaMoure \
Grant \ Williams \

723 Cass \ Wells \ Eddy \ Towner \ Renville

724 Burleigh \ Barnes \ Dunn \ Williams \
Grand Forks \

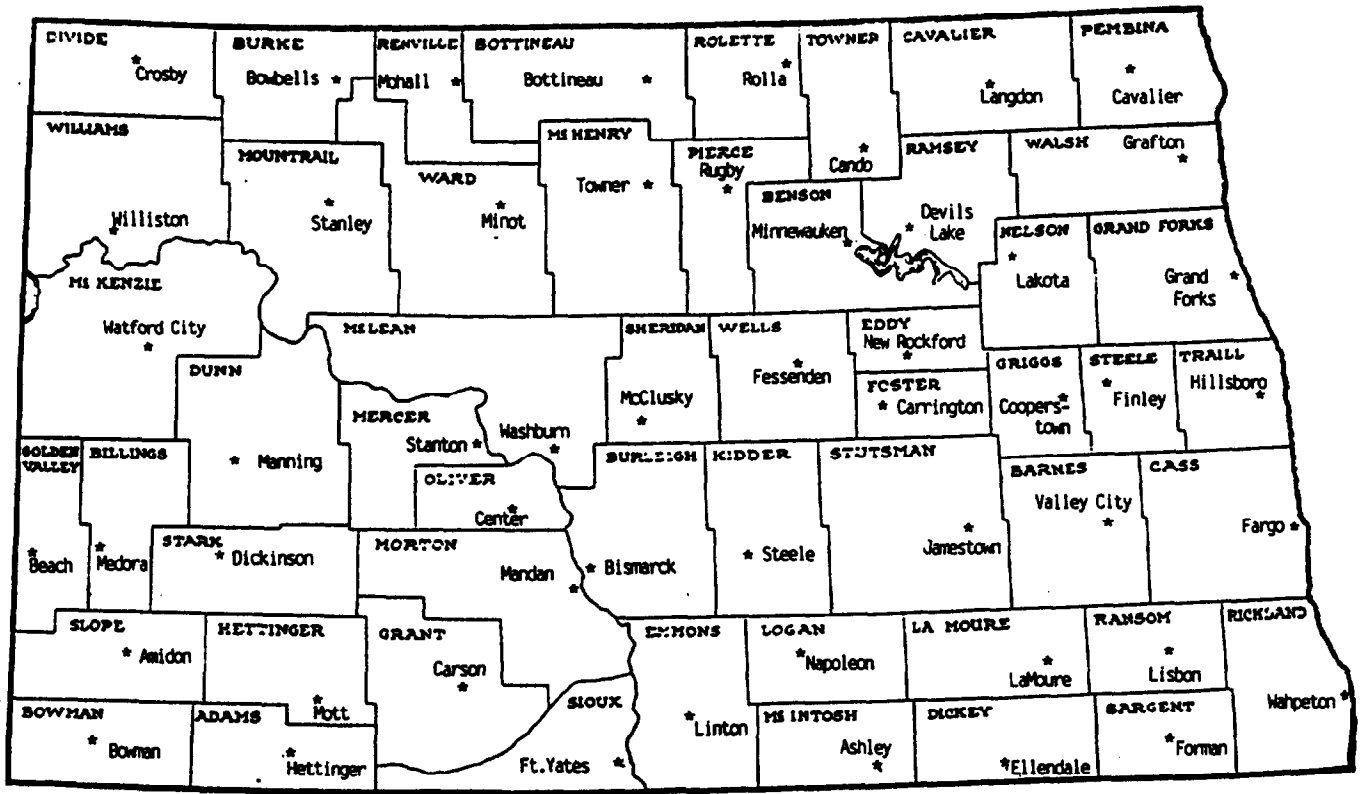
725 Renville \

726	Williams \ Grand Forks \
727	McHenry \
728	Grand Forks \ Divide
729	Walsh \
736	Adams \ McIntosh \ Pierce \ Ward \ Traill \
737	Morton \ Sargent \ Ramsey \
738	Stustman \ Slope \ McLean \ Ward \
739	Rolette \
740	Ransom \ Stark \ Ward \
741	Benson \ Logan \
742	Richland \ Grant \ Williams \
743	Billings \ Cass \ Wells \ Eddy \ Ramsey \ Renville \
744	Burleigh \ Barnes \ Dunn \
745	Ramsey \ Bottineau \
746	Cass \
748	Grand Forks \ Divide \ Walsh \ Nelson \ Pembina \ Cavalier \ Mountrail \ Burke
750	Walsh \
754	Adams \ McIntosh \ Richland \ Pierce \ Williams \ Grand Forks \
755	Morton \ Renville \
756	Stutsman \ McLean \ Slope \ Rolette \ Williams \
757	Richland \
758	Stark \ Ward \ Towner \ Grand Forks \
759	Stutsman \ Golden Valley \
760	Morton \ Richland \ Ward \ Grand Forks \

761	Cass \
762	Burleigh \ Barnes \ Williams \ Grand Forks \ Bottineau \
764	Grand Forks \ Bottineau \
765	Ramsey \ McHenry \
766	Grand Forks \ Walsh \ Nelson \ Pembina \ Cavalier \ Mountrail \ Burke \
768	Walsh \
774	Mercer \ Emmons \ Adams \ Sargent \ Pierce \ Williams \ Grand Forks \
776	McIntosh \ Hettinger \ McLean \ Williams \ Grand Forks \
777	Rolette \ Renville \
778	Stark \ LaMoure \ Williams \
779	Benson \
780	Morton \ Ward \
781	Cass \ Towner \
782	Burleigh \ Barnes \ Mountrail \
783	Ramsey \
784	Divide \ Bottineau \
785	Ramsey \
786	Walsh \ Nelson \ Pembina \ Cavalier \ Burke \ Grand Forks \
788	Walsh \
794	Emmons \ Hettinger \ Pierce \ Williams \
795	Dickey \ Ramsey \
796	Stark \ Ward \
797	Rolette \ Nelson \
