

ARRC

800 MHZ

DOCKET FILE COPY ORIGINAL

Arizona Regional Review Committee

P.O. BOX 863 • PHOENIX, AZ. 85001

May 22, 2001

RECEIVED
MAY 25 2001
FCC MAIL ROOM

Ms. Magalie Roman Salas
Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street, SW
Room TW-204B
Washington, DC 20554

RE: Application for amendment to Arizona, Region 3, 800 MHz Regional Plan. (PR Docket 91-143)

Dear Ms. Salas:

The Arizona Regional Review Committee (Arizona, Region 3) is submitting this application to amend it's 800 MHz Regional Public Safety Plan. I have enclosed the original amended plan with four copies and letters of concurrence from the five regions adjoining Arizona as specified in the application requirements.

The amendment includes a revision of the allocation of 800 MHz frequencies to accommodate both current, wide-band analog users and new, narrow-band digital users. Also, the Arizona Region interoperability Channel 6 was moved from channel 603 to channel 602. A requirement was added to the plan to restrict use of this channel to prevent interference to an existing station in Southern California, Region 5.

If needed, I can be reached by phone at (480) 644-2801. Correspondence can be sent to the address below.

Sincerely,



Les Jones
Chairperson, Region 3
City of Mesa Communications Division
P. O. Box 1466
Mesa, AZ. 85211-1466

No. of Copies rec'd 014
List A B C D E

Letters
Of
Concurrence

Region 5: California

Region 7: Colorado

Region 27: Nevada

Region 29: New Mexico

Region 41: Utah

ARRC

800 MHZ

Arizona Regional Review Committee

P.O. BOX 863 • PHOENIX, AZ. 85001

November 6, 2000

Garrett Mayer

Region 5: California

Information Technology Service

Telecommunications Branch

9150 East Imperial Hwy.

Rm. C 108-K

Downey, CA 90242-2835

RECEIVED

MAY 25 2001

FCC MAIL ROOM

Dear Garrett:

Enclosed is a copy of a proposed change to the frequency allocation list for Region 3, Arizona. A coalition of the users in the Phoenix metro area developed the proposal to accommodate the current, wide-band analog users and new, narrow-band digital users. The wide-band users would be allocated channels at the lower and upper ends of the band with the narrow-band users allocated channels in the middle. This alignment will create many more channels for both groups of users when compared to the existing plan.

This realignment affects only the allocated users within Maricopa County, which is located in the central part of the State and should have no effect on users in adjoining regions. There is one exception. The Arizona Plan provided for a mutual aid channel, which is in addition to the five required in the National Plan. The proposal includes moving Arizona TAC-6 from channel 603 to channel 602 which takes advantage of a built in guard band at channel 601. The Application Review Committee would still review system coverage for applicants using the proposed plan and insure compliance with plans from adjacent regions. The channels allocated for users in the remainder of the State have not changed and still comply with existing coordination with adjacent regions.

The enclosed sheet shows the existing Arizona Plan in the first four columns. Column five shows the current licensed users and columns six and seven show the proposed changes to the plan.

The FCC requires concurrence with any amendments to regional plans. Please acknowledge concurrence by signing below and returning the original document to me at the address below.

Sincerely,



Les Jones

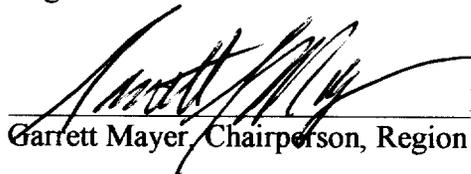
Chairperson, Region 3

City of Mesa Communications Division

P. O. Box 1466

Mesa, AZ 85211-1466

Region 5 concurs with the amended plan attached:



Garrett Mayer, Chairperson, Region 5

Date: 5/1/01

800 MHZ

Arizona Regional Review Committee

P.O. BOX 863 • PHOENIX, AZ. 85001

November 6, 2000

Emery Reynolds
Region 7: Colorado
Arapahoe County Sheriff's Department
Communications Division
5002 South Newton Street
Littleton, CO 80123

RECEIVED
MAY 25 2001
FCC MAIL ROOM

Dear Emery:

Enclosed is a copy of a proposed change to the frequency allocation list for Region 3, Arizona. A coalition of the users in the Phoenix metro area developed the proposal to accommodate the current, wide-band analog users and new, narrow-band digital users. The wide-band users would be allocated channels at the lower and upper ends of the band with the narrow-band users allocated channels in the middle. This alignment will create many more channels for both groups of users when compared to the existing plan.

