

800 MHz REGIONAL PLAN
APPLICATION CHECKLIST

GUIDELINES ONLY - NOT PART OF THE PLAN

1. Application should be sent to Gary Gray (Local Area Frequency Advisor). He will forward to APCO - Florida.
2. Applications must include a propagation study using the U.S. Department of Commerce NTIA Telecommunications Analysis Services Model. The information for the NTIA Service is:

U.S. Department of Commerce
National Telecommunications & Information Administration
Mail Stop ITS.54
325 Broadway
Boulder, CO 80303-3328
ATTN: Eldon Haakinson
(303) 497-5301

Use the CSPM Model - Mobile Service, 95% Reliability and Situation Variability of 50%. Field strength contours of 40dBu, 35dBu, and 20dBu are required with a color plot.

3. Include a letter specifying any "Give-up" channels to be released. If release dates are known, include them in the letter.
4. Note that the Regional Plan requires field tests after your system is constructed to verify actual interference levels - be prepared to make changes to your system to meet the interference criteria.
5. Include with your filing any concurrence agreements with co- or adjacent channel users. Also include any requests for waivers from the Plan criteria with supporting information.
6. Requests for "slow growth" system construction must be requested in a cover letter accompanying your application. Your request must conform to FCC Rules 90.155 and the other sections cited under 90.155.

DB/mm

THE SOUTHERN CALIFORNIA 800 MHz
REGIONAL COMMUNICATIONS PLANNING COMMITTEE

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Southern California 800 MHz
Regional Communications Planning Committee
- REGIONAL PLAN -

1.0 SCOPE

This plan specifically addresses utilization of the 6 MHz of 800 MHz spectrum allocated to Public Safety and the subsequent "give-ups" of other spectrum as agencies migrate. The planning effort has also had to take into consideration all available spectrum resources in Southern California. Other sources of relief include the UHF TV Channel 16 allocation, the Waiver for use of "Off-Sets" by San Bernardino County and the possible assignment of some additional UHF 470 to 512 MHz frequencies to Public Safety Users in the metropolitan Los Angeles area. Even though all resources have been considered, an acute shortage of spectrum will continue to exist. Failure of any on-going spectrum relief efforts will negatively impact this plan and perpetuate the communications problems experienced by Public Safety providers in Southern California.

It is the intent of this plan to manage spectrum resources and to establish certain interagency operational procedures as set forth by the Federal Communications Commission (FCC) in General Docket 87-112. This plan addresses the issues delineated in Docket 87-112 and specifically those items identified in Section IV, subsection C, paragraph 51, Contents of Regional Plans.

1.1 Background

In February of 1986, Southern California public safety agencies banded together to formulate a communications plan for Southern California. It was recognized by all that more effective and efficient spectrum utilization was needed if our communications systems were to survive.

Partial relief of the acute spectrum shortage was anticipated through the assignment of UHF TV Channel 16 to public safety agencies in the Los Angeles area as well as the possibility of an allocation of some of the 800 MHz reserve spectrum. It was also recognized that all available spectrum resources had to be considered in developing a functional plan, insuring equitable distribution of the limited spectrum to all agencies.

A spectrum management concept paper, entitled "The Southern California Frequency Management Concept," was cooperatively developed and subsequently submitted to the Federal Communications Commission in March of 1986. This paper was one of many building blocks that led to the formation of the National Public Safety Planning Advisory Committee (NPSPAC) and subsequently the National Plan.

In July 1986, the Federal Communications Commission allocated 6 MHz of the 800 MHz reserve radio frequencies to Public Safety Radio Services and Special Emergency Radio Service (SERS) nationwide. In compliance with a congressional mandate, the Federal Communications Commission required that a National Plan outlining the use of Public Safety radio frequencies be in place before any agency would receive channels from this new allocation. As part of this requirement, Regional Plans conforming to the National Plan were to be developed.

A Regional Plan for radio spectrum usage by Public Safety agencies in the ten southernmost counties of California was written. The plan has been reviewed by a committee of representative governmental agencies legally responsible for providing Public Safety services in their respective counties to insure that Public Safety and Special Emergency Radio Services eligibles spectrum needs have been addressed to the greatest extent possible and to insure that all eligibles have had an opportunity to participate in the development of this Regional Plan.

Prior to the formation of the National Public Safety Planning Advisory Committee and the acceptance of the National Plan, it was well known in the public safety community that some form of organized planning would have to take place prior to the assignment of radio frequencies. Most impacted areas began developing plans consistent with the use environment in their area. Southern California was no exception. Through county representatives from

the ten southernmost counties of California, surveys were distributed to all identified public safety eligibles to determine their spectrum requirements.

Following the adoption of the National Plan, the FCC issued a Public Notice inviting all interested parties to participate in the establishment of a committee that was to develop this Regional Plan. In addition to recontacting known eligibles and confirming their needs, various trade journals and other print media were used to advise all eligibles and interested parties of the committee's intent to develop this plan.

Every effort has been made to insure that all eligibles and interested parties were given the opportunity to participate in the planning process pursuant to the mandates of the National Plan.

1.2 Summary of the Plan

The Southern California 800 MHz Regional Communications Plan was developed to insure that the most efficient use is made of available spectrum and that maximum public benefit is derived from all radio communications used by eligibles that come under FCC Rules for Public Safety Radio Services and the Special Emergency Radio Service (SERS). This Regional Plan was established with the objective of insuring that unassigned frequencies would be distributed in an equitable fashion with the priority given to those public safety agencies that are primarily responsible for

the protection of life and property and that assigned frequencies will be utilized in the most efficient manner.

The plan includes the following:

- * The methodology for assigning user priorities and frequency assignment
- * Channel "Give-Up" and reassignment criteria
- * Specific system design criteria
- * Implementation parameters
- * Use, Control and Responsibility of the 5 common National Channels
- * Intra-regional mutual aid
- * Inter-regional Coordination
- * Unsatisfied spectrum requirements
- * Frequency specific channel assignment and "Give-Up" plans

2.0 REGIONAL PLANNING COMMITTEE

The Southern California Public Safety 800 MHz Regional Communications Committee (Planning Committee) has been in place for over 2-1/2 years. However, following the adoption of the National Plan the committee was restructured to be in compliance with the plan. A Convenor was selected and public notification pursuant to the National Plan was initiated. The first formal meeting of the restructured committee was conducted on May 4, 1988 at the San Bernardino County Government Center in San Bernardino, California. It was unanimously agreed upon by those present at the meeting to proceed with previous planning endeavors under the leadership of the 800 MHz Planning Committee. Participants at

the meeting unanimously elected Garrett Mayer to serve as Chairman of the 800 MHz Planning Committee. Garrett Mayer had previously been selected to serve as the Convenor for this Region (see Attachment 2 for attendance roster).