798	Stark \ Ward \

799	Stutsman \ Towner \
800	Morton \ Cass \ Ward \
802	Cass \ Burleigh \ Barnes \ Grand Forks \ Mountrail \
804	Grand Forks \ Divide \ Bottineau \
805	Ramsey \
806	Walsh \ Nelson \ Pembina \ Cavalier \ Burke \
808	Walsh \
814	Emmons \ Hettinger \ Griggs \ Williams \ McHenry \
815	Dickey \
816	Stark \ Cass \ Ward \ Benson \
817	Logan \
818	Stark \ Ward \ Benson \
819	Ransom \
820	Morton \ Ward \ Towner \
821	Cass \
822	Burleigh \ Barnes \ Mountrail \
823	McHenry \
824	Divide \
826	Walsh \ Pembina \ Cavalier \ Burke \

5.4 North Dakota State Map



5.5 Group Assignments for State Agencies:

TOWER	GROUP #	GROUP #
Fortuna	209	240
Columbus	220	230
Bottineau	211	231
Belcourt	218	229
Milton	209	240
Williston	210	239
Tioga	211	238
Blaisdell	219	229
Ryder	218	231
Minot	211	238
Dogden Butte	209	240
Devils Lake	210	239
Arnegard	218	231
Petersburg	220	230
Grand Forks	211	238
Denhoff	210	239
Carrington	219	229
Finley	218	231
Killdeer	209	240
Sentinel Butte	219	230
Dickinson	210	239
Hannover	218	238
New Salem	211	231
Driscoll	209	240
Bismarck	219	230
Cleveland	211	238
Valley City	209	240
Fargo	219	229
Mott	209	229
Raleigh	211	238
Linton	220	229
Wishek	210	239
Bowman	220	230
Merricourt	211	238
Cayuga	210	239
Wahpeton	209	240

"All channels are subject to a priority usage concept. These priorities are from highest to lowest:

Priority 1: Disaster and extreme emergency operations, for mutual aid and interagency communications.

Priority 2: Emergency or urgent operation involving imminent danger to the safety of life or property.

Priority 3: Special event control activities, generally of a pre-planned nature, and generally involving joint participation of two or more agencies.

