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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 821-825 MHz and 866-870 MHz.

The commission issued an allocation order on September 19, 1986. Six megahertz of spectrum were selected in the 821-824 MHz and 866-869 MHz bands, since they were adjacent to frequencies already being used for public safety purposes. However, while the Commission made this allocation, 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.

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 compromise 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

COUNTY	Knox	CURRENT(1)	61,607
Adams Alexander		71,622 12,264	
Bond Brown		16,224 5,411 39,114	
Bureau		5,867	
Calhoun Carroll Cass Champaigne Christian		18,779 15,084 168,392 36,446 16,913	
Clark Clay		15,283 32,617	
Clinton Coles Crawford		52,260 20,818 11,062	
Cumberland		18,108	
DeWitt Douglas		19,774	
Douglas		21,725	
Edgar Edwards Effingham		7,961 30,944	
Fayette Ford Franklin Fulton		22,167 15,265 43,201 43,687	
Gallatin Greene		7,590 16,661	
Hamilton Hancock Hardin Henderson Henry		9,172 23,877 5,383 9,114 57,968	
		32,976	
Iroquois Jackson Jasper Jefferson Jersey JoDaviess Johnson		61,522 11,318 36,552 20,538 23,520 9,624	

<u>1995(2)</u>	34,688 16,199	31,501	9,129 49,624
65,985	15,067	21,786	10,021
11,016	35,427	14,336	31,453
11,010			31,433
4= 000	52,298	41,688	=0.004
15,626	20,291	34,069	58,331
5,153	10,459		10,854
35,914		7,718	39,821
	17,174	14,665	20,174
5,502	18,656	,	23,315
17,146	. 5,555	9,108	11,155
13,226	20,413	22,932	11,100
167,035			53,055
107,033	8,732	5,132	55,055
300E(3)	30 F36		
<u>2005(2)</u>	30,526		
62.402	E0.0E4		
63,183	59,951		
10,954	10,612		
	40,634		
15,611	20,034		
4,958	23,171		
34,525	11,687		
5,349	49,767		
16,563			
12,354			
171,641			
33,432			
15,910			
14,819			
35,921			
53,557			
19,746			
9,885			
16,776			
17,953			
,			
19,950			
9,066			
30,986			
30,300			
21,421			
14,001			
40,495			
30,560			
7.667			
7,667			
13,826			
0.002			
9,093			
22,426			
4,952			
9,064			
47,196			

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

COUNTY	CURRENT(1)	<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 19802025. 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 821-824/866-869 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.)

3. 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.

4. 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 officers 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:

5. Among the seven regions, the Southern Lake Michigan Region was the first to organize a planning committee.

- 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.
- 7. 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.

<u>AUTHORITY</u>

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 give 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:

- "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.
- "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 are 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 821-824/866-869 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.).
- 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 821-824 and 866-869 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 821-824/866-869 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 cochannel 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 <u>data only</u> 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 821-824/866-869 MHz bands.

INTEROPERABILITY WITH ADJACENT LOWER BANDS

There are several agencies in the Region currently operating on frequencies in the 806-821/851-866 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 rasio as an alternative to a trunked radio system must demonstrate that I can proved 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,

Sate 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 821-824 and 866-869 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.

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, alphanumeric 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

USAGE		Old FREQUENCY
Calling Channel	806.0125 MHz*	821.0125 MHz*
	851.0125 MHz**	866.0125 MHz**
Tactical Channel 1	806.5125 MHz*	821.5125 MHz *
	851.5125 MHz**	866.5125 MHz**
Tactical Channel 2	807.0125 MHz*	822.0125 MHz*
	852.0125 MHz**	867.0125 MHz**
Tactical Channel 3	807.5125 MHz*	822.5125 MHz*
	852.5125 MHz**	867.5215 MHz**
Tactical Channel 4	808.0125 MHz*	823.0125 MHz*
	853.0125 MHz**	868.0125 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)

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 821-824 and 866-869 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.

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 821-824 and 866-869 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

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.

Region 13 800 MHz Regional Planning Officials

Chairman:

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

Secretary:

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

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 Centenial 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

REGIONAL CONFORMANCE REVIEW COMMITTEE (RCRC)

Darrel R. Bartz Nelda Reifsteck Donald Williams Coordinator Region 13 Chairman Region 13 Secretary Illinois APCO Frequency

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 characteristics.

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

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 821-824 and 866-869 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

SECTION 1 General Information

Agency/Organization:	
2. Street Address:	
City:	
State/ZIP:	
3. Phone #: (area code)	
4. Contact Person:	
5. Title:	
6. Alternative Contact:	
7. Title:	
8. Type of Agency/Organization: [] Private	Governmental []
9.Type (s) of service: (Check all that apply)	
(A) [] Law Enforcement	(G) [] Fire fighting
(B) [] Emergency Medical Maintenance	(H) [] Highway
(C) [] Forestry/Conservation	(I) [] E.S.D.A.
(D) [] Beach Patrol	(J) [] Disaster Relief
(E) [] Handicapped Assistance	(K) [] School Bus
(F) [] Other:Please specify	(L) [] Veterinarian
10. Does your agency utilize a multi-agency	dispatch service?
(A) [] yes	(B) [] no
11. If your answer to question 10 was "yes", dispatch center:	please list the Name/Address/Phone # of the

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	
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 view service and
0.	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.