Convenor and Committee Chairman
Garrett Mayer
Los Angeles County
1110 North Eastern Avenue
Los Angeles, California 90063
Telephone # (213) 267-2320

2.1 Authority

Authority for the Planning Committee to carry out its assigned tasks is derived from the Federal Communications Commission (FCC Report and Order, Docket 87-112). Each Committee member that is a representative of an eligible licensee under the Public Safety Radio Services and the Special Emergency Radio Service is entitled to one vote in all Committee matters. Except as may be provided elsewhere in this Plan, a simple majority of those present at a scheduled meeting will prevail provided at least 10 working days notice of the meeting has been provided.

2.2 Area of Responsibility-Regional Boundaries

The Region is defined as Region #5 in F.C.C. Docket 87-112. It consists of the ten southernmost counties of California. It is bordered on the south by Mexico, on the west by the Pacific Ocean, on the north by the Northern California Region (Region 6), and on the east by the States of Arizona (Region 3) and Nevada (Region 27).

2.3 General Membership

The membership of the Southern California Public Safety 800 MHz Regional Planning Committee (the 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 (see Attachment 1 for individual names and addresses).

2.4 Working Committee

A Working Committee was established to facilitate the development of the Regional Plan. The members of this committee were selected and approved by the general membership at the first formal meeting of the Regional Planning Committee on May 4, 1988.

Members of this committee are as follows:

- CHAIRMAN Garrett Mayer
Los Angeles County Communications
1110 North Eastern Avenue
Los Angeles, California 90063
Telephone # (213) 267-2320
- ALTERNATE David Buchanan
San Bernardino County Communications
777 East Rialto Avenue
San Bernardino, California 92415-0740
Telephone # (714) 387-2007
- MEMBER Roger Deyoe
Orange County Communications
481 The City Drive South
Orange, California 92668
Telephone # (714) 938-4323
- MEMBER William Kahn
San Diego County
5555 Overland Ave., Bldg 12
San Diego, California 92123
Telephone # (619) 565-5080
- MEMBER Loren Kizzia
City of Los Angeles
200 Spring Street, Room 1700 City Hall
Los Angeles, California 90012
Telephone # (213) 485-6435

-MEMBER Mehrdad Larijaniha
 City of Los Angeles
 200 Spring Street, Room 1700 City Hall
 Los Angeles, California 90012
 Telephone # (213) 237-1036

-MEMBER Glen S. Nash
 State of California
 601 Sequoia Pacific Blvd
 Sacramento, California 95814-0282
 Telephone # (916) 445-4952

-MEMBER Dieter Preiser
 Riverside County
 7195 Alessandro Blvd
 Riverside, California 92506
 Telephone # (714) 787-2725

-MEMBER Donald E. Root, Jr.
 State of California
 2151 East D Street, Suite 203A
 Ontario, California 91764-4452
 Telephone # (714) 391-4485

-MEMBER David Seidel
 San Bernardino County
 1771 Miro Way
 Rialto, California 92376
 Telephone # (714) 829-7903

-MEMBER Steve Tivy
 Los Angeles County
 1110 North Eastern Avenue
 Los Angeles, California 90063
 Telephone # (213) 267-3001

The Working Committee was given the task of drafting the Southern California Regional Plan and coordinating its efforts with neighboring Regional Planning groups to insure compatibility with adjoining systems. The Working Committee distributed draft copies of the Southern California Plan for review and comment by the General Membership and provided progress reports at scheduled meetings.

2.5 Regional Plan Review Committee

The Working Committee drafted the Plan and circulated it among all interested parties for review and comment to insure that all eligibles needs were addressed to the greatest extent possible prior to submittal to the FCC. The full Planning Committee acted as the final review committee to insure National Plan compliance and to insure that the needs of all agencies were addressed to the highest degree possible.

2.6 Regional Plan Revision Committee

After the Regional Plan has been adopted by the FCC, modifications may be necessary because of changing requirements. To provide for this, a Regional Plan Revision Committee (Revision Committee) will be established. The function of this committee will be to recommend changes and/or modifications to the Regional Plan and to provide a mechanism for resolution of inter- and intra-region disputes. Additionally, this committee will review the system implementation status of those agencies subject to this plan at least once a year.

The members of the Revision Committee will be nominated by the Chairman of the Regional Planning Committee and elected by the General Membership. At a minimum, the standing membership of the Revision Committee shall include the designated local APCO Frequency Coordination Advisor and Alternate, one member from each of the counties in the Region, a representative from the City of Los Angeles and a representative from the State of California. The members of the Revision Committee shall elect one member to serve as chairman.

3.0 FREQUENCY COORDINATION

It is not the intent of this section to undermine or infringe on current frequency coordination practices and policies, nor to assume the frequency coordination responsibilities of recognized frequency coordinators. However, to develop an effective and functional plan, certain recommendations have been made regarding the reassignment of vacated frequencies.

If these recommendations are not followed, the planning methodology used to achieve maximum benefit from public safety radio frequencies will prove to be erroneous. Many public safety agencies agreed to remain within the band they currently use provided that additional relief could be provided. Returning these channels to their respective service pools may result in reassignment to less critical areas as a result of current first-come, first served practices.

The frequency assignment recommendations for frequencies contained in the Regional Plan were developed to promote maximum frequency reuse and insure spectrum efficiency. Frequency Coordinators should carefully review all applications for compliance with the technical criteria contained in the Regional Plan, as well as conformance to the National Plan. In addition, Frequency Coordinators should require tests and/or detailed engineering data for any applications that appear to present a potential for interference to other users. All applicants shall be required to conduct on the air tests after installation to demonstrate compliance with the interference criteria in Section

5.4. Systems failing to meet those interference criteria shall be modified at the expense of the licensee. Test data shall be submitted to the Local APCO Frequency Coordination Advisor.

3.1 Intra-regional Frequency Coordination

Frequency assignment of the new 800 MHz allocation is clearly the responsibility of the Planning Committee as one of its planning responsibilities. The assignment of channels will be subject to specific design and implementation criteria to insure maximum reuse. However, agencies experiencing interference problems resulting from channel assignment or abuse by adjacent and/or co-channel users in violation of Section 5.1 shall notify the Revision Committee and make a reasonable attempt to resolve the interference problem at a Regional level before seeking outside mediation. The Planning Committee shall retain the authority to change channel assignments in order to mitigate inter-agency disputes.

3.2 Inter-regional Frequency Coordination

Implementation of the 5 National channels shall be coordinated with adjacent regions to insure uniformity of use and implementation. Additionally, general assignment channels used in the border areas of the region shall be coordinated with the adjacent regions to insure maximum spectrum reuse region to region. The Southern California Region has completed coordination with adjacent regions pursuant to FCC mandate. Those regions are: Northern California (Region 6); Arizona (Region 3); and Nevada (Region 27) (See Attachment 3, Inter-region Coordination Agreement).