Priority 4: Routine operations when no other priority in effect; may be used by any agency on shared basis for routine use."

5.6 Assignment Statistics

Maximum field strength for co-channel operation	5 Dbu
Maximum field strength for adjacent channel operation	25 Dbu
Total number of channels assigned for Counties	352
Total number of channels assigned for State Agencies	70
Total number of unassigned channels	68
Total number of reserved channels	10

5.7 Expansion of Initial Allocation

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

5.8 Prioritization of Applicants

A very simple method of prioritization has been chosen for use in this Region. As there is no unmet spectrum requirement, there appears to be no great need for prioritization. In order to facilitate future problems which may arise, the following rating system shall be used.

Prioritization shall be done according to a final score, based on applicant criteria. The highest score, in points, shall be given priority in a situation where spectrum is insufficient to fulfill the needs of all.

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

5.9 Appeal Process

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

A P P E N D I X

APPENDIX A

REGIONAL PLANNING COMMITTEE

APPENDIX B

**NOTICE OF FIRST PLANNING MEETING, AS SENT OUT OVER THE
NCIC STATE-WIDE COMPUTER SYSTEM**

**PROOF OF PUBLICATION FROM FIVE STATEWIDE NEWSPAPERS FOR
ADVERTISEMENT OF FIRST MEETING**

**PROOF OF ANNOUNCEMENT OF THE INITIAL REGIONAL NPSPAC FROM
THE FCC**

APPENDIX C

ADJACENT REGION COORDINATION LETTERS

APPENDIX D

NORTH DAKOTA DEMOGRAPHIC INFORMATION

REGION 32 PLANNING COMMITTEE

APPENDIX A

Lyle Gallagher, Region 32 Chairman
ND State Radio Communications
Box 5511
Bismarck, North Dakota 58502-5511
(701)224-2127 FAX (701)224-2126

Duane Czapiewski
UND
Box 8080
Grand Forks, North Dakota 58202
(701)777-3491 FAX (701)777-4132

Russ Watts
Ransom County DEM
PO Box 471
Lisbon, North Dakota 58054
(701)683-5823

Maj. Arden Johnson
N.D. Highway Patrol
600 E. Blvd.
Bismarck, North Dakota 58505
(701)224-2455 FAX (701)224-3000

John Scherf
Mandan Police Department
205 - 1st Ave. NW
Mandan, North Dakota 58554
(701)667-3200

Oliver Repnow, President
N.D. Fireman's Association
PO Box 1045
Underwood, North Dakota 58576
(701)442-5315

Tim Wiedrich
Department of Health - EMS Bureau
600 E. Blvd.
Bismarck, North Dakota 58505
(701)224-2388 FAX (701)224-3000

Ray Staiger
N.D. Emergency Management
Box 5511
Bismarck, North Dakota 58505
(701)224-3300 FAX (701)224-2119

Bob McConnell
Bismarck Fire Department
1020 Central Ave.
Bismarck, North Dakota 58501
(701)258-2070

Larry Dale
Mandan Fire Department
110 Collins Ave.
Mandan, North Dakota 58554
(701)667-3288

Jerald Patterson
Jamestown Police Department
205 - 6th St. SE
Jamestown, North Dakota 58401
(701)252-2414 FAX (701)252-7087

Al Ternes
Department of Transportation
608 E. Blvd.
Bismarck, North Dakota 58505
(701)224-4278

Joe Boespflug
N.D. Fireman's Association
PO Box 806
Dickinson, North Dakota 58601
(701)264-7625

Jerry Bergquist
Stutsman County DEM
205 - 6th St. SE
Jamestown, North Dakota 58401
(701)252-9093 FAX (701)252-7087

Sheriff James Rice
Stark County Sheriff's Office
Box 130
Dickinson, North Dakota 58601
(701)264-7610 FAX (701)264-7680

Kornard Burkle
Stark County DEM
PO Box 130
Dickinson, North Dakota 58601
(701)264-7605 FAX (701)264-7680

REGION 32 PLANNING COMMITTEE

APPENDIX A

Jim Campbell
Grand Forks County DEM
122 S. 5th St. - Office 21
Grand Forks, North Dakota 58201
(701)780-8213 FAX (701)746-2536

