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PREFACE

In December 1983, the United States Congress directed the Federal Communications Commission (FCC) to establish a plan to ensure that the communications needs of state and local public safety authorities would be met for the future. The Commission issued a Notice of Inquiry on March 7, 1984 and evaluated over three hundred comments from the public safety community and other interested parties.

These comments formed the basis for a Staff report issued by the Commission's Private Radio Bureau on August 1, 1985. This report suggested various methods of meeting the communications needs of public safety. One option included was the allocation of additional frequencies at 806-808 MHz and 851-853 MHz.

The commission issued an allocation order on September 19, 1986. Six megahertz of spectrum were selected in the 806-808 MHz and 851-853 MHz bands, since they were adjacent to frequencies already being used for public safety purposes. However, while the Commission made this allocation, it also stipulated that the frequencies could not be used until a National Plan for spectrum utilization was adopted.

The commission then established the National Public Safety Planning Advisory Committee (NPSPAC) in December, 1986. The committee had open membership and all interested parties were invited to participate in its meetings. The Commission charged NPSPAC with the following tasks:

- (1) identify communications requirements of public safety agencies;
- (2) develop a scheme for efficient use of the new frequencies
- (3) develop a scheme to increase the utility of existing public safety frequencies;
- (4) recommend the manner in which new technologies can be applied to public safety frequencies; and
- (5) recommend guidelines to ensure compliance with the National Plan.

NPSPAC submitted its Initial Report to the Commission in March, 1987. On May 15, 1987 the Commission issued a Notice of Proposed Rule Making proposing policies and reuled for the National Plan. NPSPAC then issued its Final Report in September, 1987. On December

18, 1987 the Commission released a Report and Order regarding the development and implementation of a Public Safety National Plan: General Docket No. 87-112.

In its introductory comments the Commission expresses its belief that while certain technical concerns must be addressed at the national level, the great diversity of needs in different areas of the country demand that input also be obtained at the State and Local levels. Thus, the United States was divided into Regions, primarily along State boundaries. A few large metropolitan areas were designated as independent Planning Regions.

Prior to the Report and Order, NPSPAC's Final Report had recommended a total of fifty-four (54) Planning regions. This document constitutes the Public Safety Communications Plan for Region No. 13: The State of Illinois excluding those counties specifically included in the Southern Lake Michigan Planning Region. Those counties are: Boone, Cook, DeKalb, DuPage Grundy, Kane, Kankakee, Kendall, Lake, McHenry, Will and Winnebago. It addresses the unique spectrum allocation requirements of the public safety and governmental authorities throughout this area. It is respectfully submitted to the Commission this day of under the umbrella of the National Plan.

Darrel R. Bartz

Chairman

THE REGION

ESTABLISHMENT OF REGIONAL BOUNDARIES

For Public Safety Communications purposes, the Illinois Region (the Region) is the geographic area of the State of Illinois excepting the counties of Boone, Cook, DeKalb, DuPage, Grundy, Kane, Kankakee, Kendall, Lake, McHenry, Will, and Winnebago. The Region is comprised of ninety counties within the State of Illinois. Its approximately 4.8 million people represents more than 1.85 percent of the Nation's population.

Protecting the lives and property of these persons is a function of hundreds of Public Safety and Special Emergency agencies which are operated or regulated by various political jurisdictions. Personal mobility and the proximity of communities in Illinois required cooperation and coordination among these agencies. Whether the activity is search and rescue or the pursuit of a criminal offender, radio communications provides an important means for interagency communications.

Radio communications also provide the means for each agency to accomplish its own individual, day-to-day operations. These communications must be reliable, and free from interference from neighboring agencies. Therefore, frequencies must be assigned to agencies throughout a given area in a manner that makes interagency communication possible, but prevents interagency interference.

Other issues to be considered when determining what area should comprise a Planning Region are: the continuing urbanization of outlying counties; the sophistication of radio technology; and most importantly, the amount of radio spectrum available to public safety agencies throughout the area.

REGION 13 POPULATION TRENDS BY COUNTY

<u>COUNTY</u>	<u>CURRENT(1)</u>	<u>1995(2)</u>	<u>2005(2)</u>
Adams	71,622	65,985	63,183
Alexander	12,264	11,016	10,954
Bond	16,224	15,626	15,611
Brown	5,411	5,153	4,958
Bureau	39,114	35,914	34,525
Calhoun	5,867	5,502	5,349
Carroll	18,779	17,146	16,563
Cass	15,084	13,226	12,354
Champaign	168,392	167,035	171,641
Christian	36,446	34,688	33,432
Clark	16,913	16,199	15,910
Clay	15,283	15,067	14,819
Clinton	32,617	35,427	35,921
Coles	52,260	52,298	53,557
Crawford	20,818	20,291	19,746
Cumberland	11,062	10,459	9,885
DeWitt	18,108	17,174	16,776
Douglas	19,774	18,656	17,953
Edgar	21,725	20,413	19,950
Edwards	7,961	8,732	9,066
Effingham	30,944	31,501	30,986
Fayette	22,167	21,786	21,421
Ford	15,265	14,336	14,001
Franklin	43,201	41,688	40,495
Fulton	43,687	34,069	30,560
Gallatin	7,590	7,718	7,667
Greene	16,661	14,665	13,826
Hamilton	9,172	9,108	9,093
Hancock	23,877	22,932	22,426
Hardin	5,383	5,132	4,952
Henderson	9,114	9,129	9,064
Henry	57,968	49,624	47,196
Iroquois	32,976	31,453	30,526
Jackson	61,522	58,331	59,951
Jasper	11,318	10,854	10,612
Jefferson	36,552	39,821	40,634
Jersey	20,538	20,174	20,034
JoDaviess	23,520	23,315	23,171
Johnson	9,624	11,155	11,687
Knox	61,607	53,055	49,767

<u>COUNTY</u>	<u>CURRENT(1)</u>	<u>1995(2)</u>	<u>2005(2)</u>
LaSalle	112,033	103,726	98,755
Lawrence	17,807	18,438	18,594
Lee	36,328	31,139	29,563
Livingston	41,381	39,920	39,201
Logan	31,802	30,201	29,319
McDonough	37,467	34,129	34,218
McLean	119,149	130,510	133,079
Macon	131,375	125,666	123,187
Macoupin	49,384	48,215	47,354
Madison	247,691	249,968	246,739
Marion	43,523	44,454	44,610
Marshall	14,479	12,879	12,350
Mason	19,492	16,213	15,369
Massac	14,990	15,196	15,397
Menard	11,700	11,347	11,231
Mercer	19,286	18,710	18,440
Monroe	20,117	22,547	23,170
Montgomery	31,686	31,665	31,289
Morgan	37,502	35,801	35,220
Moultrie	14,546	14,350	14,475
Ogle	46,338	45,687	45,348
Peoria	200,466	174,516	168,875
Perry	21,714	22,583	22,819
Piatt	16,581	15,761	15,313
Pike	18,896	17,194	16,305
Pope	4,404	4,459	4,543
Pulaski	8,840	8,288	8,237
Putnam	6,085	5,826	5,561
Randolph	35,652	35,138	34,814
Richland	17,587	18,715	19,013
Rock Island	165,968	162,392	161,143
St. Clair	267,531	266,934	267,096
Saline	28,448	28,708	28,940
Sangamon	176,089	180,678	180,585
Schuyler	8,365	7,174	6,410
Scott	6,142	5,711	5,239
Shelby	23,923	22,706	22,050
Stark	7,389	6,026	5,200
Stephenson	49,536	49,614	49,331
Tazewell	132,078	120,170	114,736
Union	17,765	18,263	18,185
Vermillion	95,222	87,917	83,971

<u>COUNTY</u>	<u>CURRENT(1)</u>	<u>1995(2)</u>	<u>2005(2)</u>
Wabash	13,713	14,361	14,488
Warren	21,943	19,637	19,030
Washington	15,472	14,889	14,573
Wayne	18,059	18,795	18,890
White	17,864	18,292	18,363
Whiteside	65,970	60,577	57,734
Williamson	56,538	59,346	59,574
Woodford	33,320	32,211	31,700

(1) 1980 Census

(2) Illinois
population
trends 1980-
2025. State of
Illinois,
Bureau of the
Budget, June
1987.

PRELIMINARY ORGANIZATION

Meetings for the planning process began in September 1988. Deliberations on administrative and technical questions began at that time, using the Regional Planning Tasks published by NPSPAC as a functional basis for organizing small work groups.

In early 1988, Mr. Teddy F. Vratny was designated by the Associated Public-Safety Communications Officers, Inc. (APCO) as Convenor for the Region. He then prepared and published an announcement of the first official meeting for persons interested in participating in the planning process.

NOTIFICATION OF ELIGIBLES

In General Docket No. 87-112, the FCC declared that since the Public Safety Radio Service and the Special Emergency Radio Service both play important roles in public safety, it is necessary to make both services eligible to operate in the 806-808/851-853 MHz bands. While recognizing that it may not be possible to grant requests for assignments to everyone, the Commission did conclude that membership on regional planning committees must be open to representatives from all potential user groups.

In accordance with the Report & Order, the Illinois Planning Region took the below listed steps to ensure that its membership was open to as broad a range of eligible participants as possible. (Referenced materials are all contained in Appendix A.)

1. On July 26, 1988, the Announcements of the Initial Meeting was mailed to individual public safety agencies as well as professional organizations/associations of all eligible user groups, the National Communication System, and the Federal Emergency Management Agency.
2. On March 24, 1989, nearly 1000 Announcements of the Second Meeting were mailed to the agencies noted in #1 above.

FORMATION OF THE PLANNING COMMITTEE

On September 14, 1988 the first official meeting of the Region 13 800 MHz Regional Planning Committee (the Committee) was held in Springfield, IL. Mr. Darrel R. Bartz was elected Chairman of the Committee. On April 26, 1989, Mrs. Nelda Reifsteck was elected Secretary.

The Summary of Proceedings of all meetings are available for inspection at the offices of the Region. Appendix C contains this information for all persons who have participated in the Region 13 800 MHz Regional Planning Committee.

REGIONAL CONFORMANCE REVIEW COMMITTEE (RCRC)

The Committee realizes that its work does not end with the submission of this Plan. Future modifications to the Plan may be required; applications for radio systems proposed within Region will need to be reviewed for compatibility with the Plan; implementation of these systems will require monitoring; coordination with the National Plan will continue. Obviously, there must be a mechanism by which future tasks can be accomplished.

To provide this mechanism, the Committee of the Whole has established the Regional Conformance Review Committee (RCRC) (See appendix D). This committee will be composed of the APCO Local Frequency Advisor and other representatives, plus the Regional Planning Committee Chairman. The RCRC will convene upon the Commission's approval of this Plan.

COORDINATION WITH ADJACENT REGIONS

There are six planning regions which are adjacent to Region 13. They consist of Indiana (Region 16), Iowa (Region 17), Kentucky (Region 19), Missouri (Region 26), Southern Lake Michigan (Region 54), and Wisconsin (Region 53). A combination of three historical facts has created an excellent opportunity for coordination this Plan with those of the regions adjacent to it:

- (1) Among the seven regions, the Southern Lake Michigan Region was the first to organize a planning committee.
- (2) From its beginnings in 1987, the Southern Lake Michigan Region has had as members, the Frequency Advisors and Regional Planning Convenors of each encompassing State.
- (3) Mr. Darrel R. Bartz, a member of the Southern Lake Michigan Region, was elected Chairman of Region 13. Further more, minutes and other information are routinely exchanged between

Region 13 and the Indiana, Iowa, Kentucky, Missouri, Southern Lake Michigan, and Wisconsin Regions.

Communication among regions has thus been ever present during the drafting of this plan. Implementation of the Plan will likewise be coordinated through the mutual membership and cooperation of the planning committees.

CONFORMITY WITH THE NATIONAL PLAN

It is the expressed intent of the Committee to conform with the requirements of the National Plan as defined in paragraphs 11-40 of General Docket No. 87-112. This Plan is submitted to the Commission subject to the review process described in the Report and Order.

REVIEW PRIOR TO SUBMISSION

As work progressed on the Regional Planning Tasks, participants were organized into two Subcommittees: Technical and Operational. They codified their suggestions, and wrote draft proposals on individual topics. After reaching a consensus, the subcommittees then presented their proposals to the Committee of the Whole for review and comment. Upon acceptance of its content by the Committee, each draft was then forwarded to the Regional Planning Committee chairman for collation. The complete final draft was then presented to the Committee of the Whole for page by page review.

AUTHORITY

The Illinois 800 MHz Regional Planning Committee derives its authority to carry out the activities required for composition and implementation of this Plan from the Commission's Report and Order General Docket No. 87-112 released on December 18, 1987, and the petition for limited reconsideration of a multi-state region granted by the Commission on March 30, 1988.

NEEDS ANALYSIS

The Report & Order specifies that regional plans explain how the requirements of all eligible entities were considered. This section of the Plan describes how this specification has been met.

QUESTIONNAIRE DEVELOPMENT

The Committee decided that the best means of identifying the radio spectrum needs of the Region as a whole was to survey the potential users individually. To this end, work began on drafting a questionnaire in May, 1989. Sample documents were prepared and given to Committee members for comment during the ensuing month. This review process resulted in the final survey instrument which is contained in Appendix E: The Illinois (Region 13) 800 MHz Regional Planning Committee Radio User Questionnaire.

Distribution to potential eligibles began in June, 1989. Over 1250 copies of the questionnaire were mailed to both individual public safety agencies and professional organizations/associations. In addition, county ESDA coordinators were instructed to provide copies to various public safety/special emergency organizations within their jurisdiction. These organizations were requested to photocopy the survey and distribute it to their members. Because of this extended process the exact number of questionnaire recipients cannot be determined.

The questionnaire was designed to elicit meaningful information detailing current, as well as future, radio frequency needs. The year 1995 and 2005 were used for future projections. Information was requested in four topical sections:

- (1) "General Information" asked the respondents to provide agency identification information including the type of service supplied to the public.
- (2) "Demographic Information" asked specific questions regarding the agency's service area.
- (3) "Frequency Needs" asked questions regarding the agency's use of radio frequencies for voice and data transmissions.

(4) "Equipment" asked the respondents to project their agency's inventory of several radio equipment items.

QUESTIONNAIRE RESULTS

Section (I)

Two hundred fifty five (255) usable surveys were returned, compiled, and analyzed manually. The objective of including both Public Safety and Special Emergency Service agencies were achieved. Surveys were received from all types of governmental and non-governmental organizations (i.e., Law Enforcement, Fire Fighting, Emergency Medical, Forestry, Veterinary, School Bus, etc.).

Section (II)

Six (6) agencies reported that their service area encompassed the entire state and there was no agencies reporting that their service areas cross state lines. Fifty-six (56) of the agencies service an area that is urban, one hundred thirty-five (135) of the agencies service a suburban area, ninety-four (94) agencies service a quasi-open area, and sixty-one (61) agencies service an open area. (Twelve (12) agencies did not answer this question.)

Twenty-four percent (24%) of the agencies reported that their radio system is not adequate for their needs today. This percentage increases to forty-three (43) and fifty-two point five (52.5) for the years of 1995 and 2005, respectively. Thirty-four (34) of the respondents reported that their field units often have to wait for access to a voice channel. When asked if they planned to expand their use of radio frequencies for data transmission, over nineteen percent (19%) of the respondents said that they did.

Two other statistics found in this section of the questionnaire bear directly on issues raised in the Report and Order: prioritization of eligibles and frequency give-backs.