This realignment affects only the allocated users within Maricopa County, which is located in the central part of the State and should have no affect on users in adjoining regions. There is one exception. The Arizona Plan provided for a mutual aid channel, which is in addition to the five required in the National Plan. The proposal includes moving Arizona TAC-6 from channel 603 to channel 602 which takes advantage of a built in guard band at channel 601. The Application Review Committee would still review system coverage for applicants using the proposed plan and insure compliance with plans from adjacent regions. The channels allocated for users in the remainder of the State have not changed and still comply with existing coordination with adjacent regions.

The enclosed sheet shows the existing Arizona Plan in the first four columns. Column five shows the current licensed users and columns six and seven show the proposed changes to the plan.

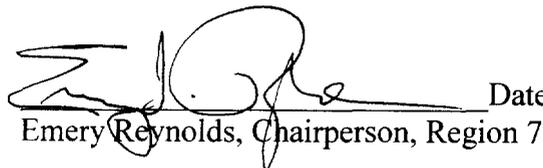
The FCC requires concurrence with any amendments to regional plans. Please acknowledge concurrence by signing below and returning the original document to me at the address below.

Sincerely,



Les Jones
Chairperson, Region 3
City of Mesa Communications Division
P. O. Box 1466
Mesa, AZ 85211-1466

Region 7 concurs with the amended plan attached:



Date: 12-6-00
Emery Reynolds, Chairperson, Region 7

ARRRC

800 MHZ

Arizona Regional Review Committee

P.O. BOX 863 • PHOENIX, AZ. 85001

November 6, 2000

James A. Wilson
Communication Systems Manager
Southern Nevada Area Communications Council

Region 27: Nevada
575 East Flamingo Road
Las Vegas, NV 89119

RECEIVED
MAY 25 2001
FCC MAIL ROOM

Dear Mr. Wilson:

Enclosed is a copy of a proposed change to the frequency allocation list for Region 3, Arizona. A coalition of the users in the Phoenix metro area developed the proposal to accommodate the current, wide-band analog users and new, narrow-band digital users. The wide-band users would be allocated channels at the lower and upper ends of the band with the narrow-band users allocated channels in the middle. This alignment will create many more channels for both groups of users when compared to the existing plan.

This realignment affects only the allocated users within Maricopa County, which is located in the central part of the State and should have no affect on users in adjoining regions. There is one exception. The Arizona Plan provided for a mutual aid channel, which is in addition to the five required in the National Plan. The proposal includes moving Arizona TAC-6 from channel 603 to channel 602 which takes advantage of a built in guard band at channel 601. The Application Review Committee would still review system coverage for applicants using the proposed plan and insure compliance with plans from adjacent regions. The channels allocated for users in the remainder of the State have not changed and still comply with existing coordination with adjacent regions.

The enclosed sheet shows the existing Arizona Plan in the first four columns. Column five shows the current licensed users and columns six and seven show the proposed changes to the plan.

The FCC requires concurrence with any amendments to regional plans. Please acknowledge concurrence by signing below and returning the original document to me at the address below.

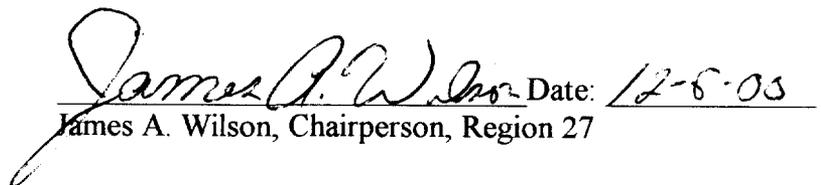
Sincerely,



Les Jones

Chairperson, Region 3
City of Mesa Communications Division
P. O. Box 1466
Mesa, AZ 85211-1466

Region 27 concurs with the amended plan attached:



Date: 12-8-00
James A. Wilson, Chairperson, Region 27

800 MHZ

Arizona Regional Review Committee

P.O. BOX 863 • PHOENIX, AZ. 85001

November 6, 2000

RECEIVED
MAY 25 2001
FCC MAIL ROOM

James Gordon
Region 29: New Mexico
State of New Mexico
Radio Communications Bureau
P. O. Box 5393
Santa Fe, NM 87502-5393

Dear Jim:

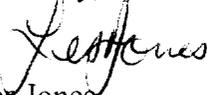
Enclosed is a copy of a proposed change to the frequency allocation list for Region 3, Arizona. A coalition of the users in the Phoenix metro area developed the proposal to accommodate the current, wide-band analog users and new, narrow-band digital users. The wide-band users would be allocated channels at the lower and upper ends of the band with the narrow-band users allocated channels in the middle. This alignment will create many more channels for both groups of users when compared to the existing plan.