Tim Schulte
Public Works, City of G.Forks
PO Box 1518
Grand Forks, North Dakota 58201
(701)746-2646 FAX (701)746-2514

Don Kostelecky
Motorola, Inc.
1617 Oakland Drive
Bismarck, North Dakota 58504
(701)255-3875

Mark Nelson
Dakota Communications
1212 Park Ave.
Bismarck, North Dakota 58504
(701)223-0933

Maure Sand, Fire Manager
ND Forest Service
1511 E. Interstate Ave
Bismarck, North Dakota 58501
(701)224-4414

Dean Simmons
Ryder Fire Department
Box 100
Ryder, North Dakota 58779

Jules Kuhlmann
Grand Forks County DEM
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Grand Forks, North Dakota 58201
(701)780-8213 FAX (701)746-2536

Chuck Hale
Electronic Communications, Inc.
Box 687
Bismarck, North Dakota 58502
(701)258-7698 FAX (701)223-4200

Dennis Kohler
Kohler Communications
RR 2 - Box 23A
Dickinson, North Dakota 58601
(701)225-5554 FAX (701)227-1211

Marsh Pudwill
Electronic Communications, Inc.
Box 687
Bismarck, North Dakota 58502
(701)258-7698 FAX (701)223-4200

Alan Aarhus
Emergency Health Services
State Capitol
Bismarck, North Dakota 58505
(701)224-2388

Dennis Murphy
Department of Transportation
216 Airport Road
Bismarck, North Dakota 58505
(701)224-2524

Associated Public-Safety Communications Officers, Inc.

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NORTH DAKOTA CHAPTER

**Notice of
Public Safety Communications
Planning**

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

Report and Order 87-112 requires that separate plans be developed for each of 48 regions, covering the whole of the United States. North Dakota is designated as Region 32. The task of convening regional planning committees was assigned to the Associated public-Safety Communications Officers, Inc. (APCO).

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

The first meeting of the North Dakota Regional Planning Committee will be held October 7, 1992 at 1:30 P.M. in Bismarck at the ND Heritage Center Auditorium on the State Capitol Grounds. Representatives from all agencies and organizations with an interest in public safety frequency utilization are invited to attend and participate in the planning process.

Contact Lyle Gallagher, Region 32 Convenor, at (701)224-2127 for further information.

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

Affidavit of Publication

State of North Dakota)

County of Burleigh }

Laurie Graveline, being duly sworn, state as follows:

1. I am the designated agent, under the provisions and for the purposes of, Section 31-04-06, NDCC, for the newspapers listed on the attached exhibits.

2. The newspapers listed on the exhibits published the advertisement of:

92093MND "Federal Communications", 1 time(s) as required by law or ordinance.

3. All of the listed newspapers are legal newspapers in the State of North Dakota and, under the provisions of Section 46-05-01, NDCC, are qualified to publish any public notice or any matter required by law or ordinance to be printed or published in a newspaper in North Dakota.

Signed: Laurie A Graveline

Subscribed and sworn to before me this 29 day of September A.D. 1998.

Cheryl Speshman
Notary Public, State of North Dakota Exp 2-20-98



PUBLIC NOTICE

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

24819

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

September 16, 1992

**ANNOUNCEMENT OF THE INITIAL
REGIONAL PUBLIC SAFETY PLANNING MEETING
FOR NORTH DAKOTA**

The purpose of this Public Notice is to announce the initial meeting of the North Dakota Public Safety Regional Planning Committee.

DATE/TIME: October 7, 1992/1:30 PM

LOCATION: North Dakota Heritage Center Auditorium
State Capitol Grounds
Bismarck, ND 58505

CONVENOR: Lyle V. Gallagher
State Frequency Coordinator
North Dakota State Radio Communications
Box 5511
Bismarck, ND 58502-5511
(701) 224-2127
FAX (701) 224-2126

All parties located in North Dakota (Region 32) who are interested in participating in the public safety planning process are encouraged to contact the convenor listed above for further information.