4.0 MUTUAL AID

One of the primary objectives of the National Plan was to establish a mechanism providing for multi-agency, multi-discipline communications at all levels of government. On a national level, this has been accomplished by setting aside 5 channels for use on a nationwide basis. The Regional Planning Committee, in cooperation with the Northern California Regional Planning Committee (Region 6) has established two (2) additional channels for use on a statewide basis. These channels will be in addition to the current 6 statewide highband, 1 statewide UHF, and 7 L.A. County area UHF mutual aid channels. This will provide a total of 21 mutual aid channels for use in this region.

While general guidelines for implementation of the five National Common Channels were set by the Federal Communications Commission, specific policies and procedures are to be set by each Region. This section establishes the policies and procedures for utilization of the five National Common Channels as well as the two Statewide (California) Mutual Aid Channels within the Southern California Region.

The State of California has long realized the need for interoperability (referred to locally as "mutual aid") amongst police, fire, and EMS agencies within the State. As such, a Statewide Mutual Aid Radio System (SMARS) Plan was developed which established mutual aid frequencies throughout the State. In general, at least one channel has been established in each of the various

frequency bands (VHF low-band, VHF high-band, and UHF) for mutual aid purposes. These channels are available for use by any and all state, county, or local governmental agencies. The Southern California Regional Frequency Plan proposes to expand the SMARS Plan to the 800 MHz band by designating channels 792 and 830 for statewide mutual aid purposes.

Similarly, many counties have established channels for use by any and all agencies within the county for mutual aid purposes. In general, the frequencies are selected to be "same radio" compatible for a majority of the governmental entities within the county. The five channels set aside by Los Angeles County out of the TV Channel 16 allocation are a good example of these "county" mutual aid channels. Such mutual aid set-asides are applicable only within the county establishing the system and are not available for mutual aid purposes in other parts of the State.

In general, major dispatch-centers and emergency operating center (EOC's) operated by state, county, and local governmental entities have the capability to cross-patch the various mutual aid channels together. Thus, a "statewide, VHF high-band, fire" mutual aid channel can be cross-patched to a "statewide, UHF, police" mutual aid channel of a "county, VHF high-band, fire" mutual aid channel; etc., should the need arise. In this manner, the mutual aid radio system is configured to meet the needs of situation. As an example, the Los Angeles County EOC will be equipped to cross-patch the "Channel 16" mutual aid channels to the 800 MHz mutual aid channels specified in this plan.

4.1 Mutual Aid Guidelines

A. Eligibility

All users eligible under the Police, Fire, Local Government, Highway Maintenance, Forestry Conservation, and Special Emergency Radio Services (the "Public Safety Category" defined in section 90.616(a) of the FCC Rules and Regulations) and licensed to use the spectrum are eligible to operate stations on the five National Common Channels.

These users may be eligible to operate stations on the two Statewide Mutual Aid Channels when licensed by the State of California in accordance with the State Mutual Aid Radio System Plan and any applicable County (or sub-regional) Mutual Aid Implementation Plan.

B. Application Procedures

All licenses for Base (FB), Mobile Relay (FB2), or Control (FX1) stations shall be obtained by and in the name of the State of California. Similarly, mobile units (including vehicular, portable, aircraft, and marine stations) using the two Statewide Mutual Aid channels shall be licensed by and in the name of the State. In accordance with the FCC Report and Order in General Docket 87-112, eligible users may operate mobile units on the five National Common Channels without further authorization. Agencies desiring to operate mobile units on the two statewide Mutual Aid Channels shall obtain permission from the Chief Telecommunications Division State Office of Emergency Services prior to placing them in service.

Applications shall be submitted to:

Chief, Telecommunications Division
State Office of Emergency Services
2800 Meadowview Road
Sacramento, CA 95832-1441

The application shall certify compliance with the County (or sub-regional) Mutual Aid Implementation Plan discussed in Section 4.3. any applicable frequency coordination fee shall be paid by the applicant.

Applicants may be required to submit copies of the Implementation Plan to demonstrate compliance.

C. Telecommunications Advisory Committee

Operations on the five National Common Channels and the two Statewide Mutual Aid channels shall be governed by the State Office of Emergency Services Telecommunications Advisory Committee (TAC). The TAC shall review and approve the County (or sub-regional) Mutual Aid Implementation Plan discussed in Section 4.3; shall verify eligibility of proposed users; shall recommend to the FCC either approval or disapproval of requests for waiver from non-eligible users; shall supervise usage of the channels; and shall exercise disciplinary control over usage of the channels (except as restricted to FCC control).

4.2 Federal Inter-operability

Inter-operability between Federal, State, County, and Local Governments during day-to-day and disaster operations will take place primarily on the five National Common Channels. Federal Agencies may access the two Statewide Mutual Aid Channels through the use of S-160 or similar agreements. Additionally, in accordance with Section 2.103 of the FCC Rules and Regulations, individual non-Federal agencies may permit Federal Agencies to use their communications systems for coordination of Federal/non-Federal activities.

4.3 County Mutual Aid Channel Implementation

The eligible users in each county (or multiple counties desiring to create a sub-region) shall develop an implementation plan for their area based upon the two-tier concept discussed below. The County (or sub-regional) Mutual Aid Implementation Plan shall show the location, frequency, and operating parameters of proposed stations within the area. Additionally, the Implementation Plan shall include the name of the agency within the area which has been designated as the "Monitoring Agency".

The first tier of the Implementation Plan shall consist of one or more stations operating on the National Calling Channel. The coverage area of the stations shall be designed so as to provide coverage throughout a major portion of the county (or sub-region). Stations in the system may be either mobile relay stations (FB2) or base stations (FB) provided that base stations must be capable of reverting to the mobile relay mode upon

failure of the control link. The "Monitoring Agency" shall provide a 24-hour per day, 7-day per week guard on the channel. Any other agency shall be permitted to operate a control station for purposes of monitoring the channel and rendering assistance as required.

The second tier of the Implementation Plan shall consist of stations operating on the four National Common Tactical Channels (channels 2 through 5) and the two Statewide Mutual Aid Channels. The coverage area of the stations shall be designed on the cellular reuse concept so as to maximize utilization of the channels. The stations may be either mobile relay stations (FB2) or base stations (FB) provided they are under the control of the designated "Monitoring Agency" and they are "normally disabled" to prevent misuse. The "Monitoring Agency" shall cause the stations to be enabled upon receipt of any reasonable request from an eligible user.

The Implementation Plan shall permit individual users to operate one or more temporary mobile relay stations (FB2T) or temporary base stations (FBT) on the four National Common Tactical Channels and the two Statewide Mutual Aid Channels. These stations may be used to provide temporary fill-in coverage or temporary coverage at a specific operation. The use of temporary stations to provide tailored coverage at an operation which is either pre-planned or of an extended nature is strongly encouraged. The use of a temporary station shall be coordinated with the designated "Monitoring Agency". Temporary stations shall not exceed 35 watts ERP.