This realignment affects only the allocated users within Maricopa County, which is located in the central part of the State and should have no affect on users in adjoining regions. There is one exception. The Arizona Plan provided for a mutual aid channel, which is in addition to the five required in the National Plan. The proposal includes moving Arizona TAC-6 from channel 603 to channel 602 which takes advantage of a built in guard band at channel 601. The Application Review Committee would still review system coverage for applicants using the proposed plan and insure compliance with plans from adjacent regions. The channels allocated for users in the remainder of the State have not changed and still comply with existing coordination with adjacent regions.

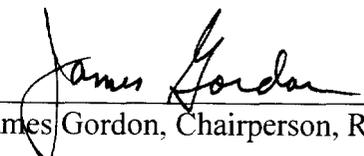
The enclosed sheet shows the existing Arizona Plan in the first four columns. Column five shows the current licensed users and columns six and seven show the proposed changes to the plan.

The FCC requires concurrence with any amendments to regional plans. Please acknowledge concurrence by signing below and returning the original document to me at the address below.

Sincerely,


Les Jones
Chairperson, Region 3
City of Mesa Communications Division
P. O. Box 1466
Mesa, AZ 85211-1466

Region 29 concurs with the amended plan attached:


James Gordon, Chairperson, Region 29 Date: 11-20-00

ARRC

MHZ

Arizona Regional Review Committee

P.O. BOX 863 • PHOENIX, AZ. 85001

November 6, 2000

RECEIVED
MAY 25 2001
FCC MAIL ROOM

Steve Proctor

Region 41: Utah

Utah State Telecommunications Division

6000 State Office Building

Salt Lake City, UT 84114

Dear Steve:

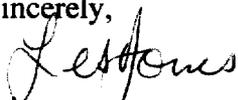
Enclosed is a copy of a proposed change to the frequency allocation list for Region 3, Arizona. A coalition of the users in the Phoenix metro area developed the proposal to accommodate the current, wide-band analog users and new, narrow-band digital users. The wide-band users would be allocated channels at the lower and upper ends of the band with the narrow-band users allocated channels in the middle. This alignment will create many more channels for both groups of users when compared to the existing plan.

This realignment affects only the allocated users within Maricopa County, which is located in the central part of the State and should have no affect on users in adjoining regions. There is one exception. The Arizona Plan provided for a mutual aid channel, which is in addition to the five required in the National Plan. The proposal includes moving Arizona TAC-6 from channel 603 to channel 602 which takes advantage of a built in guard band at channel 601. The Application Review Committee would still review system coverage for applicants using the proposed plan and insure compliance with plans from adjacent regions. The channels allocated for users in the remainder of the State have not changed and still comply with existing coordination with adjacent regions.

The enclosed sheet shows the existing Arizona Plan in the first four columns. Column five shows the current licensed users and columns six and seven show the proposed changes to the plan.

The FCC requires concurrence with any amendments to regional plans. Please acknowledge concurrence by signing below and returning the original document to me at the address below.

Sincerely,



Les Jones

Chairperson, Region 3

City of Mesa Communications Division

P. O. Box 1466

Mesa, AZ 85211-1466

Region 41 concurs with the amended plan attached:



Date: 01-24-07

Steve Proctor, Chairperson, Region 41

Version 3. May, 2001

RECEIVED
MAY 25 2001
FCC MAIL ROOM

**A
R
I
Z
O
N
A

8
0
0

M
H
Z

R
E
G
I
O
N
A
L

P
L
A
N**

(PR Docket 91-143)

REGION 3 (PR Docket 91-143)