- FCC -

APPENDIX C National Public Safety Plan FCC Region 25 Planning Committee

Committee-at-Large

Jim Adkins
Mt. Deaconess Medical Center

Charles Aron, Jr. †
Columbus Hospital

John Benson
West Yellowstone EMS/Fire

Allen Bertapelle †
Mt. Private Ambulance Operators

Bob Cardwell
General Electric

Draw Dawson †
EMS Bureau

Elmer Davis
Dept. of Fish, Wildlife, and Parks

Jerry Dupler
Department of Transportation

Bob DeLange
Department of State Lands

Bill Fleiner †
Mt. Sheriffs & Peace Off. Assoc.

Jesse Y. Gonzalez †
Billings 9-1-1

Fred Guardipee
Blackfoot Tribal EMS

Don Houghton
Gallatin Co. Sheriffs Office

Jim Kraft
Yellowstone County DES

Charlie Larson †
Montana Highway Patrol

Franklin Mick Mills
Lincoln County DES

Rick Newby †
Miles City Police Department

Richard A. Nlebet †
City of Helena

Ray Nordhagen
City of Missoula

Douglas Pitt †
Mt. State Fire Chiefs Association

Chuck Rhodes †
Flathead Co. Search and Rescue

Clark Robinson
Gallatin County

John Skaggs
Motorola

Midge Warrington
Cascade County 9-1-1

Homer Young
Mt. Disaster & Emergency Svcs. Div.

† Member of Working Committee

Bill Jameson, Chairman
Montana State University

Dan Hawkins, Plan Coordinator
Department of Administration

Electrical Engineering
Montana State University
Bozeman, Montana 59717
December 29, 1992

Mr. Lyle V. Gallagher
Chairman, Region 32
North Dakota State Radio Communications
P.O. Box 5511
Bismark, ND 58502-5511

Dear Lyle:

With channel #s 744, 746 and 764, assigned to Williams County, removed from the North Dakota Plan, Region 25 concurs in the Region 32 Plan.

Sincerely,

Bill Jameson
W. J. Jameson, Jr.
Chairman

**800
MHz**

cc: Dan Hawkins

Associated Public-Safety Communications Officers, Inc.

It's a privilege to belong to A P C O

NORTH DAKOTA CHAPTER

December 28, 1992

W.J. Jameson, Jr., Chairman
Region 25 NPSPAC
Electrical Engineering
Montana State University
Bozeman, Montana 59717

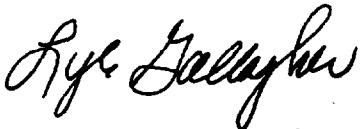
Dear Bill:

In reference to your letter of December 21, 1992, regarding
Region 32's plan.

Channels 744, 746 and 764 have been removed from Williams
County, we hope that this will result in the approval of
the Region 32 plan.

Thank you for your cooperation and assistance.

Sincerely



Lyle V. Gallagher
Region 32 Chairman
(701-224-2127)
(701-224-2126 FAX)

APPENDIX C
**National Public Safety Plan
FCC Region 25
Planning Committee**

Committee-at-Large

Jim Adkins
Mt. Deaconess Medical Center

Charles Aron, Jr. †
Columbus Hospital

John Benson
West Yellowstone EMS/Fire

Allen Bertapelle †
Mt. Private Ambulance Operators

Bob Cardwell
General Electric

Draw Dawson †
EMS Bureau

Elmer Davis
Dept. of Fish, Wildlife, and Parks

Jerry Dupler
Department of Transportation

Bob DeLange
Department of State Lands

Bill Fleiner †
Mt. Sheriffs & Peace Off. Assoc.

Jesse Y. Gonzalez †
Billings 9-1-1

Fred Guardipee
Blackfoot Tribal EMS

Don Houghton
Gallatin Co. Sheriffs Office

Jim Kraft
Yellowstone County DES

Charlie Larson †
Montana Highway Patrol

Franklin Mick Mills
Lincoln County DES

Rick Newby †
Miles City Police Department

Richard A. Nisbet †
City of Helena

Ray Nordhagen
City of Missoula

Douglas Pitt †
Mt. State Fire Chiefs Association

Chuck Rhodes †
Flathead Co. Search and Rescue

Clark Robinson
Gallatin County

John Skaggs
Motorola

Midge Warrington
Cascade County 9-1-1

Homer Young
Mt. Disaster & Emergency Svcs. Div.

