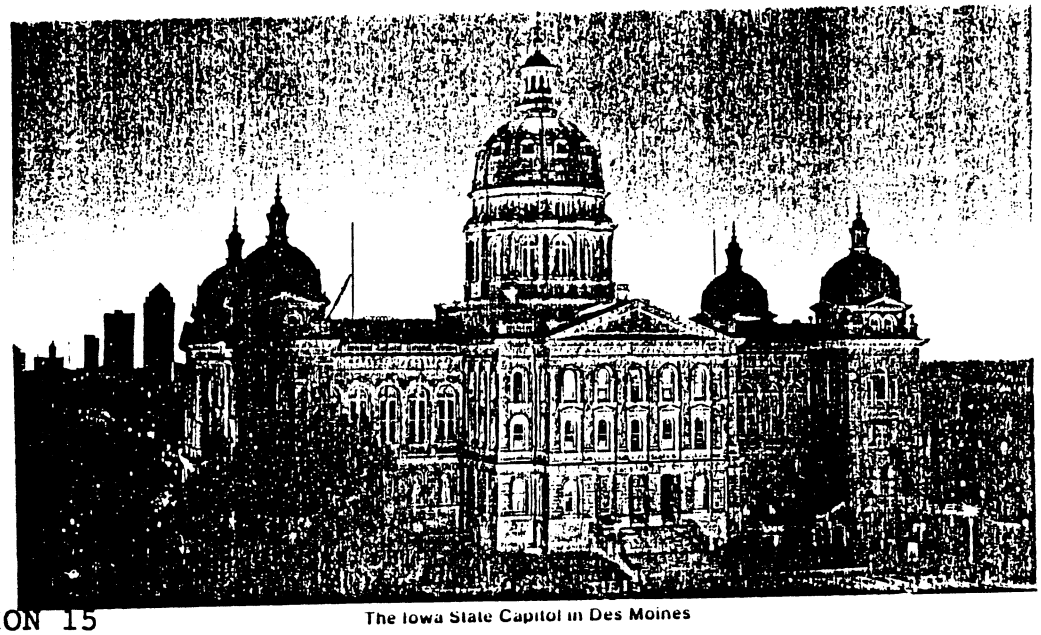
800 MHz
PUBLIC SAFETY
RADIO
COMMUNICATIONS
PLAN



The Iowa State Capitol in Des Moines

REGION 15
STATE OF IOWA

Gary Lee Stevens

GARY LEE STEVENS
CHAIRMAN, REGION 15
IOWA DEPARTMENT OF PUBLIC SAFETY
DIVISION OF COMMUNICATIONS
WALLACE STATE OFFICE BUILDING
DES MOINES, IOWA 50319
515/281-8378

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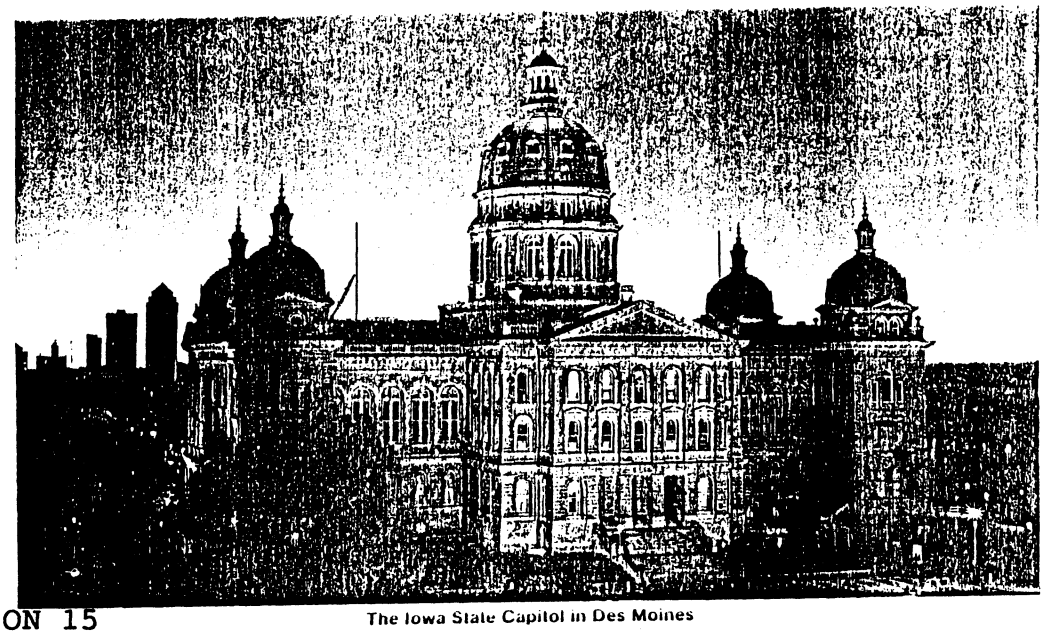

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1.0 SCOPE

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 Iowa as it is for any other state. Many 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 15, the State of Iowa, 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 Iowa Region 15. 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 thirteen (13) 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 planning meetings. 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. Only the final approval of the plan prior to submission to the FCC required a vote from more than would be in attendance at a regular meeting.

2.2 Planning Committee Formation

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

1. Personal interviews were held with the representatives of all major state agency radio users.

2. 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.

3. 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 Iowa Chapter of APCO.

4. Two organizational meetings were 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 appropriate 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 govenment 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 Regional 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, all members of the Law Enforcement Administrators Telecommunications Advisory Committee (LEATAC), and a minimum representation from other eligibles is welcome and encouraged. This committee and its composition will be assured by the Iowa 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. These meetings will generally be scheduled in conjuction with regularly scheduled LEATAC meetings. 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 15 is the State of Iowa. 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 Iowa shall be defined as all the lands and waters contained within the boundaries of the State of Iowa.

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 Iowa Population And Expected Growth Percentage.

The population of the state is 2,776,755 people. The urban population is some 65.3 percent and the rural 34.7 percent.

3.2.2 Geographical Description

There are 99 counties in the state with a total land mass of 55,965 square miles. The largest county is Kossuth, with a total of 974 square miles.

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. 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 municipal is used to define the level below county-wide. Municipal communications for public safety and public services purposes must provide only the communications needed within its boundaries. However, if the total number of radios in service does not reach minimum loading criteria for a trunked system, that municipality 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 in an area shall not be tolerated. Any co-channel interference within an authorized area of coverage will be examined on a case by case basis by the 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) equals Power(w) times Antilog (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 and 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.

The Okumura/Hata method is the method resident in the computer packing program to develop this plan. A minimum system shall be permitted without special consideration when it is limited to an HAAT of 100 feet and the transmitter is centrally located within the jurisdiction or jurisdictions participating in a system. Any agency with its transmitter centrally located will be allowed a minimum service area radius of eight (8) miles, regardless of the size of its jurisdiction, as long as interference protection for existing co-channel and adjacent channel systems is sufficient. Preparation of these requirements shall be the responsibility of the applicant.

The Federal Communications Commission provides, in part 90.309(a)(4) of the Rules and Regulations, some additional guidance for these calculations.

3.4.4 Annexations And Other Expansions

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.

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.

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: Nebraska (Region 26); Illinois (Region 13); South Dakota (Region 38); Missouri (Region 24); Kansas (Region 16); Minnesota (Region 22); Wisconsin (Region 45), and southern Lake Michigan (Region 54). 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/CET. 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 Define The Environment

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

3.5.4 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.

3.5.5 Transmitter Combining

The computer program is designed to provide a minimum frequency separation between any two channels assigned to the same eligible at the same site. This separation is provided in order to enable more efficient combining of multiple transmitters 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.

3.5.6 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.

3.5.7 Adjacent Region Coordination

The computer program requires a listing of channels to be blocked along the borderline with other regions which have pre-existing plans. If the adjacent region plan was developed using the APCO/CET packing program, this information exists in the database. If the adjacent region plan was developed by another method, then the data must be obtained from the adjacent region's plan in order to build the exclusion list.

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 "talkaround 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 Channels (ITAC) 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 15 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

CHANNELS	UNITS/CHANNEL
1 - 5	70
6 - 10	75
11 - 15	85
16 - 20	95

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 airtime usage to merit additional frequencies. A showing of airtime usage, excluding telephone interconnect air time, during the peak busy hour greater than 70 percent per channel on three consecutive days will be required to satisfy loading criteria.

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 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 Iowa.

Announcements were made at LEATAC group meetings whose membership includes the following:

- State Department of Public Safety
- State Department of General Services
- State Department of Public Defense
- State Health Department
- State Department of Corrections
- State Frequency Coordinator
- Iowa Association of Public Safety Communications Officer (APCO)

Iowa Chief of Police & Peace Officers
Iowa State Sheriffs & Deputies Association
State Department of Transportation
State Department of Natural Resources
Iowa State Police Association
Criminal & Juvenile Justice Planning

All APCO Chapter members and a large number of other interested parties who had requested notification were sent letters of invitation.

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. Each member of the planning committee was presented with a draft copy of the plan for study. A copy of the final draft was mailed to each member of the committee not present at the meeting. A public notice was placed in the Des Moines Register Newspaper announcing the final meeting, completion of the plan, and the intention to file with the Federal Communications Commission.

A final meeting was held at the Ankeny Police Department on 27 May 1992. At this time, the committee members voted to adopt the plan.

5.2 Frequency Allocation Process

The method used for "packing" Region 15 was the APCO/CET. 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 three (3) channel-pairs per county.

This allocation is the minimum and only applies to counties with a population of 20,000 or less. One additional channel is allocated for each additional 15,000 of population.

5.3 Frequency Allocation

Below is the data, or packing plan generated by APCO/CET 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.