THE ARIZONA PUBLIC SAFETY RADIO
SPECTRUM PLANNING COMMITTEE
REGIONAL PLAN

Version 3. May, 2001

RECEIVED

MAY 25 2001

FCC MAIL ROOM

TABLE OF CONTENTS

1.0 INTRODUCTION.....	4
2.0 REGIONAL PROFILE.....	6
3.0 AUTHORITY.....	7
3.1 Regional Planning Committee.....	7
3.2 Working Committee.....	7
3.3 Approval of Regional Plan.....	8
3.4 Regional Review Committee.....	9
3.5 Conclusion.....	10
4.0 COMMUNICATIONS REQUIREMENTS - REGIONAL INTEROPERABILITY.....	11
4.1 General.....	11
4.2 Regional Calling and Interoperability Channels Authority.....	11
4.3 Eligibility.....	11
4.4 Application Procedures.....	12
4.5 Allocated Common Calling/Interoperability Channels.....	12
4.5.1 Common Calling Channel Monitoring Requirements.....	13
4.5.2 Tactical Channel Requirements.....	13
4.5.3 Attestation.....	14
4.5.4 Priority Levels of Utilization.....	14
4.5.5 Language and Radio Codes Standards.....	14
4.6 Federal Govt. Communications Interface Requirements.....	15
4.7 Public Switched Telephone Network.....	15
4.8 Amateur Radio Intercommunications.....	15
4.8 Amateur Radio Intercommunications.....	16
4.9 Operation in Aircraft.....	16
4.10 Grandfathered Equipment.....	16
4.11 Unit Identifiers/Automatic Station ID.....	16
5.0 COMMUNICATIONS REQUIREMENTS-INTERREGIONAL INTEROPERABILITY.....	17
5.1 General.....	17
5.2 Interregional Calling and Tactical Channels; Authority:.....	17
5.3 Southern California Region Compatibility:.....	17
5.4 Other Adjacent Region Compatibility:.....	18
5.5 Communications with Mexico:.....	18
6.0 APPLICATION PROCEDURES.....	19
7.0 APPLICATION EVALUATION PROCEDURES.....	21
7.1 System Design.....	21
7.2 Funding Statement.....	21
7.3 Implementation Schedule.....	22
7.4 Justify the Number of Channels.....	22
7.5 Existing Frequency Statement.....	22
7.6 Evaluation Criteria.....	23
7.7 Appeal Process.....	25
7.8 Service Point Rating.....	25

Minimum.....	25
Local Government	25
Primary Police	25
Fire	25
Highway	25
7.8 Service Point Rating (cont.).....	26
8.0 EXISTING FREQUENCIES	27
8.1 General Re-assignment Philosophy	27
8.2 Point System Overview	27
8.3 Prioritizing Point System	28
Coverage	28
Radiation Pattern.....	28
Location.....	28
Loading	28
Sharing	28
8.4 Band Plan.....	29
9.0 SYSTEM TECHNICAL DESIGN REQUIREMENTS.....	31
9.1 Coverage Limitation - Antenna Height and Power.....	31
9.2 Definition of Service Area	31
9.3 Calculation of Service Area	31
9.4 Responsibility for Calculations.....	32
9.5 Proposed Service Area Exhibit	32
9.6 Control Station (Limit on Effective Radiated Power)	32
9.7 Frequency Reuse	32
9.8 Adjacent Channel Design.....	33
9.9 Absolute Mileage Separation.....	33
9.10 Trunking Requirements	33
9.11 System Loading Requirements	34
9.12 System Engineering Requirements.....	34
9.13 Average Elevation Exhibit.....	35
9.14 Public Switched Telephone Network (PSTN) Interconnect Use	35
9.15 Frequency Allocation List	35
9.16 General Standards.....	36
10. APPENDICES.....	37
APPENDIX I - PLANNING COMMITTEE MEMBERSHIP.....	38
APPENDIX II - ARRC BYLAWS.....	45
APPENDIX III - NPSPAC APPLICATION PROCEDURE.....	54
APPENDIX IV - FREQUENCY ALLOCATION LIST.....	58
Allocated Channels by User	65
APPENDIX V - PROCEDURE FOR DETERMINING SERVICE AREA	69
APPENDIX VI - ADJACENT REGION CONCURRENCE.....	75
APPENDIX VII - CELLULAR NOTIFICATIONS.....	76
APPENDIX VIII - INTERAGENCY RADIO SYSTEM PLAN	77
ARIZONA PUBLIC SAFETY STATEWIDE NETWORK INTER-AGENCY RADIO SYSTEM STATE PLAN.....	78

1.0 INTRODUCTION

In December 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. The Commission issued a Notice of Inquiry on March 7, 1984 and over 300 comments from the public safety community and other interested parties were evaluated by the FCC staff.

These comments formed the basis for a Staff Report issued by the Commission's Private Radio Bureau on August 1, 1985. This report suggested various methods of meeting the communications needs of public safety. One option included the allocation of additional frequencies at 821-825 MHz and 866-870 MHz.

The Commission issued an allocation order on September 19, 1986. Six megahertz of spectrum were selected in the 821-824 MHz and 866-869 MHz bands since they were adjacent to frequencies already being used for public safety purposes. However, while the Commission made this allocation for this additional 6 MHz of spectrum for public safety use nationwide, they also recognized the necessity of developing a National Plan to promote interoperability among public safety providers and to insure an efficient use of the newly allocated spectrum.

Recognizing the importance of public safety participation in the development of the National Plan, the FCC established the National Public Safety Planning Advisory Committee (NPSPAC) in December 1986. With an open membership, NPSPAC provided the opportunity for the public safety community and other interested members of the public to participate in an overall spectrum management approach. The Commission charged NPSPAC with the following tasks: (1) identify communications requirements of public safety agencies; (2) develop a scheme for efficient use of the new frequencies; (3) develop a scheme to increase the utility of existing public safety frequencies; (4) recommend the manner in which new technologies can be applied to the public safety frequencies; and (5) recommend guidelines to ensure compliance with the National Plan.

