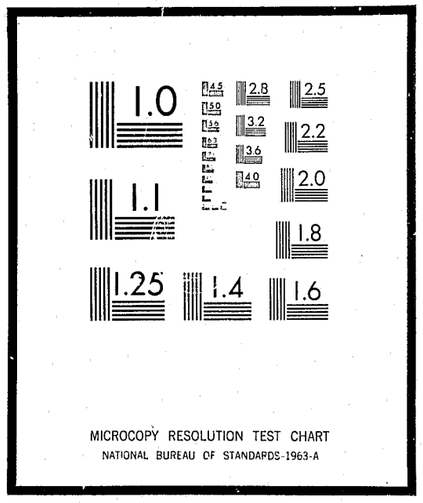

MICROCOPY RESOLUTION TEST CHART
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PRODUCT OF PROJECT 13

EXECUTIVE SUMMARY

By

Donal D. Kavanagh

Project Director

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LAW ENFORCEMENT ASSISTANCE ADMINISTRATION
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BACKGROUND

On May 6, 1974, the Law Enforcement Assistance Administration (LEAA) of the U.S. Department of Justice issued a grant in the amount of $592,994 to the Associated Public-Safety Communications Officers, Inc. (APCO) to perform a review and assessment of the Law Enforcement Telecommunications Planning activities conducted by the LEAA funded State Planning Agencies of the 50 states and the District of Columbia. This project was known as "Project 13." A second objective of this grant was the development of a set of planning guidelines for use by local-level law enforcement personnel engaged in planning for law enforcement telecommunications systems.

The development of the State Planning Agency (SPA) concept under the "Omnibus Crime Control Act of 1968" (hereafter called "the Act") and the resulting mandated statewide comprehensive law enforcement plans have had great impact on APCO members. This membership, professionally associated with the law enforcement telecommunications field for over 40 years, has been greatly affected by the SPA developed telecommunications planning and closely involved in the implementation of these plans. It was, therefore, an extremely rational decision that selected APCO as the agency to conduct such a review.

INTRODUCTION

In 1968, the Congress of the United States passed and the President signed Public Law 90-315, entitled the "Omnibus Crime Control and Safe Streets Act of 1968", hereinafter referred to as "the Act." In this Act, the Congress stated that its policy was "to assist the state and local governments in strengthening and improving law enforcement at every level by national assistance."

This Act, in addition to other provisions, specifically:

a. Established, within the Department of Justice, a Law Enforcement Assistance Administration (LEAA) to administer the provisions of the Act.

b. Provided funds for grants to the states for the establishment and operation of State Planning Agencies (SPA) for the preparation, development and revision of State Comprehensive Law Enforcement plans. The Act specified the scope and content of these plans to be developed by the SPA's. It stated that the plans would, among other things:

"adequately take into account the needs and requests of the units of general and local government in the state and encourage local initiative in the development of programs and projects for improvements in law enforcement, and provide for an appropriately balanced allocation of funds between the state and the units of general local governments..." (Part B, Section 303(3))

"incorporate innovations and advanced techniques and contain a comprehensive outline of priorities for the improvement and coordination of all aspects of law enforcement dealt with in the plan, including descriptions of (a) general needs and problems; (b) existing systems; (c) available resources; (d) organizational systems and administrative machinery for implementing the plan; (e) the direction, scope and general type of improvements to be made in the future; and (f) to the extent appropriate, the

relationship of the plan to other relevant state or local law enforcement plans and systems." (Part B, Section 303 (4))

"Provide for effective utilization of existing facilities and permit and encourage units of general local government to combine or provide for cooperative arrangements with respect to services, facilities and equipment." (Part B, Section 303 (5))

"demonstrate the willingness of the states and units of the general local government to assume the costs of improvements funded under this part..." (Part B, Section 303 (8))

"Set forth policies and procedures designed to ensure that Federal funds made available under this title will be so used as not to supplant state or local funds but to increase the amounts of such funds that would, in the absence of such Federal funds, be made available for law enforcement." (Part B, Section 303 (10))

The Act further provided that "The Administration shall make grants under this title to a State Planning Agency if such agency has on file with the Administration, an approved comprehensive state plan (not more than one year in age) which conforms with the purposes and requirements of this title." (sic) (Part B, Section 303)

Since the inception of this Act, the LEAA has allocated funds to the SPA's, prorated on a population basis, for the implementation of Law Enforcement plans. These funds are referred to as "Block Grant Funds" or "Part C funds".