The County Mutual Aid Implementation Plan shall be submitted to the State Office of Emergency Services Telecommunications Advisory Committee for approval. Submittals should be made via the Telecommunications Division at the address in Section 4.1 of this plan.

4.4 Utilization

The specific Mutual Aid frequencies covered by this plan and their uses are:

821/866.0125 MHz - Nat'l Common Channel 1 (High Level Calling)
821/866.5125 MHz - Nat'l Common Channel 2 (Tactical)
822/867.0125 MHz - Nat'l Common Channel 3 (Tactical)
822/867.5125 MHz - Nat'l Common Channel 4 (Tactical)
823/868.0125 MHz - Nat'l Common Channel 5 (Tactical)
823/868.5125 MHz - State Common Channel 6 (High Level) Law
823/868.9875 MHz - State Common Channel 7 (High Level) Fire/EMS

These channels are to be used primarily for coordination activities between different agencies in a mutual aid situation, or emergency activities of a single agency. The established State Mutual Aid Radio System (SMARS) Priority Use Levels, described below, apply. PRIORITY 4 (SINGLE AGENCY SECONDARY COMMUNICATIONS) WILL NOT BE PERMITTED ON THE NATIONAL COMMON AND STATEWIDE MUTUAL AID CHANNELS. When a higher priority of use is required, all lower priority use must cease in ANY area where interference could occur.

These levels are:

- PRIORITY 1: Disaster and extreme emergency operations, for mutual aid and interagency communications.
- PRIORITY 2: Emergency or urgent operations involving imminent danger to the safety of life or property.
- PRIORITY 3: Special event control activities, generally of a pre-planned nature, and generally involving joint participation of two or more agencies.
- PRIORITY 3a: Drill, test and exercises of a civil defense or disaster nature.

4.5 Voice Privacy, Signalling or Paging

The use of tone or digital signalling (other than ATIS), or paging is PROHIBITED on these channels. Voice Privacy is permitted in the simplex mode or on user-provided portable mobile relays on the National Common Tactical channels (2 thru 5) ONLY, PROVIDED that such use is coordinated through the respective area's designated Monitoring Agency. Such use MUST cease in the event of a higher priority incident requiring use of the channel.

4.6 Tone Squelch

All equipment capable of operating on the National Common and Statewide Mutual Aid channels must be equipped with the National Common Tone Squelch of 156.7 Hz (EIA Code '5A'). Mobile Relays on these channels 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.

4.7 Operation in Aircraft

Operation of radio equipment in Aircraft on the National Common and Statewide Mutual Aid channels is permitted in accordance with FCC rules and Regulations; however, power is limited to 1 WATT ERP.

4.8 Cross-Band Repeating

Linking of agency or Mutual Aid channels outside of the 800 MHz spectrum to the National and Statewide Common Channels is permitted under the Priority levels allowed in section 4.4 of this plan, and as per applicable FCC Rules and Regulations.

Crossband repeating is to be used to provide for interoperability between users operating on different radio bands.

Each County's mutual aid Implementation Plan is to specify what cross-band repeating capability or other technology is available for Communications between mutual aid channels on the different bands.

4.9 Use of Radio Codes

All communications on these Mutual Aid common channels will be conducted in "CLEAR TEXT" using the ENGLISH language, except as noted in Section 4.5.

4.10 Unit Identifiers/ATIS

Units operating on these channels are to include their agency name in their unit identification [EXAMPLE: "Los Angeles, San Diego PD unit 615-John"].

Automatic Transmitter Identification System (ATIS) utilization is encouraged, but is not to replace the voice identification requirement.

4.11 'Grandfathered' Equipment

Radio equipment that is currently type accepted and in service on systems in the 806-821/851-866 MHz Sub-band may operate indefinitely on the National and Statewide Common Mutual Aid channels, provided the deviation is reduced to +/- 4.0 kHz. The Regional Planning Committee may recommend to the FCC waivers for other frequencies covered under this plan on a case-by-case basis.

5.0 SPECTRUM UTILIZATION

This portion of the Plan provides a basis for proper spectrum utilization. Its purpose is to guide the Committee in their task of evaluating the implementation of radio communication systems within the Region.

This Regional Plan has considered, for planning purposes, the immediate as well as long range communication needs of all current eligibles under the FCC's Public Safety Radio Services and Special Emergency Radio Service. Additionally, this Regional Plan considered the communication needs of those Public Safety Radio service associated operations as the Regional Planning Committee deemed necessary and desirable for local area needs.

The requirements for system implementation in a spectrum impacted area will be more restrictive than in rural areas of the Region. Those jurisdictions in rural or non-impacted areas will be under the general requirements of the Regional Plan, but will not be required to adhere to the more stringent design and implementation requirements. The Region's impacted area is identified as follows: the County of Orange, Metropolitan areas of Los Angeles County, southwestern portion of San Bernardino County and the western portion of Riverside County.

Protection of life and property shall receive the highest priority, and disruptive interference with communications involved in these services in an area shall not be tolerated.

5.1 General Guidelines

The Regional Planning Committee strongly recommends the use of trunking technology to enhance efficient utilization of the 800 MHz spectrum. In general, systems using five or more channels will be required to operate in the trunked mode, while systems using fewer than five channels will be permitted to operate in either the trunked mode or the conventional mode. The five National, the two Statewide, and any local Mutual Aid Channels will not be counted when determining the number of channels in a system. The Regional Planning Committee will consider recommending that the FCC grant a waiver of the trunking requirement under any of the following conditions:

- A. A substantial showing is made that the alternative technology would be at least as efficient as trunking.
- B. A substantial showing is made that trunking would not meet operational requirements.
- C. A conventional station is requested for "fill-in" coverage in an area not covered by the applicant's trunking system.
- D. A single licensee is providing service to several users having substantially different area of coverage requirements and the channel requirements for each user is less than five channels.
- E. The intended primary use of the frequency is Mutual Aid.

All applications for conventional-mode channels by agencies requesting five or more channels shall be submitted to and reviewed by the Revision Committee for compliance with the above criteria. Applications which have been approved by the Revision Committee shall be forwarded to the FCC via the APCO Frequency Coordination Office with a letter (prepared by the Local APCO Frequency Coordination Advisor) certifying that the exception to the trunking requirement is in compliance with this Regional Plan and that the granting of a waiver is recommended. Applications which have been rejected shall be returned to the applicant.

Small agencies are encouraged to take advantage of the benefits provided by trunking technology by consolidating their communications requirements with adjacent agencies and developing shared trunking systems.

Systems that do not meet FCC loading standards shall be required to share such frequencies on a non-exclusive basis. Those agencies requesting Data channels only will 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 Revision Committee.

Those systems that are designed to provide wide area communication coverage must demonstrate their need to require such wide area coverage. Communication coverage outside of a jurisdictional area will not be allowed unless it is critical to the protection of life and property, and can be so demonstrated.