First, the total number of new 800 MHz frequencies reported to be needed now is one hundred thirty (130); this total increases to one hundred eighty-eight (188) in 1995; by 2005 responding agencies expect to need two hundred sixty (26) new 800 MHz spectrum or additional choice between additional frequencies in the 800 MHz spectrum or additional frequencies in their current spectrum, one hundred thirty-four (134 <52.5%>) preferred the latter. The first statistic

demonstrates a moderate need for this Region to prioritize agencies applying for the new spectrum, according to their degree of involvement in providing for the protection of life and property. The second statistic supports the assumption that public safety entities in the Region are "waiting in line" for lower band frequencies. Licensees moving to the new spectrum will be expected to make every effort to give up their lower band frequencies, as described in the Report and Order.

All 800 MHz spectrum needs of all Public Safety and Special Emergency applications in the Region at the time of the filing of the Plan will be satisfied. When asked if an application for 800 MHz channels were pending, there were no affirmative responses.

Section (IV)

This last section of the survey gathered figures relating to the amount of radio equipment in the Region. Mobile and portable radios constitute the largest portion of this equipment (approx. twenty-nine thousand, five hundred ninety-four (29,924) owned now, over forty-two thousand, five hundred ninety-four (42,594) units projected to be owned by 2005). The largest growth categories of equipment are mobile data terminals and automatic vehicle locators. These categories are projected to increase from eleven (11) (MDT) now to one thousand, three hundred fifty-five (1,355) in 2005; and from zero (0) (AVL) now to two thousand, three hundred two (2,302) in 2005, respectively. The need to include data transmissions when planning spectrum allocations becomes obvious when confronted with these numbers.

For the sake of brevity, this section of the Plan has presented selected items of information as evidence to the Commission of the Planning Committee's efforts to identify the radio frequency needs of this Region's potential eligible users. More detailed results are contained in Appendix G. It is anticipated that the information collected with this questionnaire will prove as useful to future planning and coordinating activities within the Region as it has proven to be in the development of this Plan.

APPLICATIONS

This section of the Plan describes the procedures for applying for a license to operate a radio system in the new spectrum, as well as the process by which that application will be evaluated. Applications may be submitted at any time, but must first be sent to the APCO Local Frequency Advisor.

APPLICATION REVIEW

Applications for licenses in the 806-808/851-853 MHz band will be subject to review by the RCRC. This review is required prior to formal submission of the applications within thirty days following the quarterly meetings. Applications may be rejected at the Regional level for non-conformance with this Plan.

APPLICATION PROCEDURES

Applications will be submitted to the APCO Local Frequency Advisor. The APCO local Frequency Advisor will peruse the application packet for completeness, and the eligibility of the applying organization. Incomplete applications, or applications from agencies which are not considered by this Plan to be eligible for the limited spectrum, will be returned to the applicant with the appropriate remarks. Copies of complete applications received from eligible public safety entities will be forwarded to the RCRC members by the APCO Local Frequency Advisor for evaluation.

INFORMATION REQUIRED

The current standardized APCO Frequency Coordination and FCC license Application forms will be used. In addition, the applicant will be required to furnish supplemental information in the specific categories. Where further comments affecting a category are made elsewhere in this Plan, the appropriate page numbers are also specified.

- (1) Service – what tasks or duties the agency is charged with accomplishing.
- (2) System Type – in narrative form, a description of the radio system being proposed (trunked, conventional, voice, data, voice/data combined, etc.).
- (3) Intersystem interoperability – how agents of the applying organization will communicate with agents of different organizations.

- (4) Channel Loading Factors – equipment inventory totals, and the maximum number of mobile radios potentially in use at any given time.
- (5) 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 dB contour requirements.
- (6) Vacated Frequencies Returned – which frequencies the agency will release.
- (7) Implementation Schedule – an explanation of any budgetary commitment and a proposed time frame for putting equipment into service.

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

APPLICATION EVALUATION

The Regional Conformance Review Committee (RCRC) will review each application for its conformity to this Plan. Evaluations will be based upon the seven factors mentioned above. Once an application has been reviewed it will be returned to the applicant with instructions for further appropriate action.

ELIGIBILITY

Agencies applying for frequencies in the 806-808 and 851-853 MHz band will be prioritized according to appeal decisions which have caused rejection of their application. The appeal process has two levels, APCO and FCC. An applicant who decides to appeal a rejection should initiate that appeal immediately upon notification of the rejection. In the event that an appeal reaches the second level (the FCC), the Commission's decision will be final and binding upon all parties.

SPECTRUM UTILIZATION

This portion of the Plan lays the foundation for the efficient and effective utilization of the spectrum. Its purpose is to guide the RCRC in the task of evaluating new applications for the use of radio frequencies in the 806-808/851-853 MHz bands.

TRUNKING

Applications requesting licenses for five (5) or more channels will be required to trunk those channels. Exceptions to the rule will not be allowed unless an equally spectrum efficient technology is proposed, or, the applicant can otherwise demonstrate that trunking will not meet the specific operational requirements of the agency. Applicants requesting licenses for four (4) or less channels may be permitted conventional operation.

COVERAGE AREA

The desired coverage of a system is considered to be a maximum of three (3) miles outside of the boundary of the applicant's jurisdiction. The maximum designed mean signal strength at this contour shall not exceed +40 dB (+40 dB above one microvolt per meter) measure with an antenna mounted no less than five feet (5') above ground. Petitions to provide coverage exceeding these parameters will be examined on a case by case basis. Overlap or extended coverage must be minimized even where agencies are proposing to intermix systems for cooperative and/or mutual aid purposes.

ADJACENT CHANNEL ASSIGNMENTS

Adjacent channel assignments will be made when it is determined that the two or more systems will create a signal strength of +25 dB or less, anywhere within the adjacent channel assignee's boundary.

CO-CHANNEL ASSIGNMENTS

Co-channel assignments will be made when it is determined that the two or more systems will create a signal strength of +5 dB or less, anywhere within their co-channel assignee's boundary.

To achieve the most efficient use of the spectrum, distances between transmitters for co-channel reuse will not be held to a seventy mile separation in this Plan. Separation of co-channel

transmitters will be determined by the coverage needs of the applicant, natural barriers for separation, antennae patterning, and limited ERP's where possible.

CHANNEL LOADING CRITERIA

In this Plan, existing loading standards will be applied: 70 units per conventional channel, 100 units per trunked channel. For data only systems, the loading criteria will increase: to 100 units per conventional channel, and 150 units per trunked channel.

Agencies that support interoperability by permitting Federal use of their frequencies through S-160 (or equivalent) agreements, may augment their channel requirements by a maximum of 2% to account for the increased number of mobile units. Written documentation detailing the expected number of Federal radios involved will be required at the time of application.

In order to conserve spectrum, agencies must demonstrate that the number of radios potentially in use at one time meet these loading criteria. For example, a police department with 50 squad cars, each containing a mobile and a portable radio on conventional channel does not signify a channel loading of 100 units. Agencies which cannot demonstrate this potential may be denied exclusive use of the allocated channel(s). Petitions to deviate from these criteria will be considered by the RCRC on an individual basis.

VACATED FREQUENCIES

As public safety agencies replace existing systems and implement 800 MHz radio systems, they will vacate the VHF and UHF frequencies on which they previously operated. Vacated frequencies will be returned to their respective pools to be re-assigned by the FCC approved Frequency Advisory Committee Chairman, with recommendation by the RCRC, in order to provide the most beneficial use to public safety.

INITIAL SPECTRUM ALLOCATION

The methodology used to determine the spectrum allocations at the time of filing this Plan is contained in Appendix J. The allocation itself is contained in Appendix K.

TECHNICAL DESIGN CONSIDERATIONS

This section of the Plan discusses topics which must be considered when engineering a new system.

CHANNELING PLAN

The 25 KHz offset channeling plan established by the National Plan will be required of all systems to be licensed in the 806-808/851-853 MHz bands.

INTEROPERABILITY WITH ADJACENT LOWER BANDS

There are several agencies in the Region currently operating on frequencies in the 806-808/851-853 MHz bands. While most of these agencies may continue operating in these frequencies for several years, many of them will be looking to expand their systems into the new spectrum. Any application submitted under the auspices of this Plan must demonstrate technical ability to provide communication between new and existing systems. Waivers for technical specifications on existing 800 MHz equipment will be considered on an individual basis.

SYSTEM DESIGN

When designing a system, engineers will be required to minimize the distance between transmitter sites by using a combination of limited Effective Radiated Power (ERP), tower height, type of terrain, or any other factors which are technically feasible to minimize adjacent and co-channel interference. Information detailing the methodologies used (including calculations) must be included in the application.

CELLULAR RADIO TECHNOLOGY

Trunking technology is presently considered the most spectrum efficient use of radio transmissions for public safety. Cellular radio technology has so far proven useful only for telephone communications. However, it may, with future technological improvements, prove useful for public safety. Agencies are cautioned that any proposal of the use of cellular radio as an alternative to a trunked radio system must demonstrate that it can provide the same or greater degree of spectrum efficiency as trunking, handle communications in an emergency situation.

MOBILE SATELLITE SERVICE (MSS)

During incidents of major proportions such as airliner crashes, earthquakes, tornadoes, floods, forest fires or nuclear reactor calamities, public safety requirements might include the need for long-range communications in and out of a disaster area. The planned Mobile Satellite Service (MSS) may prove to be a viable alternative to land based systems in these situations, once technical innovations are developed which will provide uni-directed or corridor-driven communications over a lengthy distance. This service should be restricted to frequencies above 960 MHz, however, and licensing in the Public Safety spectrum shall be limited to public safety eligibles only.

AIRCRAFT TO GROUND COMMUNICATIONS

The use of any 800 MHz radio in an aircraft shall be restricted. Air to ground transmissions shall be limited to a maximum effective radiated power (ERP) of one (1) Watt.* Unless system design dictates otherwise, tactical transmissions shall be on the mobile relay output or talk-around frequencies only. Co-channel and adjacent channel users are not required to provide protection to airborne users. No transmissions on limited area channels are allowed above 2,000 feet AGL, and no transmissions are allowed above 5,000 feet AGL, even on wide area mutual aid channels.

DATA TRANSMISSION

The user survey revealed the use of radio frequencies for data transmissions as the largest “growth” category among responding agencies in the Region. As stated in the Loading Criteria section of this Plan, data only transmissions, whether for emergency or routine messages, will demand a higher loading standard.

*Aircraft will be permitted to utilize additional power under 500 feet AGL.

INTEROPERABILITY CONSIDERATIONS

This section of the Plan outlines the steps taken by the Committee to permit Federal, State and Local agencies to coordinate their activities during an emergency or disaster situation.

INTERSYSTEM INTEROPERABILITY

The intent of this Plan is to enhance interagency communication. Extensive mutual aid communication networks already exist throughout the Region. The National Plan has now set aside five (5) channels in the new spectrum for mutual aid. Agencies applying for licenses in the 806-808 and 851-853 MHz bands will be required to explain how they will maintain intercommunication with their neighboring agencies who do not implement the Common Channels, but still are dependent upon the applying agency for assistance in an emergency.

COMMON CHANNELS

The Common Channels used in this Region comply with the National Plan, and consist of one (1) calling channel and four (4) tactical channels (Tac 1- Tac 4). (See Table 2).

Communications and Common Channels use a two-tier structure: initial contact (calling), and working (tactical) channels. These channels are not to be used for daily operations, nor for inter-agency communications that do not involve an emergency situation. The Tactical Channels shall cover the entire Regional area, with mobile relay stations normally operating in the "repeat disable" mode.

The Common Channels are restricted to require intercommunications among agencies that do not have access to other compatible communications channels. A "Primary Dispatch Center" will assign one or more tactical channels for the duration of a specific emergency or incident requiring multi-agency communications.

Because of the wide variance of voice codes among agencies ("ten" signals, alpha-numeric codes, etc.), agencies will use plain English on the Common Channels. The Primary Dispatch Center, with full support of the Regional Committee, will monitor radio traffic discipline, and resolve serious or chronic infractions.

REGION 13 800 MHz PLANNING

REGION COMMON CHANNEL FREQUENCY DESIGNATIONS

<u>USAGE</u>	<u>FREQUENCY</u>
Calling Channel	806.0125 MHz*
	851.0125 MHz**
Tactical Channel 1	806.5125 MHz*
	851.5125 MHz**
Tactical Channel 2	807.0125 MHz*
	852.0125 MHz**
Tactical Channel 3	807.5125 MHz*
	852.5125 MHz**
Tactical Channel 4	808.0125 MHz*
	853.0125 MHz**

* - Mobile

** - Base

PRIMARY DISPATCH CENTER

The state government of the Region will be responsible for the implementation and operation of the National Calling Channel, Tactical Channels, and Primary Dispatch Centers. They will ensure that interoperable tactical channel mobile relays exist in specific areas of the Region. The mobile relay stations will provide the required number of working channels within the Region necessary to assure interoperable communications between Federal, State and Local Government agencies involved in an emergency. Other services shall participate as required, to ensure the public safety.

Agencies involved in an incident will be subject to the Regional rules on inter-agency communication. Radio transmissions will be made in accordance with the directions of the Primary Dispatch Center or controlling agency.

CALLING CHANNEL

Calling Channel base stations will be configured as mobile relays, strategically located to assure complete regional coverage, and connected by a suitable network to Primary Dispatch Centers. Mobile "talk around" is permitted on the Calling Channel base stations transmit frequency to establish initial contact between agencies, for the purpose of determining which Tactical Channel(s) to use for the duration of an incident.

Depending on geographical size and population density, several networks may be necessary to cover the outer areas of the Region. Primary Dispatch Centers, and agencies operating base/control stations in the area shall monitor the Calling Channel to provide assistance and/or assign a Tactical Channel to requesting field units.

The Calling Channel shall be used only to make initial contact with other agencies in the Region, or with the Primary Dispatch Center in that section of the Region. After contact is established, a tactical or other mutual aid channel shall be expeditiously agreed upon, or be assigned by the Primary Dispatch Center. The Calling Channel shall not be used as a working channel for continued communications. It shall be vacated as soon as possible, to free it up for the next initial contact.

TACTICAL CHANNELS (TAC 1 – TAC 4)

Tactical Channels are reserved for agencies involved in multi-agency communications during emergencies or other occurrences requiring interoperable communications. Tactical Channels, like the Calling Channel, will be strategically located to provide maximum coverage throughout the Region. Design criteria will limit Tac Channel coverage to permit multiple re-use of the channels within the Region as required, in coordination with adjacent regions to prevent or minimize interference.

Tac Channel coverage design shall ensure that at least one channel is available for each section of the Region. Multi-agency communications events will be coordinated by the Primary Dispatch Center, or assigned to the controlling agency. The coordinating agency shall relinquish control of the channels when the incident is cleared.

CROSS SYSTEM PATCHES

Cross system patches to existing day to day systems, other mutual aid channels, or long range communications systems must be manually controlled. Automatic patches are not permitted. Cross system patches are normally handled by the Primary Dispatch Center in the section of the Region involved.

IMPLEMENTATION

IMPLEMENTATION SCHEDULES

Many of the eligibles for these frequencies are units of Local or State government. The nature of governmental planning and budgeting process, combined with difficult revenue constraints, prohibits these eligibles from implementing newer technology systems in the normal time required by the FCC Ruled (8 months conventional/12 months trunked).(1)

In many 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 area and statewide as allowed and encouraged by the plan will certainly require these longer periods to construct.