As the law enforcement agencies increased their sophistication due, in many cases, to the effective implementation of the policies of the LEAA, their dependence upon modern, high speed, integrated, wide area telecommunications systems increased. During the same period, this growing dependency was more than matched by rapid evolution in the capabilities that technological developments were permitting.

These evolutionary trends resulted in a greatly increased role for telecommunications in the law enforcement field. The basic efficiency and performance of law enforcement agencies became keyed to the speed, accuracy and comprehensiveness of its communications. Funding for modern communications systems began to consume an ever increasing share of the law enforcement budget. Although these funds represented but a fraction of the overall law enforcement expenditures, the complexity of their conception often made their development and implementation an art unfamiliar to the law enforcement profession. The technological options available often made the simple bid process of procurement impractical, with the resulting increase in procurement complexities. The role of Federal regulation in the allocation of frequencies and the mandatory needs for adjacent area coordination generated new motivations for cooperation.

With these managerial problems came operational opportunities. Highly reliable, sophisticated control and command equipment offered the opportunity for consolidation and cooperation between adjacent jurisdictions. This offered the possibilities for increased law enforcement capabilities in these areas at the same or lower cost.

The development of automated information handling systems put the technological capability for instantaneous records search at the fingertips of the patrol officer. Machine-assisted dispatch systems provided resource allocation and control capabilities unthought of only years ago.

Successful exploitation of these capabilities and the solutions to the attendent problems are both contingent upon the accuracy and the comprehensiveness with which the systems are planned for and implemented.

The modernization of the nation's law enforcement agencies that has been stimulated by the Act has imposed increasing dependence upon new technologies, particularly in the field of telecommunications. This reliance upon more complex, higher speed and wider area communications systems has brought with it new sets of problems.

Telecommunications are, by their nature, complex technological systems. The engineering, system design, integration and procedural skills needed to implement and operate such systems are highly specialized and not routinely inherent in the criminal justice profession.

These systems follow physical laws, not political boundaries; therefore, systems design and operation cannot be effected unilaterially. Interagency cooperation requires interagency planning. Technical oversights or undisciplined operation within one system can cause destructive interference in another. Failure to properly plan a system can result in its technological isolation and the inability to reap the benefits of wide-area information flow and interagency communications.

Recognizing the role of telecommunications in the modern law enforcement environment, the LEAA, when charged by Congress with the responsibility for administration of the Act, chose APCO to assess the present status of telecommunications planning by the SPA's and to develop guidelines for the assistance of those at the municipal, county and state level involved in the development of telecommunications plans.

PROJECT MANAGEMENT

The management and excution of a project of this scope relied upon a time-tested and proven procedures used by APCO in many of its other project series. Because of the breadth of skills represented by its membership and their geographic dispersion, full use of APCO's abilities is best accomplished by selecting members with outstanding qualifications in the various disciplines needed and assigning them to working task groups. These voluntary task group members met periodically throughout the project to contribute to the end product during its various phases of development.

The specific approach used in Project 13 was to have the consulting contractor, Booz, Allen and Hamilton,Inc. develop drafts of the various deliverable documents. These drafts were provided to the task group members several weeks before task group meetings. After this individual pre-meeting review, the task groups met with the contractor and provided inputs to the final documents, both from an overall standpoint and on a page-by-page basis.

APCO established three task groups to accomplish Project 13. Task Group I was comprised of the Board of Officers of APCO. It received assistance and advice from APCO's legal counsel, a representative of the International Association of Chiefs of Police (IACP), the APCO Executive Secretary and the Project Director. This group provided overall project policy guidance and exercised approval authority on each phase of the program.

Task Group II represented the technical and professional skills of the APCO active membership. Nine highly qualified professional communications specialists from various parts of the United States met for days at a time to provide the professional and technical insights upon which this report is based. During the survey phase of this project,

The APCO survey team members who participated at the state level also reported to this task group.