SITE SYSTEMS
REGION 15
STATE OF IOWA

COUNTY	SITE LATITUDE	SITE LONGITUDE	NUMBER OF CHANNELS	COVERAGE (MI.)	ENVIRONMENT TYPE
Adair	41 20 7	94 28 12	3	15	4
Adams	41 1 57	94 41 54	3	13	4
Allamakee	43 19 38	91 21 49	3	14	4
	43 16 0	91 21 49	3	14	4
Appanoose	40 45 34	92 52 9	3	14	4
Audubon	41 44 12	94 54 21	3	12	4
	41 37 23	94 51 37	3	12	4
Benton	42 0 37	92 3 26	3	14	4
	42 9 41	92 3 26	3	14	4
Black Hawk	42 28 29	92 18 11	9	14	3
Boone	42 2 23	93 54 52	3	15	4
Bremer	42 46 53	92 18 11	3	14	4
Buchanan	42 28 29	91 51 5	3	15	4
Buena Vista	42 43 55	95 8 17	3	14	4
Butler	42 42 48	92 47 45	3	14	4
Calhoun	42 22 17	94 38 6	3	15	4
Carroll	42 2 23	94 50 52	3	15	4
Cass	41 20 7	94 55 35	3	15	4
Cedar	41 46 5	91 6 29	3	15	4
Cerro Gordo	43 5 54	93 14 35	4	15	3
Cherokee	42 43 55	95 36 47	3	14	4
Chickasaw	43 3 14	92 18 11	3	14	4
Clarke	41 1 57	93 47 8	3	14	4
Clay	43 5 34	95 9 14	3	14	3
Clayton	42 56 1	91 21 49	3	14	4
	42 48 45	91 17 26	3	14	4
Clinton	41 49 42	90 20 29	5	10	3
	41 55 9	90 18 18	5	10	3
	41 55 9	90 44 35	5	10	3
	41 55 9	90 31 26	5	10	3
Crawford	42 2 23	95 15 31	3	12	4
	42 2 23	95 29 12	3	12	4

COUNTY	SITE LATITUDE	SITE LONGITUDE	NUMBER OF CHANNELS	COVERAGE (MI.)	ENVIRONMENT TYPE
Dallas	41 41 56	94 2 20	3	15	4
Davis	40 45 34	92 24 55	3	14	4
Decatur	40 44 55	93 46 49	3	13	4
Delaware	42 28 46	91 21 49	3	14	4
Des Moines	40 57 54	91 5 41	4	8	4
	40 57 54	91 13 7	4	8	4
	40 49 41	91 13 7	4	8	4
Dickinson	43 22 32	95 16 0	3	10	4
	43 22 32	95 0 47	3	10	4
Dubuque	42 25 8	90 57 43	7	10	3
	42 25 8	90 51 9	7	10	3
	42 28 46	90 46 46	7	10	3
	42 32 24	90 59 55	7	10	3
Emmett	43 22 32	94 34 42	3	10	4
	43 22 32	94 47 45	3	10	4
Fayette	42 46 53	91 51 5	3	12	4
	42 59 9	91 51 5	3	12	4
Floyd	43 4 3	92 47 45	3	14	4
Franklin	42 43 24	93 14 35	3	15	4
Fremont	40 44 55	95 35 7	3	13	4
Greene	42 2 23	94 23 29	3	15	4
Grundy	42 24 23	92 47 45	3	14	4
Guthrie	41 41 56	94 29 43	3	15	4
Hamilton	42 22 58	93 41 42	3	15	4
Hancock	43 5 54	93 44 9	3	14	4
Hardin	42 22 58	93 14 35	3	15	4
Harrison	41 40 48	95 58 6	3	15	4
	41 40 48	95 44 51	3	15	4
Henry	40 53 47	91 32 55	3	10	4
	41 4 3	91 32 55	3	10	4
Howard	43 21 38	92 18 11	3	15	4
Humboldt	42 46 53	94 12 22	3	14	4
Ida	42 18 40	95 30 16	3	10	4
	42 27 41	95 32 26	3	10	4
Iowa	41 41 54	92 3 56	3	15	4
Jackson	42 7 53	90 18 18	3	10	4
	42 15 8	90 33 38	3	10	4
	42 9 41	90 44 35	3	10	4
	42 9 41	90 31 26	3	10	4
Jasper	41 41 53	93 4 6	3	16	4
Jefferson	41 2 0	91 52 44	3	10	4
	41 2 0	92 0 9	3	10	4
Johnson	41 46 5	91 28 23	8	8	3
	41 46 5	91 43 43	8	8	3
	41 35 11	91 43 43	8	8	3
	41 35 11	91 28 23	8	8	3
	41 29 44	91 26 12	8	8	3
Jones	42 7 53	91 6 29	3	15	4
Keokuk	41 19 44	92 10 30	3	14	4
Kossuth	43 2 25	94 12 22	3	14	4
	43 20 49	94 12 22	3	14	4

COUNTY	SITE LATITUDE	SITE LONGITUDE	NUMBER OF CHANNELS	COVERAGE (MI.)	ENVIRONMENT TYPE
Lee	40 41 28	91 15 35	4	8	3
	40 43 31	91 35 24	4	8	3
	40 37 22	91 32 55	4	8	3
	40 29 9	91 27 58	4	8	3
	40 43 31	91 25 30	4	8	3
Linn	42 9 41	91 34 58	12	14	3
	42 0 37	91 34 58	12	14	3
Louisa	41 9 45	91 6 29	3	10	4
	41 17 1	91 21 49	3	10	4
	41 9 45	91 15 13	3	10	4
Lucas	41 2 37	93 21 2	3	14	4
Lyon	43 23 4	96 27 44	3	10	4
	43 23 4	95 59 28	3	10	4
	43 23 4	96 14 41	3	10	4
Madison	41 20 7	94 0 49	3	15	4
Mahaska	41 20 29	92 37 34	3	14	4
Marion	41 20 29	93 6 2	3	14	4
Marshall	42 2 39	93 0 15	4	14	4
Mills	41 1 57	95 36 40	3	13	4
Mitchell	43 21 38	92 46 39	3	14	4
Monona	42 2 23	95 48 22	3	12	4
	42 2 23	96 10 17	3	12	4
Monroe	41 2 0	92 52 9	3	13	4
Montgomery	41 1 57	95 9 17	3	15	4
Muscatine	41 29 44	90 55 32	4	10	4
	41 29 44	91 13 3	4	10	4
	41 27 55	91 13 3	4	10	4
O'Brien	43 5 45	95 37 30	3	14	4
Osceola	43 23 4	95 46 26	3	10	4
	43 23 4	95 31 13	3	10	4
Page	40 44 55	95 10 12	3	14	4
Palo Alto	43 5 34	94 40 59	3	14	4
Plymouth	42 43 55	96 5 2	3	14	4
	42 43 55	96 24 36	3	14	4
Pocahontas	42 43 55	94 40 2	3	14	4
Polk	41 41 56	93 36 11	23	15	3
Pottawattamie	41 20 7	95 20 14	7	14	3
	41 20 7	95 47 37	7	14	3
Poweshiek	41 41 44	92 31 22	3	15	4
Ringgold	40 44 55	94 13 37	3	14	4
Sac	42 22 17	95 6 21	3	15	4
Scott	41 38 49	90 29 15	11	10	3
	41 40 38	90 44 35	11	10	3
	41 35 11	90 38 1	11	10	3
Shelby	41 41 56	95 19 0	3	15	4
Sioux	43 5 34	96 21 42	3	12	4
	43 5 45	96 3 34	3	12	4
Story	42 2 23	93 27 45	6	15	3
Tama	42 9 2	92 31 22	3	13	3
	42 0 54	92 31 22	3	14	3

COUNTY	SITE LATITUDE	SITE LONGITUDE	NUMBER OF CHANNELS	COVERAGE (MI.)	ENVIRONMENT TYPE
Taylor	40 44 55	94 42 49	3	13	4
Union	41 1 57	94 14 31	3	14	4
Van Buren	40 45 34	91 52 44	3	12	4
	40 45 34	92 0 9	3	12	4
Wapello	41 2 0	92 24 55	4	14	4
Warren	41 20 7	93 33 26	4	15	4
Washington	41 19 44	91 42 2	3	15	4
Wayne	40 45 34	93 21 2	3	14	4
Webster	42 29 42	94 12 22	4	13	3
	42 19 29	94 9 54	4	13	3
Winneshiek	43 11 25	91 51 5	3	12	4
	43 21 38	91 51 5	3	12	4
Winnebago	43 22 15	93 36 46	3	10	4
	43 22 15	93 49 5	3	10	4
Woodbury	42 22 38	95 51 60	8	15	3
	42 22 38	96 15 54	8	15	3
Worth	43 22 15	93 9 39	3	10	4
	43 22 15	93 21 59	3	10	4
Wright	42 43 24	93 44 9	3	14	4

STATE OF IOWA

POPULATION AND EXPECTED GROWTH

STATE OF IOWA
POPULATION AND EXPECTED GROWTH

COUNTY	Population 1990	Population 1995	Population 2005
Adair	8.38K	8.07K	7.85K
Adams	4.84K	4.68K	4.72K
Allamakee	13.81K	13.58K	13.42K
Appanoose	13.72K	13.65K	13.67K
Audubon	7.31K	7.00K	6.93K
Benton	22.41K	21.98K	20.98K
Black Hawk	123.32K	122.64K	122.65K
Boone	25.16K	24.82K	24.50K
Bremer	22.75K	23.37K	24.03K
Buchanan	20.77K	20.78K	20.78K
Buena Vista	19.94K	20.33K	20.57K
Butler	15.68K	15.39K	14.81K
Calhoun	11.47K	11.16K	10.46K
Carroll	21.36K	21.69K	21.77K
Cass	15.08K	14.79K	14.38K
Cedar	17.34K	17.28K	17.31K
Cerro Gordo	46.63K	47.46K	47.90K
Cherokee	14.05K	13.24K	12.03K
Chickasaw	13.23K	13.38K	13.34K
Clarke	8.29K	8.78K	11.04K
Clay	17.52K	17.50K	17.70K
Clayton	18.99K	18.39K	17.35K
Clinton	50.89K	49.83K	47.59K
Crawford	16.70K	16.19K	15.82K
Dallas	29.75K	30.22K	31.00K
Davis	8.28K	7.86K	7.28K
Decatur	8.32K	8.15K	7.92K
Delaware	17.97K	17.64K	16.79K
Des Moines	42.53K	42.31K	41.24K
Dickinson	14.89K	15.71K	17.44K
Dubuque	86.17K	84.77K	79.92K
Emmett	11.53K	11.16K	10.38K
Fayette	21.75K	21.09K	20.36K
Floyd	17.00K	16.46K	15.61K
Franklin	11.32K	11.02K	10.72K
Fremont	8.21K	8.06K	7.86K
Greene	10.00K	9.62K	9.20K
Grundy	11.98K	11.70K	11.58K
Guthrie	10.98K	10.56K	10.14K
Hamilton	16.04K	16.13K	15.91K
Hancock	12.60K	12.82K	12.94K
Hardin	19.00K	18.51K	18.21K
Harrison	14.70K	14.25K	13.58K