NPSPAC submitted its Initial Report to the Commission in March 1987. On May 15, 1987, the Commission issued a Notice of Proposed Rule Making which proposed policies and rules for the National Plan. NPSPAC issued its Final Report in September 1987. On December 18, 1987, the Commission released a report and order regarding the development and implementation of a Public Safety National Plan: General Docket No. 87-112.

The National Plan consists of guidelines for the development of regional plans. The National Plan reflects the FCC's regulatory objective of maximizing spectrum efficiency and ensuring sufficient flexibility to accommodate specific communications requirements in different areas of the United States. Thus the United States was divided into Regions, primarily along state boundaries. A few large metropolitan areas were designated as independent Planning Regions.

Prior to the Report and Order, NPSPAC's Final Report had recommended a total of fifty-four (54) Planning Regions. However, when the Report and Order was released, the Commission had

Version 3. May, 2001

established only forty-eight (48) Planning Regions. A Petition for Limited Reconsideration was filed by NPSPAC on February 12, 1988, asking that additional planning regions be established due to densely populated metropolitan areas, which were regions in themselves. The Commission granted this Petition and established fifty-five (55) regions with Arizona as Region 3. The National Plan will serve as an umbrella under which regional plans such as this can be developed and implemented.

The National Plan provides guidelines for the development of regional plans, with as much regional self-governing as possible, to ensure that the needs of all eligibles are considered in the planning process.

2.0 REGIONAL PROFILE

The state of Arizona encompasses almost 114,000 square miles and makes up Region 3. Much of the state is sparsely populated Federal and Native American Reservation land. There are two major population centers, Phoenix and Tucson. The State currently has over 3.5 million residents with population projections indicating an increase to 6.5 million people by the year 2000.

Geographically, Arizona is a complex mixture of environments varying from desert scrub plants near sea level to barren mountain peaks at over 12,670 feet elevation. An example of the extreme desert to mountain change occurs in the Tucson area where the Sonoran Desert basin changes to a pine forest in the Coronado National Forest, an almost 7000 foot change occurring in about 15 miles. Besides the Grand Canyon, another major geographic feature is the Mogollon Rim, a 200-mile long geographic barrier that separates the northern and southern portions of the State. The top of the Rim plateau contains the world's largest standing Ponderosa pine forest. The high mountains provide both the best and worst of radio communications and the ensuing interference and spectrum planning problems.

3.0 AUTHORITY

This plan has been developed by a representative group of Public Safety Services eligible for licensing in the 6 MHz of the 800 MHz spectrum. Authority for the Regional Planning Committee to carry out its assigned tasks is derived from the Federal Communications Commission (FCC Report and Order, Docket 87-112).

3.1 Regional Planning Committee

A Convener was selected and public notification pursuant to the National Plan was initiated. Since the state of Arizona has two large populated metropolitan centers and the majority of the state is rural areas, three (3) public meetings were held in order to accommodate the rural areas.

The membership of the Arizona Regional Planning Committee is open to representatives from all eligible user groups pursuant to FCC Report and Order, Docket 87-112, Section IV, Subsection B, Paragraph 46. Interested parties became participants in the formation of the Regional Planning Committee and represent both the Public Safety and Special Emergency Radio Services. A total of 105 individuals have participated in the Plan's developmental process. Appendix I lists names, organizational affiliations, and mailing addresses of all participants in the Regional Planning Committee formation.

Prior to working on the plan, the working committee sent two questionnaires to all Public Safety and Special Emergency Radio Service users for input concerning present and future communications needs. After compiling the received data from responding agencies, the Regional Planning Committee drafted the Plan.

3.2 Working Committee

A working committee was established to facilitate the development of the Regional Plan. Their main function was to receive input from local, state and federal representatives, as well as vendors and suppliers to be used in the formation of the Regional Plan. Members of this committee are as follows:

Chairman: Anthony J. Tricoli
City of Mesa Communications Division
P.O. Box 1466
Mesa, AZ. 85211-1466
Tel. (602) 644-2802

Member: Debbie Overton
Maricopa County Sheriff's Office
102 West Madison
Phoenix, AZ. 85003
Tel. (602) 256-1026

Member: Brent Ackzen
City of Glendale
Department of Police
7119 N. 57th Drive
Glendale, AZ. 85301
Tel. (602) 931-5518

