

DOCT 02-378
THE REGION 13 (Illinois less Region 54 counties) PLAN
Public Safety’s Allocation and Use of Radio Frequencies in the
769-775/799-805 MHz Bands

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1. INTRODUCTION

1.1 Background

In the early 1990s public safety officials testified before the United States Congress (Congress) regarding the lack of spectrum for public safety agencies throughout the Country. Spectrum was not sufficient to meet current requirements and future technologies for the advancement of public safety programs needed for efficient use of resources. As a result, Congress created the Public Safety Wireless Advisory Committee (PSWAC), made up of a cross-section of public safety officials, who were charged with studying the problem and making recommendations for remedies to Congress. The PSWAC report recommended that 97.5 MHz of new spectrum be allocated to public safety agencies to meet their needs for the next 15 years. PSWAC further recommended that interoperability within and among public safety and public service providers be a basic, essential requirement.

In 1996 Congress directed the Federal Communications Commission (FCC) to allocate 24 MHz of spectrum to public safety. Subsequently, the FCC established a federal advisory committee, called the National Coordinating Committee (NCC), to address interoperability, technology, and implementation issues to be considered for the 700 MHz spectrum. The FCC required that a Regional Plan be prepared by regions outlining the use of public safety radio frequencies in the 700 MHz band and submitted to the FCC for approval. The plan must be approved before any agency within a region would receive channels from the new allocation.

In November 2000, NPSPAC Region 13 Chairperson George Sneyd named Thomas J. Ward Jr. as convener for the 700 MHz Regional Planning Committee (RPC). The initial meeting of the 700 MHz RPC was scheduled for November 6, 2002, and notifications were issued. Thomas J. Ward Jr. convened the meeting and was elected to chair the newly formed RPC. (See **Appendix "A"** for meeting information.)

Current Regional Chairperson Contact information is:

Mr. William J. Carter
Illinois Department of Public Health
122 S. Michigan, 7th Flr
Chicago, Illinois 60603
422 S 5th Street, 4th Flr
Springfield, Illinois 62701

Office telephone: 312-814-5208
Fax number: (312) 793-7267
E-mail: billy.carter@illinois.gov

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1.2. Purpose

The purpose of the Region 13 Plan is to document a process to ensure the maximum public benefit is derived from the 700 MHz spectrum by eligible agencies' radio communication systems. The eligible agencies are defined in Chapter 41 of the Code of Federal Regulations (CFR) as follows:

Public Safety – the public's right, exercised through federal, state, and local government as prescribed by law, to protect and preserve life, property, and natural resources and to serve the public welfare.

Public safety services – those services rendered by or through federal, state, or local government in support of public safety duties.

Public safety services provider – government and/or non-government entities, such as private organizations which, when properly authorized by the appropriate governmental authority, has a primary mission to provide public safety duties.

Public services – those services provided by non-public safety entities that furnish, maintain, and protect the nation's basic infrastructures that are required to promote the public's safety and welfare.

This Plan gives priority to those public safety and public service agencies that are primarily responsible for the protection of life and property and where assigned frequencies will be utilized in the most efficient manner possible through trunked and future advanced technologies.

This Plan has been developed in a manner so that all 700 MHz voice and narrow band spectrum available for all public safety and public service applicants in the Region will be impartially allocated according to criteria set forth in this document when the spectrum is made available for use through United States government negotiations with Canada and when television stations transition to other spectrum.

1.3. Authority and Administrative Bylaws

The authority for the Regional Planning Committee to carry out its assigned tasks is derived from the FCC Report and Order, Docket 96-86. In Region 13, each committee member that represents an eligible entity, under FCC Part 90.20 and 90.523, the Public Safety Radio Services, is entitled to one vote in all committee matters. The majority of those present at a schedule meeting will prevail, except as otherwise provided in this plan.

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1.3.1. Name and Purpose

The Illinois Region 13 - 700MHz Regional Planning Committee (RPC) is the name of the organization. Its primary purpose is to foster cooperation, planning, and development of a public safety communications plan in the state of Illinois and the implementation of this plan in the 700 MHz Public Safety band. Robert's Rules of Order shall govern the conduct of Regional Meetings including without limitation, debate, and voting.

1.3.2. Membership, Meetings and Voting Procedures

The RPC shall have two classes of members: 'voting' and 'non-voting.' Voting members shall consist of one representative from any Region 13 agency engaged in public safety activities eligible to hold a radio license under USC 47 CFR 90.20, 47 CFR 90.523, or 47 CFR 2.103. An agency shall be allowed no more than one vote for each distinct eligibility category within the agency's political organization or jurisdiction. Voting members may not vote on issues directly involving their entity, agency, or organization.

Non-voting members are all others seeking membership and interested in furthering the goals of public safety communications and who's entity is not eligible to hold a license under USC 47 CFR 90.20, 47 CFR 90.523, or 47 CFR 2.103.

Representatives, full or part-time, of Commercial Communications related Companies, Manufactures, Consultants, Engineering Companies, Radio Service Companies or other non-governmental, non-eligible public safety license holders will not be considered as Region 13 voting members nor will be eligible to represent the Region as an official representative of the Region and will not be listed or provided any management authorization within any official websites or processing platform utilized for Region business. Commercial representatives may participate in region public meetings and provide advisory information as request by the Region Chairperson and/or Executive Board by vote.

New members may be considered for membership by submitting letter of support from their sponsoring entity along with their qualifications. Membership shall be granted upon review and approval by Region 13 Planning Committee.

Registration of an active member on CAPRAD is also required within 30 days of membership approval by the region and the Chairperson.

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

- a. A member may be suspended or removed with cause by vote of a majority of members after reasonable notice and opportunity to be heard.
- b. A member may resign by written notice to the Chairperson.

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- c. The semiannual meeting(s) of the members shall be set by the Chairperson and shall be held in region 13 in a central location that will provide the maximum opportunity for regional participation.
- d. Regular meetings of the RPC may be called by the Chairperson or the Vice-Chairperson or upon written application of two or more members.
- e. Reasonable notice of time and place of RPC meetings shall be given each member. Such notice need not specify the purpose of the meeting unless there is to be considered at the meeting (i) amendment to these by-laws or (ii) removal or suspension of an officer.

It shall be reasonable and sufficient to notify members of the time and place of RPC meetings at least ninety (90) days prior to a meeting at the usual or last known business address on record with the RPC Secretary. Meeting notifications will be accomplished according to NCC instructions and requirements.

Members shall keep the Secretary informed of their most current address/telephone information (including e-mail) so they may be kept properly informed of committee activities.

- a. At any meeting of the RPC members, 51 percent of the voting members of record shall constitute a quorum.
- b. Each voting member shall have one vote so long as a quorum is present. A simple majority of votes cast shall decide any issue except DISSOLUTION.

1.3.3. Officers and Agents

The officers of the RPC shall be a Chairperson, Vice-Chairperson, Treasurer, Secretary, and such other officers as may be deemed necessary by the membership.

- a. Election and Tenure:

Chairperson and Vice-Chairperson shall be elected by the voting members at their first meeting. The term of office shall be two (2) year's. Officers may succeed themselves.

- b. Chairperson:

The Chairperson shall be the chief executive officer of the RPC and, subject to the control of the voting members, shall have general charge and supervision of the affairs of the RPC. The Chairperson shall preside at all meetings of the RPC.