COUNTY	Population 1990	Population 1995	Population 2005
Henry	19.27K	20.60K	24.95K
Howard	9.79K	9.81K	9.60K
Humboldt	10.72K	10.59K	10.56K
Ida	8.35K	8.34K	8.26K
Iowa	14.60K	14.48K	14.36K
Jackson	19.87K	19.10K	17.59K
Jasper	34.77K	34.67K	34.95K
Jefferson	16.30K	17.25K	20.48K
Johnson	96.31K	102.30K	112.33K
Jones	19.41K	19.05K	18.60K
Keokuk	11.60K	11.08K	10.57K
Kossuth	18.50K	18.15K	18.11K
Lee	38.58K	37.61K	35.72K
Linn	168.65K	172.76K	183.84K
Louisa	11.58K	11.65K	12.40K
Lucas	9.05K	8.98K	8.98K
Lyon	11.92K	11.74K	11.52K
Madison	12.50K	12.59K	12.95K
Mahaska	21.50K	21.42K	21.56K
Marion	30.00K	31.92K	37.88K
Marshall	38.16K	38.00K	38.21K
Mills	13.18K	13.39K	13.95K
Mitchell	10.90K	10.92K	10.64K
Monona	10.00K	9.61K	9.06K
Monroe	8.09K	7.95K	7.77K
Montgomery	12.04K	11.92K	11.80K
Muscatine	39.85K	41.44K	45.37K
O'Brien	15.40K	15.16K	15.06K
Osceola	7.24K	6.98K	6.69K
Page	16.83K	16.02K	15.27K
Palo Alto	10.61K	10.23K	9.77K
Plymouth	23.38K	23.50K	23.58K
Pocahontas	9.48K	9.17K	8.99K
Polk	327.47K	345.27K	389.16K
Pottawattamie	82.41K	82.10K	82.36K
Poweshiek	19.04K	19.95K	22.96K
Ringgold	5.41K	5.28K	5.11K
Sac	12.30K	12.10K	11.60K
Scott	150.52K	154.17K	165.48K
Shelby	13.18K	12.90K	12.49K
Sioux	29.85K	30.32K	31.45K
Story	74.18K	76.98K	85.15K
Tama	17.36K	17.03K	16.63K
Taylor	7.09K	6.72K	6.50K
Union	12.72K	12.62K	12.58K
Van Buren	7.66K	7.41K	7.14K
Wapello	35.56K	35.22K	35.06K

COUNTY	Population 1990	Population 1995	Population 2005
Warren	36.05K	37.56K	40.76K
Washington	19.61K	19.69K	20.03K
Wayne	7.05K	6.98K	6.94K
Webster	40.22K	39.22K	37.10K
Winnebago	12.10K	12.28K	12.33K
Winneshiek	20.80K	21.15K	22.03K
Woodbury	98.16K	96.87K	91.40K
Worth	7.97K	7.79K	7.53K
Wright	14.21K	14.49K	14.66K

Woods and Poole Economics, Inc.
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FCC CHANNEL ASSIGNMENTS

F.C.C. CHANNEL ASSIGNMENTS

CHANNEL NUMBER	MOBILE FREQUENCY-BASE FREQUENCY	COUNTY
601	821.0125 /866.0125	Mutual Aid
602	821.0375 /866.0375	O'Brien Story Union Wapello Worth
603	821.0500 /866.0500	Palo Alto Guthrie Fremont Howard Wayne Johnson
604	821.0625 /866.0625	Cherokee Story Adams Buchanan Davis
605	821.0750 /866.0750	Greene Decatur Grundy Osceola Henry
606	821.0875 /866.0875	Pocahontas Warren Chickasaw Iowa
607	821.1000 /866.1000	Boone Ringold Cerro Gordo Jones Monroe
608	821.1125 /866.1125	Buena Vista Madison Bremer
609	821.1250 /866.1250	Carroll Taylor Franklin Keokuk

CHANNEL NUMBER	MOBILE FREQUENCY-BASE FREQUENCY	COUNTY
610	821.1375 /866.1375	Clay Polk Black Hawk Van Buren
611	821.1500 /866.1500	Calhoun Clarke Page Floyd Delaware Poweshiek Sioux
612	821.1625 /866.1625	Polk Black Hawk Dickinson Jefferson
613	821.1750 /866.1750	Sac Mitchell Mahaska
614	821.1875 /866.1875	Polk Butler Emmett Lyon Dubuque
615	821.2000 /866.2000	Adair Hamilton Appanoose Fayette
616	821.2125 /866.2125	Polk Hancock Plymouth
617	821.2250 /866.2250	Shelby Hardin Lucas Winneshiek Linn
618	821.2375 /866.2375	Polk Humboldt Washington Ida
619	821.2500 /866.2500	Cass Benton Lee

CHANNEL NUMBER	MOBILE FREQUENCY-BASE FREQUENCY	COUNTY
620	821.2625 /866.2625	Dallas Cedar Woodbury Allamakee
621	821.2750 /866.2750	Wright Marion
622	821.2875 /866.2875	Story Union Wapello Winnebago Linn
623	821.3000 /866.3000	Guthrie Howard
624	821.3125 /866.3125	Cherokee Jasper Clayton Louisa
625	821.3250 /866.3250	Greene Grundy Davis Clinton
626	821.3375 /866.3375	Pocahontas Warren Montgomery Des Moines
627	821.3500 /866.3500	Ringold Marshall Audubon
628	821.3625 /866.3625	Madison
629	821.3750 /866.3750	Franklin Crawford
630	821.3875 /866.3875	Polk Black Hawk
631	821.4000 /866.4000	Poweshiek Webster
632	821.4125 /866.4125	Polk Black Hawk

CHANNEL NUMBER	MOBILE FREQUENCY-BASE FREQUENCY	COUNTY
633	821.4250 /866.4250	Sac Page Jefferson
634	821.4375 /866.4375	Polk
635	821.4500 /866.4500	Hamilton Appanoose
636	821.4625 /866.4625	Polk
637	821.4750 /866.4750	Lucas Tama
638	821.4875 /866.4875	Polk
639	821.5125 /866.5125	Mutual Aid
640	821.5375 /866.5375	Bremer
641	821.5500 /866.5500	Cass Delaware Washington
642	821.5625 /866.5625	Floyd Marion Ida
643	821.5750 /866.5750	Clay Linn
644	821.5875 /866.5875	Cerro Gordo Sioux
645	821.6000 /866.6000	Woodbury
646	821.6125 /866.6125	Montgomery Hancock Linn Lee
647	821.6250 /866.6250	Marshall Dickinson Audubon
648	821.6375 /866.6375	Mills Linn
649	821.6500 /866.6500	Winnebago Muscatine

CHANNEL NUMBER	MOBILE FREQUENCY-BASE FREQUENCY	COUNTY
650	821.6625 /866.6625	Polk Winneshiek Benton Des Moines
651	821.6750 /866.6750	Kossuth
652	821.6875 /866.6875	Jones Harrison
653	821.7000 /866.7000	Woodbury Webster Allamakee
654	821.7125 /866.7125	Polk Dubuque
655	821.7250 /866.7250	Unassigned
656	821.7375 /866.7375	Monona Dubuque
657	821.7500 /866.7500	Tama
658	821.7625 /866.7625	Scott
659	821.7750 /866.7750	Fremont Jackson
660	821.7875 /866.7875	Johnson
661	821.8000 /866.8000	Unassigned
662	821.8125 /866.8125	Scott
663	821.8250 /866.8250	Pottawattomi Linn
664	821.8375 /866.8375	Scott
665	821.8500 /866.8500	Unassigned
666	821.8625 /866.8625	Unassigned
667	821.8750 /866.8750	Unassigned
668	821.8875 /866.8875	Unassigned
669	821.9000 /866.9000	Unassigned

CHANNEL NUMBER	MOBILE FREQUENCY-BASE FREQUENCY	COUNTY
670	821.9125 /866.9125	Unassigned
671	821.9250 /866.9250	Unassigned
672	821.9375 /866.9375	Unassigned
673	821.9500 /866.9500	Woodbury
674	821.9625 /866.9625	Unassigned
675	821.9750 /866.9750	Unassigned
676	821.9875 /866.9875	Monona
677	822.0125 /867.0125	Mutual Aid
678	822.0375 /867.0375	Scott
679	822.0500 /867.0500	Dubuque
680	822.0625 /867.0625	Unassigned
681	822.0750 /867.0750	Unassigned
682	822.0875 /867.0875	Unassigned
683	822.1000 /867.1000	Unassigned
684	822.1125 /867.1125	Muscatine
685	822.1250 /867.1250	Unassigned
686	822.1375 /867.1375	Johnson
687	822.1500 /867.1500	Unassigned
688	822.1625 /867.1625	Johnson
689	822.1750 /867.1750	Scott
690	822.1875 /867.1875	Unassigned
691	822.2000 /867.2000	Clinton
692	822.2125 /867.2125	Unassigned
693	822.2250 /867.2250	Unassigned
694	822.2375 /867.2375	Unassigned