SECTION II CONTINUED

7.	What is the size of your service area?
	Square miles
0	What is the assument a confidence from a grand and 2
8.	What is the current population of your area?
9.	What is the population projected to be in the years
1995:	2005:

SECTION III FREQUENCY NEEDS

1.	Is your agency/organization's present radio system adequate to meet your current needs?							
	(A)	[] yes		(B)	[]	no
	Your 1	995 1	needs?					
	(A)	[] yes		(B)	[]	no
	Your 20	005 n	needs?					
	(A)	[] yes		(B)	[]	no
2.	Do you	have	e plans to alt	er your agency/	organi	zatio	on'	s radio systems in the future?
	(A)	[] yes		(B)	[]	no
3.	If you d	lo, p	lease give a b	orief description	of yo	ur pl	lan	s:
4.	an inab	ility	to acquire su		ectrun			e methods of dispatch because of aber of channels) for either
	(A) []	yes		(B)) [] no
5.	If yes, p	lease	e 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	, ple	ease explain:					
8.			n does your agency/organ				it Time" to a	ccess a
	(A)	[] Never.					
	(B)	[] Seldom. Less than onc	ee a w	eek.			
	(C)	[] Sometimes. More than	once	a w	eek.		
	(D)	[] Often. More than once	e per e	eigh	hour time pe	eriod.	
9.			on the average, how mang		e tra	nsmissions d	loes your	
10.	0. Estimate how many voice transmissions might occur during your agency/organization's busiest hour.							
11.	11. Estimate the average length of air time used per voice transmission.							
12.	2. Do you have any plans to expand your agency/organization's use of radio frequencies for DATA transmissions?							
	(A)	[] Yes	(B)	[] No		
13.			r agency/organization have private and secure radio				ce encryption	technology
	(A)	[] Yes	(B)	[] No		

14.	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 an	ease indicate the a	approximate number	: :		
Mobiles:			Portable	:	
	requencies (channe C license: (List 800			anization now holds	a
17. Is your a	gency/organization	presently lice	ensed on existing	800 MHz Channels	s?
(A) [] Yes	(B)	[] No		
If "yes",	list them:				
	gency/organization ncy/organization ha			0 MHz channels, do	es
(A) [] Yes	(B)	[] No		
19. Does you MHz sys		ion have a for	rmal plan on file	to construct an 800	
(A) [] Yes				
(B) [(Date)] Plan incomplete	. A copy wil	l be forwarded by	/	_
(C) [] No.				

20. Does your agency/organization have the funding available to proceed with implementing the system?								
(A) [] Yes	(B)	[] No (see next question)				

SECTION III (Continued)								
21. If "No", when do you anticip	pate funding will be available?							
(A) [] 12 months months	(B) [] 24 months	(C) [] 36						
(D) [] 48 months	(E) [] 60 months or n	nore						
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:								
Frequency	Frequency	Frequency						
24. What frequencies would you	ar agency/organization attempt	to retain? Be specific.						
Frequency	Projected Use							

Agency/Organization:

Agency/Organization:	
-	

SECTION III (Continued)

			(Conti	nued)		
25.	5. 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 80	0 MH	z spo	ectrum
	(B)	[] Additional channels in your c	urrent	spe	ctrum.
26.	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.	Pleas	e lis	t any other agencies/organization	ns witl	h wł	nom your agency/organization

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 EQUIPM				
For the following, please owns or operates now, an		-	ır agency/organiz	ation	
	Now	1995	2005		
Mobile radios					
Voice encryption mobiles	s				
Portable (handheld) radios	S				
**Voice encryption portab	oles				
Mobile computer terminal	ls				
Automatic vehicle locator	·s				

Radio Control links

Vehicular Repeaters

Other (describe)

Transmitters/repeaters

Radio alarm/control systems

Agency/Organization:					
	ECTION 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

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

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

Illinois Municipal League 500 East Capitol Springfield, Illinois 62706

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

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

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

Illinois Hospital Association 700 South Second Street Springfield, Illinois 62704

Illinois State Veterinary Medical Assoc. 921 North Lake Street Aurora, Illinois 60506 Illinois Fire Chief's Association P.O. Box 7 Skokie, Illinois 60076

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

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

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

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

IOWA REGION CHAIRMAN

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

KENTUCKY REGION CHAIRMAN

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

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. Kottlowski 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

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

3. 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

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.