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c. Vice-Chairperson:

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

d. Treasurer:

A Treasurer may be appointed by the Chairperson/Executive Board and is the chief financial and accounting officer of the RPC. The Treasurer shall be in charge of its financial affairs, funds, and valuable papers and shall keep full and accurate records thereof.

e. Secretary:

The Secretary shall be appointed by the Chairperson/Executive Board and shall record and maintain records of all proceedings of the members in a file or series of files kept for that purpose. The files shall be kept within the Region and shall be open at all reasonable times to the inspection of any member. Such file or files shall also contain records of all meetings, the original or attested copies of bylaws, names of all members, and the address (including e-mail address, if available) of each. If the Secretary is absent from any meeting of members, a temporary Secretary chosen at the meeting shall exercise the duties of the Secretary at the meeting.

f. Resignation:

An officer may resign by delivering his or her written resignation to the Chairperson. Such resignation shall be effective upon receipt (unless specified to be effective at some other time), and acceptance thereof shall not be necessary to make it effective unless it so states.

g. Vacancies:

If the office of Chairperson or Vice-Chairperson becomes vacant, the voting members may elect a successor who shall hold office for the remainder of the normal term or until his or her successor is elected from its voting membership.

h. Subcommittees or working groups shall be formed as necessary and appointed by the Chairperson /Executive Board to fulfill the RPC missions and goals. Initially, this RPC shall form Technology and Planning, Implementation and Interoperability subcommittees. The Chairpersons of these subcommittees shall be appointed by the Chairperson /Executive Board except that the Interoperability Chair which shall be appointed by the Chairperson/Executive Board and shall

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be a voting member and represent the Region as a voting member on the SIEC. Working groups may be disbanded when their purpose is fulfilled at the discretion of the RPC Chairperson /Executive Board.

1.3.4. Amendments

These bylaws may be altered, amended, or repealed in whole or in part by majority vote of the membership. Until such time that the FCC has approved the pending plan the previous plan which had been approved by the FCC will be enforced.

Administrative amendments are those amendments which do not impact the FCC approved authoritative responsibilities or processes of the Region 13 Plan. Such administrative change would include but not be limited to membership names and contact information; Regional Officer changes, meeting dates and times, CAPRAD assignments, etc. Any regional administrative modification must be submitted to the FCC for review and included in CAPRAD as a normal point of order.

Any major modifications to the Region Plan require FCC review and approval. Proposed amendments must be submitted for review to the adjacent regions and after receiving adjacent region approval, forwarded to the FCC for final approval.

1.3.5. Dissolution

This RPC may be dissolved upon completion of its stated purpose (the development of a plan for the utilization of 700 MHz spectrum and the subsequent approval of the FCC). (See Section 2 for description of changes of function and continuing responsibilities after FCC approval.)

1.4. National Standard

The Region 13 Plan is in conformity with the NCC planning guidelines and the NRPC guidance. Region 13 is automatically a member of the NRPC. The Region 13 member will be represented by the Region 13 Chairperson or his delegate. If there is a conflict between this plan, the NCC documents, the NRPC guidance or the FCC rules, the FCC rules will prevail. It is expected that Regional Plans for other regions may differ from this plan based on local needs. By officially sanctioning this plan, the FCC agrees to its conformity to the NCC and FCC planning requirements. Nothing in the plan is to interfere with the proper functions and duties of organizations certified by the FCC for frequency coordination in the Private Land Mobile Services, but rather it provides procedures that are the consensus of the group of individuals that developed the Region 13 Plan. If there is a perceived conflict, then the judgment of the FCC will prevail.

1.5. RPC Membership

The Region 13 Planning Committee Executive Board can be found in **Appendix "B."** This listing includes each member's agency affiliation, mailing address, phone number and e-mail address. These Region Executive Board members represent a cross section of

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public safety and public service users throughout the Region. The Executive Board functions in accordance with the Regional Plan guidelines and represents the public safety entities throughout the Region.

The Region 13 committee membership represents a cross-section of public safety and public service users in the region. The membership identification and voting responsibilities can be found in 1.3.2.

1.6. Region Description

Region 13 is composed of the state of Illinois (less the twelve counties included in the Southern Lake Michigan Region, Region 54). This Region is the same geographic area, consisting of the same political jurisdictions as the NPSPAC (800 MHz) Region. The Region is comprised of 90 counties that are listed in Table 1. The population of Illinois (Region 13) is derived from the 2000 census. The majority of regional population is in metropolitan areas listed in Table 2.

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TABLE 1

County	Population	% of Region	% of State	County Seat	Center Lat/Long	
Adams	68,277	1.83%	0.55%	Quincy	39-58-00.0	91-11-00.0
Alexander	9,590	0.26%	0.08%	Cairo	37-11-00.0	89-11-00.0
Bond	17,633	0.47%	0.14%	Greenville	38-58-00.0	89-27-00.0
Brown	6,950	0.19%	0.06%	Mt. Sterling	39-58-00.0	90-44-00.0
Bureau	35,503	0.95%	0.29%	Princeton	41-24-00.0	89-31-00.0
Calhoun	5,084	0.14%	0.04%	Hardin	39-10-00.0	90-39-00.0
Carroll	16,674	0.45%	0.13%	Mt. Carroll	42-04-00.0	89-55-00.0
Cass	13,695	0.37%	0.11%	Virginia	39-57-00.0	90-14-00.0
Champaign	179,669	4.82%	1.45%	Urbana	40-08-00.0	88-12-00.0
Christian	35,372	0.95%	0.28%	Taylorville	39-33-00.0	89-17-00.0
Clark	17,008	0.46%	0.14%	Marshall	39-20-00.0	87-48-00.0
Clay	14,560	0.39%	0.12%	Louisville	38-50-00.0	88-29-00.0
Clinton	35,535	0.95%	0.29%	Carlyle	38-36-00.0	89-24-00.0
Coles	53,196	1.43%	0.43%	Charleston	39-33-00.0	88-14-00.0
Crawford	20,452	0.55%	0.16%	Robinson	39-01-00.0	87-46-00.0
Cumberland	11,253	0.30%	0.09%	Toledo	39-16-00.0	88-15-02.0
DeWitt	16,798	0.45%	0.14%	Clinton	40-10-00.0	88-55-00.0
Douglas	19,922	0.53%	0.16%	Tuscola	39-46-00.0	88-13-00.0
Edgar	19,704	0.53%	0.16%	Paris	39-40-00.0	87-45-02.0
Edwards	6,971	0.19%	0.06%	Albion	38-25-00.0	88-03-00.0
Effingham	34,264	0.92%	0.28%	Effingham	39-03-00.0	88-35-00.0
Fayette	21,802	0.58%	0.18%	Vandalia	39-01-00.0	89-02-00.0
Ford	14,241	0.38%	0.11%	Paxton	40-35-00.0	88-15-02.0
Franklin	39,018	1.05%	0.31%	Benton	38-00-02.0	88-56-00.0
Fulton	38,250	1.03%	0.31%	Lewistown	40-28-00.0	90-11-00.0
Gallatin	6,445	0.17%	0.05%	Shawneetown	37-46-00.0	88-14-00.0

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County	Population	% of Region	% of State	County Seat	Center Lat/Long	
Greene	14,761	0.40%	0.12%	Carrollton	39-21-00.0	90-24-00.0
Hamilton	8,621	0.23%	0.07%	McLeansboro	38-04-00.0	88-33-00.0
Hancock	20,121	0.54%	0.16%	Carthage	40-31-00.0	90-09-00.0
Hardin	4,800	0.13%	0.04%	Elizabethtown	37-31-00.0	88-31-00.0
Henderson	8,213	0.22%	0.07%	Oquawka	40-49-00.0	90-54-00.0
Henry	51,020	1.37%	0.41%	Cambridge	41-21-00.0	90-09-00.0
Iroquois	31,334	0.84%	0.25%	Watseka	40-45-02.0	87-50-00.0
Jackson	59,612	1.60%	0.48%	Murphysboro	37-46-00.0	89-21-00.0
Jasper	10,117	0.27%	0.08%	Newton	39-00-02.0	88-10-00.0
Jefferson	40,045	1.07%	0.32%	Mt. Vernon	38-18-00.0	88-56-00.0
Jersey	21,668	0.58%	0.17%	Jerseyville	39-04-00.0	90-21-00.0
JoDaviess	22,289	0.60%	0.18%	Galena	42-21-00.0	90-11-00.0
Johnson	12,878	0.35%	0.10%	Vienna	37-27-00.0	88-52-00.0
Knox	55,836	1.50%	0.45%	Galesburg	40-56-00.0	90-12-00.0
LaSalle	111,509	2.99%	0.90%	Ottawa	41-16-00.0	88-53-00.0
Lawrence	15,452	0.41%	0.12%	Lawrenceville	38-42-00.0	87-43-00.0
Lee	36,062	0.97%	0.29%	Dixon	41-45-02.0	89-17-00.0
Livingston	39,678	1.06%	0.32%	Pontiac	40-52-00.0	88-31-00.0
Logan	31,183	0.84%	0.25%	Lincoln	40-08-00.0	89-22-00.0
McDonough	32,913	0.88%	0.27%	Macomb	40-28-00.0	90-40-00.0
McLean	150,443	4.03%	1.21%	Bloomington	40-29-00.0	88-50-00.0
Macon	114,706	3.07%	0.90%	Decatur	39-52-00.0	88-58-00.0
Macoupin	49,019	1.31%	0.39%	Carlinville	39-17-00.0	89-56-00.0
Madison	258,941	6.94%	2.09%	Edwardsville	38-50-00.0	89-54.00.0
Marion	41,691	1.12%	0.34%	Salem	38-39-00.0	88.56-00.0
Marshall	13,180	0.35%	0.11%	Lacon	41-02-00.0	89-22-00.0
Mason	16,038	0.43%	0.13%	Havana	40-15-02.0	89-53-00.0