CHANNEL NUMBER	MOBILE FREQUENCY-BASE FREQUENCY	COUNTY
695	822.2500 /867.2500	Unassigned
696	822.2625 /867.2625	Unassigned
697	822.2750 /867.2750	Unassigned
698	822.2875 /867.2875	Scott
699	822.3000 /867.3000	Unassigned
700	822.3125 /867.3125	Unassigned
701	822.3250 /867.3250	Unassigned
702	822.3375 /867.3375	Unassigned
703	822.3500 /867.3500	Pottawattomi
704	822.3625 /867.3625	Unassigned
705	822,3750 /867.3750	Unassigned
706	822.3875 /867.3875	Unassigned
707	822.4000 /867.4000	Unassigned
708	822.4125 /867.4125	Unassigned
709	822.4250 /867.4250	Pottawattomi
710	822.4375 /867.4375	Unassigned
711	822.4500 /867.4500	Unassigned
712	822.4625 /867.4625	Unassigned
713	822.4750 /867.4750	Unassigned
714	822.4875 /867.4875	Unassigned
715	822.5125 /867.5125	Mutual Aid
716	822.5375 /867.5375	Johnson
717	822.5500 /867.5500	Unassigned
718	822.5625 /867.5625	Unassigned
719	822.5750 /867.5750	Unassigned

CHANNEL NUMBER	MOBILE FREQUENCY-BASE FREQUENCY	COUNTY
720	822.5875 /867.5875	Clinton
721	822.6000 /867.6000	Unassigned
722	822.6125 /867.6125	Lee
723	822.6250 /867.6250	Unassigned
724	822.6375 /867.6375	Unassigned
725	822.6500 /867.6500	Unassigned
726	822.6625 /867.6625	Unassigned
727	822.6750 /867.6750	Unassigned
728	822.6875 /867.6875	Unassigned
729	822.7000 /867.7000	Unassigned
730	822.7125 /867.7125	Unassigned
731	822.7250 /867.7250	Unassigned
732	822.7375 /867.7375	Unassigned
733	822.7500 /867.7500	Unassigned
734	822.7625 /867.7625	Unassigned
735	822.7750 /867.7750	Unassigned
736	822.7875 /867.7875	Unassigned
737	822.8000 /867.8000	Unassigned
738	822.8125 /867.8125	Unassigned
739	822.8250 /867.8250	Johnson
740	822.8375 /867.8375	Pottawattomie Scott
741	822.8500 /867.8500	Unassigned
742	822.8625 /867.8625	Unassigned
743	822.8750 /867.8750	Unassigned
744	822.8875 /867.8875	Unassigned

CHANNEL NUMBER	MOBILE FREQUENCY-BASE FREQUENCY	COUNTY
745	822.9000 /867.9000	Unassigned
746	822.9125 /867.9125	Unassigned
747	822.9250 /867.9250	Unassigned
748	822.9375 /867.9375	Unassigned
749	822.9500 /867.9500	Unassigned
750	822.9625 /867.9625	Unassigned
751	822.9750 /867.9750	Unassigned
752	822.9875 /867.9875	Pottawattomie
753	823.0125 /868.0125	Mutual Aid
754	823.0375 /868.0375	Harrison Kossuth
755	823.0500 /868.0500	Unassigned
756	823.0625 /868.0625	Linn
757	823.0750 /868.0750	Unassigned
758	823.0875 /868.0875	Unassigned
759	823.1000 /868.1000	Unassigned
760	823.1125 /868.1125	Pottawattomie Johnson
761	823.1250 /868.1250	Clinton
762	823.1375 /868.1375	Mills
763	823.1500 /868.1500	Johnson
764	823.1625 /868.1625	Woodbury
765	823.1750 /868.1750	Webster
766	823.1875 /868.1875	Unassigned
767	823.2000 /868.2000	Plymouth Scott
768	823.2125 /868.2125	Jackson

CHANNEL NUMBER	MOBILE FREQUENCY-BASE FREQUENCY	COUNT
769	823.2250 /868.2250	Unassigned
770	823.2375 /868.2375	Lee
771	823.2500 /868.2500	Jasper Louisa
772	823.2625 /868.2625	Unassigned
773	823.2750 /868.2750	Des Moines
774	823.2875 /868.2875	Polk Harrison Kossuth Muscatine Dubuque
775	823.3000 /868.3000	Unassigned
776	823.3125 /868.3125	Emmett Crawford Linn
777	823.3250 /868.3250	Humboldt Clayton Henry Scott
778	823.3375 /868.3375	Polk Osceola Worth Linn
779	823.3500 /868.3500	Fayette
780	823.3625 /868.3625	Unassigned
781	823.3750 /868.3750	Unassigned
782	823.3875 /868.3875	Mills
783	823.4000 /868.4000	Unassigned
784	823.4125 /868.4125	Story Woodbury
785	823.4250 /868.4250	Black Hawk Webster
786	823.4375 /868.4375	Adams Marshall

CHANNEL NUMBER	MOBILE FREQUENCY-BASE FREQUENCY	COUNTY
787	823.4500 /868.4500	Wright Iowa Plymouth
788	823.4625 /868.4625	Unassigned
789	823.4750 /868.4750	Hardin Wayne
790	823.4875 /868.4875	Dallas
791	823.5000 /868.5000	Jasper Audubon
792	823.5125 /868.5125	Butler Cedar Van Buren
793	823.5250 /868.5250	Carroll Mitchell Monroe
794	823.5375 /868.5375	Palo Alto Polk Pottawattomie
795	823.5500 /868.5500	Fremont Cerro Gordo Wapello Lyon
796	823.5625 /868.5625	Polk Chickasaw Crawford
797	823.5750 /868.5750	Humboldt Lucas Benton
798	823.5875 /868.5875	O'Brien Polk Taylor Clinton
799	823.6000 /868.6000	Calhoun Clarke Buchanan
800	823.6125 /868.6125	Polk Shelby Winnebago Dubuque

CHANNEL NUMBER	MOBILE FREQUENCY-BASE FREQUENCY	COUNTY
801	823.6250 /868.6250	Buena Vista Adair Mahaska Muscatine
802	823/6375 /868.6375	Boone Linn Des Moines
803	823.6500 /868.6500	Montgomery Black Hawk Hancock Keokuk Scott
804	823.6625 /868.6625	Story Decatur Linn
805	823.6750 /868.6750	Warren Black Hawk Worth Louisa Jackson
806	823.6875 /868.6875	Adams Marshall Woodbury Winneshiek Scott
807	823.7000 /868.7000	Wright Marion Sioux Linn
808	823.7125 /868.7125	Guthrie Washington Dickinson Woodbury
809	823.7250 /868.7250	Hardin Wayne Dubuque
810	823.7375 /868.7375	Dallas Floyd Iowa Monona

CHANNEL NUMBER	MOBILE FREQUENCY-BASE FREQUENCY	COUNTY
811	823.7500 /868.7500	Cass Hamilton Appanoose Fayette
812	823.7625 /868.7625	Polk Butler Jones Emmett Ida Van Buren
813	823.7750 /868.7750	Carroll Mitchell Monroe Osceola Clayton Tama
814	823.7875 /868.7875	Palo Alto Polk Bremer
815	823.8000 /868.8000	Sac Union Franklin Cedar Wapello Allamakee Lyon
816	823.8125 /868.8125	Clay Polk Page Chickasaw Henry
817	823.8250 /868.8250	Greene Cerro Gordo Delaware Poweshiek
818	823.8375 /868.8375	Obrien Polk Taylor Howard Davis
819	823.8500 /868.8500	Calhoun Clarke Buchanan

CHANNEL NUMBER	MOBILE FREQUENCY-BASE FREQUENCY	COUNTY
820	823.8625 /868.8625	Polk Shelby
821	823.8750 /868.8750	Buena Vista Adair Grundy Mahaska
822	823.8875 /868.8875	Boone Ringold
823	823.9000 /868.9000	Cherokee Madison Black Hawk Keokuk
824	823.9125 /868.9125	Story Decatur
825	823.9250 /868.9250	Pocahontas Warren Black Hawk Jefferson
826	823.9375 /868.9375	Unassigned
827	823.9500 /868.9500	Unassigned
828	823.9625 /868.9625	Unassigned
829	823.9750 /868.9750	Unassigned
830	823.9875 /868.9875	Unassigned