In view of these known situations, this plan establishes an extended implementation schedule ("slow growth") in accordance with the below cited FCC rule and requirements of this plan. This extended implementation schedule is available to all eligible applicants, if requested by stating "Slow Growth" on the license application. The applicants will be further required to submit documentation showing the funding, construction and implementation schedule proposed for the system. Proposed systems must adhere to the channel loading requirements of this Plan. For all other purposes the FCC rules shall govern, specifically section 90.629 as it applies to the requirements for extended implementation schedules.

(1) FCC Rules and Regulations S 90.155 (a) and S 90.631 (c)

Appendix A

July 26, 1988

Dear Sirs:

Having been duly certified to the Federal Communications Commission (FCC) by the Associated Public Safety Communications Officers, Inc. (APCO) as the Convenor for the initial meeting of representatives of parties eligible for radio licensing in the FCC's Public Safety and Special Emergency Radio Services to establish a Regional Planning Commission in the State of Illinois*, I am attaching a copy of the official notice of said meeting.

This region is one that was designated by the FCC as a planning region in the Report and Order of Docket #87-112. The region was redefined by the petition for reconsideration submitted by the National Public Safety Planning Advisory Committee and adopted by the FCC on March 30, 1988.

The responsibility of the Regional Planning Commission will be to develop a plan for the use of frequencies in the 806-808 and 851-853 Megahertz bands allocated by the FCC for use by such licenses. Parties interested in participating in the regional planning process should plan to attend the first official meeting or contact the convenor.

This Public Notice is in accordance with the FCC's Report and Order in General Docket No. 87-112, adopted by the FCC on November 24, 1987 and printed in the Federal Register of January 15, 1988. (53 Fed. Reg. 1022).

The Report and Order was based in large part on the final report of the National Public Safety Planning Advisory Committee, which has submitted to the FCC on September 9, 1987.

Copies of both the Report and Order and the Final Report are available from the FCC's duplication contractor, International Transcription Services, Inc. Suite 140, 2100 M Street, N.W., Washington D.C. 20037, Phone (202) 857-3800

Convenor for Illinois: Teddy F. Vratny

*The Illinois Region does not include the counties of: Winnebago, Boone, McHenry, Lake, Cook, DuPage, Kane, DeKalb, Kendall, Will, Grundy, and Kankakee, which are a part of the Southern Lake Michigan 800 Regional Planning Commission.

Announcement of the Initial Regional Public Safety Planning Meeting for The State of Illinois Region

The purpose of this Public Notice is to announce the initial meeting of the State of Illinois Regional Planning Commission.

Date/Time: Wednesday September 14, 1988 at 10:00 a.m.

Location: Holiday Inn South
Indiana Meeting Room
Fifth St. and Stevenson Drive
Springfield, Illinois

Convenor: Teddy F. Vratny
Du-Comm Central Dispatch
136 N. County Farm Rd.
Wheaton, IL 60187
(312) 690-8088

In the Federal Communications Commission's National Plan for Public Safety, Report and Order, General Docket 87-112, 53 Red. Reg. 1022 (January 15, 1988), the State of Illinois* was declared a Planning Region.

All parties located in the Illinois Region* and interested in participating in the public safety planning process are encouraged to contact the convenor listed above for further information or to attend the announced meeting. Public Safety and Special Emergency entities who are now using or planning to use the 800 MHz radio spectrum should participate in this regional planning process. Participants include Local Government, Police, Fire, Highway, Forestry, EMS, School Buses, Veterinarians, and others who qualify for Public Safety and Special Emergency Radio Services.

*The Illinois Region does NOT include the Illinois Counties in the Chicago Metro area which are a part of a four state planning region known as the Southern Lake Michigan Regional Planning Commission. Those counties NOT in the Illinois Region are: Winnebago, Boone, McHenry, Lake, Cook, DuPage, Kane, DeKalb, Kendall, Will, Grundy, and Kankakee.

March 24, 1989

Dear Public Safety Radio Communications User:

Attached is a copy of a press release announcing the Region 13 Public Safety Planning Committee meeting.

The responsibility of the Regional Planning Committee will be to develop a plan for the use of radio frequencies in the 806-808 and 851-853 megahertz bands, which have been set aside for the use of public-safety agencies and special emergency users.

Eligibles are:

Law Enforcement	fire fighting
Emergency medical	highway maintenance
Forestry/conservation	civil defense
Beach patrol	disaster relief
Handicapped assistance	school bus
Veterinarian	

If you, your agency, or association has an interest in being a participant in the planning process that will govern the licensing and use of these frequencies, I welcome your assistance and look forward to working with you.

If you plan to attend, please call me at the number listed on the public notice or drop me a line.

We need interested, involved, and active participation. There will be a Region 13 plan. Will it have your input?

By: Darrell R. Bartz
Chairman
Region 13 Planning Committee

DRB: cl
Attachments

PRESS RELEASE

Announcement of Region 13
Public Safety Planning Committee Meeting

The purpose of this public notice is to announce a meeting of the Region 13 Public Safety Planning Committees. Region 13 encompasses all Illinois counties EXCEPT Boone, Cook, DeKalb, DuPage, Grundy, Kane, Kankakee, Lake, McHenry, Will, and Winnebago counties.

Date/Time: 10:00 a.m. – April 26, 1989

Location: Sky Harbor Inn
1700 North Walnut
Springfield, IL
Seneca Room
(217) 753-3446

Chairman: Darrell R. Bartz
601 Sangamon Ave.
Springfield, IL 62702
(217) 782-7345

All interested public-safety officials located within the boundaries of Region 13 are encouraged to attend. Contact the chairman for additional information.

This notice is in accordance with the Federal Communications Commission (FCC) Report and Order in the matter of Docket 87-112.

Appendix B

Region 13 800 MHz Regional Planning Officials

Chairman:

Darrel R. Bartz
Bureau Chief
Illinois State Police
Bureau of Communications
531 Sangamon Ave.
Springfield, Illinois 62702
(217) 782-7345

Secretary:

Ms. Nelda R. Reifsteck
Coordinator
Champaign County ESDA
1905 East Main Street
Urbana, Illinois 61801
(217) 384-3826

Appendix C

ILLINOIS 800 MHz REGIONAL PLANNING COMMITTEE MEMBERS

REGION 13

Darrel R. Bartz, Bureau Chief
Illinois State Police
Bureau of Communications
531 Sangamon Ave.
Springfield, Illinois 62702
(217) 782-7345

Donald Begolka
Lincoln/Logan County ESDA
911 Pekin Street
Lincoln, Illinois 62656
(217) 732-9491

Ed Books
McLean County Coroner's Office
P.O. Box 2400
Bloomington, Illinois 61702
(309) 888-5212

Charles Brackman
Clinton County ESDA

Jim Brown
APCO FAC
1510 46th Avenue
Rock Island, Illinois 62101
(309) 788-0581

Michael Cima
ISP Communications
531 Sangamon Ave.
Springfield, Illinois 62702
(217) 782-7345

Sergeant Ron Cobetto
Secretary of State Police
324 West Monroe Street
Springfield, Illinois 62756
(217) 786-6196

Rex A. Coble
Springfield/Sangamon ESDA
617 East Jefferson
Springfield, Illinois 62706
(217) 789-2280

Gary Cochran
ISP Communications
531 Sangamon Ave.
Springfield, Illinois 62702
(217) 782-7345

John Davidson
IL Dept. of Corrections
1303 Concordia Court
Springfield, Illinois 62794
(217) 522-2666

Wil Dixon
University of Illinois
302 East John, Suite 1602
Champaign, Illinois 61820
(217) 244-1321

Paul Dove
Clinton County ESDA/Sheriff's Department

Tom Duffin
E.F. Johnson Company
159 Rand Road, Suite 290
Lake Zurich, Illinois 60047
(312) 526-4410

John R. Eden
Illinois Department of Transportation
2300 South Dirksen Parkway
Springfield, Illinois 62764
(217) 782-4515

Pat Fasano
Motorola, Inc.
1000 Mittel Drive
Wood Dale, Illinois 60191
(312) 350-3710

Lambert Fleck
Illinois ESDA
110 East Adams
Springfield, Illinois 62706

David Frost
Jackson County Sheriff's Dept.

Barry Furey
METCAD
1905 East Main
Urbana, Illinois 61801
(217) 333-4348

Bob Godsil
Illinois Tollway Authority
2001 West 22nd Street
Oak Brook, Illinois 60521
(708) 574-2000 Ext. 580

Diane Grottola
Illinois Commerce Commission
2712 Rochester Road
P.O. Box 3856
Springfield, Illinois 62708
(217) 782-6171

Tom Harper
Secretary of State
Physical Service
Centennial Building, Room 037
Springfield, Illinois 62756

Dr. R.O. Hill
Illinois State Veterinary Medical Assoc.
Shattuc Road
Centralia, Illinois 62801
(618) 532-6701

Don Jack
Decatur Police Department

David Jacobs
General Electric Company
8200 Hunt Road
Springfield, Illinois 62707
(217) 529-5450

Neil Jacobsen
Jackson County Sheriff's Dept.

Nick Jannazzo
Secretary of State
Physical Services
Centennial Building, Room 037
Springfield, Illinois 62756

Urban H. Kampwerth
Clinton County ESDA
1711 Clinton Street
Carlyle, Illinois 62231
(618) 594-3157

Don King
Dept. of Nuclear Safety
Communications Center
1035 Outer Park Drive
Springfield, Illinois 62704

Sheriff Don Krohn
Clinton Co. Sheriff's Dept.
810 Franklin
Carlyle, Illinois 62231

David Lander
Motorola, Inc.
Bloomington, Illinois 61701
(309) 829-9512

Larry D. Maddox
Decatur Safety Service Dept.
333 South Franklin
Decatur, Illinois 62523
(217) 424-2745

Leon Mahan
Christian County Sheriff's Dept.
301 West Franklin St.
Taylorville, Illinois 62568
(217) 824-4961

Gary Maley
Motorola C & E, Inc.
1820 Dirksen Parkway, Suite A
P.O. Box 3726
Springfield Illinois 62708
(217) 529-1411

Stuart A. Marsh
Illinois Toll Highway
2001 22nd Street
Oak Brook, Illinois 60521
(708) 574-2000

Gilbert Meyer
Greene & Calhoun County
Highways
Carrollton, Illinois 62016

Mike Midiri
City of Springfield
Office of Public Safety
312 Municipal Building
Springfield, Illinois 62706
(217) 789-2280

Sheriff Mohan
Christian County Sheriff
Taylorville, Illinois 62568

Clarence Peecher
ISP Communications
531 Sangamon Ave.
Springfield, Illinois 62702
(217) 782-7345

Ross Pickett
Communications Officer
Illinois ESDA
110 East Adams
Springfield, Illinois 62706

Lt. Dwayne G. Owen
Freeport Police Department
320 West Exchange
Freeport, Illinois 61032
(815) 235-8222

Nelda R. Reifsteck
Champaign County ESDA
1905 East Main
Urbana, Illinois 61801
(217) 384-3826

George Sneyd
ISP Communications
531 Sangamon Ave.
Springfield, Illinois 62702
(217) 782-7345

David Swan
Peoria Police Department
6526 North Sheridan
Peoria, Illinois 61614-2933
(309) 672-8769

Lud Szymczak
Illinois Tollway Authority
2001 22nd Street
Oak Brook, Illinois 60521
(708) 574-2000 Ext. 576

Charles L. Talbott
Douglas County Sheriff's Dept./ESDA
209 East Van Allen
Tuscola, Illinois 61953
(217) 253-2913

Ted Vratny
DU-COM Central Dispatch
136 North County Farm Road
Wheaton, Illinois 60187

Jim Wahls
McLean County ESDA
104 West Front Street
Bloomington, Illinois 61702
(309) 888-5020

Bill Wasson
McLean County Parks
R.R. #1
Hudson, Illinois 61748
(309) 726-2022

Dave Watkins, Director
Secretary of State
Department of Police
324 West Monroe
Springfield, Illinois 62756

Warren S. Wieland
Sangamon County Sheriff's Dept.
800 East Monroe Street
Springfield, Illinois 62701

Darrell Wolfe
Ford County Sheriff's ESDA
536 South Market
Paxton, Illinois 60957
(217) 379-2741

Jim Bottomley
General Electric Company
8200 Hunt Road
Springfield, Illinois 62707
(217) 529-5450

Appendix D

REGIONAL CONFORMANCE REVIEW COMMITTEE (RCRC)

Darrel R. Bartz
Nelda Reifsteck
Donald Williams

Region 13 Chairman
Region 13 Secretary
Illinois APCO Frequency Coordinator

David Swan
Dwayne Owen
Mike Cima
Stuart Marsh

City of Peoria
City of Freeport
State of Illinois
Illinois Tollway Authority

The RCRC representatives were selected at the Woodford County meeting held on June 21, 1990. Those present sought to identify individuals who would actively participate in RCRC functions and who would represent a cross-selection of Public Safety and Special Emergency Agencies. Additionally, technical expertise was seen as a necessary characteristic.

It was agreed that the first official function of the RCRC would be to establish the bylaws which would govern the group's activities.

Appendix E

800 MHz Region 13 Public-Safety Planning Committee

C/O: Darrel R. Bartz, Chairman
601 Sangamon Avenue, Springfield, Illinois 62702
Phone (217) 782-7345

RADIO USER QUESTIONNAIRE

INSTRUCTIONS:

This questionnaire is designed to obtain information from potential users of newly available radio spectrum in the 806-808 and 851-853 megahertz ranges. It consists of four sections and ten pages. Many of the items only require a choice or choices to be checked. Where blank lines are provided for longer answers, please print in the information asked for. If the space given is not enough to accommodate your answer, you may continue printing the information on the extra comments sheets attached to the end of this survey. If you do this, please indicate "continues" on the answer line, and specify the section and question numbers on the comments page.

Please print the name of your agency/organization at the top of each page in the space provided. When you have completed the questionnaire, return it to your Region 13 Planning Committee at the address listed below. Should you have any questions regarding this survey, you may call the chairman at: (217) 782-7345.

Remember, in order to have your needs considered in the Regional Plan, you must return this questionnaire no later than July 1, 1989. Failure to do so may result in your experiencing difficulty in obtaining radio frequencies in the future.

Return this completed questionnaire to:

Region 13 Planning Committee
C/O: Darrel R. Bartz
601 Sangamon Avenue
Springfield, Illinois 62702
(217) 782-7345

Agency/ Organization: _____

**SECTION II
DEMOGRAPHIC INFORMATION**

1. Do you service the entire state?

- (A) yes (B) no

If yes, go to Section III.

2. Does your service area encompass.....

- (A) One county Multiple Counties

3. Please list the county names:

_____	_____
_____	_____
_____	_____

4. Does your service areas encompass.....

- (A) One City/Town/Region (B) Multiple Cities/Towns/Regions

5. Please list the City(s)/ Town (s)/ Region (s):

_____	_____
_____	_____

6. Is your service area:

(A) Urban is a built up city crowded with large buildings or closely interspersed with houses and thickly-grown trees. This would include the downtown area of a major city.

(B) Suburban is a city or highway scattered with trees, houses and buildings. This would include the non-downtown area of a major city.

(C) Open is an area where there are no obstacles such as tall trees or buildings in the propagation path or a plot of land which is cleared of anything for 300-400 meters ahead. This would include farm land, open field, etc.

(D) Quasi open is an area between suburban and open areas. This would include areas outside of city limits that have few buildings and houses.