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Massac	15,161	0.41%	0.12%	Metropolis	37-14-00.0	88-44-00.0
Menard	12,486	0.33%	0.10%	Petersburg	40-01-00.0	89-47-00.0
Mercer	16,957	0.45%	0.14%	Aledo	41-12-00.0	90-45-02.0
Monroe	27,619	0.74%	0.22%	Waterloo	38-17-00.0	90-11-00.0
Montgomery	30,652	0.82%	0.25%	Hillsboro	39-14-00.0	89-27-00.0
Morgan	36,616	0.98%	0.29%	Jacksonville	39-43-00.0	90-13-00.0
Moultrie	14,287	0.38%	0.12%	Sullivan	39-38-00.0	88-38-00.0
Ogle	51,032	1.37%	0.41%	Oregon	42-02-00.0	89-19-00.0
Peoria	183,433	4.92%	1.48%	Peoria	40-46-00.0	89-46-00.0
Perry	23,094	0.62%	0.19%	Pinckneyville	38-05-00.0	89-22-00.0
Piatt	16,365	0.44%	0.13%	Monticello	40-00-02.0	88-35-00.0
Pike	17,384	0.47%	0.14%	Pittsfield	39-36-00.0	90-49-00.0
Pope	4,413	0.12%	0.04%	Golconda	37-25-00.0	88-34-00.0
Pulaski	7,348	0.20%	0.06%	Mound City	37-13-00.0	89-09-00.0
Putnam	6,086	0.16%	0.05%	Hennepin	41-12-00.0	89-17-00.0
Randolph	33,893	0.91%	0.27%	Chester	38-04-00.0	89-51-00.0
Richland	16,149	0.43%	0.13%	Olney	38-43-00.0	88-06-00.0
Rock Island	149,397	4.00%	1.20%	Rock Island	41-27-00.0	90-31-00.0
St. Clair	256,082	6.86%	2.06%	Belleville	38-33-00.0	89-55-00.0
Saline	26,733	0.72%	0.22%	Harrisburg	37-46-00.0	88-33-00.0
Sangamon	188,951	5.07%	1.52%	Springfield	39-46-00.0	89-39-00.0
Schuyler	7,189	0.19%	0.06%	Rushville	40-09-00.0	90-36-00.0
Scott	5,537	0.15%	0.04%	Winchester	39-39-00.0	90-38-00.0
Shelby	22,893	0.61%	0.18%	Shelbyville	39-24-00.0	88-47-00.0
Stark	6,332	0.17%	0.05%	Toulon	41-06-00.0	89-48-00.0
Stephenson	48,979	1.31%	0.39%	Freeport	42-21-00.0	89-40-00.0
Tazewell	128,485	3.44%	1.03%	Pekin	40-32-00.0	89-33-00.0

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County	Population	% of Region	% of State	County Seat	Center Lat/Long	
Union	18,293	0.49%	0.15%	Jonesboro	37-27-00.0	89-15-02.0
Vermilion	83,919	2.25%	0.68%	Danville	40-10-00.0	87-45-02.0
Wabash	12,937	0.35%	0.10%	Mount Carmel	38-27-00.0	87-51-00.0
Warren	18,735	0.50%	0.15%	Monmouth	40-51-00.0	90-37-00.0
Washington	15,148	0.41%	0.12%	Nashville	38-21-00.0	89-26-00.0
Wayne	17,151	0.46%	0.14%	Fairfield	38-26-00.0	88-25-00.0
White	15,371	0.41%	0.12%	Carmi	38-05-00.0	88-10-00.0
Whiteside	67,653	1.81%	0.54%	Morrison	41-45-02.0	89-55-00.0
Williamson	61,296	1.64%	0.49%	Marion	37-44-00.0	88-56-00.0
Woodford	35,469	0.95%	0.29%	Eureka	40.46-00.0	89-14-00.0

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TABLE 2

City	County	Population	City Center	
Bloomington-Normal	McLean	110,194	40-28-50.3	88-58-31.2
Champaign-Urbana	Champaign	103,913	(C) 40-06-56.8 (U) 40-06-36.3	88-15-59.1 88-12-30.5
Decatur	Macon	81,860	39-51-17.5	88-56-08.7
East St. Louis Metro		273,382		
Alton	Madison	(31,562)	38-54-25.4	90-09-22.7
Belleville	St. Clair	(41,608)	38-31-50.1	90-00-19.9
Cahokia	St. Clair	(16,803)	38-33-59.4	90-10-50.7
Collinsville	St. Clair/Madison	(23,057)	38-40-44.8	89-59-59.1
East St. Louis	St. Clair	(38,595)	38-36-53.5	90-08-04.6
Edwardsville	Madison	(16,403)	38-47-49.9	89-58-01.5
Fairview Heights	St. Clair	(16,174)	38-36-01.9	90-00-28.8
Glen Carbon	Madison	(10,029)	38-45-41.4	89-58-30.1
Godfrey	Madison	(16,610)	38-57-59.1	90-11-34.3
Granite City	Madison	(31,449)	38-42-54.1	90.07-56.7
O'Fallon	St. Clair	(19,995)	38-35-32.8	89-54-53.6
Wood River	Madison	(11,097)	38-51-48.0	90-05-11.5
Peoria	Peoria	112,936	40-44-48.6	89-36-43.2
Quad Cities Metro Area		129,814		
Carbon Cliff	Rock Island	1,689	41-30-00.2	90-23-32.4
Coal Valley	Rock Island	3,606	41-27-00.7	90-27-02.1
Colona	Henry	5,173	41-28-20.6	90-20-35.5
East Moline	Rock Island	20,333	41-30-57.2	90-25-51.9
Hampton	Rock Island	1,626	41-33-15.6	90-24-35.9
Milan	Rock Island	5,348	41-26-45.6	90-33-46.5
Moline	Rock Island	43,768	41-29-10.0	90-29-30.4
Oak Grove	Rock Island	1,318	41-24-52.9	90-34-36.9
Rock Island	Rock Island	39,684	41-28-30.4	90-34-55.7
Silvis	Rock Island	7,269	41-30-29.9	90-24-50.5
Springfield	Sangamon	111,454	39-46-58.1	89-38-52.6

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This Regional Plan will consider for planning purposes the communication needs of all currently eligible entities under the FCC Public Safety (PW) pool. Additionally, this plan will consider the communication needs of those public safety service associated operations as the Region 13 Planning Committee may deem necessary and desirable to meet local needs.

1.7. Notification Process

During a NPSAC 821 MHz meeting held in November 2000, Chairperson George Sneyd named Thomas J. Ward Jr. as convener for the Region 13 700 MHz Regional Planning Committee. The first meeting was set for November 6, 2002. The meeting was announced 90 days prior to the first meeting with announcements sent to, among others, the FCC Wireless Telecommunications Bureau, Joy Alford. Meeting announcements were posted in industry periodicals such as *MRT* magazine, *Radio Resource* magazine and the *Association of Public Safety Communications Officials, Inc.* magazine indicating the date, time, and location of the meeting.

This awareness allowed for the dissemination of meeting information to law enforcement agencies, public safety agencies, and news media throughout Illinois and the seven (7) adjacent Regions. The convener also contacted several agencies via email that had expressed interest in the planning process. The Region 13 700 MHz list has not been created but is planned as an excellent method of exchanging information as well as disseminating meeting times, dates, and agendas throughout the Regional Planning process.