FCC CHANNEL ASSIGNMENT BY COUNTY

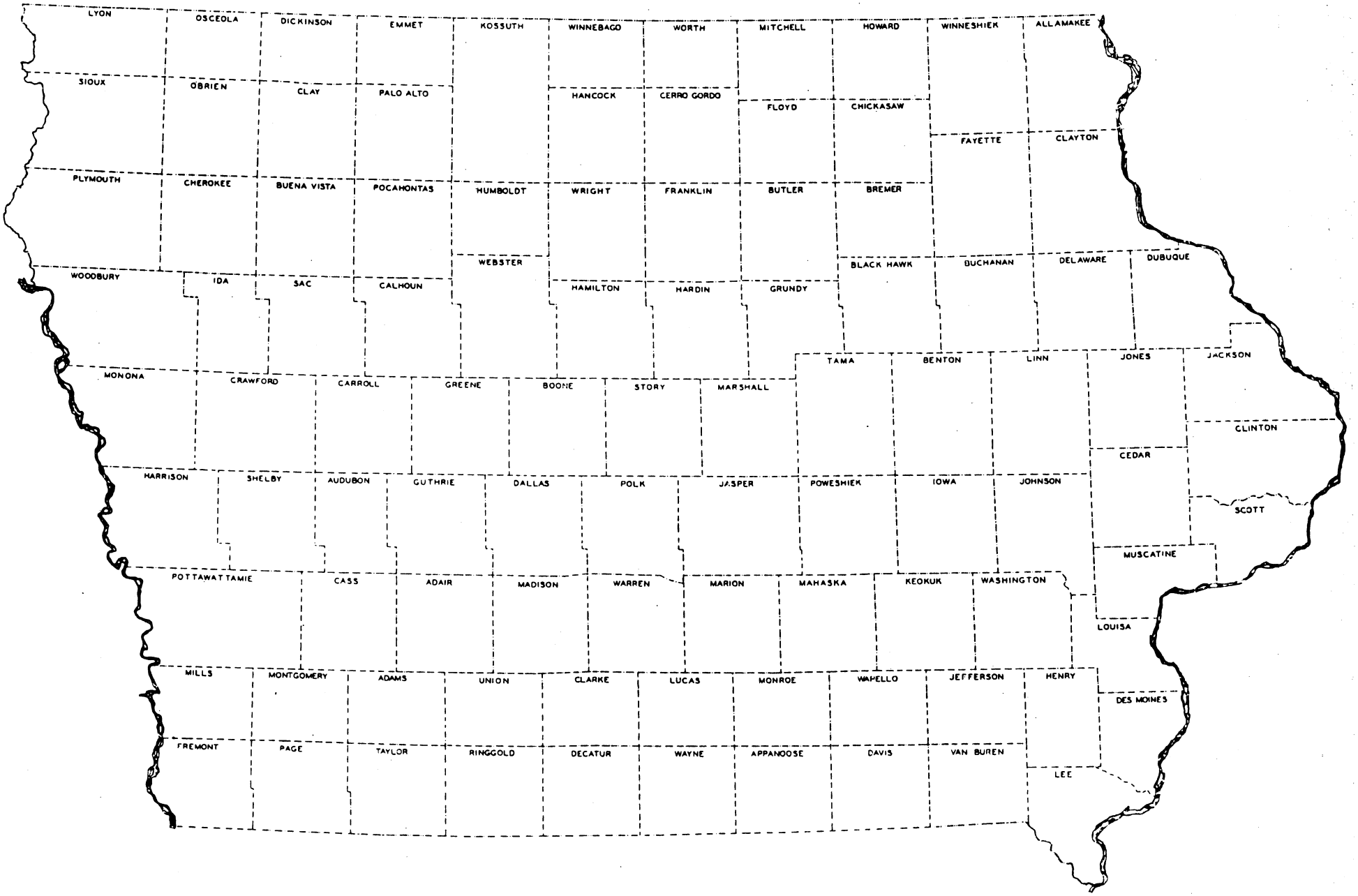
CHANNEL ASSIGNMENTS BY COUNTY

COUNTY	CHANNELS
Adair	615 801 821
Adams	604 786 806
Allamakee	620 653 815
Appanoose	615 635 811
Audubon	627 647 791
Benton	619 650 797
Black Hawk	610 612 630 632 785 803 805 823 825
Boone	607 802 822
Bremer	608 640 814
Buchanan	604 799 819
Buena Vista	608 801 821
Butler	614 792 815
Calhoun	611 799 819
Carroll	609 793 813
Cass	619 641 811
Cedar	620 792 815
Cerro Gordo	607 644 795 817
Cherokee	604 624 823
Chickasaw	606 796 816
Clarke	611 799 819
Clay	610 643 816
Clayton	624 777 813
Clinton	625 691 720 761 798
Crawford	629 776 796
Dallas	620 790 810
Davis	604 625 818
Decatur	605 804 824
Delaware	611 641 817
Des Moines	626 650 773 802
Dickinson	612 647 808
Dubuque	614 654 656 679 774 800 809
Emmett	614 776 812
Fayette	615 779 811
Floyd	611 642 810
Franklin	609 629 815
Fremont	603 659 795
Greene	605 625 817
Grundy	605 625 821
Guthrie	603 623 808
Hamilton	615 635 811
Hancock	616 646 803
Hardin	617 789 809
Harrison	652 754 774
Henry	605 777 816
Howard	603 623 818
Humboldt	618 777 797
Ida	618 642 812
Iowa	606 787 810
Jackson	659 768 805
Jasper	624 771 791
Jefferson	612 633 825

CHANNEL ASSIGNMENTS BY COUNTY (CONT.)

COUNTY	CHANNELS
Johnson	603 660 686 688 716 739 760 763
Jones	607 652 812
Keokuk	609 803 823
Kossuth	651 754 774
Lee	619 646 722 770
Linn	617 622 643 646 648 663 756 776 778 802 804 807
Louisa	624 771 805
Lucas	617 637 797
Lyon	614 795 815
Madison	608 628 823
Mahaska	613 801 821
Marion	621 642 807
Marshall	627 647 786 806
Mills	648 762 782
Mitchell	613 793 813
Monona	656 676 810
Monroe	607 793 813
Montgomery	626 646 803
Muscatine	649 684 774 801
O'Brien	602 798 818
Osceola	605 778 813
Page	611 633 816
Palo Alto	603 794 814
Plymouth	616 767 787
Pocahontas	606 626 825
Polk	610 612 614 616 618 630 632 634 636 638 650 654 774 778 794 796 798 800 812 814 816 818 820
Pottawattamie	663 703 709 740 752 760 794
Poweshiek	611 631 817
Ringold	607 627 822
Sac	613 633 815
Scott	658 662 664 678 689 698 740 767 777 803 806
Shelby	617 800 820
Sioux	611 644 807
Story	602 604 622 784 804 824
Tama	637 657 813
Taylor	609 798 818
Union	602 622 815
Van Buren	610 792 812
Wapello	602 622 795 815
Warren	606 626 805 825
Washington	618 641 808
Wayne	603 789 809
Webster	631 653 765 785
Winneshiek	617 650 806
Winnebago	622 649 800
Woodbury	620 645 653 673 764 784 806 808
Worth	602 778 805
Wright	621 787 807

5.4 State Map


LYON
OSCEOLA
DICKINSON
EMMET
KOSSUTH
WINNEBAGO
WORTH
MITCHELL
HOWARD
WINNESHIEK
ALLAMAKEE
SIOUX
OBRIEN
CLAY
PALO ALTO
HANCOCK
CERRO GORDO
FLOYD
CHICKASAW
FAYETTE
CLAYTON
PLYMOUTH
CHEROKEE
BUENA VISTA
POCAHONTAS
HUMBOLDT
WRIGHT
FRANKLIN
BUTLER
BREMER
WEBSTER
BLACK HAWK
BUCHANAN
DELAWARE
DUBUQUE
WOODBURY
IDA
SAC
CALHOUN
HAMILTON
HARDIN
GRUNDY
TAMA
BENTON
LINN
JONES
JACKSON
MONONA
CRAWFORD
CARROLL
GREENE
BOONE
STORY
MARSHALL
CLINTON
CEDAR
HARRISON
SHELBY
AUDUBON
GUTHRIE
DALLAS
POLK
JASPER
POWESHIEK
IOWA
JOHNSON
SCOTT
MUSCATINE
POTTAWATTAMIE
CASS
ADAIR
MADISON
WARREN
MARION
MAHASKA
KEOKUK
WASHINGTON
LOUISA
MILLS
MONTGOMERY
ADAMS
UNION
CLARKE
LUCAS
MONROE
WAPELLO
JEFFERSON
HENRY
DES MOINES
FREMONT
PAGE
TAYLOR
RINGGOLD
DECATUR
WAYNE
APPANOOSE
DAVIS
VAN BUREN
LEE

5.5 EXCLUDED CHANNELS BY COUNTY

5.6 Assignment Statistics

Maximum field strength for co-channel operation is	5 Dbu
Maximum field strength for adjacent channel operation is	25 Dbu
Total number of channels assigned	371
Total number of unassigned channels	87
Total number of reserved channels	0

5.7 Expansion of Initial Allocation

In the event that the allocation for any county becomes depleted, the Regional 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.

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, an applicant may appeal the allocation, rejection, or limits placed on a particular application for any reason. The appeal process has two levels; the Regional 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.

COUNTY	EXCLUDED CHANNELS
Buena Vista	607 623 628 630 632 634 636 638 640 650 660 665 666 668 670 762 674 676 678 679 680 681 682 683 684 685 686 687 688 689 693 694 695 696 697 704 705 706 707 708 710 712 714 716 725 728 731 742 743 744 745 746 748 750 752 771 779 780 782 784 786 788 790 805 810 820 822 823 824 826 828 830
Butler	619 628 630 632 634 636 638 660 666 668 670 672 674 676 678 691 704 706 708 710 712 714 716 721 737 742 744 746 648 750 752 754 770 774 780 782 784 786 788 790 798 808 820 822 824 826 828 830
Carroll	603 607 623 626 632 650 658 665 668 670 678 679 680 681 682 683 684 685 686 687 688 689 693 694 695 696 697 705 707 725 731 742 743 744 745 765 771 779 785 804 824
Cass	606 607 608 610 613 615 618 621 623 629 631 632 634 637 640 642 644 650 653 655 658 660 665 668 670 673 678 679 680 681 682 683 684 685 686 687 688 689 693 694 695 696 697 705 707 725 731 742 743 744 745 765
Cedar	602 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 621 623 626 627 628 629 630 631 632
Cerro Gordo	605 608 612 618 619 620 627 628 629 630 631 632 633 634 635 636 637 638 640 642 648 656 659 660 661 665 666 667 668 669 670 671 672 673 674 675 676 678 684 687 688 690 691 692 703 704 705 706 707 708 709 710 711 712 713 714 716 717 720 721 722 724 728 736 737 738 741 742 743 744 745 746 747 748 749 750 751 752 754 760 763 765 769 770 771 773 774 779 780 781 782 783 784 785 786 787 788 789 790 791 797 798 799 801 806 808 819 820 821 822 824 826 828 830
Cherokee	603 605 607 610 623 626 628 630 632 634 636 638 640 648 650 665 666 668 670 672 674 676 678 679 680 681 682 683 684 685 686 687 688 689 693 694 695 696 697 704 705 706 707 708 710 712 714 716 727 728 731 742 743 744 745 746 748 750 752 755 771 779 780 782 784 786 788 790 793 797 800 802 804 805 810 813 817 820 822 824 826 828 830