Member: Rick Tannehill
Arizona Department of Public Safety
Technical Communications Division
P.O. Box 6638
Phoenix, AZ. 85005
Tel. (602) 223-2295

Member: Bob Gates
Salt River Project
P.O. Box 52025
Phoenix, AZ. 85072-2025

Member: Peter Meeks
City of Phoenix
Communications Section
2441 S. 22nd Avenue
Phoenix, AZ. 85009-6917
Tel. (602) 262-7034

3.3 Approval of Regional Plan

Prior to submitting the plan for FCC approval, an announcement was made that a draft of the Plan was available for review, and copies were sent to any requesting party. All adjacent regions (Region 5 - Southern California, Region 7 - Colorado, Region 27 - Nevada, Region 29 - New Mexico, and Region 41 - Utah) received copies for review and comments. (See Appendix VI for concurrence)

Version 3. May, 2001

All comments were to be received by February 1, 1991. A public meeting was held on February 7, 1991 at 0930 hrs at the City of Glendale Council Chambers Building, as a means for those interested parties to make their comments known before the Working Committee. Following receipt of all comments, the Working Committee made modifications to the Plan by the opinion of the majority. Copies of the modified sections of the Plan were sent to those parties who had submitted comments. Upon approval of the changes, the final plan was formulated.

3.4 Regional Review Committee

Upon FCC approval of this plan, a Regional Review Committee will be established for the review of new applications and for conducting an annual system implementation review. Since modifications to the Plan may be necessary because of changing requirements, the committee will also recommend changes and/or modifications of the Regional Plan to be submitted to the FCC. The committee will also provide a mechanism for resolution of inter- and intra- regional disputes and for exercising general oversight of the Plan.

The Arizona Regional Review Committee (ARRC) shall be comprised of eleven members with no more than one committee member from a single political jurisdiction. Nominations to the committee shall be made as part of an open, general meeting.

Semi-annual open, public meetings shall be held concurrent with Arizona APCO chapter meetings. Each attending political jurisdiction shall be apportioned one vote at each meeting. Designated representatives and alternates shall be identified prior to the meetings.

Voting on vacancies shall take place at the general meeting of the ARRC after publication of all nominations to the entire APCO chapter membership. Members to this committee must be elected by a majority vote of all designated representatives present at the semi-annual meeting, as per Robert's Rules of order, and who are current employees of an Arizona political jurisdiction. The chairperson of this committee shall be chosen by the committee.

There shall be no time limit for serving on the ARRC, but a member may be removed from this Committee by resignation or by a vote of the quorum of an open, general meeting. Such removal may take place only after a thirty-day written notice has been made to the entire authorized voting representatives.

No changes, modifications, or amendments can be made to the approved Plan unless agreed to by at least a two-thirds majority of the quorum of the ARRC members.

No change in a position on the priority list for assignment of a frequency in either the 800 MHz spectrum or in reallocation of lower frequencies that may be given up to receive 800 MHz assignments can be made unless approved by at least a two-thirds majority of the ARRC.

Minutes of all meetings of the ARRC must be taken and mailed to the appropriate agencies.

3.5 Conclusion

This Plan, when approved and implemented, will ensure the best possible use of this new portion of the spectrum and will also ensure an orderly transition from existing frequencies/systems to this new portion of the spectrum. It will also serve as a guide in the reassignment of vacated channels, and provide, through the Regional Review Committee, an ongoing method of ensuring fair and equitable recommendations of channels and usage to all Public Safety Services and users. Resolution of any arising conflict is left to the judgement of the Commission.

4.0 COMMUNICATIONS REQUIREMENTS - REGIONAL INTEROPERABILITY

4.1 General

This part of the Arizona Regional Plan deals with the requirement for coordinated communications between various jurisdictions and functional entities within the Region. The intent is to ensure compatibility in the assignment of frequencies, especially calling and interoperability channels. The purpose of this plan is not to replace existing intercommunication plans or channels, but to supplement them at 800 MHz with a more detailed plan. In fact, the Regional Plan encourages continued use of VHF and UHF intercommunications presently in use for Police and Fire, including 155.475 MHz, 460.375 MHz, and 154.280 MHz. The plan also encourages cross patching these channels to the 800 MHz Common Calling Channels, and others as appropriate, at the dispatch console level within regional operating subsystems.

4.2 Regional Calling and Interoperability Channels Authority

The Federal Communications Commission (FCC), in Docket 87-112, Sec. IV.C.50-52, released Dec. 18, 1987, mandated the use of a single, conventional, common-calling channel and four (4) tactical channels on a nationwide basis in the new 800 MHz Public Safety allocations. The FCC also strongly recommended the use of CTCSS tone squelch nationally on a frequency of 156.7 Hz.