The filing window for channel requests has not been opened in Region 13 and cannot be opened until FCC approval is secured. Region 13 has been approached about frequency availability, but there are no plans to open an application filing window until channels are released by the FCC. Filing windows will be disseminated using all available methods to notify public safety entities. Applications for channels cannot be accepted for study and discussion until the Region 13 Draft Plan is completed and sent to the FCC for final approval.

A list of meetings is included in **Appendix "C."** Minutes, announcements, and agendas are included in **Appendix "D"** of this document.

2. REGIONAL PLAN SUMMARY

2.1. Regional Planning Committee

The RPC will remain a functional entity after the approval of this Plan to implement its features and requirements. Meetings will be scheduled in accordance with Section 1.3 of this Plan or as directed by the RPC Chairperson

2.2. Technical

The primary responsibility of the Region 13 Executive Board will be to review applications from agencies within the Region for conformance to plan requirements. The Executive Board will have access to the CAPRAD system and will review and

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recommend approval of applications as they are received in the system. Applications approved by the RPC will be forwarded to the appropriate adjacent regions for concurrence where, upon approval, returned to the selected coordinator for further processing, then to the FCC for licensing. The membership of this committee will consist of the Executive Board. The duties are as follows:

- a. Review applications for compliance to the Region 13 Plan;
- b. Review applications from adjacent Regions;
- c. Deal with appeals/applicant clarifications and applicant presentations;
- d. Recommend approval or denial to the RPC Chairperson;
- e. Maintain coordination with neighboring Regions and FCC-certified frequency coordinators and advisors;
- f. Update the Computer Assisted Pre-coordination Resource and Database (CAPRAD).

2.3. Interoperability

The ability for agencies to effectively respond to mutual aid requests directly depends on their ability to communicate with each other. Illinois is subject to many natural disasters, and mutual aid should be encouraged among agencies. This Plan seeks to facilitate the communications necessary for effective mutual aid.

The State of Illinois has stated the intention to administer the 700 MHz interoperability channels. The State Interoperability Executive Committee (SIEC) operates under National Coordination Committee's (NCC) guidelines. The Region 13 Chairperson will appoint a voting member from Region 13 700 MHz Regional Planning Committee to participate in the Illinois State Interoperability Executive Committee (SIEC) as a voting representative of Region 13. If at any time Illinois' SIEC is unable to function in the role of administering the interoperability channels in the 700 MHz band, then Region 13 RPC will assume this role and notify the FCC in writing of the change in administrative duties.

The Interoperability committee duties are as follows:

Work with the Illinois SIEC in the development of a statewide interoperability plan;

- a. Load interoperability channel assignments in CAPRAD;
- b. Review application interoperability plans for conformance to the state plan.

2.4. Implementation

The Executive Board is responsible for monitoring adherence to the Region 13 plan.

The Executive Board duties are as follows:

- a. Annually review and update the Region 13 Plan as necessary;
- b. Provide education to users regarding 700 MHz frequency use and issue resolution processes;
- c. Monitor various system(s) implementation progress;

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- d. Communicate with applicants to determine if implementation of their systems is in accordance with provisions of their applications;
- e. Make recommendations to the RPC on applicants that fail to implement systems;
- f. Make recommendations to resolve inter-regional issues.

2.5. Regional Plan Updates

The Region 13 Executive Board will perform Regional Plan Review updates annually.

3. ALLOCATION OF GENERAL USE SPECTRUM

3.1. General Provisions

This portion of the Plan provides a basis for proper spectrum utilization. Its purpose is to evaluate the implementation of 700 MHz radio communication systems within the Region. Region 13 places greater emphasis on agencies that provide services that result in preserving personal life and property protection; such agencies will receive the highest priority.

All agencies requesting spectrum during the initial filing window (see Section 4) will be allotted channels if plan requirements are met. Allotments will be made in 25 KHz groups to allow for various digital technologies to be implemented. Requests for voice channels will be allocated on the basis of one 12.5 KHz channel per one voice channel requested. It is the eventual goal of the FCC for one voice channel per 6.25 KHz of spectrum. Applicants should acknowledge their migration path to 6.25 KHz to the Committee when applying for channels in Region 13. For narrowband mobile data requests, one mobile data channel will consist of two (2) 6.25 KHz channels/one (1) 12.5 KHz channel. As 6.25 KHz migration continues, "Orphaned" 6.25 KHz channels can be allocated to agencies to maintain consistent grouping of 25 KHz blocks.

Region 13 encourages small agencies to join multi-agency systems because they promote spectrum efficiency and allow the capacity needs of large and small agencies to be met.

Systems operating in Region 13 must comply with the FCC Rules and Regulations. A system of three (3) or more channels will be required to use trunking technology unless a more spectrum-efficient technology can be demonstrated. Systems having two (2) or fewer channels may be conventional; however, such systems that do not meet the FCC loading standards will be required to share the frequency on a non-exclusive basis. Mobile unit systems shall be digital and incorporate APCO25, Phase 1, on interoperability channels of a type accepted by the FCC.

3.2. Frequency Assignments

The Region 13 Plan adopts the NCC's recommended method of pre-coordination by using the National Institute of Justice Law Enforcement Telecommunications Council's Computer Assisted Pre-coordination Resource and Database (CAPRAD) as the base allotment methodology. The purpose of CAPRAD is to create a nationwide, centralized database to manage the distribution of 700 MHz public-safety spectrum. CAPRAD will serve as a central repository of 700 MHz frequency information including Regional Plans, application submittals, approvals, coordination and licensure. Applicants will be able to make application, receive Regional approval, acquire coordination from their

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selected coordinating body, and submit application to the FCC for licensure via the Internet. By using CAPRAD, pre-coordination is accomplished by the system because it designs the allotment based on a distribution of frequencies to every county in the continental United States. CAPRAD utilizes population density, census data, height above average terrain (HAAT), and public safety use curves generated by the Public Safety Wireless Advisory Committee to provide spectrally efficient channel assignments to specific counties. Border considerations are also designed in the algorithm of the system.

Note: Although the CAPRAD system distributes frequencies based on geography by county nationwide, this does not mean that counties have ownership of the frequencies. Channels are available to all eligible Region 13 public safety entities residing within that county on a first-come, first-served basis.

CAPRAD maximizes the spectrum utilization. See **Appendix "E"** for the current frequency allocation by county as pre-sorted by CAPRAD. The table of channel allocations for Region 13 is maintained on the CAPRAD database. Low power channel assignments are included in **Appendix "F."** The committee has determined that sufficient spectrum has been allocated for interoperability in the national plan to meet the current and future needs of this Region.

Agencies requesting spectrum during the initial filing window (see Section 4) will be allotted channels if plan requirements are met. Allotments are in 25 KHz groups to allow for various digital technologies to be implemented. Requests for voice channels will be allocated on the basis of one 12.5 KHz channel per one voice channel requested. The goal of the FCC is one voice channel per 6.25 KHz of spectrum. Applicants should acknowledge their migration path to 6.25 KHz to the RPC when applying for channels in Region 13. For narrowband mobile data requests, one mobile data channel will consist of two (2) 6.25 KHz channels/one (1) 12.5 KHz channel. As 6.25 KHz migration continues, "orphaned" 6.25 KHz channels can be allocated to agencies to maintain consistent grouping of 25 KHz blocks.

3.2.1. Low Power Analog Eligible Channels

The FCC in the 700 MHz Band Plan set aside channels 1 - 8 paired with 961 – 968 and 949 – 958 paired with 1909 – 1918 for low-power use for on-scene incident response purposes using mobiles and portables, subject to Commission-approved regional planning committee regional plans. Transmitter power must not exceed 2 watts (ERP).

Channels 9 –12 paired with 969 – 972 and 959 – 960 paired with 1919 – 1920 are licensed nationwide for itinerant operation. Transmitter power must not exceed 2 watts (ERP). These channels may operate using analog operation. To facilitate analog modulation, this plan will allow aggregation of two 6.25 KHz channels for 12.5 kHz bandwidth.