COUNTY	EXCLUDED CHANNELS
Chickasaw	602 605 608 609 612 619 622 626 627 628 629 630 631 632 633 634 635 636 637 638 644 646 649 656 658 659 660 661 665 666 667 668 669 670 671 672 673 674 675 676 678 679 684 686 687 690 691 692 693 699 703 704 705 706 707 708 709 710 711 712 713 714 716 720 721 722 724 728 730 737 741 742 743 744 745 746 747 748 749 750 751 752 754 755 760 763 770 773 774 775 779 780 781 782 783 784 785 786 787 788 789 790 791 797 798 799 804 807 808 809 819 820 821 822 823 824 825 826 827 828 829 830
Clay	604 605 606 607 608 609 618 619 621 627 628 629 630 631 632 633 634 635 636 637 638 640 641 642 653 659 660 661 665 666 667 668 669 670 671 672 673 674 675 676 682 688 695 696 697 703 704 705 706 707 708 709 710 711 712 713 714 716 717 727 728 729 741 742 743 744 745 746 747 748 749 750 751 752 755 779 780 781 782 783 784 785 786 787 788 789 790 791 792 800 804 805 806 809 810 811 819 820 821 822 823 824 825 826 827 828 829 830
Clayton	802 603 604 605 606 607 609 611 612 613 615 619 621 622 623 625 626 627 628 629 630 631 632 633 634 635 636 637 638 641 643 644 645 646 647 648 649 650 652 658 661 666 667 668 669 670 671 672 673 674 675 676 678 679 686 691 692 693 694 695 697 699 700 701 702 704 705 706 707 708 709 710 711 712 713 714 716 717 719 720 721 726 727 728 729 730 731 742 743 744 745 746 747 748 749 750 751 752 754 771 774 780 781 782 783 784 785 786 787 788 789 790 791 792 804 808 820 821 822 823 824 825 826 827 828 829 830
Clinton	602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 626 627 628 629 630 631 632 633 634 635 636 637 638 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 659 660 661 665 666 667 668 669 670 671 672 673 674 675 676 680 681 682 683 684 685 686 687 688 692 693 700 703 704 705 706 707 708 709 710 711 712 713 714 716 717 718 719 721 727 730 731 732 733 734 735 736 737 738 741 742 743 744 745 746 747 748 749 750 751 752 754 756 757 758 762 763 764 765 766 769 770 771 772 773 774 775 776 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 805 809 810 811 812 813 814 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830

COUNTY	EXCLUDED CHANNELS
Crawford	602 603 604 605 607 610 612 613 614 615 616 618 621 622 623 624 625 626 627 628 632 634 636 637 638 640 642 644 646 648 649 650 651 655 658 660 665 668 670 673 678 679 680 681 682 683 684 685 686 687 688 689 690 692 693 694 695 696 697 698 705 707 725 731 741 742 743 744 745 763 765 768 771 777 779 781 783 785 787 789 792 795 797 799 802 803 804 805 807 809 812 814 815 817 819 822 823 824 825
Davis	602 609 615 628 630 632 634 636 638 640 644 655 661 666 668 670 672 674 676 681 704 706 708 710 712 714 733 742 744 746 748 750 752 766 780 782 784 786 788
Delaware	602 603 604 605 606 607 609 612 615 619 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 642 643 644 646 648 649 650 665 666 667 668 669 670 671 672 673 674 675 676 692 693 694 697 700 703 704 705 706 707 708 709 710 711 712 713 714 716 717 719 721 727 728 729 730 731 741 742 743 744 745 746 747 748 749 750 751 752 770 771 772 773 779 780 781 782 783 784 785 786 787 788 789 780 781 782 783 784 785 786 787 788 789 790 791 792 810 819 820 821 822 823 824 825 826 827 828 829 830
Des Moines	602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 621 623 627 628 629 630 631 632 633 634 635 636 637 638 640 641 642 643 644 645 646 647 648 649 651 652 653 654 655 656 659 660 661 662 665 666 667 668 669 670 671 672 673 674 675 676 680 681 682 685 686 687 688 690 691 695 703 704 705 706 707 708 709 710 711 712 713 714 719 727 731 732 733 734 736 737 738 741 742 743 744 745 746 747 748 749 750 751 752 760 762 764 765 766 768 769 770 772 774 775 776 779 780 781 782 783 784 785 786 787 788 789 790 791 793 794 795 796 797 798 799 801 808 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830
Dickinson	602 604 605 606 607 608 609 616 618 619 621 627 628 629 630 631 632 633 634 635 636 637 638 640 641 642 644 645 649 653 659 660 661 665 666 667 668 669 670 671 672 673 674 675 676 682 683 688 695 696 697 703 704 705 706 707 708 709 710 711 712 713 714 716 717 718 727 728 729 741 742 743 744 745 746 747 748 749 750 751 752 755 757 769 773 779 780 781

COUNTY	EXCLUDED CHANNELS
Dickinson (cont.)	782 783 784 785 786 787 788 789 790 791 792 800 801 804 805 806 809 810 811 814 819 820 821 822 823 824 825 826 827 828 829 830
Dubuque	602 603 604 605 606 607 609 611 612 613 615 616 618 619 620 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 640 642 643 644 646 647 648 649 650 652 653 655 665 666 667 668 669 670 671 672 673 674 675 676 680 681 685 692 693 694 697 699 700 701 703 704 705 706 707 708 709 710 711 712 713 714 716 717 718 719 721 726 727 728 729 730 731 737 741 742 743 744 745 746 747 748 749 750 751 752 757 764 765 770 771 772 773 775 779 780 781 782 783 784 785 786 787 788 789 790 791 792 794 795 810 811 813 817 819 820 821 822 823 824 825 826 827 828 829 830
Emmett	602 604 605 606 607 608 609 612 618 619 621 627 628 629 630 631 632 633 634 635 636 637 638 640 641 642 645 653 659 660 661 662 665 666 667 668 669 670 671 672 673 674 675 676 682 685 688 696 703 704 705 706 707 708 709 710 711 712 713 714 716 717 719 728 737 741 742 743 744 745 746 747 748 749 750 751 752 755 765 769 770 773 779 780 781 782 783 784 785 786 787 788 789 790 791 792 801 804 805 806 810 814 819 820 821 822 823 824 825 826 827 828 829 830
Fayette	602 605 607 608 611 612 622 623 626 628 629 630 631 632 633 634 635 636 637 638 641 644 646 649 658 660 661 666 667 668 669 670 671 672 673 674 675 676 678 679 686 687 691 692 693 697 699 702 704 705 706 707 708 709 710 711 712 713 714 716 719 720 721 724 728 729 730 731 742 743 744 745 746 747 748 749 750 751 752 754 760 771 774 780 781 782 783 784 785 786 787 788 789 790 791 798 804 804 820 821 822 823 824 825 826 827 828 829 830
Floyd	605 608 609 612 618 619 620 627 628 629 630 631 632 633 634 635 636 637 638 640 644 648 656 659 660 661 665 666 667 668 669 670 671 672 673 674 675 676 678 684 686 687 688 690 691 692 703 704 705 706 707 708 709 710 711 712 713 714 716 717 720 721 722 724 728 736 737 738 741 742 743 744 745 746 747 748 749 750 751 752 754 760 763 765 769 770 771 774 779 780 781 782 783 784 785 786 787 788 789 790 791 797 798 799 804 806 808 819 820 821 822 823 824 825 826 827 828

COUNTY	EXCLUDED CHANNELS
Franklin	605 619 628 630 632 634 636 638 640 660 661 666 668 670 672 674 676 691 704 706 708 710 712 714 716 721 737 742 744 746 748 750 752 770 780 782 784 786 788 790 798 820 822 824 826 828 830
Fremont	605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 640 641 642 643 644 645 646 649 650 651 652 653 654 655 656 657 658 660 662 664 665 666 667 668 669 670 671 672 673 675 678 679 680 681 682 683 684 685 686 687 688 689 690 692 693 694 695 696 697 698 700 702 704 705 706 707 708 712 723 724 725 726 730 731 732 733 735 737 739 741 742 743 744 745 746 757 759 760 761 762 763 764 765 766 767 768 769 770 771 772 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825
Hancock	604 605 606 607 612 618 619 620 627 628 629 630 631 632 633 634 635 636 637 638 640 641 642 648 656 660 661 662 665 666 667 668 669 670 671 672 673 674 675 676 682 684 688 691 703 704 705 706 707 708 709 710 711 712 713 714 716 717 721 728 736 737 738 741 742 743 744 745 746 747 748 749 750 751 752 763 765 769 770 771 773 779 780 781 782 783 784 785 786 787 788 789 790 791 797 798 801 805 806 819 820 821 822 823 824 825 826 827 828 829 830
Harrison	602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 631 632 633 634 635 636 637 638 640 641 642 643 644 645 646 647 647 648 649 650 651 653 654 655 656 657 659 660 661 662 664 665 666 667 668 669 670 671 672 678 674 675 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 704 705 706 707 708 711 712 713 724 725 726 730 731 732 733 734 735 737 739 741 742 743 744 745 746 756 757 758 759 762 763 764 765 766 767 789 769 770 771 772 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826

COUNTY	EXCLUDED CHANNELS
Henry	602 603 604 606 607 608 609 611 613 614 615 616 617 621 623 627 628 629 630 631 632 633 634 635 636 637 638 640 641 643 644 645 646 647 648 651 653 654 655 656 659 660 661 662 665 666 667 668 669 670 671 672 673 674 675 676 680 681 682 685 687 695 703 704 705 706 707 708 709 710 711 712 713 714 719 731 732 733 734 737 741 742 743 744 745 746 747 748 749 750 751 752 761 765 766 768 769 770 775 779 780 781 782 783 784 785 786 787 788 789 790 791 794 796 797 798 801 808 811 813 814 815 817 819 820 821 822 823 824 825 826 827 828 829 830
Howard	602 605 607 608 609 611 612 614 618 619 622 625 626 627 628 629 630 631 632 633 634 635 636 637 638 640 641 644 646 648 649 653 656 658 659 660 661 665 666 667 668 669 670 671 672 673 674 675 676 678 679 684 685 686 687 688 690 691 692 693 699 700 702 703 704 705 706 707 708 709 710 711 712 713 714 716 718 719 720 721 722 723 724 725 727 278 729 730 731 737 741 742 743 744 745 746 747 748 749 750 751 752 754 755 759 760 761 763 766 770 773 774 775 779 780 781 782 783 784 785 786 787 788 789 790 791 797 798 799 800 803 804 805 807 808 809 819 820 821 822 823 824 825 826 827 828 829 830
Humboldt	605 607 619 628 630 632 634 636 638 640 660 661 666 668 670 672 674 676 704 706 708 710 712 714 716 737 742 744 746 748 750 752 770 780 782 784 786 788 790 805 820 822 823 824 826 828 830
Ida	603 605 607 610 612 623 626 628 632 636 638 640 648 650 658 665 668 670 678 679 680 681 682 683 684 685 686 687 688 689 693 694 695 696 697 705 707 725 731 742 743 744 745 765 771 779 785 793 795 797 802 804 813 815 817 822 824
Iowa	608 611 613 616 628 630 632 634 636 638 645 647 653 666 668 670 672 674 676 681 704 706 708 710 712 714 737 742 744 746 748 750 752 765 769 780 782 784 786 788 790 794 797 811 813 817 820 822 824 826 828 830