Agency/Organization: _____

**SECTION II
CONTINUED**

7. What is the size of your service area?
_____ Square miles

8. What is the current population of your area?

9. What is the population projected to be in the years.....

1995: _____

2005: _____

Agency/Organization: _____

**SECTION III
FREQUENCY NEEDS**

1. Is your agency/organization's present radio system adequate to meet your current needs?

- (A) yes (B) no

Your 1995 needs?

- (A) yes (B) no

Your 2005 needs?

- (A) yes (B) no

2. Do you have plans to alter your agency/organization's radio systems in the future?

- (A) yes (B) no

3. If you do, please give a brief description of your plans:

4. Has your agency/organization had to use any alternate methods of dispatch because of an inability to acquire sufficient radio spectrum (number of channels) for either financial reasons or spectrum unavailability?

- (A) yes (B) no

5. If yes, please explain: _____

6. Has your agency/organization had to borrow, share, or lease radio frequencies from other agencies in order to maintain your dispatch operation?

- (A) yes (B) no

Agency/Organization: _____

**SECTION III
(Continued)**

7. If yes, please explain: _____

8. How often does your agency/organization encounter "Wait Time" to access a radio channel for voice transmissions from the field?

- (A) Never.
- (B) Seldom. Less than once a week.
- (C) Sometimes. More than once a week.
- (D) Often. More than once per eight hour time period.

9. Estimate on the average, how many voice transmissions does your agency/organization make per hour?

10. Estimate how many voice transmissions might occur during your agency/organization's busiest hour.

11. Estimate the average length of air time used per voice transmission.

12. Do you have any plans to expand your agency/organization's use of radio frequencies for DATA transmissions?

- (A) Yes
- (B) No

13. Does your agency/organization have any plans to use voice encryption technology to provide private and secure radio transmissions?

- (A) Yes
- (B) No

14. Does your agency/organization have any plans to incorporate "TELEPHONE INTERCONNECTS" with your mobile or portable radios?

- (A) Yes
- (B) No

Agency/Organization: _____

**SECTION III
(Continued)**

15. If you answered "yes" to question 14, please indicate the approximate number:

Mobiles: _____

Portable: _____

16. List the frequencies (channels) for which your agency/organization now holds a valid FCC license:
(List 800 MHz frequencies in #17)

_____	_____	_____
_____	_____	_____
_____	_____	_____

17. Is your agency/organization presently licensed on existing 800 MHz Channels?

(A) Yes

(B) No

If "yes", list them:

_____	_____	_____
_____	_____	_____
_____	_____	_____

18. If your agency/organization does not hold a license for 800 MHz channels, does your agency/organization have an application pending?

(A) Yes

(B) No

19. Does your agency/organization have a formal plan on file to construct an 800 MHz system?

(A) Yes

(B) Plan incomplete. A copy will be forwarded by _____ (Date)

(C) No.

20. Does your agency/organization have the funding available to proceed with implementing the system?

(A) Yes

(B) No (see next question)

Agency/Organization: _____

**SECTION III
(Continued)**

21. If "No", when do you anticipate funding will be available?

- (A) [] 12 months (B) [] 24 months (C) [] 36 months
(D) [] 48 months (E) [] 60 months or more

22. How many additional 800 MHz frequencies do you expect your agency will need.....(if none, please indicate zero)

Now	In 1995	In 2005
-----	---------	---------

23. If your agency/organization acquires radio frequencies in the newly allocated spectrum, what frequencies that you now have would you no longer have use for? Be specific:

<u>Frequency</u>	<u>Frequency</u>	<u>Frequency</u>
_____	_____	_____
_____	_____	_____

24. What frequencies would your agency/organization attempt to retain? Be specific.

<u>Frequency</u>	<u>Projected Use</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Agency/Organization: _____

**SECTION III
(Continued)**

25. If your agency/organization is awarded the additional frequencies you need in the 800 MHz spectrum, unless you are a current 800 MHz system user, you will have to purchase a new communications system. If you would obtain additional channels in the spectrum you currently use, it may be possible that a significant part of your current system could continue to be used. Give the option, which choice would you prefer? (Select one or both)

(A) Additional channels in the 800 MHz spectrum

(B) Additional channels in your current spectrum.

26. If your agency/organization selected "CURRENT SPECTRUM", indicate the spectrum(s) you are now using.

(A) 30-40 MHz

(B) 40-50 MHz

(C) 15-160 MHz

(D) UHF

27. Please list any other agencies/organizations with whom your agency/organization would need radio communications in the event of a disaster or large scale emergency: (Do not abbreviate)

Agency/Organization: _____

**SECTION IV
EQUIPMENT**

1. For the following, please indicate the total number that your agency/organization owns or operates now, and projected for the years listed.

	Now	1995	2005
Mobile radios	_____		
Voice encryption mobiles	_____		
Portable (handheld) radios	_____		
**Voice encryption portables	_____		
Mobile computer terminals	_____		
Automatic vehicle locators	_____		
Radio Control links	_____		
Radio alarm/control systems	_____		
Vehicular Repeaters	_____		
Transmitters/repeaters	_____		
Other (describe)	_____		

Agency/Organization: _____

**SECTION IV
(Continued)**

2. For the following, please indicate the maximum number in use at any given time; at present, and projected for the years listed.

	Now	1995	2005
Mobile Radios	_____	_____	_____
*Voice encryption mobiles	_____	_____	_____
Portable (handheld) radios	_____	_____	_____
**Voice encryption portable	_____	_____	_____
Mobile computer terminals	_____	_____	_____
Automatic vehicle locators	_____	_____	_____
Radio control links	_____	_____	_____
Radio alarm/control systems	_____	_____	_____
Vehicular repeaters	_____	_____	_____
Transmitters/repeaters (base station)	_____	_____	_____
Other (describe)	_____	_____	_____
_____	_____	_____	_____

* The sum of mobiles and voice encryption mobiles should equal the total number of mobiles in your system.

** Use the same methodology noted above for mobiles.

Agency/Organization: _____

COMMENT SHEET

Appendix F

PROFESSIONAL ORGANIZATIONS AND ASSOCIATIONS CONTACTED AND PROVIDED MEETING MINUTES AND QUESTIONNAIRE

Illinois Association of Chiefs of Police
P.O. Box 409
Winnetka, Illinois 60093

Illinois Fire Chief's Association
P.O. Box 7
Skokie, Illinois 60076

Illinois Association of County Board Members
413 West Monroe
Springfield, Illinois 62704

Illinois Ambulance Association
710 East Ogden, Suite 113
Naperville, Illinois 60540

Illinois Emergency Services Management
Association
1030 North Milwaukee Avenue
Libertyville, Illinois 60048

National APCO
930 Third Avenue P.O. Box 669
new Smyrna Beach, Florida 32070

Illinois Municipal League
500 East Capitol
Springfield, Illinois 62706

Mr. Dale Stouffer
National Communications System
ATTN: NCS/EPO
Arlington, Virginia 22204

Illinois Association of County
Superintendents/Highways
300 West Edwards Street/INB A
Springfield, Illinois 62704

Mr. Maynard J. Tinsman, Jr.,
Manager, Office of Emergency 527 Management
Federal Emergency Management
Washington, D.C. 20472

Illinois Association of Township Officials
P.O. Box 455
Astoria, Illinois 61501

IOWA REGION CHAIRMAN
Mr. Eldon Adkisson
Communications
Iowa State Police
5400 16th Avenue, SW
Cedar Rapids, Iowa 52404

911 Coordinator
Illinois Commerce Commission
527 East Capitol, P.O. Box 19280
Springfield, Illinois 62794-9280

KENTUCKY REGION CHAIRMAN
Mr. Jack Y. Sharp
Communications
Kentucky State Police
1240 Louisville
Frankfort, Kentucky 40601

Illinois Hospital Association
700 South Second Street
Springfield, Illinois 62704

Illinois State Veterinary Medical Assoc.
921 North Lake Street
Aurora, Illinois 60506

SOUTHERN LAKE MICHIGAN CHAIRMAN
Mr. Teddy F. Vratney
DU-COMM Central Dispatch
136 North County Farm Rd.
Wheaton, Illinois 60187

INDIANA REGION CHAIRMAN

Mr. Donald W. Kottowski
Communications
Indiana State Police
100 North Senate Avenue
Indianapolis, Indiana 46204

MISSOURI REGION CHAIRMAN

Mr. Michael Gray
Missouri State Bureau EMS
1730 East Elm Street
Jefferson City, Missouri 65102

WISCONSIN REGION CHAIRMAN

Mr. Richard Shulak
Wisconsin State Patrol
P.O. Box 7921
Madison, Wisconsin 53707

Appendix G

- Attachment A: Responding Agencies (9 pages)
- Attachment B: Counties Not Submitting Responses (1 page)
- Attachment C: Statewide (1 page)
- Attachment D: Serves one county (1 page)
- Attachment E: Multiple Counties (1 page)
- Attachment F: One city/town/region (2 pages)
- Attachment G: Multiple Cities/towns/regions (1 page)
- Attachment H: Region 13 population estimates (15 pages)
- Attachment I: Current population Estimates (15 pages)
- Attachment J: Current 800 MHz Licenses (1 page)
- Attachment K: Pending 800 MHz applications (1 page)
- Attachment L: 800 MHz system plan filed/plan incomplete (1 page)
- Attachment M: Have funds now (1 page)
- Attachment N: Will have funds in 12 months—Will have funds in 24 months (1 pg)
- Attachment O: Need 1 to 4 additional 800 MHz frequencies Now
Need 5 to 10 additional 800 MHz frequencies Now
Need more than 10 800 MHz frequencies now (1 pg)
- Attachment P: Prefer additional 800 MHz over current spectrum (2 pages)

Detailed Summary of Questionnaire Results

In an effort to identify the spectrum needs of Illinois Public Safety users, a questionnaire was developed and distributed to the following Region 13 Public Safety eligibles:

- 1.) All Fire Departments utilizing full or part-time paid employees
- 2.) All Police Departments
- 3.) All Sheriff's Departments
- 4.) State and all County ESDA offices
- 5.) The Illinois Hospital Association
- 6.) The Illinois State Veterinary Medical Association
- 7.) The Illinois Association of County Board Members
- 8.) The Illinois Municipal League
- 9.) The Illinois Ambulance Association
- 10.) The Illinois Association of Township officials
- 11.) The Illinois Board of Education

Over 1,250 copies of questionnaires were mailed by the Region 13 Chairman and an unknown quantity was mailed by County ESDA coordinators and the associations referenced above. Two hundred fifty-five (255) questionnaires were completed and returned, and what follows is a summarization of those returns.

Section and statement numbers in the Summary correspond to section and question numbers from the questionnaire, which may be found in Appendix E.

SECTION 1

1. Agencies submitting responses: 255

Agency 's names and their county, city/town are listed in Attachment A.

Counties not submitting responses: 15

8. Type of organization: Governmental: 233 Private: 22

10. Type of service: Law Enforcement

Emergency Medical

Forestry/Conservations

Beach Patrols

Handicapped Assistance

Other: Coroner

Dive Rescue Team

Maintenance

9-1-1 PSAP

County Health and Building Inspection

Local Government

Safety and Security

10. Uses a multi-agency dispatch service: Yes: 128 No: 125

Did not answer: 2

SECTION 2

1. Agencies that serve statewide: 6
See Attachment C.
2. Agencies that serve on count: 51
See Attachment D.

Agencies that serve multiple counties: 21
See Attachment E.
4. Agencies that serve one city/town/region: 55
See Attachment F.

Agencies that serve multiple cities/towns/regions: 21
See Attachment G.
5. Service area:
 - (a) Urban: 56
 - (b) Suburban: 135
 - (c) Open: 61
 - (d) Quasi Open: 94Did not answer: 12
7. Size of service area:
 - Up to 5 square miles: 49
 - Up to 6 square miles: 26
 - 11 to 50 square miles: 38
 - 51 to 10 square miles: 13
 - 101 to 200 square miles: 10
 - 201 to 300 square miles: 5
 - 301 to 500 square miles: 34
 - 501 to 1,000 square miles: 38
 - More than 1,000 square miles: 15
 - Did not answer: 27
8. Current Population of service area:
 - Up to 5,000: 76
 - 5,000 to 10,000: 27
 - 10,000 to 25,000: 73
 - 25,000 to 50,000: 37
 - 50,000 to 100,000: 11
 - 100,000 to 250,000: 16
 - 250,000 to 500,000: 3
 - 500,000 to 1,000,000: 0
 - More than 1,000,000: 6
 - Did not answer: 6

SECTION 3

1. Radio system adequate to meet your needs.

Now:	Yes: 190	No: 61	Did not answer: 4
1995:	Yes: 122	No: 109	Did not answer: 23
2005:	Yes: 85	No: 134	Did not answer: 35

2. Plans to alter their radio system in the future.

Yes:	89	No:	158	Did not answer:	8
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4. Have had to use an alternative method of dispatch because of spectrum unavailability.

Yes:	44	No:	206	Did not answer:	4
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6. Have had to borrow, share, or lease radio frequencies.

Yes:	55	No:	197	Did not answer:	3
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7. How often does your agency/organization encounter "wait time" to access a radio channel for voice transmissions from the field?

Never:	73
Seldom:	91
Sometimes:	50
Often:	34
Did not answer:	7

8. Average voice transmissions per normal hour:

Up to 5:	90
6 to 10:	44
11 to 25:	40
26 to 50:	22
51 to 100:	10
101 to 200:	3
201 to 500:	2
501 to 1,000:	1
More than 1,000:	4
Did not answer:	39

SECTION 3 (continued)

10. Potential Number of voice transmissions in busiest hour:

Up to 5:	23
6 to 10:	44
11 to 25:	46
26 to 50:	49
50 to 100:	32
101 to 200:	21
201 to 500:	5
501 to 1,000:	2
More than 1,000:	3
Did not answer:	34

11. Average length of air time for voice transmissions:

Up to 5 seconds:	20
6 to 10 seconds:	38
11 to 15 seconds:	34
16 to 20 seconds:	10
21 to 25 seconds:	7
26 to 30 seconds:	50
31 to 35 seconds:	4
36 to 40 seconds:	3
41 to 45 seconds:	6
46 to 50 seconds:	1
51 to 55 seconds:	2
56 to 60 seconds:	24
More than 60 seconds:	31
Did not answer:	25

12. Have plans to expand their use of radio frequencies for data transmissions.

Yes:	49	No:	195	Did not answer:	11
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13. Have plans to use voice encryption technology.

Yes:	42	No:	202	Did not answer:	11
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14. Plans to incorporate "Telephone Interconnects" into their radio system.

Yes:	50	No:	193	Did not answer:	12
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15. Number of units to be equipped with telephone interconnects.

Mobiles:	514	Portable:	607
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17. Agencies currently licensed on 800 MHz channels.

Yes:	6	No:	235	Did not answer:	14
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SECTION 3 (continued)

18. Have an application for 800 MHz channels pending.

Yes: 2 No: 233 Did not answer: 20

See Attachment K.

19. Have a plan on file.

Yes: 2 Plan incomplete: 3 No: 234 Did not answer: 16

Agencies names for Yes and Incomplete are listed in Attachment L.

20. Have funds available now to implement system.

Yes: 3 No: 215 Did not answer: 37

Agencies names are listed in Attachment M.

21. Anticipate funding for new system.

In 12 months:	2	In 24 months:	8
In 36 months:	6	In 48 months:	6
60+ months:	113	Did not answer:	120

Agencies names for "12 months and 24 months" are listed in Attachment N.