If the 800 MHz trunked radio technology is utilized, the system design must include as many state, county and/or city public safety radio users as feasible.

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 system(s) to provide only the communications needed within its geopolitical boundaries. The use of trunked systems is encouraged. However, if the total number of radios in service does not reach minimum loading criteria for a trunked system, that user should consider consolidating their communica-

tions system with other 800 MHz trunked radio systems in the area, if spectrally efficient. 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 F.C.C. 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 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.

As part of this plan, distances between transmitters for co-channel reuse will not be held to seventy (70) mile separation. Separation of co-channel transmitters will be determined by the coverage needs of the applicant, natural barriers for separation, antenna patterning and limited ERP's where possible. System tests and/or propagation studies should also be provided to establish minimum distances for separation.

5.2 Reassignment of Frequencies ("Give-Ups")

It is anticipated that, in all but the most unusual cases, frequencies presently utilized by a licensee will be released for reassignment to agencies not migrating to the 800 MHz band within their respective service pool. Each agency giving up frequencies shall issue a letter of concurrence to the agency being assigned the "give-up" frequency specifying the time frame at which the new agency shall be able to use the "give-up" frequency and a commitment to cancel their own license for use of that frequency. The letter of concurrence shall be submitted together with the new agency's application for licensing. The FCC authorized frequency coordinators will be notified of any proposed reassignment of frequencies. The applicant evaluation criteria established in the National Plan and further defined in this Regional plan is to be considered. In such cases where specific channels are required by numerous applicants, the user prioritization by service and function will be utilized. In all cases, area of coverage criteria and channel loading criteria as covered in this Plan will be applied. The Regional Planning

) Committee intends to reassign radio frequencies between agencies, to be processed by the appropriate FCC Designated Radio Service Frequency Coordinator.

All returned frequencies are to be considered for reassignment by the Committee. An agency will not be able to "farm down" frequencies to other services within their political structure unless it is within the planning guidelines of the Plan. Agencies failing to "give-up" channels as agreed will be subject to forfeiture of their 800 MHz channels. It shall be the responsibility of the governing body to insure that all subordinate agencies within their political structure comply. The failure of one agency within a political structure to "give-up" channels as agreed may impact other agencies within the same political structure.

The Southern California Region received additional relief through the allocation of UHF TV Channel 16. While the Channel 16 spectrum is not specifically covered by the National Plan and subsequent "give-up" requirements, it has been an integral part of the planning effort. Therefore, agencies utilizing UHF TV Channel 16 spectrum in lieu of migrating to the 800 MHz Band, will still be subject to the same criteria regarding the "give-up" channels. Reassignment of these channels has already been done in order to effectively plan for the assignment of the new 800 MHz spectrum.

5.3 Technical Standards

Because of the extreme channel congestion that exists in the densely populated urban areas of the Region, the Planning Committee found it necessary to impose certain technical criteria to prevent interference and allow efficient use of the spectrum.

These criteria apply to the impacted area as defined in Section 5.0. This area consists of the County of Orange, the metropolitan areas of Los Angeles County, the southwestern portion of San Bernardino County, and the western portion of Riverside County.

Although the technical criteria defined in this section apply primarily to the impacted area, it is strongly recommended that agencies in the sparsely populated rural areas consider employing the same criteria when designing their systems.

TRANSMITTER STANDARDS

Unless specifically excepted, all transmitters utilized within the Region, including the rural areas, on the new spectrum shall by type accepted for operation on the 821-824/866-869 MHz spectrum and meet the technical standards defined in Part 90 of the Commission's Rules and Regulations.

Transmitters type accepted for operation in the 806-821/851-866 MHz band may be utilized by eligibles in the Public Safety and Special Emergency Radio Services on the five National Mutual Aid channels without special authorization. Agencies authorized and licensed under the State of California for opera-

tion on the Statewide Mutual Aid channels may also utilize transmitters type accepted for operation in the 806-821/851-866 MHz band on the State Mutual Aid channels subject to the same conditions.

In some instances, the Regional Planning Committee may recommend to the FCC that waivers for the use of equipment that is type accepted for the 806-821/851-866 MHz band on other channels in the new spectrum be granted. This will not be done on a routine basis and will only be allowed for existing systems where the equipment has already been procured and it can be shown that no interference will result. When authorized, use of equipment that is type accepted for the 806-821/851-866 MHz band on other than mutual aid channels in the new spectrum will only be allowed until January 1, 1999.

) Applicants requesting waivers for authorization to utilize equipment that has been type accepted for 806-821/851-866 MHz band, on channels in the new spectrum other than the designated Mutual Aid channels, should submit letters of request to the Regional Planning Committee. Applicants should submit justification as to why the waiver is required and provide engineering data that shows that operation of the equipment will not cause interference to other users. Written concurrence from co-channel and adjacent-channel users will be required. Additionally, letters of request shall clearly indicate that the applicant understands that the waiver, if granted, is temporary and that the applicant agrees to phase out old equipment and change to type accepted equipment by January 1, 1999.

Applicants authorized to use older equipment that is not type accepted for the new spectrum should be aware that protection of the old receivers from adjacent-channel interference will be limited. If interference from adjacent-channel users can be eliminated by utilizing receivers meeting NPSPAC recommendations, no additional protection will be provided. In all cases where equipment type accepted for 806-821/851-866 MHz band is utilized on channels in the new spectrum, the transmitter deviation must be reduced to plus or minus 4.0 KHz.

RECEIVER STANDARDS

Although the Commission did not adopt the NPSPAC recommendation for receiver standards, a satisfactory channel allocation plan for the impacted areas of the Southern California Region could not be developed without requiring the use of enhanced receivers. The frequency allocation plan developed by the Regional Planning Committee is based on the utilization of receivers providing at least 20 dB of protection to the 12.5 KHz removed signal when tested with the revised method described in the NPSPAC Final Report.

Agencies utilizing sub-standard receivers that do not meet the minimum standards recommended by NPSPAC do so at their own risk.

CODED SQUELCH

The use of CTCSS (Continuous Tone-Controlled Squelch Systems) or CDCSS (Continuous Digital-Coded Squelch Systems) is required in the Southern California Region. Systems not incorporating some form of coded squelch will not be protected from receiving interference.

MAXIMUM EFFECTIVE RADIATED POWER

The maximum effective radiated power (ERP) of all systems operating in the Southern California Region shall be limited to the minimum amount necessary to provide coverage of the using agency(ies) geo-political boundaries. Radio equipment installed in aircraft that operate on channels in the 821-824/866-869 MHz spectrum in the Southern California Region shall be limited to a maximum ERP of 1 watt.

5.4 System Design Criteria - Interference

The Southern California Regional Planning Committee recognizes that it will be necessary for users of the 821-824/866-869 MHz band to design their radio systems to minimize the amount of RF energy radiated into unneeded areas. Additionally, systems will have to be designed to function in the presence of interfering signals. It is the intent of this section to describe the design criteria and interference levels which will be considered acceptable. These criteria are intended as guidelines and may be modified with the mutual consent of co-channel and next-adjacent-offset-channel users.