† Member of Working Committee

DEC 1992
STATE RADIO
COMMUNICATIONS

Bill Jameson, Chairman
Montana State University

Dan Hawkins, Plan Coordinator
Department of Administration

Electrical Engineering
Montana State University
Bozeman, Montana 59717
December 21, 1992

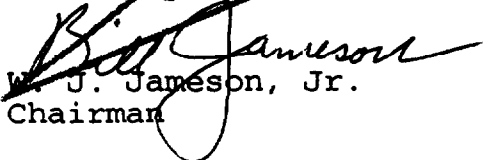
Mr. Lyle V. Gallagher
Chairman, Region 32
North Dakota State Radio Communications
P.O. Box 5511
Bismark, ND 58502-5511

Dear Mr. Gallagher:

We have reviewed the Region 32 Plan and have discovered a conflict with three Montana State-wide channels which will require protection along border counties. The channels are #s 744, 746 and 764 assigned to ~~William~~ **800** County. Dan Hawkins has discussed the matter with APCO, so they are aware of the problem.

Until this conflict is resolved, Region 25 cannot concur in the Region 32 Plan. As soon as the matter is resolved, however, we will respond as quickly as possible, by FAX, to your request for concurrence.

Sincerely,


W. J. Jameson, Jr.
Chairman

cc: APCO
Dan Hawkins

APPENDIX C
Associated Public-Safety Communications Officers, Inc.

It's a privilege to belong to APCO

NORTH DAKOTA CHAPTER

December 10, 1992

W.J. Jameson, Jr., Chairman
NPSPAC Region 25
Dept. of Electrical Engineering
Montana State University
Bozeman, Montana 59717

Dear Mr. Jameson:

Enclosed is our final draft Public Safety Plan for Region 32, the State of North Dakota. This plan has been developed and approved by our Regional Planning Committee. It is submitted for your review and coordination as required by F.C.C.

If your region does not find any conflicts with our proposal, please indicate by signing below and returning within ten (10) days of the date of this letter.

Lyle V. Gallagher
Signature

12/11/92
Date

Lyle V. Gallagher
Region 32 Chairman

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

Signature

Date

APPENDIX C

Associated Public-Safety Communications Officers, Inc.

It's a privilege to belong to APCO

NORTH DAKOTA CHAPTER

December 10, 1992

Harry Hillegas, Chairman
NPSPAC Region 22
Hennepin County
300 S. 6th St - Room A-023
Minneapolis, MN 55487-0001

Dear Mr. Hillegas:

Enclosed is our final draft Public Safety Plan for Region 32, the State of North Dakota. This plan has been developed and approved by our Regional Planning Committee. It is submitted for your review and coordination as required by F.C.C.

If your region does not find any conflicts with our proposal, please indicate by signing below and returning within ten (10) days of the date of this letter.



Signature

12/11/92

Date

Lyle V. Gallagher
Region 32 Chairman

Region 22 has reviewed and concurs with the Region 32 National Public Safety Plan.

Signature

Date

Associated Public-Safety Communications Officers, Inc.

It's a privilege to belong to APCO



NORTH DAKOTA CHAPTER

December 10, 1992

Todd Dravland, Chairman
NPSPAC Region 38
South Dakota Communications
500 E. Capitol
Pierre, South Dakota 57501-5060

Dear Mr. Dravland:

Enclosed is our final draft Public Safety Plan for Region 32, the State of North Dakota. This plan has been developed and approved by our Regional Planning Committee. It is submitted for your review and coordination as required by F.C.C.

If your region does not find any conflicts with our proposal, please indicate by signing below and returning within ten (10) days of the date of this letter.

Lyle V. Gallagher
Signature

12/11/92
Date

Lyle V. Gallagher
Region 32 Chairman

Region 38 has reviewed and concurs with the Region 32 National Public Safety Plan.

Todd Dravland
Signature

12/14/92
Date

Associated Public-Safety Communications Officers, Inc.