On-scene, temporary base and mobile relay stations are allowed (to the extent FCC rules allow) antenna height limit of 6.1 meters (20 feet) AGL (Above

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Ground Level). Vehicular repeater operation (MO3) is also allowed. However, users are encouraged to operate in simplex mode with the least practical amount of power to reliably maintain communications whenever possible. This plan does not limit use to analog only operations, and channels are intended for use in a wide variety of applications that may require digital modulation types as well. The use of EIA/TIA-102, Project 25, and Common Air Interface is required when using a digital mode of operation.

In its dialog leading up to CFR §90.531 allocating the twenty-four (24) low-power 6.25 kHz frequency pairs (of which 18 fall under RPC jurisdiction), the FCC suggested that there is a potential for multiple, low-power applications. Absent a compelling showing, a sharing approach be employed rather than making exclusive assignments for each specific application because low-power operations can co-exist (in relatively close proximity) on the same frequencies with minimal potential for interference due to the 2 watt power restriction.

Whereas advantages exist in not making assignments, the reverse is also true. If, for example, firefighters operate on a specific frequency or set of frequencies in one area, there is some logic in replicating that template throughout the region for firefighter equipment. If there are no assignments, such a replication is unlikely.

In seeking the middle ground, with positive attributes showing up both for assignments and no assignments, Region 13 will assign channels in accordance with the posted current SIEC Statewide Interoperability Plan. Originally, the eighteen channels (18) available for RPC assignments were allocated specifically:

- a. Channels 1 – 4 and 949-952 were set aside as General Use base channels for use by public safety agencies operating within Region 13. The complementary mobile channels 961-964 and 1909-1912 were set aside as General Use mobile channels also for use by public safety agencies including GPS differential correction telemetry for channels 961-964 and 1909-1912 likewise operating within Region 13.
- b. Channels 5-8 were designated as Fire Protection/Emergency Medical, and Emergency Management base channels for licensing and exclusive use by the Fire/Emergency Medical disciplines, as well as political subdivisions and public safety agencies engaged in official emergency management activities during a disaster. The complementary mobile channels 965-968 were set aside as Fire Protection/Emergency Medical, and Emergency Management mobile channels also for licensing and exclusive use by the Fire/Emergency Medical disciplines, as well as political subdivisions and public safety agencies engaged in official emergency management activities during a disaster.
- c. Channels 953-956 were set aside as Law Enforcement base channels for licensing and exclusive use by the Law Enforcement disciplines. The complementary mobile channels 1913-1916 were set aside as Law Enforcement mobile channels also for licensing and exclusive use by the Law Enforcement disciplines, as well as political subdivisions and public safety agencies engaged in official crisis management activities during a

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disaster.

- d. Multi-jurisdiction Joint Public Safety Operations - Channels 957-958 were set-aside as Multi-jurisdiction Joint Public Safety Operations channels for licensing and use by political subdivisions and public safety agencies operating under a unified command at a common incident for the express mission of safety of life, property, or environment. The complementary mobile channels 1917-1918 were set aside as Multi-jurisdiction Joint Public Safety Operations Channels.

Simplex operations may occur on either the base or mobile channels. Users are cautioned to coordinate on-scene use among all agencies involved, particularly when the use of repeater modes is possible at or in proximity to a common incident. Users should license multiple channels and be prepared to operate on alternate channels at any given operational area. Under no circumstances may a user claim a channel as exclusively theirs; all channels within this section are shared.

3.2.2. Wideband Data Channels

Operations not greater than 25 kHz are permitted in Region 13. A waiver is required for an application for any other use which exceeds an aggregation of more than 25 KHz.

3.2.3. General Access R (24) Channel (previously known as reserve pool channel)

3.2.3.1 This section is focused on instances when actions taken by the FCC or the 700 MHz Regional Planning Committee itself necessitate a change in the regional plan. 700 MHz Plan changes are required to be submitted to the FCC under Docket 02-378.

700 MHz PLAN MODIFICATION REQUIRED FOR ALL REGIONS
October 24, 2014 FCC Report and Order 14-172
Reserve Channel Reclassification-

The language below is from the FCC's Report and Order indicated above that outlines the changes 700 MHz RPC's need to make to their existing plans with the former Reserve channels being reallocated to General Use.

Discussion (FCC 14-172)

Paragraph 39: We conclude that the 700 MHz Reserve Channels should be added to the General Use pool and made available for multiple uses under RPC administration. The demand for 700 MHz narrowband spectrum has significantly increased in recent years, particularly in large urban areas. Some 700 MHz licensees have channel requirements that have surpassed what was envisioned in the original channel allotment process. Moreover, in Los Angeles, Washington DC, and other major metropolitan areas, the Reserve Channels offer much-needed capacity for relocating T-Band public safety licensees as required by the Public Safety Spectrum Act.

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Paragraph 40: To accommodate these spectrum demands, we adopt the following overall approach. Rather than dedicating the Reserve Channels exclusively for use with deployable systems, **we require the RPCs to administer the Reserve Channels subject to the following.**

In the non T-Band areas, up to eight 12.5 kilohertz channels may be dedicated for temporary deployable trunked use and the rest for General Use, including low-power vehicular repeaters. In the T-Band markets, all twenty-four Reserve Channels will be available for General Use with priority given to relocating T-Band incumbents that commit to return an equal amount of T-Band channels.

The RPCs shall submit channel plans consistent with this Report and Order within six months from publication in the Federal Register.¹¹² We encourage T-Band licensees transitioning to the former Reserve Channels to consider using spectrally efficient 6.25 kHz technology given the limited number (24) of available former Reserve Channels.

Regional Planning Committees, per the FCC language above, have a number of options to consider when repurposing the former Reserve Channels within their regions. Those regions that include T-Band areas must prioritize the assignment of all 24 Reserve Channels to those T-Band licensees. The FCC has recommended that up to eight (8) Former Reserve Channels be designated for nationwide deployable use and the National Public Safety Telecommunications Council (NPSTC) and the National Regional Planning Council (NRPC) have submitted to the FCC their recommendations for six (6) Former Reserve Channels that should be considered for nationwide deployable use, in bold in the Reserve Channel List below:

FCC Channel	CAPRAD Channel Label	Base Frequency	Mobile Frequency	Status
37-38	General Use-D	769.231250	799.231250	Recommended for Nationwide Deployable Use
61-62	General Use-D	769.381250	799.381250	Recommended for Nationwide Deployable Use
77-78	General Use	769.481250	799.481250	Recommended for Vehicular Repeater Use (MO3)
117-118	General Use-D	769.731250	799.731250	Recommended for Nationwide Deployable Use
141-142	General Use-D	769.881250	799.881250	Recommended for Nationwide Deployable Use
157-158	General Use	769.981250	799.981250	Recommended for Vehicular Repeater Use (MO3)
197-198	General Use	770.231250	800.231250	Available
221-222	General Use	770.381250	800.381250	Available
237-238	General Use	770.481250	800.481250	Available
277-278	General Use	770.731250	800.731250	Available
301-302	General Use	770.881250	800.881250	Available
317-318	General Use	770.981250	800.981250	Available
643-644	General Use	773.018750	803.018750	Available
683-684	General Use	773.268750	803.268750	Available

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699-700	General Use	773.368750	803.368750	Available
723-724	General Use	773.518750	803.518750	Available
763-764	General Use	773.768750	803.768750	Available
779-780	General Use	773.868750	803.868750	Available
803-804	General Use	774.018750	804.018750	Available
843-844	General Use	774.268750	804.268750	Available
859-860	General Use	774.368750	804.368750	Recommended for Vehicular Repeater Use (MO3)
883-884	General Use-D	774.518750	804.518750	Recommended for Nationwide Deployable Use (Alt CC)**
923-924	General Use	774.768750	804.768750	Recommended for Vehicular Repeater Use (MO3)
939-940	General Use-D	774.868750	804.868750	Recommended for Nationwide Deployable Use (Pri CC)**

** Channels 883-884 and 939-940 are designated as Alternate and Primary Control Channels for the Nationwide 700 MHz Deployable Trunked Systems.