- 3. Service area:
 - (a) Urban: 56(b) Suburban: 135(c) Open: 61

(d) Quasi Open: 94 Did 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

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

4. Have had to use an alternative method of dispatch because of spectrum unavailability.

Yes: 44 No: 206 Did not answer: 4

3. Have had to borrow, share, or lease radio frequencies.

Yes: 55 No: 197 Did not answer: 3

4. 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

5. 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

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: 2 501 to 1,000: 3 More than 1.000: Did not answer:

6. 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 2 51 to 55 seconds: 56 to 60 seconds: 24 More than 60 seconds: 31 Did not answer: 25

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

Yes: 49 No: 195 Did not answer: 11

8. Have plans to use voice encryption technology.

Yes: 42 No: 202 Did not answer: 11

9. Plans to incorporate "Telephone Interconnects" into their radio system.

Yes: 50 No: 193 Did not answer: 12

10. Number of units to be equipped with telephone interconnects.

Mobiles: 514 Portable: 607

17. Agencies currently licensed on 800 MHz channels.							
Yes: 6 No: 235 Did not answer: 14							
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

6

17

UHF:

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:

(C) 150 to 160 MHz: 103 (D)

(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 (Δ)+(D): 3

(A)+(D): 3

(B)+(C): 7 (B)+(D): 1

(C)+(D): 12

SECTION 4

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

	Now	<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.

	Now	<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

RESPONDING AGENCIES

COUNTY/AGENCY CITY/TOWN

ADAMS

Quincy Police Department Quincy Adams County 9-1-1 Center Quincy

ALEXANDER

Alexander County Sheriff's Department Cairo
Cairo Fire Department Cairo

BOND

Greenville Police Department Greenville

BROWN

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

CARROLL

Lake Carroll P.O.A. (Security)

Krahn Transit

Thomson
Savanna Community Ambulance

Savanna

Association

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

CASS

Cass County Sheriff's Department Virginia

CHAMPAIGN

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

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

<u>EDGAR</u>

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

FORD (cont.) Gibson City Gibson City Police Department Paxton Ford-Biaer Ambulance Service Caberv Rogers Township Paxton City of Paxton Gibson City Gibson City Veterinarian Clinic Piper City Ford Central Community School Paxton **Button Township** Paxton Patton Township Roberts Ford County Highway Department Gibson City Ford County Coroner Sibley Melvin-Sibley Unit School Paxton Paxton Community School Piper City Piper City Veterinarian Clinic Gibson City Gibson City Area Ambulance Service Piper City Pella Township Paxton

Paxton ESDA

FRANKLIN

Benton Police Department
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

HANCOCK

Hamilton Police Department Hamilton

HARDIN

Hardin County Sheriff's Department Elizabethtown

HENRY

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

JACKSON

Carbondale Police Department Carbondale Carbondale Fire Department Carbondale

JACKSON (continued)

City of Carbondale ESDA Carbondale
Grand Tower Police Department Grand Tower

JASPER

Jasper County Sheriff Department Newton

JERSEY

Jersey-Calhoun Veterinarian Clinic Jerseyville
Jerseyville Police Department Jerseyville

JO DAVIESS

Galena Police Department

Jo Daviess County Sheriff's Department

Jo Daviess County ESDA

Galena

Galena

JOHNSON

Johnson County Ambulance Vienna

KNOX

Abingdon Police Department Abingdon

LA SALLE

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

<u>LEE</u>

Dixon Fire Department

Lee County Highway Department

Dixon

Dixon Police Department

Dixon

Lee County ESDA

Dixon

Of Lee and Ogle Counties

LIVINGSTON

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

LOGAN

Lincoln Fire Department

Logan County Sheriff's Department

Lincoln

Lincoln/Logan County ESDA

Lincoln

Lincoln Police Department

Lincoln

McDONOUGH

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

McLEAN

McLean County Sheriff's DepartmentBloomingtonMcLean County ESDABloomingtonBloomington Police DepartmentBloomingtonBloomington Fire/ESDABloomingtonNormal Police DepartmentNormalNormal Fire DepartmentNormalIllinois State UniversityNormal

MACON

Mt. Zion Police Department Mt. Zion

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

MASON

Mason County ESDA Havana

MASSAC

Massac County Sheriff's DepartmentMetropolisMetropolis Police DepartmentMetropolisMassac County ESDAMetropolis