It's a privilege to belong to A P C O

NORTH DAKOTA CHAPTER

December 10, 1992

Bill Smith, Chairman
NPSPAC Region 46
Wyoming Highway Department
Box 1708
Cheyenne, Wyoming 82002-9019

Dear Mr. Smith:

Enclosed is our final draft Public Safety Plan for Region 32, the State of North Dakota. This plan has been developed and approved by our Regional Planning Committee. It is submitted for your review and coordination as required by F.C.C.

If your region does not find any conflicts with our proposal, please indicate by signing below and returning within ten (10) days of the date of this letter.

Lyle V. Gallagher
Signature

12/11/92
Date

Lyle V. Gallagher
Region 32 Chairman

Region 46 has reviewed and concurs with the Region 32 National Public Safety Plan.

William H. Smith
Signature

12-15-92
Date

APPENDIX D

North Dakota Demographic Information

1990 Census of Population for Governmental Units:

	<u>1990</u> <u>CENSUS</u>	<u>1980</u> <u>CENSUS</u>	<u>% CHANGE,</u> <u>80 TO 90</u>
NORTH DAKOTA	638,800	652,707	- 2.13%
<u>COUNTIES</u>			
ADAMS	3,174	3,584	-11.44%
BARNES	12,545	13,960	-10.14%
BENSON	7,198	7,944	- 9.39%
BILLINGS	1,108	1,138	- 2.64%
BOTTINEAU	8,011	9,239	-13.29%
BOWMAN	3,596	4,229	-14.97%
BURKE	3,002	3,822	-21.45%
BURLEIGH	60,131	54,811	9.71%
CASS	102,874	88,247	16.58%
CAVALIER	6,064	7,636	-20.59%
DICKEY	6,107	7,207	-15.26%
DIVIDE	2,899	3,484	-16.79%
DUNN	4,005	4,627	-13.44%
EDDY	2,951	3,554	-16.97%
EMMONS	4,830	5,877	-17.82%
FOSTER	3,983	4,611	-13.62%
GOLDEN VALLEY	2,108	2,391	-11.84%
GRAND FORKS	70,683	66,100	6.93%
GRANT	3,549	4,274	-16.96%
GRIGGS	3,303	3,714	-11.07%
HETTINGER	3,445	4,275	-19.42%
KIDDER	3,332	3,833	-13.07%
LAMOURE	5,383	6,473	-16.84%
LOGAN	2,847	3,493	-18.49%
MCHENRY	6,528	7,858	-16.93%
MCINTOSH	4,021	4,800	-16.23%
MCKENZIE	6,383	7,132	-10.50%
MCLEAN	10,457	12,383	-15.55%
MERCER	9,808	9,404	4.30%
MORTON	23,700	25,177	- 5.87%
MOUNTRAIL	7,021	7,679	- 8.57%
NELSON	4,410	5,233	-15.73%
OLIVER	2,381	2,495	- 4.57%
PEMBINA	9,238	10,399	-11.16%
PIERCE	5,502	6,166	-18.07%
RAMSEY	12,681	13,048	- 2.81%
RANSOM	5,921	6,698	-11.60%
RENVILLE	3,160	3,608	-12.42%
RICHLAND	18,148	19,207	- 5.51%

APPENDIX D

<u>COUNTIES</u>	<u>1990</u> <u>CENSUS</u>	<u>1980</u> <u>CENSUS</u>	<u>% CHANGE</u> <u>80 TO 90</u>
ROLETTE	12,772	12,177	4.89%
SARGENT	4,549	5,512	-17.47%
SHERIDAN	2,148	2,819	-23.80%
SIoux	3,761	3,620	3.90%
SLOPE	907	1,157	-21.61%
STARK	22,832	23,697	- 3.65%
STEELE	2,420	3,106	-22.09%
STUTSMAN	22,241	24,154	- 7.92%
TOWNER	3,627	4,052	-10.49%
TRAILL	8,752	9,624	- 9.06%
WALSH	13,840	15,371	- 9.96%
WARD	57,921	58,392	- .81%
WELLS	5,864	6,979	-15.98%
WILLIAMS	21,129	22,237	- 4.98%