It should be noted that the former Reserve channels identified in this modification have limitations as to their availability within the Mexican and Canadian border regions subject to treaties between the United States, Mexico and Canada. Impacted regional planning committees should identify which of these new General Use channels are available for coordination within these international border areas and make decisions as to which channels should be utilized in which areas to effectively utilize these additional General Use assignments. Appendix A shows each former Reserve Channel and its encumbrances at the Mexican and Canadian border. See Sections 7.8 and 7.9 above for more detail.

Subsequently, it is recommended that each 700 MHz regional planning committee modify their existing plan to allow for the use of channels 37-38, 61-62, 117-118, 141-142, 883-884, and 939-940, other than in regions that include FCC designated T-Band areas where all 24 12.5 KHz former Reserve channels are prioritized for existing T-Band licensees. While regions are not required to dedicate the above listed 6 channels for nationwide deployable 700 MHz trunked systems, it is strongly recommended that the region solicit interest in their region with regard to the proposed use of these channels and which agencies, if any, would be interested in providing or accessing deployable equipment to support the use of these 6 channels.

As indicated in the list above, Non-Deployable Former Reserve Channel Assignments available in each region are: 77-78, 157-158, 197-198, 221-222, 237-238, 277-278, 301-302, 317-318, 643-644, 683-684, 699-700, 723-724, 763-764, 779-780, 803-804, 843-844, 859-860, 923-924. Some of the former Reserve channels can be utilized in regions for vehicular repeater operations (MO3) and the list above identifies channels that can be utilized for 800 MHz MO3 operations with sufficient duplexer spacing and other channels could be utilized for MO3 operations with non-800 MHz systems. Other than in the regions that include T-Band areas, regional planning committees can utilize the implementation of the former Reserve to General Use channels in any manner they deem appropriate. Below are a number of recommendations that regions can utilize in their

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plan modifications. Regions are encouraged to engage their members in conversations and discussions regarding the best utilization of these channels in their 700 MHz plan.

Reserve Pool (24 flexible General Use allotments)

The Region 13 700 MHz Regional Planning Committee submits this 700 MHz plan modification to the Commission in accordance with the Report and Order (14-172) and the requirements assigned to each regional planning committee therein.

Region 13 will modify its existing 700 MHz plan utilizing the following channel plan for the former Reserve Channels:

We modify the Region 13 700 MHz plan to utilize ALL former Reserve channels as “floating allotments” to supplement the existing General Use allotments in each region: 37-38, 61-62, 77-78, 117-118, 141-142, 157-158, 197-198, 221-222, 237-238, 277-278, 301-302, 317-318, 643-644, 683-684, 699-700, 723-724, 763-764, 779-780, 803-804, 843-844, 859-860, 883-884 and 923-924, 939-940, . Allowing these remaining channels to supplement the existing General Use allotments utilized within the region will promote maximum flexibility of the use of these channels in each region. The Region will consider assignment of the flexible use allotments for fixed use only after general use allotments by county are exhausted.

3.2.4. Air to Ground (previously known as secondary trunked channels) In its Report and Order (FCC 14-172) dated October 24, 2014 the FCC re-designated the 700 MHz Secondary Trunked channels and reserved them for specific Air to Ground communications between low-altitude aircraft and associated ground stations. The secondary channels are the most suitable channels for this specific Air to Ground purpose as they have no incumbents and little risk of co-channel interference since there are no current Secondary Trunked licensees.

The eight (8) 12.5 KHz Air to Ground channels are listed below:

FCC Channel	Base	Mobile	Status
21-22	769.131250	799.131250	Available
101-102	769.631250	799.631250	Available
181-182	770.131250	800.131250	Available
261-262	770.631250	800.631250	Available
659-660	773.118750	803.118750	Available
739-740	773.618750	803.618750	Available

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819-820	774.118750	804.118750	Available
899-900	774.618750	804.618750	Available

The FCC also adopted a two (2) watt ERP limit for the use of these channels along with restricting airborne use of these channels to altitudes below 1500 feet Above Ground Level (AGL). To limit area impacted by the airborne operations. Given the proximity of these Secondary Trunking Channels to the designated Interoperability channels in the 700 MHz band (immediately adjacent to), the FCC assigned the responsibility for coordinating these channels to each state while permitting aircraft use on both the upper and lower portion of each Secondary Trunked Channel pair.

Region 13 will collaborate with the Illinois SIEC and Region 54 to administer and manage the Air to Ground Channels (secondary trunk channels). (See appendix M)

3.3. Spectrum Utilization Agreements

Region 13 shares borders with Region 14 (Indiana), Region 24 (Missouri), Region 15 (Iowa), Region 45 (Wisconsin), Region 17 (Kentucky), and Region 54 (Southern Lake Michigan). After the RPC approves the requested application, the Chairperson will provide data to the pre-coordination data base, CAPRAD, to ensure sufficient notification to and acceptance by appropriate adjacent regions and the FCC-certified Frequency Coordinators. This notification process meets the requirements of Rule 90.176 (c).

If an application encounters objections, the objecting agency may request field tests be done to verify interference signal levels. The technical parameters to determine the extent of any possible interference are identified elsewhere in this Plan.

If special situations occur in the future, the RPC will act on behalf of any effected Region 13 entities in any border matter that may arise. In some instances, Region 13 public safety agencies may allow other agencies access and/or use of their system

3.4. Region 13 Application Requirements

The FCC, in partnership with the National Institute of Justice, has assigned a limited number of 700 MHz frequencies to each geographic county within the State of Illinois. The county allocations can be found in Appendix “E.” Any public safety entity within the geographic boundaries of that county is eligible to apply for use of frequencies from that county allotment. Prior to the submission of an application, it is incumbent upon the applicant to notify other county and municipal entities eligible to apply for the use of those frequencies of their intent. Proof of such notification is to be submitted with the application.

Each application **must** completely document the following:

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- a. Service and Use – the tasks or duties the agency is charged with accomplishing. Statement of need for installing a new 700 MHz system.
- b. Inter-system interoperability – how agents of the applying organization will communicate with agents of different organizations. Explain how the system will communicate with other services in other bands. Explain how the system will interface with long distance radio communications, such as: amateur radio, satellite communications, and/or long-range emergency preparedness communications systems. Explain and certify that the applicant's agency will comply with the interoperability requirements of the SIEC plan. Any 800 MHz systems that are expanding to 700 MHz channels shall explain how they plan to meet the interoperability requirements of both plans.
- c. Channel Loading Factors – equipment inventory totals and the maximum number of mobile radios potentially in use at any given time. List mobile and portable units by agency inventory.
- d. System Type – in narrative form, a description of the radio system being proposed (trunked, conventional, voice, data, voice/data combined, etc.).
- e. System Implementation Factors – an explanation of any budgetary commitment and a proposed time frame for putting equipment into service. Explanation of the system's future growth for all agencies involved in the system. Explanation of the budget commitment for the proposed system, including agency budgets and/or agency resolutions
- f. Coverage Area – details of an engineering survey showing the radio coverage required for minimum coverage of jurisdictional boundaries and how this survey meets the +40 dBu Service, 60 dBu adjacent channel protection and 5 dBu co channel interference protection contour requirements. A summary of engineering details providing a legend of the parameters to include the calculus applied to provide the engineering information being submitted to the Region which clearly identifies the radio coverage will not exceed the applicant's jurisdictional requirements or create interference to other systems, TV, or Canadian broadcasters. The applicant shall provide the formula used for the projected prediction which shall be Longley Rice, service and interference. The prediction study shall also include parameters used.

Region 13 RPC has adopted the NRPC process which supplies a uniform spectrum management formula and method throughout the nation. This will provide a more uniform method of allocating spectrum to all of the Regions.
- g. Vacated Frequencies Returned – frequencies the agency will release. List all participating agencies' public safety radio frequencies. Describe how they are utilized and provide a time line date they are to be returned to the public safety pool which will include a signed return agreement by the applicant.

The RPC may request additional information at the time of review to assist in the evaluation process.

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The applicant will indicate which public safety frequency coordinator the applicant desires to coordinate the license application (AASHTO, APCO, FCCA, or IMSA).