Task Group III was composed of six commercial members of APCO. These volunteer representatives of the commercial interests of the law enforcement telecommunications profession followed the same procedures as Task Group II, thereby ensuring that the knowledge and experience of all aspects of the law enforcement telecommunications community were fully represented.

SYNOPSIS OF PROJECT RESULTS

One of Project 13's goals was to develop data that would help assess the degree by which the specific and implied requirements of the Act and the needs of the system have been met. The entire concept of law enforcement telecommunications planning by State Planning Agencies is far too vast and complex to attempt to grade the level of accomplishment by some simplistic measure, such as "good" or "bad". The assessment can only be properly made by the weighing of numerous factors in terms of the environment in which each of the individual SPA's exists. The Project 13 Report, therefore, presents data indepth, just as the data was received from the individual SPA's. It further presents a description of the SPA and the state telecommunications environment in which they exist. This has been done so that the reader can understand the framework in which the data from each of the individual states was developed.

This approach, in addition to presenting a picture of each state by which it can be viewed next to the other states, also provides a comprehensive picture of the nation as an entirety, the sum of the 50 states. While an accurate appreciation of the planning status of any one state can only be grasped by reviewing the data pertaining to that state, a summary or review of the data pertaining to the nation as a whole

is both possible and illuminating.

NATIONAL OVERVIEW:

FINANCIAL

The total expenditures of LEAA funds for law enforcement telecommunications by the SPA's were $143 million during the period July 1, 1971 to January 1, 1975, not including matching money. This represents approximately 11.5 percent of the total block grant budget for the period reviewed. The annual expenditures for law enforcement telecommunications grants were approximately as follows:

FY 72 - $38.5 Million

FY 73 - $42.7 Million

FY 74 - $44.9 Million

FY 75 - $17.0 Million (through January 1, 1975)

It is significant to note that 45 percent of the projects were for less than $5,000, and 59 percent were for less than $10,000. The average grant award value was approximately $15,000. The median grant value was $6,000. The large number of small grants is partially attributable to the fact that over half of the telecommunications grants were awarded to law enforcement agencies serving municipalities with populations under 20,000 persons. A total of 7,686 grants, identified as telecommunication oriented, issued between July 1, 1971 and January 1, 1974 were reviewed. 98 percent of these grants paid for the acquisition of some form of hardware.

SPA RESOURCES

There is an average of less than two full-time professional personnel assigned to law enforcement telecommunications planning within the SPA's. The number reported varied; however, from zero to 16 full-time persons. It is noted, for example, that 20 State Planning Agencies do not have a full-time

planner assigned to law enforcement telecommunications planning. There is one part-time person responsible for telecommunication grants in all states. 20 SPA's have engineering personnel. The same number reported legal (for procurement purposes) resources. 40 reported financial planning skills and 37 reported having procurement specialists on their staff. In each of the remaining states these skills were reported as not existing within the SPA.

The variance in personnel staffing among the SPA's for telecommunications planning is also evidenced by the fact the the number of telecommunications grants administered per SPA planner in a year ranges from one to 429 grants in the various states. Each telecommuniations planner, on the average, administers 32 telecommunications grants per year. Also significant is the fact that 30 of the 50 SPA's do not have inhouse engineering capabilities.

STATUS OF PLANNING

As of the time of the survey, 34 states had included telecommunications considerations in their Statewide Comprehensive Plans. The following is a list of topics and the number of states (out of 34) that reported addressing these topics:

Organization of radio networks	24
Interagency coordination	34
Spectrum management	14
Frequency allocations	15
Citizen access	19
Cooperative dispatch	33
Interstate coordination	15
Operational requirements	19
Procurement Procedures	23

Technical training	6
Operational training	12
Maintenance	10
Disaster operations	7
Traffic management	8

These figures do not address the depth to which these topics are covered by each of these plans. They only show the diversity of the approaches among those states that do discuss telecommunications in their comprehensive plans. They also show the variety of the planning foundations upon which the approval process of the 7,686 grants reviewed was based.