MENARD

Petersburg Police Department Petersburg

MONROE Monroe County ESDA

MONTGOMERY Waterloo

Montgomery County ESDANokomis Police

Department

Litchfield City Police Department Hillsboro Nokomis

MORGAN Litchfield

Jacksonville Police Department

South Jacksonville Police Department

Jacksonville

MOULTRIE South Jacksonville

Moultrie County Sheriff's Department

Sullivan Police Department

Arthur Police Department
Sullivan
PEORIA
Arthur

Peoria County ESDA

Peoria County Highway Department

City of Peoria Brimfield

Mobile Medic Ambulance Peoria

B.Y.E. Ambulance Service Inc. Peoria

Princeville Unit School Peoria

Peoria Heights Community Unit School Elmwood

Brimfield School District Princeville

The Salvation Army Peoria Heights

Brimfield Peoria

Perry County ESDA

PERRY

<u>PIATT</u> Pinckneyville

Piatt County ESDA

Monticello Police Department

Monticello PIKE Monticelle

Perry Police Department

POPE Perry

Pope County ESDA

Golconda Police Department

PULASKI Golconda

Pulaski County Sheriff's Department

RANDOLPH Mound City

Randolph County Sheriff's Department

Randolph County ESDA

Sparta Police Department Chester
Red Bud Police Department Chester

Sparta Red Bud

RICHLAND

Olney Police Department

ROCK ISLAND

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

ST. CLAIR

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

SALINE

Harrisburg Police Department City of Eldorado

SANGAMON

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

STATE

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

Management

Olney

Rock Island Milan East Moline Silvis Coal Valley Moline Milan

Belleville Belleville O'Fallon Dupa Belleville New Athens Centerville Cahokia

Harrisburg Eldorado

Springfield
Springfield
Springfield
Springfield
New Berlin
New Berlin
Pawnee
Pawnee
Riverton
Springfield
Divernon
Chatham
Springfield
Mechanicsburg
Springfield

Springfield Springfield Springfield Springfield Springfield

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

TAZEWELL

Creve Coeur Police Department

Morton Police Department

Washington Police Department

South Pekin Police Department

Washington

South Pekin Police Department

Washington

South Pekin

South Pekin

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

<u>WAYNE</u>

Wayne County ESDA

Fairfield

WHITE

Grayville Police Department

Grayville

WHITESIDE

Whiteside County Sheriff's Department

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

WHITE

Veterinarian Clinic Phrophetstown
North Locust Animal Hospital Sterling
American Red Cross Rock Falls
Illinois State Toll Highway Auth. Oak Brook

WILLIAMSON

Williamson County ESDACarterville Police Marion
Department Carterville
Hurst Police Department Hurst

WOODFORD

Woodford County Sheriff's Department Eureka
Metamora Police Department Metamora

COUNTIES NOT SUBMITTING RESPONSES

Cumberland
Fayette
Hamilton
Henderson
Iroquois
Jefferson
Lawrence
Mercer
Ogle
Putnam
Scott
Stark
Wabash
Washington
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

Calhoun

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 Sherin's De

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 ESDAMassac 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

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 Jersev-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

ONE CITY/TOWN/REGION

Quincy Police Department Cairo Fire Department

Mt. Sterling Police Department Cherry Police Department Spring Valley Police Department

Walnut Police Department
Tiskilwa Police Department
Lake Carroll P.O.A. (Security)

Krahn Transit

Savanna Police Department

City of Urbana

Champaign Fire Department Mahomet Police Department Tolono Police Department

University of Illinois Willard Airport

Casey Police Department Flora Police Department Aviston Police Department

Charleston ESDA

Charleston Police Department
Mattoon Fire Department
Oblong Police Department
West Salem Police Department
Effingham Police Department
Effingham Fire Department
Gibson City Police Department

City of Paxton Button Township Pella Township Paxton ESDA

Benton Police Department
Orient Police Department
West Frankfort Fire Department
London Mills Police Department
Canton Police Department
Roodhouse Police Department
Hamilton Police Department
Galva Police Department
Kewanee Fire Department
Kewanee Police Department
Cambridge Police Department
Carbondale Fire Department

Grand Tower Police Department Galena Police Department

City of Carbondale ESDA

Hurst Police Department

Abingdon Police Department Streator Police Department

Streator ESDA

Seneca Police Department
Dixon Fire Department
Dixon Police Department
Pontiac Police Department
Pontiac Fire Department
Lincoln/Logan County ESDA
Lincoln Police Department
Macomb Police Department
Bloomington Police Department
Bloomington Fire Department/ESDA

Normal Police Department
Normal Fire Department
Illinois State University
Mt. Zion Police Department
Glen Carbon Police Department
City of Alton Police Department
Granite City Police Department

City of Madison Collinsville ESDA

Salem Police Department
Henry Police Department
Metropolis Police Department
Petersburg Police Department
Nokomis Police Department
Litchfield Police Department
Sullivan Police Department
Arthur Police Department
Princeville Unit School

Peoria Heights Community Unit School

Monticello Police Department Perry Police Department Sparta Police Department Red Bud Police Department Olney Police Department East Moline Police Department

Moline Fire Department

Coal Valley Police Department Milan Police Department O'Fallon Police Department

Village of Dupo

New Athens Police Department Centreville Police Department Harrisburg Police Department