COUNTY	EXCLUDED CHANNELS
Jackson	602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 660 665 666 667 668 669 670 671 672 673 674 675 676 680 681 682 683 684 685 686 692 693 694 699 700 701 703 704 705 706 707 708 709 710 711 712 713 714 716 717 718 719 721 726 727 728 729 730 731 732 734 736 737 738 741 742 743 744 745 746 747 748 749 750 751 752 756 757 758 763 764 765 766 769 770 771 772 773 774 775 776 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 809 810 811 812 813 814 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830
Jefferson	602 606 608 609 611 613 615 616 617 628 630 632 634 636 638 640 643 644 645 647 648 653 655 661 666 668 670 672 674 676 681 687 704 706 708 710 712 714 732 733 737 742 744 746 748 750 752 765 766 769 775 780 782 784 786 788 790 794 797 801 811 813 814 817 820 821 822 824 826 828 830
Johnson	602 604 606 607 608 609 610 611 612 613 614 615 616 617 621 627 628 629 630 631 632 633 634 635 636 637 638 640 643 644 645 646 647 648 651 652 653 654 655 661 665 666 667 668 669 670 671 672 673 674 675 676 680 681 682 685 687 703 704 705 706 707 708 709 710 711 712 713 714 719 732 734 736 737 738 741 742 743 744 745 746 747 748 749 750 751 752 764 765 766 768 769 770 779 780 781 782 783 784 785 786 787 788 789 790 791 793 794 795 796 797 798 810 811 812 813 814 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830
Jones	602 603 604 605 606 608 609 611 612 613 615 616 618 619 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 642 643 644 645 646 647 648 649 650 651 653 655 666 667 668 669 670 671 672 673 674 675 676 681 685 692 693 694 700 703 704 705 706 707 708 709 710 711 712 713 714 716 717 721 727 728 729 730 731 734 737 741 742 743 744 745 746 747 748 749 750 751 752 757 765 769 770 771 772 773 775 779 780 781 782 783 784 785 786 787 788 789 790 791 792 794 797 810 811 813 817 819 820 821 822 823 824 825 826 827 828 829 830

COUNTY	EXCLUDED CHANNELS										
Keokuk	602	608	611	613	616	618	630	632	634	636	638
	640	645	647	653	661	666	668	670	672	674	676
	681	704	706	708	710	712	714	742	744	746	748
	750	752	765	769	780	782	784	786	788	790	794
	797	811	813	814	817	820	822	824	826	828	830
Kossuth	604	605	606	607	608	612	618	619	620	621	627
	628	629	630	631	632	633	634	635	636	637	638
	640	641	642	643	645	648	653	659	660	661	662
	665	666	667	668	669	670	671	672	673	674	675
	676	681	682	685	688	691	703	704	705	706	707
	708	709	710	711	712	713	714	716	717	719	721
	727	728	736	737	738	741	742	743	744	745	746
	747	748	749	750	751	752	755	765	769	770	771
	773	779	780	781	782	783	784	785	786	787	788
	789	790	791	792	798	801	805	806	810	819	820
	821	822	823	824	825	826	827	828	829	830	
Lee	602	603	604	605	606	607	608	609	610	611	612
	613	614	615	616	617	618	621	623	627	628	629
	630	631	632	633	634	635	636	637	638	640	641
	642	643	644	645	647	648	649	651	653	654	655
	656	659	660	661	662	665	666	667	668	669	670
	671	672	673	674	675	676	680	681	682	683	685
	686	687	688	690	695	703	704	705	706	707	708
	709	710	711	712	713	714	719	725	731	732	733
	734	736	737	738	741	742	743	744	745	746	747
	748	749	750	751	752	762	765	766	767	768	769
	774	775	776	779	780	781	782	783	784	785	786
	787	788	789	790	791	794	797	798	800	801	802
	805	808	811	813	814	815	817	819	820	821	822
	823	824	825	826	827	828	829	830			
Linn	602	605	608	609	611	613	616	623	626	628	629
	630	631	632	633	634	635	636	637	638	642	645
	647	649	653	666	667	668	669	670	671	672	673
	674	675	676	681	693	704	705	706	707	708	709
	710	711	712	713	714	716	730	737	742	743	744
	745	746	747	748	749	750	751	752	765	769	771
	773	780	781	782	783	784	785	786	787	788	789
	790	791	794	797	810	811	813	817	820	821	822
	823	824	825	826	827	828	829	830			
Louisa	602	603	604	605	606	607	608	609	610	611	612
	613	614	615	616	617	618	621	623	627	628	629
	630	631	632	633	634	635	636	637	638	640	641
	642	643	644	645	646	647	648	651	652	653	654
	655	659	660	661	662	665	666	667	668	669	670
	671	672	673	674	675	676	680	681	682	685	686
	687	688	691	703	704	705	706	707	708	709	710
	711	712	713	714	719	727	731	732	733	734	736
	737	738	741	742	743	744	745	746	747	748	749

COUNTY	EXCLUDED CHANNELS
Louisa (Cont.)	750 751 752 760 764 765 766 768 769 770 772 775 779 780 781 782 783 784 785 786 787 788 789 790 791 793 794 795 796 797 798 799 801 808 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830
Lyon	604 605 606 607 608 609 613 616 619 621 623 627 628 629 630 631 632 633 634 635 636 637 638 640 642 644 648 649 650 653 660 661 665 666 667 668 669 670 671 672 673 674 675 676 678 679 680 681 682 683 684 685 686 687 688 689 693 694 695 696 697 703 704 705 706 707 708 709 710 711 712 713 714 716 717 718 725 727 728 729 731 741 742 743 744 745 746 747 748 749 750 751 752 754 755 756 757 762 765 771 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 799 800 801 802 804 805 806 809 810 811 813 819 820 821 822 823 824 825 826 827 828 829 830
Mills	603 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 640 641 642 643 644 645 646 649 650 651 652 653 654 655 656 657 658 659 660 661 662 664 665 666 667 668 669 670 671 672 673 674 675 678 679 680 681 682 683 684 685 686 687 688 689 690 692 693 694 695 696 697 698 700 702 704 705 706 707 708 712 723 724 725 726 730 731 732 733 735 737 739 741 742 743 744 745 746 757 759 761 763 764 765 766 767 768 769 770 771 772 774 775 776 777 778 779 780 781 783 784 785 786 787 788 789 790 791 792 793 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825
Mitchell	605 607 608 609 612 615 618 619 620 627 628 629 630 631 632 633 634 635 636 637 638 640 642 644 647 648 653 655 656 657 658 659 660 661 665 666 667 668 669 670 671 672 673 674 675 676 678 679 683 684 685 686 687 688 690 691 692 693 699 703 704 705 706 707 708 709 710 711 712 713 714 716 717 720 721 722 724 725 728 736 737 738 741 742 743 744 745 746 747 748 749 750 751 752 754 755 759 760 761 762 763 764 765 766 769 770 771 773 774 775 779 780 781 782 783 784 785 786 787 788 789 790 791 796 797 798 799 800 801 804 806 807 808 809 819 820 821 822 823 824 825 826 827 828 829 830

COUNTY	EXCLUDED CHANNELS
Monona	602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 621 622 623 624 625 626 627 628 629 631 632 633 634 635 636 637 638 640 642 644 645 646 647 648 649 650 651 652 655 657 658 659 660 664 665 666 667 668 669 670 671 673 678 679 680 681 682 683 684 685 686 687 688 689 690 692 693 694 695 696 697 698 700 704 705 706 707 708 712 724 725 726 730 731 732 733 741 742 743 744 745 746 757 762 763 764 765 766 768 770 771 772 775 777 778 779 780 781 782 783 784 785 786 787 789 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 807 809 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825
Montgomery	606 607 608 609 610 611 612 613 614 615 616 617 618 620 621 622 623 624 625 629 630 631 632 633 634 635 636 637 638 640 641 642 643 644 645 649 650 651 653 654 655 656 658 660 664 665 666 667 668 669 670 671 673 678 679 680 681 682 683 684 685 686 687 688 689 690 692 693 694 695 696 697 698 700 704 705 706 707 708 712 724 725 726 730 731 732 733 741 742 743 744 745 746 757 761 765 767 768 770 771 772 774 775 776 777 778 779 780 781 785 787 789 790 792 796 797 798 799 800 801 802 804 807 809 810 812 813 814 815 816 817 818 819 820 821 822 824 825
Muscatine	602 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 620 621 622 623 627 628 629 630 631 632 633 634 635 636 637 638 640 642 643 644 645 646 647 648 650 651 652 653 654 655 659 660 661 665 666 667 668 669 670 671 672 673 674 675 676 680 681 682 683 685 686 687 688 703 704 705 706 707 708 709 710 711 712 713 714 719 731 732 733 734 735 736 737 738 741 742 743 744 745 746 747 748 749 750 751 752 764 765 766 768 769 770 771 773 775 779 780 781 782 783 784 785 786 787 788 789 790 791 793 794 795 796 797 798 808 810 811 812 813 814 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830
O'Brien	604 605 606 607 608 609 616 619 621 623 627 628 629 630 631 632 633 634 635 636 637 638 640 648 649 650 653 660 665 666 667 668 669 670 671 672 673 674 675 676 678 679 680 681 682 683 684 685 686 687 688 689 693 694 695 696 697 703 704 705 706 707 708 709 710 711 712 713 714 716 717 725 727 728 729 731 741 742 743 744 745 746 747 748 749 750 751 752 755 757 771 779 780 781 782 783 784 785 786