PROCUREMENT POLICIES

19 states reported the use of centralized procurements practices. 27 states reported that they require award to this lowest bidder on procurements over a specified value. 13 of the states have documented differences between federal procedures and those to be followed in their states. 10 states reported that vendors, or vendor related consultants, provide specifications for procurements. In 25 states qualified bidders lists are maintained. Of these, 10 have formal procedures for removing vendors from the list.

GRANT APPLICATION PROCEDURES

41 SPA's reported that they have published guidelines for grant applications preparations. 46 reported the use of standardized check lists for grant review and 23 stated that they had a formal list of priorities for use in the evaluation of grant applications. 42 have formal procedures for grant termination.

A review of the topics contained on the grant application check

list showed a degree of individuality similar to the subject matter of the telecommunications plans. The following is a list of topics contained in those check lists that were reviewed (25) and the number of different states in which they are covered.

Statement of the problem	13
Statement of requirement	11
Financial review	20
Project description	10
Legal review	13
Objectives and goals	12
Compliance with comprehensive plan	9
Adjacent area coordination	7
Technical justification	5
Manpower requirements	10
Post project evaluation	9
Assumption of follow-on costs	7

This is but a spot sampling of the data acquired in Project 13. 182 questions were asked, many multifaceted, of each SPA and DOC. 7,686 grants were reviewed and analyzed for costs and objectives. Considerable detail regarding trends, developing procedures, the scope of the law enforcement telecommunications effort and the introduction of new technologies were accumulated. Only by reference to the report itself, available from the Associated Public-Safety Communications Officers, Inc., 105½ Canal Street, New Smyrna Beach, FL 32069, can a full appreciation of the present status of telecommunications planning by the SPA's be acquired.

TRENDS

(1) The Development of Statewide Law Enforcement Telecommunications Plans Has Been Undertaken by the Majority of the States

Twenty-four of the 50 states have completed development of a statewide law enforcement telecommunications plans, and 19 additional SPA's are currently preparing or plan to prepare telecommunications plans. These telecommunications plans are frequently incorporated by reference in the LEAA Comprehensive Plans, prepared by the SPA's, and they frequently discuss the telecommunications requirements of all state agencies as well as those of law enforcement agencies. While the elements of these telecommunication plans vary, it is evident that the majority of the SPA's in the country have recognized the need for statewide planning in order to provide guidance in the implementation of individual law enforcement telecommunications systems and to ensure a fully coordinated statewide system. 25 states have prepared frequency plans while an additional 9 states are currently preparing such plans.

The planning elements and subjects mentioned in the telecommunications plans and by the SPA comprehensive plans vary considerably among the states. While considerations such as organization of radio networks, interagency coordination, cooperative dispatch, data retrieval, and finances are covered by 75 percent or more of the states, considerations of citizen access, frequency allocations, interstate coordination, training, maintenance and disaster operations are covered by less than half of the states.

(2) The Establishment of DOC's in Some States Has Had an Impact on Law Enforcement Telecommunications System Development

There has been a trend toward the establishment of DOC's at the state level in recent years. Capabilities and resources within the DOC's tend to compliment the SPA capabilities. In 23 states, the DOC's provide positive assistance to the State Planning Agencies. In addition, the DOC's assist local public safety agencies in their system

design, preparation of grant request, preparation of specifications and other related areas.

(3) There is a Trend Toward the Use of Advanced Technology in Law Enforcement Telecommunications Systems

There is evidence that, by virtue of 31 grants for computer-aided dispatch systems, 11 for digital mobile terminals, 19 for automatic verhicle monitoring and 51 for scramblers, the use of advanced technology is increasing in law enforcement telecommunications. However, the majority of SPA's have not yet formulated recommendations with respect to these more advanced systems.

(4) The Majority of the Law Enforcement Telecommunications Projects Were Directed Toward Basic Intra-and Inter-Law Enforcement Agency Telecommunications With Relatively Little Emphasis on Citizen Access

While 911 implementation continues throughout the country, a relatively small number of 911 projects were funded by LEAA. Only 50 of the 7,686 grants involved 911 implementation. On the other hand, over two-thirds of the grants involved procurement of base stations, mobile units or portable equipment.