City of Springfield, Office of Public Safety

New Berlin 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

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

REGION 13 POPULATION TRENDS BY COUNTY

COUNTY	CURRENT(1)	<u>1995(2)</u>	2005(2)
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 Carroll Cass Champaign Christian Clark Clay Clinton Coles Crawford Cumberland	5,867	5,502	5,349
	18,779	17,146	16,563
	15,084	13,226	12,354
	168,392	167,035	171,641
	36,446	34,688	33,432
	16,913	16,199	15,910
	15,283	15,067	14,819
	32,617	35,427	35,921
	52,260	52,298	53,557
	20,818	20,291	19,746
	11,062	10,459	9,885
De Witt	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 Jasper Jefferson Jersey Jo Daviess Johnson	61,522	58,331	59,951
	11,318	10,854	10,612
	36,552	39,821	40,634
	20,538	20,174	20,034
	23,520	23,315	23,171
	9,624	11,155	11,687
Knox	61,607	53,055	49,767

La Salle	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
Wolcan	110,140	100,010	100,070
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
- 3	-,	-,	-,
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		162,392	161,143
ROCK ISIATIU	165,968	102,392	101,143
Ct Clair	007 504	000 004	267.006
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
Tanaviall	422.070	100 170	444 700
Tazewell	132,078	120,170	114,736

Union	17,765	18,263	18,185
Vermilion	95,222	87,917	83,971
Wabash Warren	13,713 21,943	14,361 19,637	14,488 19,030
Washington	15,472	14,889	14,573
Wayne White	18,059 17,864	18,795 18,292	18,890 18,363
Whiteside Williamson	65,970 56,538	60,577 59,346	57,734 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

CURRENT POPULATION ESTIMATES

COUNTY/AGENCY	CURRENT(1)	<u>1995 (1)</u>	2005 (1)
ADAMS Quincy Police Dept. Adams 9-1-1	42,352 67,700	43,000	45,000
ALEXANDER Alexander County	12,500	13,000	13,800
>>>Sheriff's Office Cairo Fire Dept.	6,500		
BOND Greeneville Police	15,000	20,000	22,000
BROWN Mt. Sterling Police	2,500		
<u>BUREAU</u> Bureau County	39,143	45,000	55,000
>>>ESDA	550	699	700
Cherry Police Dept.	5,800		
Spring Valley Police Walnut Police Dept. Tiskilwa Police	1,535 1,100	1,100	1,100
CARROLL	200	350	500
Lake Carroll POA	4,000	4,500	5,000
Krahn Transit	5,000	5,000	5,000
Savanna Comm.			
>>>Ambulance Mt. Carroll			
>>>Veterinarian	5,000		
Savanna Fire Dept.	18,779		
Carroll County	0.000		
>>>Highway Ritchie Service	6,000	4 500	4,500
Savanna Police	4,500 18,779	4,500 18,000	4,500 19,000
Carroll County	10,779	10,000	19,000
>>>ESDA	20,000		
Milledgeville			
>>>Veterinarian			
CASS Cass County >>>Sheriff's Dept.	15,000	15,000	15,000

CHAMDAICN			
CHAMPAIGN Champaign Fire >>>Dept.	60,000	63,000	74,000
Champaign County >>>Sheriff's Dept.	178,000	185,000	200,000
City of Urbana Mahomet Police	38,000 2,400	39,000	41,000
University of Illinois University of Illinois	100,000 250	110,000 250	120,000 250
>>>Willard Airport Tolono Police Dept. Ogden Police Dept.	2,425 818	2,425 918	2,425 1,100
CHRISTIAN Christian County >>>ESDA	36,500	38,000	40,000
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 >>>Sheriff's Dept.	17,000	15,500	16,000
Flora Police Dept.	5,300	6,000	8,500
CLINTON Aviston Police Dent	1.000	1.050	1 100
Aviston Police Dept. Trenton Police	1,000 2,504	1,050 2,700	1,100 3,000
COLES Charleston ESDA	10 500		
Charleston Fire >>>Dept.	19,500 19,500		
Charleston Police >>>Dept.	19,900		
Mattoon Fire Dept.	20,000		
CRAWFORD Crawford County >>>Sheriff's Office	20,818		
Oblong Police Dept. Crawford County >>>ESDA	1,900 22,200	1,900 23,000	1,900 25,000
CUMBERLAND			
<u>DE WITT</u>			
De Witt Sheriff's >>>Office	18,500		
De Witt/Clinton >>>ESDA	18,108	18,000	