COUNTY	EXCLUDED CHANNELS
O'Brien (Cont.)	787 788 789 790 791 792 793 800 802 804 805 806 809 810 811 813 819 820 821 822 823 824 825 826 827 828 829 830
Osceola	602 604 606 607 608 609 616 618 619 621 627 628 629 630 631 632 633 634 635 636 637 638 640 642 644 645 649 653 660 661 665 666 667 668 669 670 671 672 673 674 675 676 682 683 688 695 696 697 703 704 705 706 707 708 709 710 711 712 713 714 716 717 718 725 727 728 729 741 742 743 744 745 746 747 748 749 750 751 752 754 755 756 757 762 765 769 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 799 800 801 804 805 806 809 810 811 814 819 820 821 822 823 824 825 826 827 828 829 830
Page	605 606 607 608 609 610 613 615 616 617 618 620 621 622 623 624 625 627 628 629 630 631 632 634 637 640 641 642 643 644 645 649 650 651 652 653 654 655 658 660 664 665 666 667 668 669 670 671 673 678 679 680 681 682 683 684 685 686 687 688 689 690 692 693 694 695 696 697 698 700 704 705 706 707 708 712 724 725 726 730 731 732 733 741 742 743 744 745 746 757 761 765 757 768 770 771 772 774 775 776 777 778 779 780 781 785 787 789 790 791 792 797 799 800 801 802 803 804 805 807 809 810 811 812 814 817 819 820 821 822 823 824 825
Palo Alto	605 606 607 608 618 619 621 627 628 629 630 631 632 633 634 635 636 637 638 640 641 642 653 659 660 661 665 666 667 668 669 670 671 672 673 674 675 676 682 688 696 703 704 705 706 707 708 709 710 711 712 713 714 716 717 728 737 741 742 743 744 745 746 747 748 749 750 751 752 770 773 779 780 781 782 783 784 785 786 787 788 789 790 791 792 801 804 805 806 810 819 820 821 822 823 824 825 826 827 828 829 830
Plymouth	602 603 604 605 606 607 608 609 610 611 612 613 614 615 622 623 624 626 627 628 629 630 631 632 634 636 637 638 640 641 642 643 647 648 649 650 651 664 665 666 667 668 669 670 671 672 674 676 678 679 680 681 682 683 684 685 686 687 688 689 690 692 693 694 695 696 697 698 704 705 706 707 708 710 712 714 716 724 725 726 728 730 731 732 741 742 743 744 745 746 748 750 752 755 770 771 772 778 779 780 782 784 786 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805

COUNTY	EXCLUDED CHANNELS
Plymouth (Cont.)	809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 828 830
Pocahontas	605 607 628 630 632 634 636 638 640 660 661 666 668 670 672 674 676 704 706 708 710 712 714 716 742 744 746 748 750 752 780 782 784 786 788 790 805 820 822 823 824 826 828 830
Pottawattamie	602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 640 641 642 643 644 645 646 647 648 649 650 651 653 654 655 656 657 658 659 660 661 662 664 665 666 667 668 669 670 671 672 673 674 675 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 704 705 706 707 708 711 712 713 724 725 726 730 731 732 733 734 735 737 739 741 742 743 744 745 746 756 757 758 759 761 762 763 764 765 766 767 768 769 770 771 772 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826
Sac	603 605 610 623 626 628 638 648 560 665 668 670 678 679 680 681 682 683 684 685 686 687 688 689 693 694 695 696 697 705 707 725 731 742 743 744 745 771 779 797 802 804 817 824
Scott	602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 626 627 628 629 630 631 632 633 634 635 636 637 638 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 659 660 661 665 666 667 668 669 670 671 672 673 674 675 676 680 681 682 683 684 685 686 687 688 691 692 693 703 704 705 706 707 708 709 710 711 712 713 714 716 718 719 720 727 730 731 732 733 734 735 736 737 738 741 742 743 744 745 746 747 748 749 750 751 752 754 757 760 762 764 765 766 768 769 770 771 772 773 774 775 776 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 805 808 809 810 811 812 813 814 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830

COUNTY	EXCLUDED CHANNELS
Shelby	603 606 607 608 610 612 613 614 615 616 618 621 622 623 624 626 631 632 633 634 636 637 638 640 642 644 646 649 650 651 655 657 658 659 660 665 668 670 673 678 679 680 681 682 683 684 685 686 687 688 689 690 692 693 694 695 696 697 698 700 705 707 712 725 731 733 741 742 743 744 745 757 763 764 765 766 768 771 775 777 779 781 783 784 785 786 787 789 792 795 797 799 801 804 807 809 812 814 815 819 821 824 825
Sioux	602 604 605 606 607 608 609 610 613 615 616 619 621 622 623 624 627 628 629 630 631 632 633 634 635 636 637 638 640 641 642 648 649 650 651 653 665 666 667 668 669 670 671 672 673 674 675 676 678 679 680 681 682 683 684 685 686 687 688 689 690 692 693 694 695 696 697 698 703 704 705 706 707 708 709 710 711 712 713 714 716 725 727 728 729 731 741 742 743 744 745 746 747 748 749 750 751 752 754 755 756 757 771 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 797 799 800 801 802 805 809 810 811 812 813 814 817 819 820 821 822 823 824 825 826 827 828 829 830
Taylor	606 608 610 613 615 617 623 625 629 631 634 637 641 645 650 653 655 665 668 670 678 679 680 681 682 683 684 685 686 687 688 689 693 694 695 696 697 705 707 725 731 742 743 744 745 767 771 775 777 779 787 790 797 799 801 804 807 810 814 817 819 821 824
Van Buren	602 606 608 609 611 613 614 615 616 617 627 628 629 630 631 632 633 634 635 636 637 638 640 641 643 644 645 647 648 653 654 655 656 661 665 666 667 668 669 670 671 672 673 674 675 676 680 681 682 687 695 703 704 705 706 707 708 709 710 711 712 713 714 731 732 733 737 741 742 743 744 745 746 747 748 749 750 751 752 762 765 766 769 775 779 780 781 782 783 784 785 786 787 788 789 790 791 794 797 801 811 813 814 817 819 820 821 822 823 824 825 826 827 828 829 830
Wapello	615 628 630 632 634 636 638 655 666 668 670 672 674 676 681 704 706 708 710 712 714 742 744 746 748 750 752 780 782 784 786 788 790 820 821 822 824 826 828 830

COUNTY	EXCLUDED CHANNELS
Washington	602 606 607 608 609 610 611 612 613 614 615 616 617 621 627 628 629 630 631 632 633 634 635 636 637 638 640 643 644 645 646 647 648 651 652 653 654 655 661 665 666 667 668 669 670 671 672 673 674 675 676 680 681 682 687 703 704 705 706 707 708 709 710 711 712 713 714 732 734 736 747 738 741 742 743 744 745 746 747 748 749 750 751 752 764 765 766 768 769 770 775 779 780 781 782 783 784 785 786 787 788 789 790 791 793 794 795 796 797 798 810 811 812 813 814 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830
Winneshiek	602 603 605 607 608 609 611 612 613 614 619 621 622 623 625 626 627 628 629 630 631 632 633 634 635 636 637 638 640 641 643 644 645 646 647 648 649 656 658 660 661 663 665 666 667 668 669 670 671 672 673 674 675 676 678 679 684 685 686 687 691 692 693 695 697 699 700 702 703 704 705 706 707 708 709 710 711 712 713 714 716 717 718 719 720 721 722 724 727 728 729 730 731 737 741 742 743 744 745 746 747 748 749 750 751 752 754 755 760 763 766 770 773 774 775 779 780 781 782 783 784 785 786 787 788 789 790 791 792 797 798 800 803 804 805 807 808 809 819 820 821 822 823 824 825 826 827 828 829 830
Winnebago	604 605 606 607 608 612 615 618 619 620 627 628 629 630 631 632 633 634 635 636 637 638 640 641 642 643 645 647 648 656 659 660 661 662 665 666 667 668 669 670 671 672 673 674 675 676 678 681 682 684 685 687 688 690 691 692 703 704 705 706 707 708 709 710 711 712 713 714 716 717 719 720 721 722 724 727 728 736 737 738 741 742 743 744 745 746 747 748 749 750 751 752 754 755 760 763 765 769 770 771 773 774 779 780 781 782 783 784 785 786 787 788 789 790 791 797 798 799 801 805 806 808 810 819 820 821 822 823 824 825 826 827 828 829 830
Woodbury	602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 640 641 642 643 646 647 648 649 650 651 652 658 664 665 666 667 668 669 670 671 678 679 680 681 682 683 684 685 686 687 688 689 690 692 693 694 695 696 697 698 700 704 705 706 707 708 712 724 725 726 730 731 732 733 741 742 743 744 745 746 757 763 765 770 771 772 778 779 780 781 783 785 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805

COUNTY	EXCLUDED CHANNELS
Woodbury (Cont.)	809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825
Worth	604 605 606 608 609 612 615 618 619 620 627 628 629 630 631 632 633 634 635 636 637 638 640 641 642 643 644 647 648 653 656 659 660 661 662 665 666 667 668 669 670 671 672 673 674 675 676 678 681 684 687 688 690 691 692 703 704 705 706 707 708 709 710 711 712 713 714 716 717 720 721 722 724 727 728 736 737 738 741 742 743 744 745 746 747 748 749 750 751 752 754 760 763 765 769 770 771 773 774 779 780 781 782 783 784 785 786 787 788 789 790 791 797 798 799 801 806 808 810 819 820 821 822 823 824 825 826 827 828 829 830
Wright	605 619 628 630 632 634 636 638 640 660 661 666 668 670 672 674 676 704 706 708 710 712 714 716 737 742 744 746 748 750 752 770 780 782 784 786 788 790 820 822 823 824 826 828 830

5.6 Assignment Statistics

Maximum field strength for co-channel operation is	5 Dbu
Maximum field strength for adjacent channel operation is	25 Dbu
Total number of channels assigned	371
Total number of unassigned channels	87
Total number of reserved channels	0

5.7 Expansion of Initial Allocation

In the event that the allocation for any county becomes depleted, the Regional 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.

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, an applicant may appeal the allocation, rejection, or limits placed on a particular application for any reason. The appeal process has two levels; the Regional 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.

6.0 THE REGION 15 PLANNING COMMITTEE

800 MHz PLANNING COMMITTEE

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