(5) The Use of Personal Portables by Law Enforcement Agencies is Increasing as Evidenced By the High Percentage of Grants Involving Their Procurement

The procurement of personal portables in 69 percent of the LEAA projects is in consonance with recommendation by the majority of the SPA's for the extensive use of personal portables in law enforcement telecommunications systems. Base stations and mobile radios were included in 63 percent and 76 percent of the telecommunications grants respectively. Over 99 percent of the projects involved purchase of some type of telecommunications equipment.

RECOMMENDATIONS

It has become evident through analysis of the survey results that the SPA's have had a significant impact on the direction and nature of telecommunications systems implementation. In those areas of technology where definite recommendations and policies have been established by the SPA's, there is a clear indication of a significant trend. Of those trends mentioned in the previous section, for example, most are in consonance with the SPA's recommendations or lack of recommendations on the particular subject. Future developments and trends in law enforcement telecommunications, therefore, will depend to a large extent upon the direction and philosophy provided by the SPA planners. The recommendations that follow are the outgrowth of the facts developed during this project.

(1) LEAA Should Establish the Requirement That Each State Develop a Comprehensive Telecommunications Section in Its Comprehensive Plan

It is further recommended that LEAA:

a. Establish law enforcement telecommunications goals which would serve as the basis for the development of the state telecommunications plans. These goals should reflect the capabilities inherent in the technologies being developed by the LEAA.

b. Develop a comprehensive manual for use by SPA's and regional LEAA offices describing the essential contents and elements of the telecommunications plan and providing guidance for its development.

These recommendations will ensure that all 50 states have the necessary planning tools and guidance for the management and implementation of the telecommunications plans among the states. The need for greater uniformity and greater comprehensiveness is

evidenced by the wide degree of variability in the contents of the existing 24 law enforcement telecommunications plans. The recommended manual would serve also to assist those states now having telecommunications plans in the update, improvement and expansion of existing plans.

(2) LEAA Should Support the Use of the APCO "Planning Guidelines for Law Enforcement Telecommunications Systems" by State and Local Agencies Using LEAA Funds

These planning guidelines, developed as a result of Project 13, provide a working tool for executive-level personnel involved in the planning, development and implementation of law enforcement telecommunications systems at the state and local level. They also provide a checklist which can be used by the planner to ensure that all elements of system planning having been appropriately addressed.

(3) LEAA Should Establish Policy to Encourage the Development of Criteria for the Number and the Qualifications of Personnel Required in Each SPA for Telecommunications Grant Management

There is presently wide variance in the number of persons assigned within the SPA's to law enforcement telecommunications planning. There are from 0 to 16 full-time personnel within the SPA's with an average of less than two full-time professional planners assigned to law enforcement telecommunications planning. It is significant that 30 of the State Planning Agencies do not have full time engineering capabilities available for law enforcement telecommunications planning and management.

(4) LEAA Should Develop and Promulgate Recommended Minimum Standards for State Grant Application Forms for Telecommunications Systems

There is considerable variance in the requirements for grant applications among the State Planning Agencies. The use of a grant application form with more comprehensive requirements and a checklist for use by the SPA and the subgrantee will ensure that each grant is in conformance with other grant applications objectives.

It is further recommended that all grant-supported telecommunications projects include a mandatory evaluation phase and that the appropriate evaluation planning be incorporated in the grant applications.

(5) LEAA Should Require Each SPA to Develop a Formal List of Priorities for Telecommunications Grant Application Evaluation

The survey revealed that 23 SPA's currently are using formal procedures for assessing priorities for telecommunications grant applications. The establishment of priorities will serve to provide an equitable basis for selection of applications for funding.

(6) LEAA Should Sponsor Annual Telecommunications Seminars at the Working Level to Increase the Interchange of Information, Technology, Experiences and Activites Among the State Planning Agencies and Divisions of Communications

While the interchange of technology and information can be achieved to a large extent by the dissemination of reports and documents through, for example, the National Criminal Justice Reference Service, there is nevertheless the need for personal interface through seminars and/or conferences for working level personnel to further increase this interchange of information and

ideas. Such seminars will also serve to enhance coordination and cooperations between states in the development of their overall criminal justice planning activities.