DOUGLAS			
Douglas County >>>Sheriff's Office	19,525	20,500	
Villa Grove Police	3,000	3,000	3,000
<u>EDGAR</u>			
Edgar Sheriff's >>>Office	21,000	22,000	24,000
<u>EDWARDS</u>			
West Salem Police	1,200		
<u>EFFINGHAM</u>			
Effingham Sheriff's >>>Office	32,000	34,500	37,000
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	000	000	000
Rogers Township	600	600	600
City of Paxton	4,400	4,400	4,400
Gibson Veterinarian			
>>>Clinic Ford Central School	2,000	2,000	
	2,000 350	2,000 300	300
Button Township Patton Township	15,800	15,600	15,400
Ford County	15,800	15,400	15,400
>>>Highway Dept.	13,000	13,400	13,400
Ford County	16,000	16,000	16,000
>>>Coroner	10,000	10,000	10,000
Melvin-Sibley	2,100	2,000	
>>>School	0.000		
Paxton Schools	6,000		
Piper City Vet.			
>>>Clinic	7,000		
Gibson City >>>Ambulance	7,000		
Pella Township	170	170	150
Paxton ESDA	4,500	5,000	5,000
Faxion LodA	4,500	3,000	3,000
<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 Canton Police Dept.	550 15,000	600 18,000	650 20,000
GALLATIN Gallatin Sheriff's >>>Office Gallatin County	7,200 8,000	10,000	 15,000
>>>ESDA	0,000	10,000	10,000
GREENE Roodhouse Police >>>Dept.	2,400	2,400	2,400
<u>HAMILTON</u>			
HANCOCK Hamilton Police Dept	3,500	3,501	3,600
HARDIN Hardin Sheriff's >>>Office	5,000	5,500	6,000
<u>HENDERSON</u>			
HENRY Galva Police Kewanee Fire Dept. Kewanee Police Cambridge Police Henry County ESDA Henry County >>>Sheriff's Office	4,000 14,000 14,500 2,000 58,200 57,000	4,000 2,000 59,000 57,000	4,000
<u>IROQUOIS</u>			
JACKSON Carbondale Police Carbondale Fire >>>Dept. Carbondale ESDA	27,000 26,000 26,000	28,000 30,000	30,000 36,000
Hurst Police Dept. Grand Tower Police	950 2,000	27,485 1,000	28,000
JASPER Jasper County >>>Sheriff's Office	11,500	12,000	1,000
<u>JEFFERSON</u>			

<u>JERSEY</u> Jersey-Calhoun Vet. Jersey Police Dept.	20,000 7,506	 	
JO DAVIESS Galena Police Dept. Jo Daviess County >>>Sheriff's Office Jo Daviess County	4,000 24,000	4,500 25,500	5,000 28,000
>>>ESDA	24,000	25,500	28,000
JOHNSON Johnson Ambulance	10,820	11,900	12,440
KNOX Abingdon Police >>>Department	4,200	4,500	4,900
LA SALLE Streator Police Streator ESDA Seneca Police Dept.	16,000 14,500	 	
<u>LAWRENCE</u>	2,100	2,800	5,000
LEE Dixon Fire Dept. Dixon Police Dept. Lee County >>>Highway Dept. Lee County ESDA Dixon Vet. Clinic Dixon Lee & Ogle >>>Fire Department	15,000 16,000 38,000 36,328 100,000 15,000	 38,000 25,000	 38,000 15,000
<u>LIVINGSTON</u> Pontiac Police Dept.	12,500	14,000	16,000
Pontiac Fire Dept. Livingston County	14,500 48,000	15,000 53,000	57,500
>>>Sheriff's Office Livingston County >>>ESDA	48,000	53,000	57,500
LOGAN Lincoln Fire Dept. Logan County >>>Sheriff's Dept. Lincoln/Logan ESDA Lincoln Police Dept.	25,000 32,000 36,000 16,500	25,000 40,000 17,500	30,000 45,000 19,000
MCDONOUGH McDonough County	40,000	40,000	40,000
>>>Sheriff's Office Macomb ESDA Macomb Police Dept.	37,300 20,500	40,000 21,000	44,100

MCLEAN McLean County	405 700		
>>>Sheriff's Office McLean County	125,700	135,000	
>>>ESDA	125,000		145,000
Bloomington Police	48,000	135,000	150,000
Bloomington >>>Fire/ESDA	50,000	50,000	150,000
Normal Police		51,000	60,000
Normal Fire Dept.	40,000	4E 000	55,000
Illinois State >>>University	40,000 150,000	45,000 50,000	50,000
•	,		55,000
MACON Mt. Zian Dalias Dant			
Mt. Zion Police Dept.	5,000		
MACOUPIN	0,000	5,050	
Macoupin County			6,500
>>>Govt. Staunton Police	50,000	55,000	
Stauritori Folice	5,000	33,000	60,000
<u>MADISON</u>	-,	5,200	,
Glen Carbon Police	0.000		
Wood River Police Edwardsville Police	8,000 22,000	16,000	
Hartford Police	13,911	23,000	18,000
Alton Police	1,900	14,500	25,000
Granite City Police	34,500	40.000	15,500
Granite City Fire >>>Dept.	36,500 36,500	40,000 40,000	 40,500
City of Madison	33,333		45,000
Collinsville ESDA	7,000		
Highland Police	21,000 15,000	7,500	8,000
MARION	13,000	16,000	
Centralia Police		,	17,500
Salem Police Dept.	20,000	20.000	
MARSHALL	8,000	20,000 10,000	20,000
Henry Police Dept.		. 5,555	12,000
	2,750		
MASON Mason County ESDA			
Mason County LODA	18,000		
MASSAC	,	20,000	
Massac County	44.000		21,000
>>>Sheriff's Office Metropolis Police	14,990	17,000	
Massac County	8,000	,555	19,500
>>>ESDA	14,990		
<u>MENARD</u>			
Petersburg Police			
-	2,500		
<u>MERCER</u>		2,600	