When competing applications are received, the Technical Subcommittee will provide a review analysis of each application utilizing the accepted scoring matrix, which incorporates the score their application has attained. The Technical Subcommittee for appropriate resolution may request additional documentation. The Region 13 has adopted the NRPC evaluation tools which have been developed by the NRPC Members to provide a more uniform method to process applications between regions and to assist the Regions with the application process internally.

Applications will be submitted, via CAPRAD, to the Region 13 Executive Board who will assure compliance with the plan. Upon approval by the RPC the application will be forwarded to appropriate adjacent regions for comment, then to the designated coordinator for technical review. Upon approval by the coordinator, the application will be forwarded to the FCC for licensing. Any conflicts encountered during the process will be returned for resolution.

Applications may be submitted at any time prior to 30 days before a scheduled Region 13 meeting for review by Region 13 and will be placed on the agenda for action at the next scheduled meeting.

Applicants maybe contact the Regional Chair and the Chair will assign a Region 13 member to assist that applicant with the application process.

3.5. Slow Growth Plans

Agencies submitting applications where funding is transcends fiscal years and the implementation progress may be extended must submit a slow-growth plan if the agency anticipates system implementation taking up to five (5) years. An agency must provide convincing affirmative evidence annually after the plan is approved showing actual progress in system implementation. If the system is not fully implemented within the requested slow-growth period, the licensed frequencies may be forfeited to the General Pool for reallocation to other potential users.

3.6. Use of Long-Range Communications

During incidents of major proportions where public safety requirements might include the need for long-range communications in and out of a disaster area, alternate radio communications plans are to be addressed by the lead agencies within this Region. These agencies shall integrate the appropriate interface to the five (5) national channels at a minimum. Such long-range communications could be amateur radio operations, satellite communications, and/or long-range emergency preparedness communications systems. They then could provide the means to communicate outside the area for themselves and the smaller agencies that might need assistance. Instances such as earthquakes, terrorist attacks, floods, tornados, widespread forest fires, or nuclear reactor problems could be cause for such long-range communications.

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3.7. Expansion of Existing 800 MHz Systems

Existing 800 MHz systems that are to be expanded to include the frequency bands of 700 MHz will have to meet requirements of both the 700 MHz and 800 MHz Region 13 plans. These systems will not be required to meet Section 3.11 of this plan.

3.8. Interoperability Channels

Interoperability between federal, state, and local governments during daily, emergency, and disaster operations will normally take place on the interoperability channels identified in the State and national plans (See Appendices "J" and "K"). The RPC has determined that sufficient spectrum has been allocated for interoperability in the national plan to meet the current and future needs of the Region. Additionally, through the use of an MOU (see **Appendix "G"**) or equivalent agreement(s), a licensee may permit federal agency use of non-federal communication system spectrum if deemed appropriate. Such use, on other than interoperability channels, is to be in full compliance with FCC requirements governing the use of spectrum.

The State of Illinois has intends to administer the 700 MHz interoperability channels. The State Interoperability Executive Committee (SIEC) has been identified by legislation. If at any time the Illinois SIEC is unable to function in the role of administering the interoperability channels in the 700 MHz band, then Region 13 RPC will assume this role and notify the FCC in writing of the change in administrative duties.

The following are some recommendations to the SIEC:

3.8.1. Tactical Channels

All mobile and portable units operating in this Region should be programmed with all the interoperability channels, both repeat and direct modes. The radio must be programmed with the minimum number of channels called for in the NCC guidelines or as the SIEC specifies. The channel display must be in accordance with the NCC guidelines and have common alphanumeric nomenclature to avoid any misinterpretation of use.

3.8.2. Deployable Systems

This plan strongly supports use of deployable systems, both conventional and trunked. Deployable systems are prepackaged systems that can deploy by ground or air to an incident to provide additional coverage and capacity on interoperability channels.

Agencies should have conventional deployable systems capable of being tuned to any of the interoperability tactical channels. Those agencies that are part of a multi-agency trunked system that commonly provide mutual aid to each other are encouraged to have trunked deployable systems that operate on the tactical channels designated by the FCC for interoperability use. The SIEC should develop the operational details for deploying these systems.

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

3.8.3. Monitoring of Calling Channels

All 700 MHz licensees will be responsible for monitoring the interoperability calling channel. The SIEC will develop operational guidelines for this function. See Appendices "J": and "K" for the Interoperability Plan that addresses interoperability guidelines and channel assignments for the region.

3.9. Technical Responsibilities

Spectrum efficiency is of primary importance in the development of systems. As high-level systems reach capacity, the smaller systems in the public safety service should consider uniting their communications efforts, using advanced technology, to formulate one large system. Where smaller, conventional 700 MHz subsystems needs are requested; those frequencies utilized must not interfere with the trunked systems.

Disruptive interference with communications involved in these services will not be permitted. Co-channel interference within an authorized area of coverage will not be tolerated and will undergo engineering analysis, on a case-by-case basis, by the PW FCC-certified frequency coordinators. Applicants for radio communications in the 700 MHz public safety services in Region 13 will be required to provide loading criteria information for the proposed system. The provisions of the Region 13 Plan must be used as a guide for establishing any new system. Strict adherence to limiting area coverage to the boundaries of the applicant's jurisdiction must be observed. Overlap or extended coverage must be minimized even where systems utilizing 700 MHz trunked radio systems are proposing to inter-mix systems for cooperative and/or mutual aid purposes.

Antenna configurations must be limited to provide only the necessary coverage of the applicant. When antenna locations are restricted to only the "high ground," transmitter outputs and special antenna patterns must be employed to produce the necessary coverage with the proper amount of ERP. All necessary precautions must be taken to gain maximum reuse of the 700 MHz spectrum.

The distance between transmitters for co-channel re-use will be determined by the most recent TIA/EIA TSB88-A standards. The FCC-certified PW frequency coordinators are responsible for the coordination of the 700 MHz spectrum and will be responsible for the engineering consideration of an application. Separation of co-channel transmitters will be determined using the most recent TIA/EIA TSB88-A standard, coverage needs of the applicant, natural separation barriers, antenna patterning, and limited ERP, where possible. System tests and/or propagation studies should also be provided to establish minimum distances for separation.

3.10. Reassignment of Frequencies

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When applying for new 700 MHz channels, the Regional Planning Committee expects applicants to relinquish an amount of currently used spectrum (“give back channels”) and make that spectrum available for use within the Region. This currently licensed spectrum may be in any public safety band. Agencies with existing, licensed 800 MHz systems that are requesting 700 MHz channels for system expansion will not fall under this requirement, although the loading of the 700MHz system shall incorporate the existing 800MHz system loading.

An applicant may retain (not give back) channels required to provide minimum, interoperable communications with surrounding jurisdictions. The agency is responsible for documenting the need to retain channels. Insufficient documentation of channels retained by the applicant may result in denial by the Regional Planning Committee. The application may be returned to the agency for additional review. The Regional Planning Committee is the deciding body for application approval and plan interpretation.

4. PROCESSING AND EVALUATING APPLICATIONS

4.1. Application Evaluation

The application evaluation criteria established in the NCC process and further defined in this Plan will be followed for approval. All requests will be considered on a first-come, first-served basis. In cases, where numerous applicants require specific frequency allotment at the same time, the application evaluation matrix point system will be utilized to determine the successful applicant. In all cases, area of coverage, technical requirements, and channel-loading criteria will be applied. The RPC may make exceptions for unusual circumstances if deemed appropriate. Deviations from FCC rules are not to be approved unless a fully justified waiver request has been presented to the RPC. The Region 13 Technical Subcommittee will evaluate and process applications within thirty (30) days after notified of receipt by CAPRAD.

All applications will be prioritized by the RPC. If the frequency allotment appendix (**Appendix “E”**) to the Regional Plan needs to be updated, corrections will be made and sent to the FCC and NPSTC for review and approval. The applications will be sent to the PW coordinator requested by the applicant. Subsequent to coordination approval, the FCC will grant the license(s) to the applicant.

The PW coordinators requested by the applicant shall be responsible for the frequency coordination of the application, including system engineering, ERP, coverage, and compliance to FCC requirements of the system. The PW coordinators may desire to contact the Region to help clarify issues relative to the application(s).