22. How many additional 800 MHz frequencies do you expect your agency will need

Now: 130 In 1995: 188 In 2005: 260

Agencies needing 1 – 4 frequencies now -----> Attachment O.

Agencies needing 5 – 10 frequencies now ----> Attachment O.

Agencies needing 11 + frequencies now -----> Attachment O.

SECTION 3 (continued)

25. Choice of additional channels:	In 800 MHz spectrum:	26
	In current spectrum:	134
	Both:	18
	Did not answer:	77

Agencies requesting additional channels in 800 MHz spectrum are listed in Attachment P.

26. Current Spectrum ranges being used now.

(A) 30 to 40 MHz:	6	(B) 40 to 50 MHz:	6
(C) 150 to 160 MHz:	103	(D) UHF:	17
(A)+(B)+(C)+(D):	3		
(A)+(B)+(C):	8		
(A)+(B)+(D):	0		
(A)+(C)+(D):	2		
(B)+(C)+(D):	3		
(A)+(B):	1		
(A)+(C):	19		
(A)+(D):	3		
(B)+(C):	7		
(B)+(D):	1		
(C)+(D):	12		
Did not answer:	64		

SECTION 4

1. Radio equipment owned and operated by Public Safety Agencies in Region 13.

	<u>Now</u>	<u>1995</u>	<u>2005</u>
Mobile Radios	17576	19708	24059
Voice encryption mobiles	340	862	1122
Portable (handheld) radios	11806	12751	16146
Voice encryption portable	202	885	1267
Mobile computer terminals	11	681	1355
Automatic vehicle locators	0	276	2302
Radio control links	168	198	337
Radio alarm/control systems	259	379	543
Vehicular repeaters	2216	2575	3207
Transmitters/repeaters (Base station)	1038	1124	1263
Other (describe)	267	312	426
Remotes			
Control stations			
Satellite receivers			
Call boxes (RF)			
Paging transmitters			
Auxiliary link			

SECTION 4 (continued)

2. Region 13 Public Safety Radio equipment likely to be in use at any given time.

	<u>Now</u>	<u>1995</u>	<u>2005</u>
Mobile Radios	11677	13131	15201
Voice encryption mobiles	300	801	1045
Portable (handheld) radios	7342	8383	10194
Voice encryption portable	197	738	1105
Mobile computer terminals	5	462	966
Automatic vehicle locators	0	233	1753
Radio control links	144	182	335
Radio alarm/control systems	59	103	187
Vehicular repeaters	1424	1675	2169
Transmitters/repeaters (base station)	850	908	1043
Other (describe)	239	296	377
Page transmitters			
Call Boxes (RF)			
Remotes			
Control stations			
Satellite receivers			

Appendix G Attachment a

RESPONDING AGENCIES

COUNTY/AGENCY	CITY/TOWN
<u>ADAMS</u>	
Quincy Police Department	Quincy
Adams County 9-1-1 Center	Quincy
<u>ALEXANDER</u>	
Alexander County Sheriff's Department	Cairo
Cairo Fire Department	Cairo
<u>BOND</u>	
Greenville Police Department	Greenville
<u>BROWN</u>	
Mt. Sterling Police Department	Mt. Sterling
<u>BUREAU</u>	
Bureau County ESDA	Princeton
Cherry Police Department	Cherry
Spring Valley Police Department	Spring Valley
Walnut Police Department	Walnut
Tiskilwa Police Department	Tiskilwa
<u>CARROLL</u>	
Lake Carroll P.O.A. (Security)	Lanark
Krahn Transit	Thomson
Savanna Community Ambulance Association	Savanna
Carroll county Highway Department	Mt. Carroll
Mt. Carroll Veterinarian Clinic	Mt. Carroll
Savanna Fire Department	Savanna
Ritchie Service	Savanna
Savanna Police Department	Savanna
Carroll County ESDA	Mt. Carroll
Milledgeville Veterinarian Clinic	Milledgeville
<u>CASS</u>	
Cass County Sheriff's Department	Virginia
<u>CHAMPAIGN</u>	
City of Urbana	Urbana
Village of Ogden	Ogden
Champaign Fire Department	Champaign
Mahomet Police	Mahomet
University of Illinois	Champaign
Tolono Police Department	Tolono
University of Illinois Willard Airport	Savoy
Champaign County Sheriff's Department	Urbana

RESPONDING AGENCIES (continued)

CHRISTIAN

Christian County ESDA Taylorville

CLARK

Clark County Sheriff's Department Marshall
Clark County ESDA Martinsville
Casey Police Department Casey

CLAY

Clay County Sheriff's Department Louisville
Flora Police Department Flora

CLINTON

Aviston Police Department Aviston
Trenton Police Department Trenton
Germantown Police Department Germantown

COLES

Charleston ESDA Charleston
Charleston Fire Department Charleston
Charleston Police Department Charleston
Mattoon Fire Department Mattoon

CRAWFORD

Crawford County Sheriff's Department Robinson
Crawford County ESDA Robinson
Oblong Police Department Oblong

DEWITT

De Witt County Sheriff's Department Clinton
De Witt County/Clinton ESDA Clinton

DOUGLAS

Douglas County Sheriff's Department Tuscola
Villa Grove Police Department Villa Grove

EDGAR

Edgar County Sheriff's Department Paris

EDWARDS

West Salem Police Department West Salem

EFFINGHAM

Effingham County Sheriff's Department Effingham
Effingham Police Department Effingham
Effingham Fire Department Effingham

FORD

Ford County Sheriff's Department Paxton
Ford County ESDA Paxton

RESPONDING AGENCIES (continued)

FORD (cont.)

Gibson City Police Department	Gibson City
Ford-Biaer Ambulance Service	Paxton
Rogers Township	Cabery
City of Paxton	Paxton
Gibson City Veterinarian Clinic	Gibson City
Ford Central Community School	Piper City
Button Township	Paxton
Patton Township	Paxton
Ford County Highway Department	Roberts
Ford County Coroner	Gibson City
Melvin-Sibley Unit School	Sibley
Paxton Community School	Paxton
Piper City Veterinarian Clinic	Piper City
Gibson City Area Ambulance Service	Gibson City
Pella Township	Piper City
Paxton ESDA	Paxton

FRANKLIN

Benton Police Department	Benton
Orient Police Department	Orient
West Frankfort Fire Department	West Frankfort

FULTON

London Mills Police Department	London Mills
Canton Police Department	Canton

GALLATIN

Gallatin County Sheriff's Department	Shawneetown
Gallatin County ESDA	Shawneetown

GREENE

Roodhouse Police Department	Roodhouse
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HANCOCK

Hamilton Police Department	Hamilton
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HARDIN

Hardin County Sheriff's Department	Elizabethtown
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HENRY

Galva Police Department	Galva
Kewanee Fire Department	Kewanee
Kewanee Police Department	Kewanee
Cambridge Police Department	Cambridge
Henry County ESDA	Geneseo
Henry County Sheriff's Department	Cambridge

JACKSON

Carbondale Police Department	Carbondale
Carbondale Fire Department	Carbondale

RESPONDING AGENCIES (continued)

JACKSON (continued)

City of Carbondale ESDA	Carbondale
Grand Tower Police Department	Grand Tower

JASPER

Jasper County Sheriff Department	Newton
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JERSEY

Jersey-Calhoun Veterinarian Clinic	Jerseyville
Jerseyville Police Department	Jerseyville

JO DAVIESS

Galena Police Department	Galena
Jo Daviess County Sheriff's Department	Galena
Jo Daviess County ESDA	Galena

JOHNSON

Johnson County Ambulance	Vienna
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KNOX

Abingdon Police Department	Abingdon
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LA SALLE

Streator Police Department	Streator
City of Streator ESDA	Streator
Seneca Police Department	Seneca

LEE

Dixon Fire Department	Dixon
Lee County Highway Department	Dixon
Dixon Police Department	Dixon
Lee County ESDA	Dixon
Dixon Veterinarian Hospital PC	Dixon
Dixon Community Fire Protection District Of Lee and Ogle Counties	Dixon

LIVINGSTON

Pontiac Police Department	Pontiac
Pontiac Fire Department	Pontiac
Livingston County Sheriff's Department	Pontiac
Livingston County ESDA	Pontiac

LOGAN

Lincoln Fire Department	Lincoln
Logan County Sheriff's Department	Lincoln
Lincoln/Logan County ESDA	Lincoln
Lincoln Police Department	Lincoln

RESPONDING AGENCIES (continued)

McDONOUGH

McDonough County Sheriff's Department	Macomb
Macomb/McDonough County ESDA	Macomb
Macomb Police Department	Macomb

McLEAN

McLean County Sheriff's Department	Bloomington
McLean County ESDA	Bloomington
Bloomington Police Department	Bloomington
Bloomington Fire/ESDA	Bloomington
Normal Police Department	Normal
Normal Fire Department	Normal
Illinois State University	Normal

MACON

Mt. Zion Police Department	Mt. Zion
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MACOUPIN

Macoupin County Government	Carlinville
Staunton Police Department	Staunton

MADISON

Glen Carbon Police Department	Glen Carbon
Wood River Police Department	Wood River
Edwardsville Police Department	Edwardsville
Hartford Police Department	Hartford
Alton Police Department	Alton
Granite City Police Department	Granite City
Granite City Fire Department	Granite City
City of Madison	Madison
Collinsville ESDA	Collinsville
Highland Police Department	Highland

MARION

Centralia Police Department	Centralia
Salem Police Department	Salem

MARSHALL

Henry Police Department	Henry
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MASON

Mason County ESDA	Havana
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MASSAC

Massac County Sheriff's Department	Metropolis
Metropolis Police Department	Metropolis
Massac County ESDA	Metropolis

MENARD

Petersburg Police Department	Petersburg
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RESPONDING AGENCIES (continued)

MONROE

Monroe County ESDA Waterloo

MONTGOMERY

Montgomery County ESDA Hillsboro
Nokomis Police Department Nokomis
Litchfield City Police Department Litchfield

MORGAN

Jacksonville Police Department Jacksonville
South Jacksonville Police Department South Jacksonville

MOULTRIE

Moultrie County Sheriff's Department Sullivan
Sullivan Police Department Sullivan
Arthur Police Department Arthur

PEORIA

Peoria County ESDA Brimfield
Peoria County Highway Department Peoria
City of Peoria Peoria
Mobile Medic Ambulance Peoria
B.Y.E. Ambulance Service Inc. Elmwood
Princeville Unit School Princeville
Peoria Heights Community Unit School Peoria Heights
Brimfield School District Brimfield
The Salvation Army Peoria

PERRY

Perry County ESDA Pinckneyville

PIATT

Piatt County ESDA Monticello
Monticello Police Department Monticello

PIKE

Perry Police Department Perry

POPE

Pope County ESDA Golconda
Golconda Police Department Golconda

PULASKI

Pulaski County Sheriff's Department Mound City

RANDOLPH

Randolph County Sheriff's Department Chester
Randolph County ESDA Chester
Sparta Police Department Sparta
Red Bud Police Department Red Bud

RESPONDING AGENCIES (continued)

RICHLAND

Olney Police Department Olney

ROCK ISLAND

Rock Island County Sheriff's Department Rock Island
 Rock Island County ESDA Milan
 East Moline Police Department East Moline
 Silvis Police Department Silvis
 Coal Valley Police Department Coal Valley
 Moline Fire Department Moline
 Milan Police Department Milan

ST. CLAIR

St. Clair County Sheriff's Department Belleville
 St. Clair County ESDA Belleville
 O'Fallon Police Department O'Fallon
 Village of Dupu Dupu
 Belleville Fire Department Belleville
 New Athens Police Department New Athens
 Centerville Police Department Centerville
 Cahokia Police Department Cahokia

SALINE

Harrisburg Police Department Harrisburg
 City of Eldorado Eldorado

SANGAMON

Sangamon County Highway Department Springfield
 City of Springfield, Office of Public Safety Springfield
 Springfield/Sangamon County ESDA Springfield
 Doctors Hospital Springfield
 New Berlin Police Department New Berlin
 New Berlin Fire Department New Berlin
 Pawnee Police Department Pawnee
 Pawnee Fire Department Pawnee
 Riverton Police Department Riverton
 Village of Jerome Police Department Springfield
 Divernon Police Department Divernon
 Chatham Police Department Chatham
 Southern View Police Department Springfield
 Mechanicsburg Fire Department Mechanicsburg
 Sangamon State University, Springfield
 Department of Public Safety

STATE

Illinois State Police Springfield
 Illinois Emergency Services Disaster Agency Springfield
 State of Illinois Springfield
 Illinois Department of Transportation Springfield
 Department of Conservation, Division of Land Management Springfield

RESPONDING AGENCIES (continued)

STATE

Secretary of State, Department of Police Springfield

SCHUYLER

Schuyler County Sheriff's Department Rushville

SHELBY

Shelby County Sheriff's Department Shelbyville
Shelby County ESDA Shelbyville

STEPHENSON

Stephenson County Sheriff's Department Freeport
Stephenson County ESDA Freeport
Freeport Police Department Freeport
Freeport Animal Hospital Freeport
New Hope Veterinarian Clinic German Valley
Orangeville Central College, Public Safety Orangeville

TAZEWELL

Creve Coeur Police Department Creve Coeur
Morton Police Department Morton
Washington Police Department Washington
South Pekin Police Department South Pekin
Illinois Central College, Public Safety East Peoria

UNION

Union County Sheriff's Department Jonesboro

VERMILION

Hoopeston Police Department Hoopeston
Catlin Police Department Catlin
Henning Police Department Henning

WARREN

Monmouth County ESDA Monmouth

WAYNE

Wayne County ESDA Fairfield

WHITE

Grayville Police Department Grayville

WHITESIDE

Whiteside County Sheriff's Department Morrison
Whiteside County ESDA Morrison
Rock Falls Fire Department Rock Falls
Sterling Police Department Sterling
C H G Twin City Ambulance Sterling
Community High School #5 Sterling
Morrison Veterinarian Clinic Morrison

RESPONDING AGENCIES (continued)

WHITE

Veterinarian Clinic
North Locust Animal Hospital
American Red Cross
Illinois State Toll Highway Auth.