2,700			
MONROE			
Monroe County			
>>>ESDA	20,000		
LODA	20,000	20,600	
MONITOOMEDY		20,600	21.000
MONTGOMERY			21,000
Montgomery County			
>>>ESDA	31,686		
Nokomis Police			
Litchfield Police	2,700		
	7,000	2,700	
<u>MORGAN</u>	,		2,700
Jacksonville Police			
South Jacksonville	24,000		
>>>Police Dept.	3,500	2 000	
		3,800	
<u>MOULTRIE</u>			4,000
Moultrie County			
>>>Sheriff's Office	14,500		
Sullivan Police		15,000	
Arthur Police Dept.	6,000	,	20,000
'	2,200	6,500	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
<u>OGLE</u>	2,200		7,000
OOLL			7,000
DEODIA			
PEORIA Porto FORA			
Peoria ESDA			
Peoria Highway	201,000		
>>>Dept.	200,466	205,000	
City of Peoria		204,475	215,000
Mobile Medic	120,000		208,564
>>>Ambulance	425,000		•
B.Y.E. Ambulance	,	425,000	
Princeville School	20,000	120,000	425,000
			423,000
Peoria Heights	4,000	00 000	
>>>School	8,500	20,000	00.000
Brimfield School		4,000	20,000
The Salvation Army	6,500	8,500	4,000
	200,466	6,600	8,500
<u>PERRY</u>		180,623	7,000
Perry County ESDA			
	210,714		
PIATT	_,,,,,,	210,714	
Piatt County ESDA		210,711	
Trait County LODA	16,500		
DIKE	10,500	40.500	
PIKE D		16,500	
Perry Police Dept.			
	800		
<u>POPE</u>		800	
Pope County ESDA			800
Golconda Police	4,640		
	950	6,000	
DIII VOKI	300		6,200
PULASKI Bulgaldi Cauptu		1,200	
Pulaski County	0.040		1,500
>>>Sheriff's Office	8,840	0.000	
		8,288	
<u>PUTNAM</u>			8,343

RANDOLPH_			1,650
Randolph County			
>>>Sheriff's Office	35,600		
Randolph County			
>>>ESDA	35,566		
Sparta Police			
Red Bud Police	5,000		
	3,000	5,100	
RICHLAND		3,500	6,000
Olney Police Dept.			3,700
	9,800		
ROCK ISLAND			
Rock Island			
>>>Sheriff's Office	165,968		
Rock Island County		178,700	
>>>ESDA	166,759		187,000
East Moline Police			
Silvis Police	21,000		
Moline Fire Dept.	19,350	21,750	
Coal Valley Police	45,000	21,000	22,000
Milan Police Dept.	3,800	45,000	29,000
	8,000	3,900	47,000
ST. CLAIRSt. Clair		9,000	4,000
Sheriff			10,000
St. Clair County	400,000		
>>>ESDA	256,000		
O'Fallen Police		270,000	
Village of Dupo	15,000	,	285,000
Belleville Fire Dept.	3,000	16,500	,
New Athens Police	42,350	4,000	20,000
Centerville Police	1,900	45,000	6,500
Cahokia Police	9,000	2,400	60,000
	18,200	9,500	3,000
<u>SALINE</u>	10,200		10,500
Harrisburg Police			
City of Eldorado	10,200		
,	5,198		
<u>SANGAMON</u>	5,155		
Sangamon County			
>>>Highway Dept.	160,000		
Sangamon County		175,000	
>>>ESDA	182,000	,	200,000
Office of Public	. 52,555	190,000	_00,000
>>>Safety	120,000		200,000
Doctors Hospital	120,000	125,000	200,000
New Berlin Police	200,000	120,000	130,000
New Berlin Fire	832	225,000	100,000
>>>Department	2,000	900	250,000
Sangamon State	2,000		1,000
>>>University	4,000		1,000
Pawnee Police	4,000		
	2 600		
Pawnee Fire Dept.	2,600	3 000	
Riverton Police	3,700	3,000	2 500
Village of Jerome	3,000	4,000	3,500
>>>Police	1,700		4,500

Divernon Police	1,500	2,000
Chatham Police	6,800	10,000
Southern View	2,200	2,500
>>>Police Dept.	_,,	_,
Mechanicsburg Fire	1,550	1,750
>>>Department	1,000	1,700
2 2 Bopartmont		
SCHUYLER		
Schuyler County	8,350	
>>>Sheriff's Office	0,550	
Sileili s Ollice		
<u>SCOTT</u>		
<u>50011</u>		
WOODFORD		
Woodford County	33,320	
>>>Sheriff's Office	33,320	
Metamora Police	2,500	2,800
Metamora Folice	2,300	2,000
STATE		
Illinois State Police	Statewide	
Illinois ESDA	Statewide	
State of Illinois		
	Statewide	
Illinois Department	Statewide	
>>of Transportation	Ctatawida	
Illinois Dept. of	Statewide	
>>>Conservation	Otatania	
Secretary of State	Statewide	

3,000 2,500

2,150

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-- -- --

3,100

^{1 –} ALL totals are from the radio user survey.