The Arizona Regional Planning Committee has reviewed and implemented the five- (5) national channels, and added one (1) additional 800 MHz channel for interoperability strictly within the Arizona Region. The Arizona Plan also adopts the use of 156.7 Hz tone squelch as mandatory on all voice radio systems on the common calling and interoperability channels.

4.3 Eligibility

Primary eligible users include Police, Fire, Local Govt., Highway Maintenance, Forestry Conservation, and providers of Basic and Advanced Life Support Services in Special Emergency Services, as defined in the FCC Rules and Regulations, and licensed to use the spectrum. These users are eligible to operate base stations on the five- (5) National and one- (1) Statewide interoperability channels.

In addition, Federal agencies may become eligibles through the use of public safety agreements, whereby a licensee may permit federal use of a non-federal communications system. Such use, other than the five common calling channels is to be in full compliance with the FCC's requirements for federal government use on state and local government frequencies (Title 47 CFR, Sec. 2.103).

Also, other eligibles such as school buses, volunteer emergency corps, Red Cross, Radio Amateur Civil Emergency Services (RACES), Amateur Radio Emergency Services (ARES), Salvation Army, etc., under the National Plan may also participate on a secondary basis in the support of the preservation of life and property during an emergency.

4.4 Application Procedures

All interoperability channel licensees for Mobile Relay (FB2), or Fixed Stations (FB) shall be obtained by and in the name of the entity authorized by the Arizona Regional Review Committee. Other base radios shall be licensed in the name of the applicant agency. In accordance with FCC Report and Order General Docket 87-112, vehicular, portable, and aircraft stations using either the five National channels or the Statewide interoperability channel (Channel 6) may operate without further FCC authorization. However, the prospective vehicular/portable/aircraft user must comply with 4.5.4 of this section.

4.5 Allocated Common Calling/Interoperability Channels

The use and allocation of the calling and interoperability channels is broken down as follows:

Channel 1 (821/866.0125 MHz) - National Public Safety
Calling and Rural Tactical Operations Interoperability.

Channel 2 (821/866.5125 MHz) - Primary Fire and Emergency Medical Service In Maricopa County;
Secondary in Pima County.

Channel 3 (822/867.0125 MHz) - Primary Police in Maricopa County; Secondary in Pima County.

Channel 4 (822/867.5125 MHz) - Primary Fire and Emergency Medical Service in Pima County;
Secondary in Maricopa County; Federal Govt.

Channel 5 (823/868.0125 MHz) - Primary Police in Pima County; Secondary in Maricopa County;
Federal Govt.

Channel 6 (821/866.0375 MHz) - Primary Statewide for all Other Public Safety, including
Highway/Forestry/Local Govt./Search & Rescue.

Although primary and secondary usage is defined above, this is not to preclude use by all other eligibles when appropriate in coordinated operations. (See 4.3)

4.5.1 Common Calling Channel Monitoring Requirements

All new portable/mobile radios granted license authorizations in the 821-824 MHz and 866-869 MHz bands, as well as all replacement equipment in the 806-821 MHz and 851-866 MHz bands, shall be capable of and equipped to operate on Channels 1 - 5 calling and tactical frequencies in the conventional mode of operation. In addition, each portable/mobile radio shall have the repeater "talk-around" channel on Channel 1 (National Calling Channel) and on their primary and secondary service tactical channels. Also, a Public Safety eligible receiving a new 800 MHz license is required to be able to monitor and communicate in the repeater and "talk-around" modes at their primary communications site.

Use of Arizona Channel 6 is prohibited in some areas in the Counties bordering California; however, it shall be included in all portable/mobile equipment in all other areas. Use of Channel 6 in La Paz and Mohave Counties is subject to interference from a State of California transmitter located near Needles, California and use is prohibited within a 70 mile radius of the transmitter located at 34° 40' 54"N, 114° 41' 24"W.

The largest geographic Public Safety 800 MHz new system licensee in a geographic area may be required to place in operation, a Channel 1 calling channel repeater at one or more of their existing repeater sites. If notification is made to a prospective licensee as a condition of system plan acceptance by ARRC and the FCC, the station shall be placed in service at the same time with the rest of the authorized system. A suitable Calling Channel funding plan shall be submitted as part of the authorization request.

4.5.2 Tactical Channel Requirements

4.5.2.1 Monitoring Requirements

Each new licensee in the 800 MHz spectrum shall also have a base station radio at their primary station site, as a minimum requirement, capable of monitoring and operating on the primary and secondary tactical channels in their area, for which they are eligible service providers. This base station radio shall include frequencies for both simplex and repeater control.