Phrophetstown
Sterling
Rock Falls
Oak Brook

WILLIAMSON

Williamson County ESDA
Carterville Police Department
Hurst Police Department

Marion
Carterville
Hurst

WOODFORD

Woodford County Sheriff's Department
Metamora Police Department

Eureka
Metamora

Appendix G Attachment b

COUNTIES NOT SUBMITTING RESPONSES

Calhoun

Cumberland

Fayette

Hamilton

Henderson

Iroquois

Jefferson

Lawrence

Mercer

Ogle

Putnam

Scott

Stark

Wabash

Washington

Appendix G Attachment c

STATEWIDE

Illinois State Police

Illinois Emergency Services Disaster Agency

State of Illinois

Illinois Department of Transportation

Department of Conservation, Division of Land Management

Secretary of State, Dept. of Police

Appendix G Attachment d

SERVES ONE COUNTY

Adams County 9-1-1 Center
Alexander County Sheriff's Dept.
Greenville Police Department
Bureau County ESDA
Savanna Community Ambulance
Savanna Fire Department
Carroll County ESDA
Cass County Sheriff's Department
Champaign County Sheriff's Department
Village of Ogden Police
Clark County Sheriff's Department
Clark County ESDA
Clay County Sheriff's Department
Charleston Fire Department
Crawford County Sheriff's Department
De Witt County Sheriff's Department
De Witt/Clinton ESDA
Douglas County Sheriff's Department
Edgar County Sheriff's Department
Effingham County Sheriff's Department
Ford County Sheriff's Department
Ford County ESDA
Ford County Highway Department
Ford County Coroner
Galatin County Sheriff's Department
Galatin County ESDA
Hardin County Sheriff's Department
Henry County ESDA
Henry County Sheriff's Department
Jasper County Sheriff's Department
Jo Daviess County Sheriff's Department
Jo Daviess County ESDA
Lee County Highway Department
Lee County ESDA
Livingston County Sheriff's Department
Livingston County ESDA
Christian County ESDA
Logan County Sheriff's Department
Lincoln/Logan County ESDA
McDonough County Sheriff's Department
Macomb/McDonough County ESDA
McLean County Sheriff's Department
McLean County ESDA
Macoupin County Government
Staunton Police Department
Mason County ESDA
Massac County Sheriff's Department
Massac County ESDA
Monroe County ESDA
Montgomery County ESDA
Moultrie County Sheriff's Department
Peoria County ESDA
Peoria County Highway Department
City of Peoria
Perry County ESDA
Piatt County ESDA
Pope County ESDA
Pulaski County Sheriff's Department
Randolph County Sheriff's Department
Randolph County ESDA
Rock Island County Sheriff's Department
Rock Island County ESDA
St. Clair County Sheriff's Department
St. Clair County ESDA
Belleville Fire Department
Sangamon County Highway Department
Springfield/Sangamon County ESDA
Chatham Police Department
Schuyler County Sheriff's Department
Shelby County Sheriff's Department
Shelby County ESDA
Stevenson County Sheriff's Department
Stevenson County ESDA
Freeport Police Department
Union County Sheriff's Department
Wayne County ESDA
Whiteside County Sheriff's Department
Whiteside County ESDA
C G H Twin City Ambulance
Williamson County ESDA
Woodford County Sheriff's Department

Appendix G Attachment e

MULTIPLE COUNTIES

Mt. Carroll Veterinarian Clinic
Milledgeville Veterinarian Clinic
University of Illinois
Ford-Baier Ambulance Service
Gibson City Veterinarian Clinic
Ford Central Community School
Melvin-Sibley Community Unit School
Paxton Community High School
Piper City Veterinarian Clinic
Gibson City Area Ambulance Service
Jersey-Calhoun Veterinarian Clinic
Johnson County Ambulance Service
Streator Police Department
Seneca Police Department
Dixon Veterinarian Hospital PC
Dixon Community Fire Protection
District of Lee & Ogle Counties
Staunton Police Department
Granite City Fire Department
Highland Police Department
Centralia Police Department
Arthur Police Department
Mobile Medic Ambulance
B.Y.E. Ambulance, Inc.
The Salvation Army
Golconda Police Department
Silvis Police Department
Coal Valley Police Department
Doctors Hospital
New Berlin Fire Department
Pawnee Fire Department
Freeport Animal Hospital
New Hope Veterinarian Clinic
Orangeville Animal Health Service
Grayville Police Department
Rock Falls Fire Department
Community Unit District # 5
Veterinarian Clinic
North Locust Animal Hospital
Illinois State Toll Highway Authority

Appendix G Attachment f

ONE CITY/TOWN/REGION

Quincy Police Department	Streator Police Department
Cairo Fire Department	Streator ESDA
Mt. Sterling Police Department	Seneca Police Department
Cherry Police Department	Dixon Fire Department
Spring Valley Police Department	Dixon Police Department
Walnut Police Department	Pontiac Police Department
Tiskilwa Police Department	Pontiac Fire Department
Lake Carroll P.O.A. (Security)	Lincoln/Logan County ESDA
Krahn Transit	Lincoln Police Department
Savanna Police Department	Macomb Police Department
City of Urbana	Bloomington Police Department
Champaign Fire Department	Bloomington Fire Department/ESDA
Mahomet Police Department	Normal Police Department
Tolono Police Department	Normal Fire Department
University of Illinois	Illinois State University
Willard Airport	Mt. Zion Police Department
Casey Police Department	Glen Carbon Police Department
Flora Police Department	City of Alton Police Department
Aviston Police Department	Granite City Police Department
Charleston ESDA	City of Madison
Charleston Police Department	Collinsville ESDA
Mattoon Fire Department	Salem Police Department
Oblong Police Department	Henry Police Department
West Salem Police Department	Metropolis Police Department
Effingham Police Department	Petersburg Police Department
Effingham Fire Department	Nokomis Police Department
Gibson City Police Department	Litchfield Police Department
City of Paxton	Sullivan Police Department
Button Township	Arthur Police Department
Pella Township	Princeville Unit School
Paxton ESDA	Peoria Heights Community Unit School
Benton Police Department	Monticello Police Department
Orient Police Department	Perry Police Department
West Frankfort Fire Department	Sparta Police Department
London Mills Police Department	Red Bud Police Department
Canton Police Department	Olney Police Department
Roodhouse Police Department	East Moline Police Department
Hamilton Police Department	Moline Fire Department
Galva Police Department	Coal Valley Police Department
Kewanee Fire Department	Milan Police Department
Kewanee Police Department	O'Fallon Police Department
Cambridge Police Department	Village of Dupo
Carbondale Fire Department	New Athens Police Department
City of Carbondale ESDA	Centreville Police Department
Hurst Police Department	Harrisburg Police Department
Grand Tower Police Department	City of Springfield, Office of Public Safety
Galena Police Department	New Berlin Police Department
Abingdon Police Department	Pawnee Police Department

Riverton Police Department
Village of Jerome Police Department
Divernon Police Department
Southern View Police Department
Mechanicsburg Fire Department
Sangamon State University, Dept. of Public
Safety
Creve Coeur Police Department
Morton Police Department
South Pekin Police Department

Catlin Police Department
Henry Police Department
Public Safety Department
Grayville Police Department
Sterling Police Department
Community Unit School, Dist. # 5
Carterville Police Department
Metamora Police Department
Germantown Police Department

Appendix G Attachment g

MULTIPLE CITIES/TOWNS/REGIONS

Adams County 9-1-1 Center
Greenville Police Department
Trenton Police Department
Villa Grove Police Department
Rogers Township
Patton Township
Carbondale Police Department
Jerseyville Police Department
Lincoln Fire Department
McDonough County ESDA
Wood River Police Department
Edwardsville Police Department
Village of Hartford Police Department
Highland Police Department
Centralia Police Department
Jacksonville Police Department
South Jacksonville Police Dept.
City of Peoria
Mobile Medic Ambulance
B.Y.E. Ambulance, Inc.
Brimfield School District
The Salvation Army
City of Eldorado
Silvis Police Department
Cahokia Police Department
Freeport Animal Hospital
New Hope Veterinarian Clinic
Orangeville Animal Health Service
Washington Police Department
Hoopeston Police Department
Rock Falls Fire Department
Morrison Veterinarian Clinic
American Red Cross

Appendix G Attachment h

REGION 13 POPULATION TRENDS BY COUNTY

<u>COUNTY</u>	Jo Daviess		5,132
	Johnson	61,522	9,129
Adams		11,318	49,624
Alexander	Knox	36,552	
		20,538	31,453
Bond	<u>CURRENT(1)</u>	23,520	
Brown		9,624	58,331
Bureau	71,622		10,854
	12,264	61,607	39,821
Calhoun			20,174
Carroll	16,224	<u>1995(2)</u>	23,315
Cass	5,411		11,155
Champaign	39,114	65,985	
Christian		11,016	53,055
Clark	5,867		
Clay	18,779	15,626	<u>2005(2)</u>
Clinton	15,084	5,153	
Coles	168,392	35,914	63,183
Crawford	36,446		10,954
Cumberland	16,913	5,502	
	15,283	17,146	15,611
De Witt	32,617	13,226	4,958
Douglas	52,260	167,035	34,525
	20,818	34,688	
Edgar	11,062	16,199	5,349
Edwards		15,067	16,563
Effingham	18,108	35,427	12,354
	19,774	52,298	171,641
Fayette		20,291	33,432
Ford	21,725	10,459	15,910
Franklin	7,961		14,819
Fulton	30,944	17,174	35,921
		18,656	53,557
Gallatin	22,167		19,746
Greene	15,265	20,413	9,885
	43,201	8,732	
Hamilton	43,687	31,501	16,776
Hancock			17,953
Hardin	7,590	21,786	
Henderson	16,661	14,336	19,950
Henry		41,688	9,066
	9,172	34,069	30,986
Iroquois	23,877		
	5,383	7,718	21,421
Jackson	9,114	14,665	14,001
Jasper	57,968		40,495
Jefferson		9,108	30,560
Jersey	32,976	22,932	

7,667		112,033	103,726
13,826	St. Clair	17,807	18,438
	Saline	36,328	31,139
9,093	Sangamon	41,381	39,920
22,426	Schuyler	31,802	30,201
4,952	Scott		
9,064	Shelby	37,467	34,129
47,196	Stark	119,149	130,510
	Stephenson		
30,526		131,375	125,666
	Tazewell	49,384	48,215
59,951		247,691	249,968
10,612		43,523	44,454
40,634		14,479	12,879
20,034		19,492	16,213
23,171		14,990	15,196
11,687		11,700	11,347
		19,286	18,710
49,767		20,117	22,547
		31,686	31,665
La Salle		37,502	35,801
Lawrence		14,546	14,350
Lee			
Livingston		46,338	45,687
Logan			
		200,466	174,516
McDonough		21,714	22,583
McLean		16,581	15,761
		18,896	17,194
Macon		4,404	4,459
Macoupin		8,840	8,288
Madison		6,085	5,826
Marion			
Marshall		35,652	35,138
Mason		17,587	18,715
Massac		165,968	162,392
Menard			
Mercer		267,531	266,934
Monroe		28,448	28,708
Montgomery		176,089	180,678
Morgan		8,365	7,174
Moultrie		6,142	5,711
		23,923	22,706
Ogle		7,389	6,026
		49,536	49,614
Peoria			
Perry		132,078	120,170
Piatt			
Pike			
Pope			
Pulaski			
Putnam			
Randolph			
Richland			
Rock Island			

98,755	44,610		
18,594	12,350	168,875	267,096
29,563	15,369	22,819	28,940
39,201	15,397	15,313	180,585
29,319	11,231	16,305	6,410
	18,440	4,543	5,239
34,218	23,170	8,237	22,050
133,079	31,289	5,561	5,200
	35,220		49,331
123,187	14,475	34,814	
47,354		19,013	114,736
246,739	45,348	161,143	
Union	17,765	18,263	18,185
Vermilion	95,222	87,917	83,971
Wabash	13,713	14,361	14,488
Warren	21,943	19,637	19,030
Washington	15,472	14,889	14,573
Wayne	18,059	18,795	18,890
White	17,864	18,292	18,363
Whiteside	65,970	60,577	57,734
Williamson	56,538	59,346	59,574
Woodford	33,320	32,211	31,700

(1) U.S. Census Bureau Current Population Reports 1980.

(2) Illinois Population Trends 1980 to 2025
State of Illinois, Bureau of the Budget, June, 1987

Appendix G Attachment i

CURRENT POPULATION ESTIMATES

<u>COUNTY/AGENCY</u>	<u>CURRENT(1)</u>	<u>1995 (1)</u>	<u>2005 (1)</u>
<u>ADAMS</u>			
Quincy Police Dept.	42,352	43,000	45,000
Adams 9-1-1	67,700	-----	-----
<u>ALEXANDER</u>			
Alexander County	12,500	13,000	13,800
>>>Sheriff's Office			
Cairo Fire Dept.	6,500	-----	-----
<u>BOND</u>			
Greeneville Police	15,000	20,000	22,000
<u>BROWN</u>			
Mt. Sterling Police	2,500	-----	-----
<u>BUREAU</u>			
Bureau County	39,143	45,000	55,000
>>>ESDA			
Cherry Police Dept.	550	699	700
Spring Valley Police	5,800	-----	-----
Walnut Police Dept.	1,535	-----	-----
Tiskilwa Police	1,100	1,100	1,100
<u>CARROLL</u>			
Lake Carroll POA	200	350	500
Krahn Transit	4,000	4,500	5,000
Savanna Comm.	5,000	5,000	5,000
>>>Ambulance			
Mt. Carroll	-----	-----	-----
>>>Veterinarian			
Savanna Fire Dept.	5,000		
Carroll County	18,779	-----	-----
>>>Highway			
Ritchie Service	6,000	-----	-----
Savanna Police	4,500	4,500	4,500
Carroll County	18,779	18,000	19,000
>>>ESDA			
Milledgeville	20,000	-----	-----
>>>Veterinarian			
<u>CASS</u>			
Cass County	15,000	15,000	15,000
>>>Sheriff's Dept.			

CHAMPAIGN

Champaign Fire	60,000	63,000	74,000
>>>Dept.			
Champaign County	178,000	185,000	200,000
>>>Sheriff's Dept.			
City of Urbana	38,000	39,000	41,000
Mahomet Police	2,400	-----	-----
University of Illinois	100,000	110,000	120,000
University of Illinois	250	250	250
>>>Willard Airport			
Tolono Police Dept.	2,425	2,425	2,425
Ogden Police Dept.	818	918	1,100

CHRISTIAN

Christian County	36,500	38,000	40,000
>>>ESDA			

CLARK

Clark County	17,000	-----	-----
>>>Sheriff's Dept.			
Casey Police Dept.	3,000	3,000	3,000
Clark County ESDA	16,900	16,500	-----

CLAY

Clay County	17,000	15,500	16,000
>>>Sheriff's Dept.			
Flora Police Dept.	5,300	6,000	8,500

CLINTON

Aviston Police Dept.	1,000	1,050	1,100
Trenton Police	2,504	2,700	3,000

COLES

Charleston ESDA	19,500	-----	-----
Charleston Fire	19,500	-----	-----
>>>Dept.			
Charleston Police	19,900	-----	-----
>>>Dept.			
Mattoon Fire Dept.	20,000	-----	-----

CRAWFORD

Crawford County	20,818	-----	-----
>>>Sheriff's Office			
Oblong Police Dept.	1,900	1,900	1,900
Crawford County	22,200	23,000	25,000
>>>ESDA			

CUMBERLAND

DE WITT

De Witt Sheriff's	18,500	-----	-----
>>>Office			
De Witt/Clinton	18,108	18,000	-----
>>>ESDA			

<u>DOUGLAS</u>			
Douglas County	19,525	20,500	-- -- -- --
>>>Sheriff's Office			
Villa Grove Police	3,000	3,000	3,000
<u>EDGAR</u>			
Edgar Sheriff's	21,000	22,000	24,000
>>>Office			
<u>EDWARDS</u>			
West Salem Police	1,200	-- -- -- --	-- -- -- --
<u>EFFINGHAM</u>			
Effingham Sheriff's	32,000	34,500	37,000
>>>Office			
Effingham Police	11,800	20,000	-- -- -- --
Effingham Fire	11,700	15,000	20,000
>>>Dept.			
<u>FORD</u>			
Ford Sheriff's Dept.	16,000	16,000	16,000
Ford County ESDA	16,000	16,000	16,000
Gibson City Police	3,600	4,200	5,600
Ford-Baier	-- -- -- --	-- -- -- --	-- -- -- --
>>>Ambulance			
Rogers Township	600	600	600
City of Paxton	4,400	4,400	4,400
Gibson Veterinarian	-- -- -- --	-- -- -- --	-- -- -- --
>>>Clinic			
Ford Central School	2,000	2,000	-- -- -- --
Button Township	350	300	300
Patton Township	15,800	15,600	15,400
Ford County	15,800	15,400	15,400
>>>Highway Dept.			
Ford County	16,000	16,000	16,000
>>>Coroner			
Melvin-Sibley	2,100	2,000	-- -- -- --
>>>School			
Paxton Schools	6,000	-- -- -- --	-- -- -- --
Piper City Vet.	-- -- -- --	-- -- -- --	-- -- -- --
>>>Clinic			
Gibson City	7,000	-- -- -- --	-- -- -- --
>>>Ambulance			
Pella Township	170	170	150
Paxton ESDA	4,500	5,000	5,000
<u>FRANKLIN</u>			
Benton Police Dept.	8,000	8,500	9,000
Orient Police Dept.	480	-- -- -- --	-- -- -- --
West Frankfort Fire	14,000	15,000	20,000
>>>Department			

FULTON

London Mills Police	550	600	650
Canton Police Dept.	15,000	18,000	20,000

GALLATIN

Gallatin Sheriff's	7,200	-----	-----
>>>Office			
Gallatin County	8,000	10,000	15,000
>>>ESDA			

GREENE

Roodhouse Police	2,400	2,400	2,400
>>>Dept.			