** -- They service Lee, Ogle, and Whiteside counties.

CURRENT 800 MHz LICENSEES

AGENCIES	CITY/TOWN
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

PENDING 800 MHz APPLICATIONS

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

800 MHz SYSTEM PLAN FILED

AGENCY

The Salvation Army
Peoria
Union County Sheriff's Office

PLAN INCOMPLETE

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

HAVE FUNDS NOW

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

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 Normal Police Department Hillsboro Montgomery County ESDA Springfield/Sangamon County ESDA Springfield Metamora Police Department Metamora

NEED 1 TO 4 ADDITIONAL 800 MHz FREQUENCIES NOW

AGENCY CITY/TOWN 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

PREFER ADDITIONAL 800 MHz OVER CURRENT SPECTRUM

AGENCIES CITY/TOWN

Cass County Sheriff's Office Champaign Fire Department

City of Urbana
University of Illinois
Tolono Police Department
Trenton Police Department
De Witt County Sheriff's Office
Edgar County Sheriff's Office
Ford County Sheriff's Office
Ford County ESDA

Roodhouse Police Department Grand Tower Police Department Jerseyville Police Department Abingdon Police Department Streator Police Department Streator ESDA

Dixon Veterinarian Hospital PC Livingston County Sheriff's Office

Livingston County ESDA
McLean County Sheriff's Office
Bloomington Police Department
Nokomis Police Department
Mobile Medic Ambulance
Golconda Police Department
Rock Island County Sheriff's Office

Silvis Police Department Moline Fire Department Coal Valley Police Department

Village of Dupo

Belleville Fire Department Centreville Police Department Harrisburg Police Department

City of Springfield, Office of Public Safety Village of Jerome Police Department

Divernon Police Department
Chatham Police Department
Freeport Police Department
Orangeville Animal Health Service
Creve Coeur Police Department
Union County Sheriff's Office
Henning Police Department

Illinois State Toll Highway Authority

Williamson County ESDA

Secretary of State, Dept. of Police

Virginia
Champaign
Urbana
Champaign
Tolono
Trenton
Clinton
Paris
Paxton
Paxton
Roodbouse

Roodhouse **Grand Tower** Jerseyville Abingdon Streator Streator Dixon **Pontiac** Pontiac Bloomington Bloomington Nokomis Peoria Golconda Rock Island Silvis Moline

Coal Valley Dupo Belleville Centreville Harrisburg Springfield Sprinafield Divernon Chatham Freeport Orangeville Creve Coeur Jonesboro Henning Oak Brook Marion Springfield

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.

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. Kottlowski, 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. Kottlowski Chairman Region 14

STATE OF IOWA

GLS: mcc

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

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:

National Executive Council John Lewis RR #2 Box 178A Linn, Mo. 65051 (314) 751-3747 existing 800 MHz frequencies that my be impacted by the plan.

I have reviewed the Region 13 800 MHz plan. Because

chairman, I cannot offer any concerns or comments; I can

only assume that the CET packing program accounts for

our region is not presently active and does not have a

State Frequency Advisor Michael Gray State Bureau of E.M.S. P.O. Box 570 Jefferson City, Mo. 65102 (314) 751-6356 I have no choice but to concur with the Region B 800 MHz plan.

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 821-824/866-869 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

INITIAL SPECTRUM ALLOCATION

FREQUENCY SORTING METHODOLGY

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 form 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 that the maximum size of the combining block, then a new compatible block is created.

Each other 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 806-821/852-866 MHz spectrum who plan to expand existing systems into the 821-824/866-869 MHz bans. 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 821-824/866-869 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 cochannel 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

	7.	Select Parameters			
_	Combi	ner spacing			
_	Maximum spectrum to be used				
	Number of iterations allowed				
-	Protec	tion ratios for co-channel and adjacent channels			
	5.	Computer determines an ERP/Antenna Height combination which places the 40dB point at the range specified, in the environment specified, for each system.			
	6.	Computer calculates distances between all possible combinations of single site, and multiple site, systems.			
	7.	The computer uses its in put tables to determine compatible assignments such that the signal strength at a co-channel assignee's boundary is < +5dB, and the signal strength at an adjacent channel assignee's boundary is <+25dB.			
	8.	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.			
	9.	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.

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 821-824 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.