4.5.2.2 Repeater Establishment

No permanent high power repeaters shall be established on any of the tactical channels. However, low power (<20 watts ERP) transportable repeaters may be employed by any eligible service agency for establishing emergency communications over a wider area than simplex communications would allow. Such a repeater shall be turned off and removed as soon as practical after the event has passed. At no time will a tactical repeater be allowed to operate for more than a 30-day continuous period.

4.5.2.3 Voice Security/Privacy/Scrambling Equipment

Voice scrambling or encryption is NOT ALLOWED on the Common Calling Channel, except in rural areas, where the calling channel is also used for tactical operations. In rural areas, each licensee is still required to monitor the calling channel in CLEAR mode, regardless of voice encryption.

Voice scrambling or encryption IS allowed on the other voice tactical channels, either unit to unit, unit to base or through a temporary repeater if all users of the temporary repeater also have access to the CLEAR mode, or the same encryption scrambling standard as required.

4.5.3 Attestation

Each prospective licensee shall include a standard signed statement form with their request for authorization, acknowledging they have read and are familiar with the Arizona Regional Plan and agree to abide by its conditions, especially insofar as the Common Calling and Tactical Channel operational requirements.

4.5.4 Priority Levels of Utilization

The established priority use levels for the six- (6) calling/tactical channels are described below. When a higher priority of use is required, all lower priority use must cease in ANY area where interference could occur.

The four priority levels are:

PRIORITY 1: Disaster and extreme emergency operations of large scale involving imminent safety of lives, for mutual aid and interagency communications.

PRIORITY 2: Emergency or urgent operations involving imminent safety of life or property.

PRIORITY 3: Special event control activities, generally of a preplanned nature, and generally involving joint participation of two or more agencies.

PRIORITY 4: Drill, maintenance, and test exercise of a civil defense or disaster nature.

4.5.5 Language and Radio Codes Standards

All communications on the Calling Channel will be conducted in "CLEAR TEXT", using the ENGLISH language, unless use of another language is clearly necessary to carry out emergency communications.

4.6 Federal Govt. Communications Interface Requirements

Federal Govt. agencies, operating within the borders of the Arizona region, may access the Common Calling and Tactical Channels for the purpose of coordinating with and communicating with Public Safety eligibles. Federal agencies are exempt from the monitoring requirements set forth in Sec 4.2. However, their use of the Common Calling and Tactical Channels shall otherwise be in complete conformance with the Regional Plan.

Before a federal agency is certified eligible to access the Common Calling and Tactical Channels, there shall be established a formal agreement with the Public Safety eligible with whom they desire to have communications. This agreement shall be on the standard ARRC form. Each agreement shall be mailed to the ARRC for review and to be placed on file with the committee.

4.7 Public Switched Telephone Network

The use of automatic or operator-assisted connection on the Common Calling and Tactical Channels to the public switched telephone network is strictly **PROHIBITED**.

4.8 Amateur Radio Intercommunications

It is the intent of the Arizona Regional Plan to encourage participation of the Amateur Radio community in public safety communications relating to emergency or disaster communications.

The following intercommunications of public safety radio communications systems are encouraged in emergency/disaster situations:

1. Loan of 800 MHz radios to qualified amateur radio emergency coordination groups, such as RACES, AREC, etc.
2. Allow amateur radio nets to operate out of Public Safety Command Centers.
3. Allow selective amateur to Public Safety cross patching under emergency conditions, at selected public safety communication centers, under control of a governmental entity.

4.8 Amateur Radio Intercommunications

All Amateur/Public Safety communications shall continue to comply with applicable FCC Rules and Regulations, and rules and plans of the affected amateur group.

It is strongly recommended that each Public Safety entity have an agreement in place with volunteer amateur groups, defining what level of intercommunications will be allowed and provided during an emergency situation. This plan should be filed with the ARRC coordinator for approval.

4.9 Operation in Aircraft

Operation of radio equipment on the six (6) Common Calling and Tactical Channels is permitted, provided power is limited to 3 watts ERP and conforms to all applicable FCC Rules and regulations.

4.10 Grandfathered Equipment

Existing radio equipment that is currently operating in 806/866 MHz band and was in the agency's possession or ordered on/or before September 7, 1988 may be used with notification to the ARRC. To operate on the five- (5) National Mutual Aid Channels, the deviation is to be +/- 4.0 kHz maximum.

4.11 Unit Identifiers/Automatic Station ID

Units operating on the Mutual Aid Channels are to include their agency name in their unit identification. (Example: Maricopa County, Mesa PD Unit 2 Adam 01) Automatic Station Identifiers usage is encouraged but is not to replace the voice identification requirement.