HAMILTON

HANCOCK

Hamilton Police Dept	3,500	3,501	3,600
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HARDIN

Hardin Sheriff's	5,000	5,500	6,000
>>>Office			

HENDERSON

HENRY

Galva Police	4,000	4,000	4,000
Kewanee Fire Dept.	14,000	-----	-----
Kewanee Police	14,500	-----	-----
Cambridge Police	2,000	2,000	2,000
Henry County ESDA	58,200	59,000	60,000
Henry County	57,000	57,000	60,000
>>>Sheriff's Office			

IROQUOIS

JACKSON

Carbondale Police	27,000	28,000	30,000
Carbondale Fire	26,000	30,000	36,000
>>>Dept.			
Carbondale ESDA	26,000		
Hurst Police Dept.	950	27,485	28,000
Grand Tower Police	2,000	1,000	-----

JASPER

Jasper County	11,500	12,000	1,000
>>>Sheriff's Office			

JEFFERSON

JERSEY

Jersey-Calhoun Vet.	20,000	-- -- -- --	-- -- -- --
Jersey Police Dept.	7,506	-- -- -- --	-- -- -- --

JO DAVIESS

Galena Police Dept.	4,000	4,500	5,000
Jo Daviess County	24,000	25,500	28,000
>>>Sheriff's Office			
Jo Daviess County	24,000	25,500	28,000
>>>ESDA			

JOHNSON

Johnson Ambulance	10,820	11,900	12,440
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KNOX

Abingdon Police	4,200	4,500	4,900
>>>Department			

LA SALLE

Streator Police	16,000	-- -- -- --	-- -- -- --
Streator ESDA	14,500	-- -- -- --	-- -- -- --
Seneca Police Dept.	2,100	2,800	5,000

LAWRENCE

LEE

Dixon Fire Dept.	15,000	-- -- -- --	-- -- -- --
Dixon Police Dept.	16,000	-- -- -- --	-- -- -- --
Lee County	38,000	38,000	38,000
>>>Highway Dept.			
Lee County ESDA	36,328	-- -- -- --	-- -- -- --
Dixon Vet. Clinic	100,000	-- -- -- --	-- -- -- --
Dixon Lee & Ogle	15,000	25,000	15,000
>>>Fire Department			

LIVINGSTON

Pontiac Police Dept.	12,500	14,000	16,000
Pontiac Fire Dept.	14,500	15,000	-- -- -- --
Livingston County	48,000	53,000	57,500
>>>Sheriff's Office			
Livingston County	48,000	53,000	57,500
>>>ESDA			

LOGAN

Lincoln Fire Dept.	25,000	25,000	30,000
Logan County	32,000	-- -- -- --	-- -- -- --
>>>>Sheriff's Dept.			
Lincoln/Logan ESDA	36,000	40,000	45,000
Lincoln Police Dept.	16,500	17,500	19,000

MCDONOUGH

McDonough County	40,000	40,000	40,000
>>>Sheriff's Office			
Macomb ESDA	37,300	40,000	44,100
Macomb Police Dept.	20,500	21,000	-- -- -- --

MCLEAN

McLean County	125,700	135,000	145,000
>>>Sheriff's Office			
McLean County	125,000	135,000	150,000
>>>ESDA			
Bloomington Police	48,000	50,000	60,000
Bloomington	50,000	51,000	55,000
>>>Fire/ESDA			
Normal Police	40,000	45,000	50,000
Normal Fire Dept.	40,000	50,000	55,000
Illinois State	150,000	-----	-----
>>>University			

MACON

Mt. Zion Police Dept.	5,000	5,050	6,500
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MACOUPIN

Macoupin County	50,000	55,000	60,000
>>>Govt.			
Staunton Police	5,000	5,200	-----

MADISON

Glen Carbon Police	8,000	16,000	18,000
Wood River Police	22,000	23,000	25,000
Edwardsville Police	13,911	14,500	15,500
Hartford Police	1,900	-----	-----
Alton Police	34,500	40,000	40,500
Granite City Police	36,500	40,000	45,000
Granite City Fire	36,500	-----	-----
>>>Dept.			
City of Madison	7,000	7,500	8,000
Collinsville ESDA	21,000	-----	-----
Highland Police	15,000	16,000	17,500

MARION

Centralia Police	20,000	20,000	20,000
Salem Police Dept.	8,000	10,000	12,000

MARSHALL

Henry Police Dept.	2,750	-----	-----
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MASON

Mason County ESDA	18,000	20,000	21,000
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MASSAC

Massac County	14,990	17,000	19,500
>>>Sheriff's Office			
Metropolis Police	8,000	-----	-----
Massac County	14,990	-----	-----
>>>ESDA			

MENARD

Petersburg Police	2,500	2,600	2,700
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MERCER

<u>MONROE</u>			
Monroe County	20,000	20,600	21,000
>>>ESDA			
<u>MONTGOMERY</u>			
Montgomery County	31,686	---	---
>>>ESDA			
Nokomis Police	2,700	2,700	2,700
Litchfield Police	7,000	---	---
<u>MORGAN</u>			
Jacksonville Police	24,000	---	---
South Jacksonville	3,500	3,800	4,000
>>>Police Dept.			
<u>MOULTRIE</u>			
Moultrie County	14,500	15,000	20,000
>>>Sheriff's Office			
Sullivan Police	6,000	6,500	7,000
Arthur Police Dept.	2,200	---	---
<u>OGLE</u>			
<u>PEORIA</u>			
Peoria ESDA	201,000	205,000	215,000
Peoria Highway	200,466	204,475	208,564
>>>Dept.			
City of Peoria	120,000	---	---
Mobile Medic	425,000	425,000	425,000
>>>Ambulance			
B.Y.E. Ambulance	20,000		
Princeville School	4,000	20,000	20,000
Peoria Heights	8,500	4,000	4,000
>>>School		8,500	8,500
Brimfield School	6,500	6,600	7,000
The Salvation Army	200,466	180,623	---
<u>PERRY</u>			
Perry County ESDA	210,714	210,714	---
<u>PIATT</u>			
Piatt County ESDA	16,500	16,500	---
<u>PIKE</u>			
Perry Police Dept.	800	800	800
<u>POPE</u>			
Pope County ESDA	4,640	6,000	6,200
Golconda Police	950	1,200	1,500
<u>PULASKI</u>			
Pulaski County	8,840	8,288	8,343
>>>Sheriff's Office			
<u>PUTNAM</u>			

RANDOLPH

Randolph County	35,600	-----	-----
>>>Sheriff's Office			
Randolph County	35,566	-----	-----
>>>ESDA			
Sparta Police	5,000	5,100	6,000
Red Bud Police	3,000	3,500	3,700

RICHLAND

Olney Police Dept.	9,800	-----	-----
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ROCK ISLAND

Rock Island	165,968	178,700	187,000
>>>Sheriff's Office			
Rock Island County	166,759	-----	-----
>>>ESDA			
East Moline Police	21,000	21,750	22,000
Silvis Police	19,350	21,000	29,000
Moline Fire Dept.	45,000	45,000	47,000
Coal Valley Police	3,800	3,900	4,000
Milan Police Dept.	8,000	9,000	10,000

ST. CLAIR

St. Clair Sheriff	400,000	-----	-----
St. Clair County	256,000	270,000	285,000
>>>ESDA			
O'Fallen Police	15,000	16,500	20,000
Village of Dupo	3,000	4,000	6,500
Belleville Fire Dept.	42,350	45,000	60,000
New Athens Police	1,900	2,400	3,000
Centerville Police	9,000	9,500	10,500
Cahokia Police	18,200	-----	-----

SALINE

Harrisburg Police	10,200	-----	-----
City of Eldorado	5,198	-----	-----

SANGAMON

Sangamon County	160,000	175,000	200,000
>>>Highway Dept.			
Sangamon County	182,000	190,000	200,000
>>>ESDA			
Office of Public	120,000	125,000	130,000
>>>Safety			
Doctors Hospital	200,000	225,000	250,000
New Berlin Police	832	900	1,000
New Berlin Fire	2,000	-----	-----
>>>Department			
Sangamon State	4,000	-----	-----
>>>University			
Pawnee Police	2,600	3,000	3,500
Pawnee Fire Dept.	3,700	4,000	4,500
Riverton Police	3,000	-----	-----
Village of Jerome	1,700	1,650	-----
>>>Police			

Divernon Police	1,500	2,000	3,000
Chatham Police	6,800	10,000	-----
Southern View	2,200	2,500	2,500
>>>Police Dept.			
Mechanicsburg Fire	1,550	1,750	2,150
>>>Department			
<u>SCHUYLER</u>			
Schuyler County	8,350	-----	-----
>>>Sheriff's Office			
<u>SCOTT</u>			
<u>WOODFORD</u>			
Woodford County	33,320	-----	-----
>>>Sheriff's Office			
Metamora Police	2,500	2,800	3,100
<u>STATE</u>			
Illinois State Police	Statewide		
Illinois ESDA	Statewide		
State of Illinois	Statewide		
Illinois Department	Statewide		
>>of Transportation			
Illinois Dept. of	Statewide		
>>>Conservation			
Secretary of State	Statewide		

1 – ALL totals are from the radio user survey.
 ** -- They service Lee, Ogle, and Whiteside counties.

Appendix G Attachment j

CURRENT 800 MHz LICENSEES

<u>AGENCIES</u>	<u>CITY/TOWN</u>
Piper City Veterinarian Clinic	Piper City
Community Unit District # 5	Mt. Sterling
Illinois State Toll Highway Authority	Oak Brook
Villa Grove Police Department	Villa Grove
Paxton Schools	Paxton
Orangeville Animal Health Service	Orangeville

Appendix G Attachment k

PENDING 800 MHz APPLICATIONS

<u>AGENCY</u>	<u>CITY/TOWN</u>
Union County Sheriff's Office	Jonesboro
Germantown Police Department	Germantown

Appendix G Attachment I

800 MHz SYSTEM PLAN FILED

<u>AGENCY</u>	<u>CITY/TOWN</u>
The Salvation Army	Peoria
Union County Sheriff's Office	Jonesboro

PLAN INCOMPLETE

The Salvation Army	Peoria
State of Illinois	Springfield
Illinois State Police	Springfield

Appendix G Attachment m

HAVE FUNDS NOW

<u>AGENCY</u>	<u>CITY/TOWN</u>
Union County Sheriff's Office	Jonesboro
Illinois State Toll Highway Authority	Oak Brook
Illinois State Police	Springfield

Appendix G Attachment n

WILL HAVE FUNDS IN 12 MONTHS

Doctors Hospital	Springfield
Divernon Police Department	Divernon

WILL HAVE FUNDS IN 24 MONTHS

Savanna Fire Department	Savanna
Douglas County Sheriff's Office	Tuscola
Effingham County Sheriff's Office	Effingham
Seneca Police Department	Seneca
Normal Police Department	Normal
Montgomery County ESDA	Hillsboro
Springfield/Sangamon County ESDA	Springfield
Metamora Police Department	Metamora

Appendix G Attachment o

NEED 1 TO 4 ADDITIONAL 800 MHz FREQUENCIES NOW

<u>AGENCY</u>	<u>CITY/TOWN</u>
Trenton Police Department	Trenton
Douglas County Sheriff's Office	Tuscola
Effingham County Sheriff's Office	Effingham
Button Township Highway Commission	Paxton
Henry County ESDA	Geneseo
Streator ESDA	Streator
Macoupin County Government	Carlinville
Wood River Police Department	Wood River
South Jacksonville Police Department	S. Jacksonville
Pope County ESDA	Golconda
Golconda Police Department	Golconda
Divernon Police Department	Divernon
Union County Sheriff's Office	Jonesboro
Metamora Police Department	Metamora

NEED 5 TO 10 ADDITIONAL 800 MHz FREQUENCIES NOW

University of Illinois	Champaign
City of Springfield, Office of Public Safety	Springfield
Illinois State Toll Highway Authority	Oak Brook
Secretary of State, Dept. of Police	Springfield

NEED MORE THAN 10 800 MHz FREQUENCIES NOW

State of Illinois	Springfield
Illinois State Police	Springfield

Appendix G Attachment p

PREFER ADDITIONAL 800 MHz OVER CURRENT SPECTRUM

<u>AGENCIES</u>	<u>CITY/TOWN</u>
Cass County Sheriff's Office	Virginia
Champaign Fire Department	Champaign
City of Urbana	Urbana
University of Illinois	Champaign
Tolono Police Department	Tolono
Trenton Police Department	Trenton
De Witt County Sheriff's Office	Clinton
Edgar County Sheriff's Office	Paris
Ford County Sheriff's Office	Paxton
Ford County ESDA	Paxton
Roodhouse Police Department	Roodhouse
Grand Tower Police Department	Grand Tower
Jerseyville Police Department	Jerseyville
Abingdon Police Department	Abingdon
Streator Police Department	Streator
Streator ESDA	Streator
Dixon Veterinarian Hospital PC	Dixon
Livingston County Sheriff's Office	Pontiac
Livingston County ESDA	Pontiac
McLean County Sheriff's Office	Bloomington
Bloomington Police Department	Bloomington
Nokomis Police Department	Nokomis
Mobile Medic Ambulance	Peoria
Golconda Police Department	Golconda
Rock Island County Sheriff's Office	Rock Island
Silvis Police Department	Silvis
Moline Fire Department	Moline
Coal Valley Police Department	Coal Valley
Village of Dupo	Dupo
Belleville Fire Department	Belleville
Centreville Police Department	Centreville
Harrisburg Police Department	Harrisburg
City of Springfield, Office of Public Safety	Springfield
Village of Jerome Police Department	Springfield
Divernon Police Department	Divernon
Chatham Police Department	Chatham
Freeport Police Department	Freeport
Orangeville Animal Health Service	Orangeville
Creve Coeur Police Department	Creve Coeur
Union County Sheriff's Office	Jonesboro
Henning Police Department	Henning
Illinois State Toll Highway Authority	Oak Brook
Williamson County ESDA	Marion
Secretary of State, Dept. of Police	Springfield

Appendix H

APPLICATION EVALUATION CRITERIA

CATEGORY WEIGHTS

1. **SERVICE: 0 to 100 points**

Eligible Services have been grouped into the following three Priority Levels. Each level has a predetermined maximum number of points associated with it. In the case of a “multiple service” system being proposed, the application must state the number of mobiles assigned to each service. The percentages resulting from these totals will determine the total number of points awarded.