All users shall design their radio system to minimize the amount of RF energy radiated beyond their geo-political boundaries. Additionally, insofar as possible, users shall subdivide their geo-political area into smaller areas representing the "normal daily operating area" of the intended user. In recognition that the "operating area" is not hard-and-fast, systems may be designed to provide radio coverage within the "operating area"

plus a distance of three (3) miles. This larger area, hereinafter, will be referred to as the "coverage area". Users needing to occasionally travel outside of their normal "coverage area" should change to a wider area channel which is shared by a great many users.

Users should design their radio systems to provide at least 40 dBu (decibels above 1 microvolt per meter--approximately ^{-94 dBm} 4.6 microvolts of signal across 50 ohms at 850 MHz) throughout the "coverage area". Users are encouraged to design their system to exceed this 40 dBu design level with the caveat that they should also minimize the signal strength outside the "coverage area".

BASE-TO-MOBILE

Signals from co-channel interfering base stations shall not exceed 20 dBu (approximately ^{-113 dBm} 0.49 microvolts of signal across 50 ohms at 850 MHz) at any point within the "coverage area". This will provide at least 20 dB of protection to all mobile station receivers within the "coverage area" based upon an assumption that exactly 40 dBu of signal is present from the desired station throughout the area.

Signals from next-adjacent-offset-channel interfering base stations shall not exceed ^{-99 dBm} 35 dBu (approximately 2.65 microvolts of signal across 50 ohms at 850 MHz) at any point within the "coverage area". This will provide at least 5 dB of protection to all mobile station receivers within the "coverage area" based upon an assumption that exactly 40 dBu of signal is present from the desired station throughout the area. (NOTE: Total isolation will be 25 dB assuming NPSPAC quality receivers).

MOBILE-TO-BASE

Mobile stations from a co-channel interfering radio system shall provide at least 20 dB of protection to the base station receiver based upon an assumption that a desired mobile unit is operating at the edge of "coverage area" with an output of one watt effective radiated power (1-WERP) and the undesired mobile unit is operating at the edge of its "coverage area". The output power of the interfering mobile unit should be selected to achieve the 20 dB protection. To enhance the ability of a desired hand-held mobile station to capture base station receivers, system designers are strongly encouraged to utilize satellite receivers with receiver voting systems.

Mobile stations from a next-adjacent-offset-channel interfering radio system shall provide at least 5 dB of protection to the base station receiver based upon an assumption that a desired mobile unit is operating at the edge of the "coverage area" with an output of one watt effective radiated power (1 WERP) and the undesired mobile unit is operating at the edge of its "coverage area". The output power of the interfering mobile unit should be selected to achieve the 5 dB protection. To enhance the ability of a desired hand-held mobile station to capture base station receivers, system designers are strongly encouraged to utilize satellite receivers with receiver voting systems.

System designers should coordinate their use of CTCSS (Continuous Tone Coded Squelch Systems) and CDCSS (Continuous Digital Coded Squelch Systems) to enhance system discrimination between desired and undesired signals.

5.5 EMERGENCY MEDICAL SERVICE

During formulation of the Regional Plan, the Committee was concerned with satisfying the needs for Emergency Medical Communications (EMS) in Southern California. The State EMS authority requested 19 channels to be used region wide to provide communications between ambulances and hospitals during out of area transfers for emergency patient assistance. The Committee was reluctant to assign 800 MHz spectrum for this wide area use since it would not allow for any reuse or offset assignment on those channels in the region.

The Committee found that 13 low-band (46 MHz) frequencies were available in the Region. These channels are well suited for long distance simplex communications needed for communications between hospitals and ambulances. These channels are also suitable for hospital-to-hospital emergency communications and other EMS needs.

In addition to the Region wide EMS needs, the Counties of San Bernardino, Riverside, and Los Angeles were assigned 800 MHz channels for local EMS needs in their respective areas. The Committee received no other requests for EMS Communications.

6.0 FREQUENCY ASSIGNMENT PROCEDURES AND POLICIES

The following criteria was used to determine channel assignment priorities:

- * All agencies applying for spectrum in the 800 MHz band shall submit a letter of intent from the agency's Chief Administrative Officer verifying a fiscal and engineering commitment for the implementation and construction of a radio system.
- * Agencies requesting 800 MHz channels shall not exceed the following time parameters for system development and implementation:
 - Submit to APCO and FCC coordination request and license application.....6 months after Regional Plan Approval
 - Issuance of System RFP.....12 months after licensing
 - Award of Contract.....24 months after licensing
- * The following criteria shall be used to justify the number of channels requested:
 - Population statistics and projected growth trends.
 - Statistics on the number of radio equipped personnel in the field at any one time both currently and projected based on population growth statistics or other quantifiable factors such as traffic analysis.
 - The Agency request must meet FCC rules for channel loading

* Agencies commitments to release channels shall become part of the Regional Plan and released channel licenses shall be assigned to the receiving agencies in accordance with the National/Regional plan commitments. Letters of commitment must be provided by the agency giving up the frequencies to the Regional Committee. Reassignment of "give-up frequencies will be made part of the plan (Refer to Section 5.2).

-Priority shall be given to agencies that have had long term formally documented requests for additional channels provided all other criteria is met.

-800 MHz assignments will only be made if the requesting agency cannot utilize other available frequencies. This is due to the scarcity of 800 MHz channels and in favor of those agencies that have no other alternatives.

-Shared multi-agency systems will have priority consideration in accordance with the FCC Report and Order, paragraph 37.

-In accordance with Paragraph 13 of the Report and Order, when it is not possible to grant requests for assignments in the new 800 MHz spectrum to everyone who is eligible, the highest priority must be given to those organizations most fundamentally involved in protection of life and property.

6.1 Detailed Frequency Assignment Criteria

Section 6.0 of the Plan specifies the criteria to be used to prioritize assignment of frequencies to the requesting agencies. Of the various criteria listed, four items were key to the prioritization process. These items were:

- Users fundamentally involved with protection of Life and Property.
 - Shared multi-user systems.
 - Funding commitment to build a system.
 - Long Term requests for spectrum.
1. In accordance with Paragraph 13 of the FCC Report and Order, users fundamentally involved with protection of Life and Property are given a priority.
 2. Shared multi-agency systems, in accordance with the FCC Report and Order, Paragraph 37, will be given a priority. These systems can be either groups of separate departments within a large agency (example: City of Los Angeles) or groups of agencies operating together under large blanket agency (example: County of San Bernardino).
 3. All agencies applying for spectrum in the 800 MHz band shall submit a letter of intent from the agency's Chief Administrative Officer verifying a fiscal and engineering commitment for the implementation and construction of a radio system. The Committee felt this type of commitment should receive a priority, as it should discourage requests that were only made to "warehouse" frequencies for possible future use.
 4. Priority shall be given to agencies that have had long term formally documented requests for additional channels provided all other criteria is met. Many agencies in the Southern California area have documented requests for spectrum dating back several years.