4.2. Evaluation Matrix Point System

Region 13 will use a point system to determine approval priority of competing applications within the Region. The maximum total points that can be achieved are 1000. Applications receiving the highest point total will receive approval for the channels. Seven categories will be evaluated.

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The matrix has been prepared to enable consistent evaluation of plans and applications. Variations within the parameters of this plan and submitted applications and/or plans may require extensive evaluation. Therefore, it shall be responsibility of the RPC to evaluate each situation on its own merit.

4.2.1. Service and Use (Maximum score = 300 points)

<u>Service</u>	<u>Points</u>
Local	10
County	10
State	10
Federal	10
<u>Use</u>	<u>Points</u>
Criminal Justice/Law Enforcement	50
Fire/EMS	50
Special Emergency	40
Emergency Management	40
Forestry Conservation	30
Highway Maintenance	30
General Government	20
Maximum Total	300

Environmental protection falls in the “Special Emergency” category and shall be considered for tasks that directly reduce contamination to the air, water or ground by chemicals or waste materials.

4.2.2. Intersystem Interoperability (Maximum score = 150 points)

The application is scored on the degree of interoperability that is demonstrated; points range from 0 to 150. This category does not rate the application on the inclusion of interoperability channels but on the proposed, actual ability to communicate with different levels of government and services during a time of emergency.

Each applicant is encouraged to have direct mobile-to-mobile communications among these radio-type functions: local, state, and federal in the criminal justice discipline, fire/EMS, special emergency, emergency management, forestry, highway maintenance, and general government. All applications will start with 150 points; points will be deducted based upon their lack of inter-system communications.

If direct mobile-to-mobile capabilities do not exist, ten (10) points will be deducted for each radio service-type function in which the application lacks inter-system functionality. Five (5) points will be deducted for each radio service if the applicant lacks direct, mobile-to-mobile communications capabilities.

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4.2.3. Loading (Maximum score = 150 points)

Those applications demonstrating they are part of cooperative, multi-agency systems will be scored on a range from 0 to 150 points depending upon the extent of the cooperative system.

Multi-agency, multi-discipline, fully loaded system	150 points
Multi-agency trunked, fully loaded system	125 points
Trunked system, fully loaded	100 points
Mobile data channel, fully loaded/channel	75 points
Conventional system, fully loaded/channel	50 points

Expansion of existing systems will be evaluated according to their qualification in one of the aforementioned categories. Any system less than fully loaded will have its score multiplied by the proportion:

$$\text{Subscriber Units} \div (\text{Number of Channels} \times 100) = \text{_____} \%$$

Example of 450 units with 5 channels:

$$\begin{aligned} 450 \div (5 \times 100) \\ 450 \div 500 &= 90\% \\ 90\% \times \text{maximum category points} \end{aligned}$$

A fully loaded channel is a channel with a minimum 100 units per 12.5 kHz voice channel (or 200 per 12.5 kHz data channel). Control channels shall be considered communications channels. Plans submitted to the RPC shall stipulate the number of communications and control channel(s).

Each application for a trunked system shall certify that a minimum of 100 mobile units for each channel will be placed in service within five (5) years of the initial plan approval date. If that is not the case, then less-than-fully loaded channels shall be returned to the allotment pool, and the licensee shall modify the license accordingly. Conventional channels shall be loaded to 100 mobile units per channel. Where an applicant does not load a channel to 100 mobile units, the channel will be available for assignment to other licensees. Mobile, portable, and control stations will be considered as mobile units.

4.2.4. System Type (Maximum score = 100 points)

The application will be scored on the degree of spectrum-efficient technology that the system demonstrates. A trunked system will be considered spectrum-efficient technology, as is any technological systems feature that is designed to enhance the efficiency of the system and improve the efficient use of spectrum.

Spectrum Efficiency Points

Trunked or equally high-efficient technology	50 points
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Conventional system using data	50 points
Technologies that increase system throughput	50 points

4.2.5. System Implementation Factors (Maximum score = 100 points)

This category scores the application on two factors, budgetary commitment and plan completeness. The degree of budgetary commitment is scored on a range from 0 to 50 points based on the RPC’s evaluation of commitment demonstrated through documentation by the applicant and its funding source entity. A high degree of funding commitment will receive a higher score. Applications will also be scored on the degree of plan completeness on a range from 0 to 50 points. Applicants must submit a timetable for the implementation of the system. Applicants should be aware of the requirements outlined in “Slow Growth Plan” portion of this Plan and the FCC rules.

Multi-phase project with funds committed to all phases	50 points
Multi-phase project plan completed for all phases	50 points

Applications with less-than-complete funding commitment and/or incomplete plans will reduce their point score accordingly. Resolutions, legislation, or other such documentation from governing entities shall be submitted with applications to support financial commitment.

Should system implementation not begin within two (2) years or if projected planned channel loading is not attained within four (4) years after granting of license, the channels will be returned for re-allotment. A one (1) year extension may be supported by the RPC if it can be shown that circumstances are beyond the control of the applicant. The applicant will be responsible for contacting the FCC to request an extension. Applicants must be acting to the extent of their power to implement the project within their authority.

System implementation will be monitored by the RPC Executive Board who will be responsible for determining the progress of the implementation of a system. Monitoring of systems implementation by the Executive Board will take place on one (1) year intervals. If progress is made and the system is ultimately implemented, the system can be determined “complete.” If progress is not made, the licensee will be advised in writing that they are in default of their plan and the Region 13 Plan and the consequences of their lack of progress. The Executive Board will inform the RPC and PW frequency coordinator of the situation. The Executive Board will continue to monitor the progress of any system determined in default. If progress is still not being made, the subcommittee will advise the RPC and recommend informing the FCC of the lack of progress. The licensee in default can appeal this action or allow the license to be withdrawn. If the authorized frequencies are withdrawn, they will be returned to the frequency allotment pool for future use.

4.2.6. System Density (Maximum score = 100 points)

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Each application will be scored on the level of geographic efficiency. Scoring will be based upon the ratio of subscriber units to the square mile area of coverage. Scores are based on the ratio multiplied by 100 points with the maximum not to exceed 100 points.

System density points

of subscriber units in the system / Area in square miles = ___ x 100 = ____

Example:

215 units / 236 sq miles = .9110 x 100 = 91 points

A high-end limit of 500 is established for the maximum square mile area.

4.2.7. Frequency Givebacks (Maximum score = 100 points)

The application is scored on the number of channels given back with the greater the number of channels given back the higher the score. Point consideration is also given to applications that represent a recently established public safety service(s) system providing coverage to a wide area and/or multiple agencies.

Permitting the direct reassignment of radio frequencies between agencies is inconsistent with the goals and objectives of the FCC and Region 13. All VHF and UHF frequencies are to be returned to the PW pool. The frequencies shall not be "farmed down" to other radio services within their political structure.

Giveback scoring

Number of frequencies relinquished / Total Frequencies Allocated (all bands)

Example: 5 relinquished / 15 allocated score = 33 points

4.3. Dispute Resolution Appeals Process

Throughout the application review and frequency allotment process, applicants are given opportunities to appeal decisions that have caused the rejection of their application. The appeal process has three levels: the RPC, NRPC and FCC. In the event that an appeal with the RPC is rejected the applicant or the RPC may request the NRPC to mediate the dispute. The NRPC will investigate and evaluate the objection and file a report with its determination to the RPC, applicant and the FCC. If no resolution is reached with the NRPC determination then the applicant or the RPC may request mediation from the FCC. The FCC decision will be final and binding on all parties. The appeal process will take effect upon plan approval by the FCC.

4.3.1. Introduction

In order to ensure that the appeal process is open and easily understood by the public, the Region 13 Planning Committee has developed the following

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procedure. Those involved in the appeal process can expect the Committee and its members to follow the procedures as may be amended from time to time. Where any matter arises during the course of an appeal that is not dealt with in this document, the Committee will do whatever is necessary to enable it to adjudicate fairly, effectively, and completely on the appeal. The Committee will, if necessary, refine and change its policies. Any changes made to the procedure will require a modification to the Region 13 Plan and will be made available to the public.

The Region 13 Committee will make every effort to process appeals in a timely fashion and issue decisions expeditiously. NRPC is a neutral mediator between Regions and applicants and is the first step in the appeals process.