PRIORITY LEVEL I: Maximum of 100 points

Public Safety Radio Service Licensees providing protection of life and property.

PRIORITY LEVEL II: Maximum of 65 points

Public Safety Radio Service licensees providing protection of property only.

PRIORITY LEVEL III: Maximum of 35 points

Special Emergency Radio Service Licensees.

2. **SYSTEM TYPE: 0 to 50 points**

From 0 to 50 points can be earned in this category, based on the degree of spectrum efficiency demonstrated for the system. The more spectrum efficient a proposed system is, the more points the application will earn. A higher standard will be used to evaluate applications from agencies located within a Primary Zone.

Information relating to the system’s technology such as trunked or conventional operation, and voice or data transmission (or voice/data combination) must be provided. The narrative should also discuss how utilization of these features will result in an efficient use of the spectrum. Furthermore, details regarding any other enhancements to the system must be provided. The application must also state whether the system is being proposed as a single agency-single service, multiple agency-single service, or multiple agency-multiple service operation.

3. **INTERSYSTEM INTEROPERABILITY: 0 to 100 points**

An application will be awarded from 0 to 50 points in this category based on its description of how the 800 MHz mobile radios will maintain, and/or increase, mutual aid capabilities. Since they are mandated by the National Plan, inclusion of the five Common Channels in mobile equipment is not rated. However, an applicant may earn up to 50 additional points (for the maximum of 100) in this category, on the initial and all subsequent applications, for providing fixed equipment necessary for the operation of Common Channels in a specific area (s) of the Region.

4. **CHANNEL LOADING FACTORS: 10 to 50 points**

Applications will receive between 10 and 50 points for proposing a number of mobile units that meet the Channel Loading requirements mandated by this Plan. Consideration will take into account the feasibility of operating the number of mobiles per channel being proposed.

5. **COVERAGE AREA: 10 to 50 points**

Scoring in this category will be based on two factors: (1) compliance with the parameters described on pages 20, 21, and 25 of this Plan, as evidenced by the submission of a map of the service area depicting jurisdictional boundaries, proposed transmitter sites, and minimum coverage areas of those transmitter sites; and (2) Channel reuse potential.

6. **VACATED FREQUENCIES RETURNED: 0 to 100 points**

The application will earn from 0 to 100 points in this category depending on the number of vacated frequencies being proposed for return, in relation to the total number of frequencies used by the agency (including those being applied for); and, the availability of the returned for use by to other agencies in the region.

7. **IMPLEMENTATION SCHEDULE: 0 to 50 points**

The degree of budgetary commitment to the system being proposed, and the specificity of implementation dates will be the bases for scoring an application in this category. The more explicit an application is with respect to these topics, the more points it will earn in this category.

Appendix I

DU-COMM DuPage Public Safety Communication

136 N. County Farm Road
Wheaton, Illinois 60187-3992
(708) 260-7500
FAX (708) 665-4893

Ted Vratny
Director

September 18, 1990

Mr. Darrel R. Bartz, Chairman
800 MHz Region 13 Public-Safety Planning Committee
531 Sangamon Avenue
Springfield, Illinois 62702

Dear Darrell:

I have read through the final draft of the Region # 13 plan. I found the plan to be thorough and well written. I find no conflicts or concerns with any of the requirements of the plan as it relates to Region # 54. The Southern Lake Michigan Region. In all areas of importance there is harmony between the plans, so I have no reservations about giving concurrence to your plan. On behalf of Region # 54, please accept this letter as our formal letter of concurrence to the Region # 13 plan.

Sincerely,

Teddy F. Vratny

C. RCRC

INDIANA 800 MHz REGION PLANNING COMMITTEE

Donald W. Kottlowksi, Chairman
Indiana State Police
Communications Division
100 North Senate Avenue
Indianapolis, Indiana 46204
TX: 317-899-8257

October 18, 1990

Darrell R. Bartz, Chairman
Region 13 Public Safety Planning Committee
531 Sangamon Avenue
Springfield, Illinois 62702

Dear Darrell:

Sorry for the delay in comments on your Region Plan. I had Dr. Howard Phillips of our Region Conformance Review Committee look over your Plan and he had not returned it to me since the day I received it from you. We had briefly looked over it and assumed that the SLM plan language was only modified. For the most part we did not see any need for major changes.

The only comment that I would have is on the Statewide channel allotment to the State of Illinois. We had to add footnotes to the effect that the adjacent channel was primarily reserved for the adjacent state in order not to conflict with the adjacent region Plan. If effect you will have to word it something like our Plan using the "*" and "#" symbols with the footnotes for clarification. Please look at our Appendix K and especially page K-11 for these notations.

Sincerely,

Donald W. Kottlowksi
Chairman Region 14

STATE OF IOWA

Terry E. Branstad, Governor

Department of Public Safety
Paul H. Wieck II commissioner

December 24, 1990

Mr. Darrell R. Bartz
Chairman
800 MHz Region 13 Planning Committee
531 Sangamon Avenue
Springfield, Illinois 62702

Dear Darrell:

We have reviewed the Illinois Region 13 800 MHz final draft and as the 800 MHz Chairman for Iowa, in behalf of the planning committee, we concur with the information provided in your draft.

Sincerely,

GARY LEE STEVENS,
Chairman
Region 15 Planning Committee

GLS: mcc

800 MHz Regional Planning Committee

Region 17
1240 Airport Road
Frankfort, Kentucky 40601

October 18, 1990

Mr. Darrell Bartz
Illinois State Police
Springfield, Illinois

Dear Mr. Bartz:

I have received and reviewed the Illinois 800 MHz plan.
I do not see anything that adversely affects Kentucky Region 17.
Therefore, please accept this letter as a recommendation of approval.

Sincerely,

Jack Y. Sharp

JYS: mgh

Associated
Public-safety
Communications
Officers, Inc.

President
Sherry L. Scrivner
5428 Bret Ct.
Jefferson City, Mo. 65109
H: (314) 893-6144
W: (314) 634-6357

October 19, 1990

Vice-President
Cletus J. Lutz
Mo. Capitol Police
P.O. Box 809
Jefferson City, Mo. 65102
(314) 751-2541

Darrel R. Bartz, Chairman
531 Sangamon Avenue
Springfield, Illinois 62702

Secretary-Treasurer
Bobby Deitch
135 West Market St.
Warrensburg, Mo. 64093
W: (816) 747-2265
H: (816) 747-7708

Dear Darrell:

I have reviewed the Region 13 800 MHz plan. Because our region is not presently active and does not have a chairman, I cannot offer any concerns or comments; I can only assume that the CET packing program accounts for existing 800 MHz frequencies that may be impacted by the plan.

National Executive Council
John Lewis
RR #2 Box 178A
Linn, Mo. 65051
(314) 751-3747

I have no choice but to concur with the Region B 800 MHz plan.

State Frequency Advisor
Michael Gray
State Bureau of E.M.S.
P.O. Box 570
Jefferson City, Mo. 65102
(314) 751-6356

Sincerely,

Michael E. Gray
MO APCO Frequency Advisor

MEG: ag

WISCONSIN DEPARTMENT OF TRANSPORTATION

Tommy G. Thompson
Governor

Ronald R. Fiedler, PE
Secretary

DIVISION OF STATE PATROL
4802 Sheboygan Avenue
P.O. Box 7912
Madison, WI 53707-7912

January 11, 1991

Mr. Darrel Bartz, Chairman
Region 13 Planning Committee
531 Sangamon Ave.
Springfield, IL 62702

Dear Darrell:

I have reviewed the Region 13 Public Safety Planning Committee's Plan for the implementation of the 806-808/851-853 MHz portion of spectrum for the State of Illinois.

The plans are consistent with our earlier discussions. I therefore have no objections.

I thank you for allowing our input and look forward to working with you in the future.

Sincerely,

Richard J. Shulak, Chairman
Wisconsin 800 MHz Regional Planning Commission
Region 54

Appendix J

INITIAL SPECTRUM ALLOCATION FREQUENCY SORTING METHODOLOGY

INTRODUCTION

The initial spectrum allocation for The Region was determined by a computerized frequency sorting process performed by C.E.T., Inc. of New Smyrna Beach, Florida. The purpose of the computer program which assigns frequencies to specific eligibles and to pools for future assignment is two-fold:

- (A) The assignments must be made in a manner which results in a high degree of spectrum efficiency, and
- (B) The assignments must be made in a manner which results in a low probability of co-channel and adjacent channel interference.

Since the desired output is a geographic sorting of frequencies, a method of defining geography must be part of the input. A list of the number of channels to be assigned in each geographic area is also required, along with the name of the eligible or pool.

Acceptable interference probabilities are determined for the Region. Frequency assignments are then made using a computer program which satisfies the goals of spectrum efficiency and interference protection. The following narrative describes the factors and process used by the computer program.

GEOGRAPHIC AREA

For the purpose of this frequency sort, a geographic area is defined as one or more circles of equal radius. To the degree practical, this circle(s) should include the entire area of the eligible's geopolitical boundary, but not exceed the boundary by more than three (3) miles.

Thus the procedure is to gather maps of sufficient detail, outline the areas to be defined, determine the coordinates and radius of the circles which define each area, and tabulate the data.

DEFINE THE ENVIRONMENT

The environment of each system is defined according to the following criteria:

- (1) URBAN --- a built up city crowded with large buildings, or closely interspersed with houses and thickly-grown trees. This would include the downtown area of a major city.
- (2) SUBURBAN --- a city or highway scattered with trees, houses, and buildings. This would include the non-downtown area of a major city.
- (3) OPEN --- an area where there are no obstacles such as tall trees or buildings in the propagation path, or a plot of land which is cleared of anything for 300-400 meters ahead. This would include farm land, open fields, etc.
- (4) QUASI-OPEN --- an area between suburban and open areas. This includes areas outside of city limits that have few buildings and houses.

BLOCKED CHANNELS

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

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

TRANSMITTER COMBINING

The computer program is designed to provide a minimum frequency separation between any two channels assigned to the same eligible at the same site. This separation is provided in order to enable more efficient combining of multiple transmitters to a single antenna. These separated blocks of frequencies also have a maximum size. That is, if the eligible has more frequencies than the maximum size of the combining block, then a new compatible block is created.

Each of these parameters is adjustable in the program on a global basis. The parameters chosen are 0.25 MHz minimum spacing and five channel blocks.

SPECIAL CONSIDERATIONS

There are existing licensees in the 806-806/852-851 MHz spectrum who plan to expand existing systems into the 806-808/851-853 MHz bands. Existing radio units are unable to operate on 12.5 KHz separated carrier frequencies. The result is that these radios can only operate on "even" FCC numbered channels in the 806-808/851-853 MHz band. The computer program is able to take this into account when making assignments.

PROTECTION RATIOS

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

WHAT THE PROGRAM DOES

1. Input data for the Region

- Name (entity-county)
- Coordinates
- Range
- Environment
- Blocked/protected channels
- Even/Odd channel requirements

2. Select Parameters

- Combiner spacing
 - Maximum spectrum to be used
 - Number of iterations allowed
 - Protection ratios for co-channel and adjacent channels
3. Computer determines an ERP/Antenna Height combination which places the 40dB point at the range specified, in the environment specified, for each system.
 4. Computer calculates distances between all possible combinations of single site, and multiple site, systems.
 5. The computer uses its input tables to determine compatible assignments such that the signal strength at a co-channel assignee's boundary is $< +5\text{dB}$, and the signal strength at an adjacent channel assignee's boundary is $< +25\text{dB}$.
 6. If the maximum spectrum allowed is filled before all systems are assigned channels, then the list is re-ordered according to the difficulty of assignments, and another iteration is made.
 7. If the maximum number of iterations is reached before all assignments are satisfied, the maximum spectrum allowed is initially set at a value which will fail to find a solution. By incrementing its value on successive attempts, the first successful run should be the most spectrum efficient solution this program will ever find, for this case.

Appendix K

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Appendix L

GLOSSARY

(Definitions of terms, abbreviations, and acronyms as they are used in this document)

ADJACENT CHANNELS --- Channels which are separated by 12.5 KHz in the 806-808 band.

AGL --- Above ground level; altitude.

APCO --- Associated Public-Safety Communications Officers, Incorporated.

AVL --- Automatic Vehicle Locator; a data transmission device used to determine where a field unit is.

CALLING CHANNEL --- FCC Channel 601; use of this channel is restricted to establishing contact among individual agencies for mutual aid purposes.

CHANNEL --- An assigned portion of the radio frequency spectrum which is used for the transmission of information. A channel has a center frequency and a definite bandwidth. A term also commonly used to refer to a paired (but offset) combination of two portions of spectrum used for mobile relay operation; whereby one portion of spectrum is used to transmit while the other portion is used to simultaneously receive.

CHANNEL LOADING --- The number of mobile transmitters authorized to operate on a particular channel within the same service area.

CO-CHANNEL --- Utilization of the same channel by two or more licensees.

CONVENOR --- The individual charged with organizing a Planning Region's initial meeting.

THE COMMISSION --- The Federal Communications Commission; also the FCC.

THE COMMITTEE --- The Illinois (Region 13) 800 MHz Regional Planning Committee.

COMMITTEE OF THE WHOLE --- All members present at a scheduled Regional Planning meeting.

COMMON CHANNELS --- The five channels specified in the National Plan which are reserved for mutual interagency communication; a Calling Channel and four Tactical Channels.

CONVENTIONAL OPERATION --- A method of operation in which one or more radio frequency channels are assigned to mobile and base stations but are not employed as a trunked group.

CROSS SYSTEM PATCH --- A means of linking disparate radio systems.

dB --- Prediction of a receiver input signal taking into account radio propagation at the particular frequency of interest.

40 dB --- The 40 dB contour locates the area within which a receiver will receive a desired 5.0 microvolt input signal (with a 90% reliability factor) as the appropriate frequency.

INTEROPERABILITY --- Communication between, or among, radio units of different agencies.

LOCAL FREQUENCY ADVISOR --- An APCO designated individual charged with managing spectrum usage within a state.

MDT --- Mobile Data Terminal; a field communications device used to transmit and receive data impulses over radio frequencies

MOBILE RELAY STATION --- A base station in the mobile service authorized to retransmit automatically on a mobile service frequency communications which originate on the transmitting frequency of the mobile station.

MUTUAL AID INCIDENT --- A situation posing a threat to the public safety which requires the services of agencies from differing jurisdictions or services.

NPSPAC --- National Public Safety Planning Advisory Committee.

THE PLAN --- The Public Safety Communications plan for Region 13.

PRIMARY DISPATCH CENTER --- A Public Safety Communications Center designated as a controller of the Common Channels.

RCRC --- The Regional Conformance Review Committee; a standing body of individuals charged with administering the Plan within the Region.

THE REGION --- The Illinois (region 13) 800 MHz Planning Region; ninety counties within Illinois.

REPEAT DISABLE --- The means of inhibiting Mobile Relay.

SIMRPC --- The Southern Lake Michigan Regional Planning Committee.

TACTICAL CHANNELS --- The four Common Channels on which interagency Communications will be conducted during a mutual aid incident.

TRUNKED OPERATION --- A method of operation in which a number of radio frequency channel pairs are assigned to mobile and base stations in the system for use as a trunk group.

VACATED FREQUENCIES --- Those frequencies returned for re-allocation.

8.