The Committee asked all agencies requesting frequencies to complete a questionnaire which allowed the Committee to determine population statistics, number of current radio equipped units, and growth projections.

A matrix (see Table I) shows the applications of these criteria for agencies which asked for spectrum in the frequency impacted area.

6.2 Spectrum Assignment Methodology

When the Committee started to assign spectrum, it was obvious that there were many more requests than there was spectrum available. An overall assessment showed that a maximum number of co-channel and adjacent channel assignments would have to be made to maximize the use of the 800 MHz Spectrum.

As a first order of business, the Committee adopted definitions of "area of coverage" and "acceptable interference". "Area of coverage" was defined to be the agency's jurisdictional boundaries plus 3 miles. In adopting this definition, the Committee recognized that normal, daily operations occur within the political borders of the agency and that there are valid reasons for leaving that area. The Committee, however, was not willing to permit wide area roaming. "Acceptable interference" was defined to be 0.5 microvolt signal level from co-channel users and 2.65 microvolt signal level from adjacent, offset channel users at any point within the "area of coverage". In adopting this definition, the Committee recognized that every channel had to be used and reused to the maximum extent possible if there was to be any hope of satisfying the spectrum needs of agencies in Southern California. The Committee further recognized that these standards involve an element of risk which would require state-of-the-art radio equipment to be used in well engineered radio systems if we were to succeed in providing good communications to the end-user. Toward this end, the Committee assumed that all

agencies would use radios meeting all of the NPSPAC recommendations, including the recommendation for 20-25 dB "offset" channel rejection in the receivers.

The following design criteria was also mandated by the Committee:

- * High mountaintops were prohibited in the immediate L.A. area (with the exception of mutual aid systems).
- * Utilize offset channels whenever possible.
- * Use of directional and downtilt antennas.
- * Restrict coverage to each entity's area (3 mile overlap standards specified into neighboring county).
- * Reuse channels and limit wide area systems where possible.
- * Require trunking unless some more spectrum efficient method can be shown.
- * Shared Multi-Agency systems were encouraged.

The technical criteria specified by the committee was questioned by a major vendor who thought that the Southern California area might have problems implementing their rather ambitious plan. They felt that the 3-mile maximum radiation levels were marginally low and that it may be difficult to implement some of the systems in the Los Angeles area without a serious potential for interference.

The major entities, seeking the 800 MHz spectrum, then each presented preliminary system designs based on the above criteria to the Committee. Overlay maps were used to evaluate who could be co-channel or adjacent channel users. Several trial frequency plans were drawn up utilizing the overlay maps and taking advantage where possible of using mountain ranges as barriers between counties. Because it is very difficult to

obtain accurate results from existing computer programs that utilize specific terrain factors, it was through the use of overlay maps, the experience of the engineers that were involved in this effort, and that specific field tests would provide the most realistic results and make maximum utilization of the spectrum*. Using available computer programs would most likely have made less efficient use of the spectrum because the mountainous terrain would have been ignored.

When early frequency plans were generated, it became apparent that someone would have to co-channel with someone in the L.A. area and that L.A. County specifically would have to use channels offset with Riverside County. Calculations showed that L.A. City might be able to co-channel with San Bernardino County even though their borders were only 35 miles apart. Even though this appeared risky to both agencies, they both eventually agreed to run field tests to see what the actual propagation characteristics would be. By compromising on which sites could be used and to severely restrict their radiation it was agreed by both parties that they would co-channel provided that vendors would provide state-of-the-art equipment as specified in the NPSPAC specification.

*Attempts were made to utilize the Motorola program that New York and Dallas used so that comparisons could be made to the method the Committee used in assigning the spectrum. Unfortunately, that program is no longer available from Motorola as it was given to APCO. APCO is presently converting the software from Fortran to C for compatibility with their software.

Riverside and L.A. County then ran propagation tests to evaluate the possibility of being off-set users despite a portion of their border being only 1 miles apart. Again, propagation data showed marginal results in some areas. Systems, however, were designed so that each County would capture their own units within the large majority of their bordering territory.

All the other agencies took similar risks in their assignments. Orange County and L.A. County in particular share 10 offset frequencies with adjacent borders and no mountains to serve as a barrier. Unfortunately, yet logically, the majority of requirements for spectrum were in the heavily populated areas of L.A. County, L.A. City, Northwest Riverside, West San Bernardino, and North Orange County. These areas presented a formidable challenge to the Committee.

All entities placed as many agencies as possible on their systems and some are still willing to accept other smaller users on part of their system. Area or cellular re-use was employed wherever possible, and trunking was used throughout. In most cases, without trunking, over twice the spectrum would have been required to accomplish what the final frequency plan provided.

Another aspect of systems design that was incorporated in some agencies plans was that of emergency preparedness. In L.A. County's system, for instance, all other County systems will be tied together at the main central console so that UHF spectrum users such as Sheriff and Fire can talk to other 800 MHz emergency departments in case of disasters. The system will also have dynamic features which enable it to prioritize system users so that only emergency agencies can be assigned to be on the system during disasters. The County's emergency preparedness program is highly dependant on the proposed "800 MHz integrated system".

There were numerous iterations of frequency plans and many attempts were made to "squeeze in" one more channel for someone. In late October, the Technical Committee met for one more time to work on the frequency plan and finally unanimously adopted it that day. Later in November, the entire Committee voted unanimously to follow the Technical Committee's recommendations and to also adopt it.

6.3 Implementation Schedules

The majority of eligible public safety organizations are either of State and Local Government, or else are subject to governmental regulations. The nature of governmental planning and budgeting processes, combined with difficult revenue constraints, prohibits most eligibles from implementing newer technology systems in the normal time required by FCC Rules (8 months for construction of conventional stations, 12 months

for trunked stations)*. In most cases, public safety systems will require multi-year phased-implementation schedules requiring three to five times as long to construct as private or commercial systems. Regional, wide-areas, and statewide systems will require even longer periods to construct.

In view of these known situations, this Regional Plan establishes an extended implementation schedule ("slow growth") in accordance with FCC rules** which is available to all eligible applicants, if requested by stating "SLOW GROWTH" on the license application.

7.0 PLAN DEVELOPMENT AND IMPLEMENTATION

7.1 Notification

All interested parties were invited to participate in the development of the Regional Plan. This notification was accomplished by the FCC issuing a Public Notice and by the "convenor" directly notifying organizations representing eligibles. In addition, the print media were contacted by the "convenor" and made aware of the Committee's formulation.

Also notified were state and local government agencies concerned with emergency management. (See Attachment 4)

*See FCC Rules and Regulations, 90.155(a) and 90.621(a).

**See FCC Rules and Regulations, 90.629, and 90.631, or 90.633.

7.2 Approval of Regional Plan

Prior to submitting the Plan to the FCC for approval all interested parties received a draft copy of the Plan for review and comment. After review, the Plan was modified as agreed upon by the majority and sent to the FCC for final approval and adoption.

7.3 Appeal Procedures

Because of the limited availability of spectrum and the large number of requests for channels, it was not possible to accommodate every applicant's requirements. Every attempt was made to allocate the available channels on an equitable basis using the guidelines listed in Section 6.0. If an applicant feels that its requests were not given the proper consideration, that applicant may appeal the Committee's decision.

The appeal process has three levels: the Regional Plan Revision Committee (Revision Committee), APCO, and the FCC. An applicant who decides to appeal a rejection should initiate that appeal immediately upon notification of rejection. The appeal must be in writing and should be addressed to the Planning Committee Chairman. Letters of appeal should explain the reasons that the applicant feels that his request for spectrum was not given fair consideration and why the Revision Committee should reconsider the request. In addition, the applicant should include any additional supporting documentation that will assist the Revision Committee when reviewing the appeal.

Within thirty calendar days after receipt of the appeal, the Revision Committee will review the appeal and supporting documentation and notify the applicant in writing of its decision. If the Revision Committee rejects the appeal or the applicant is not satisfied with the Revision Committee's decision, the applicant may request that National APCO review the appeal.

In the event that the applicant requests APCO assistance, the Committee Chairman shall forward copies of the appeal and any supporting documentation to the National APCO Office and request its assistance in mediation.

If the appeal cannot be resolved by the APCO mediation, the applicant may appeal directly to the FCC. In the event that an appeal reaches the FCC, its decision will be final and binding upon all parties.

8.0 REGIONAL PLAN REVISION

Periodically it may be necessary to revise the Regional Plan. Modification of the Regional plan will be a function of the standing Regional Plan Revision Committee. Proposals for modification of the plan may be initiated by the Revision Committee or may result from requests submitted by the Local APCO Frequency Coordination Advisor, other committees, or eligibles within the Region. Requests for revisions to the Regional Plan should be submitted, in writing, to the Chairman of the Regional Planning Committee, who will forward the request to the Regional Plan Revision Committee.

It is anticipated that modifications will fall into two categories; major and minor. A major modification is defined as revision of technical criteria or operation procedures that will significantly impact spectrum users within the Region or in adjoining regions. A minor change is defined as a revision of frequency assignments to add new users or relocate existing users to remedy interference problems.

Minor changes approved by a simple majority of the Regional Plan Revision Committee shall be forwarded to the Chairman of the Regional Planning Committee. The Chairman shall then submit a written request to the Commission, with a copy to APCO, requesting the modification.

Major revisions to the Plan will require approval of the General Membership before being submitted to the Commission. After approval by the Revision Committee, draft copies of proposed changes shall be sent to the General Membership for review. At least ten days after notification of the General Membership, a meeting will be held to discuss and vote on the proposed changes. Upon approval by a simple majority of the General Membership, the Chairman of the Regional Planning Committee shall submit a written request to the Commission, with a copy to APCO, requesting the modification.

The Regional Plan Revision Committee shall coordinate all revision, whether major and minor, with adjoining regions.

9.0 FUTURE 800 MHz SPECTRUM REQUESTS AND PRIORITIES

Future spectrum requests that are submitted to the Regional Planning Committee will be handled using the same assignment criteria that was used in devising the present frequency plan.

First of all, if spectrum is available, it will be assigned to co-channel or offset with minimum separation from existing users, in that manner, spectrum will be preserved for future use.

If there is competition between entities for the same spectrum, the same criteria that was used in formulating the plan will be utilized. For instance, the protection of life and property, documented longevity of user request, a funding commitment by the entities' administration to build the system according to FCC Rules, and Shared Multi-User Systems will be given highest priority.

Consideration will also be given to see if one of the agencies cannot use other available spectrum and the possible interoperability requirements they may have with their neighboring systems.

If there is no spectrum available to assign to the requesting agency, they will be placed on the waiting list according to priority ratings.

10.0 NATIONAL PLAN COMPLIANCE

The Southern California Regional Plan is in conformity with the National Plan. However, should a conflict arise between the two plans, the National Plan will govern. It is expected that Regional Plans for other areas in the country may differ from the Plan for this area due to dissimilar situations. By officially sanctioning the Plan the FCC 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 Service but rather it provides procedures that are the consensus of the Public Safety/Special Emergency Radio Service user agencies in the Region. If there is a perceived conflict then the judgment of the FCC will prevail.

11.0 UNSATISFIED SPECTRUM REQUIREMENTS

The achievement of a workable frequency assignment plan for the 800 MHz spectrum required compromises by all agencies seeking spectrum. Many agencies had requirements beyond the number of frequencies that they were eventually allocated.

Some agencies needs could be met in other bands, such as the Channel 16 allocations in the L.A. area, while others looked to give-up channel assignments.

Overall, the Plan is successful because all agencies were able to receive assignments that satisfy their immediate high priority public safety needs. All major agencies requesting large blocks of spectrum received the majority of the requests that they justified. The large agencies combined as many users on their planned systems as possible and others are planning to add more smaller entities in the future. For instance, several channels were assigned to numerous agencies in the L.A. area for shared mobile data transmissions.

The Counties also included as many cities, special districts or agencies that were willing to join their integrated systems.

Despite the tight allocations of close spaced channels, the elimination of high mountaintops in the frequency impacted areas and the general strict spectrum rules described earlier, some of the major agencies could not satisfy their spectrum needs (till the year 2000 - 2005) as they had hoped for in earlier planning sessions.

The plan basically satisfied the immediate spectrum needs (for the next five years) for these agencies. Future and some present spectrum needs for the impacted L.A. area do exist, however, and they comprise the majority of the list titled "Unsatisfied Spectrum Requirements" (see attachment #6).

The smaller agencies on that list that did not receive frequencies were placed on a list and given high priority for give-up channels. They have also been offered to join a county-wide trunked system in their area if they are willing to do so.

The unsatisfied spectrum requirements list will serve as a waiting list. Should some 800 MHz applicants be required to relinquish channels due to their failure to implement systems, the agencies on this list will have preference to the relinquished channels over agencies that request channels after this plan was submitted to the FCC.

12.0 GLOSSARY

- SERS - Special Emergency Radio Service
- APCO - Associated Public-Safety Communications Officers, Inc.
- CPRA - California Public-Safety Radio Association, Inc.
(Southern California Chapter of APCO)
- Lead Agency - An agency in a multi-agency environment having a predominant number of channels or who has a major communication responsibility.
- Monitoring Agency - An agency within a County or sub-region area that is designated to monitor and coordinate the use of the Mutual Aid Channels.