(7) LEAA Should Develop a Procurement Handbook for Use by Those Agencies Expending LEAA Funds

There is presently a wide diversity of procurement approaches and procedures followed by many states and the local agencies within those states. There is a need for a procurement handbook based upon existing LEAA procurement guidelines and the federal procurement procedures which could be used at the local level for procurement on LEAA-funded projects. This handbook should provide guidance to the local planner on the principles of procurement by tax supported agencies, types of contracts and their advantages and disadvantages, the responsibilities of the procuring agency and the vendor under different types of contracts, the role of competition, techniques for procurement of personal service, hardward and systems, preparation of specifications, identification of system performance criteria, step-by-step description of the procurement process, management of the contract and test and acceptance activities.

(8) LEAA Should Undertake, with the FCC, to Develop a Procedure by Which State and Local Frequency Plans Can be Subject to Effective Review and Implementation

The FCC has the statutory responsibility to assign radio frequencies for use by state and local law enforcement agencies. Coordination with the FCC will ensure that the State and Local Frequency Plans are in conformance with the FCC Rules and Regulations and with the emerging FCC policies and practices.

(9) LEAA Should Establish an Office of Telecommunications

Planning Coordination to Deal with Telecommunications Matters Subject to these Responsibilities

This office should monitor the content of state telecommunications plans and the compliance of the telecommunications grants with plan objectives to the extent necessary to fulfill LEAA responsibilities. The office should coordinate its efforts closely with the FCC and the Office of Telecommunications Policy.

(10) LEAA Should Make a Positive Policy Statement Encouraging a Total Public Safety Approach to Communications and to Command and Control

While LEAA funds have been used effectively to implement total public-safety dispatching systems in some instances, there is currently little consideration given in the majority of the state plans to the interface between law enforcement, fire and emergency medical service. Further, the majority of the SPA's have not formulated recommendations with respect to total public-safety communications, or to the emergency telephone number 911. Less than 25 percent of the existing law enforcement dispatching centers are part of the total public-safety system serving law enforcement, fire and emergency medical service. On the premise that a total public-safety system is more advantageous to the public, LEAA's policy should ensure consideration of the public safety interface in the implementation of law enforcement telecommunications systems. LEAA should also encourage coordination of funding sources.

(11) LEAA Should Establish Minimum Standards for the Training of Law Enforcement Radio Dispatchers and Radio Technicians and Encourage SPA Funding of Training Programs

Minimum standards for and training of, operating personnel are needed

to ensure the most efficient utilization of the law enforcement telecommunications systems and further ensure proper channel discipline and conservation of frequency resources. Such standards should be reflected in grant applications that involve implementation of new or expanding technology.

(12) LEAA Should Encourage Utilization of Existing DOC Resources in Support of Telecommunications Planning

Recognizing the need for and trend toward a coordinated telecommunications system plan at state level where DOC's are in-existence and effectively functional, LEAA should encourage full utilization of those resources.

(13) LEAA Should Develop a Standard Policy with Respect to the Kinds of Agencies Eligible for LEAA Grants Consistent with State Statutes

There is currently nonuniformity among the states regarding the eligibility of many types of agencies. This includes for example, state game and fish agencies (eligible in 16 states), marine patrol (eligible in 8 states), environmental protection agencies (eligible in 4 states), and liquor control boards (eligible in 11 states). Campus police are funded in 26 states. Eight SPA's in the 26 states which have park police fund these agencies.

SUMMARY

The results of APCO's assessment of the planning activities of the SPA's indicate a need for additional guidance and assistance to the SPA's in the specialized field of law enforcement telecommunications planning. Evaluation of the survey data shows that:

Many of the state comprehensive law enforcement plans are not sufficiently comprehensive nor adequately detailed in the area of telecommunications. As a result, they often fail to provide the basis for the full utilization of existing resources in the accomplishment of law enforcement objectives. Many do not provide priorities for allocation of funds. Some have little or no provisions for interstate or intra state coordination or integration of systems. In some cases, basic planning factors such as the assessment of priorities, allocation of funds, etc., are not covered in sufficient detail to provide a basis for the development of state law enforcement telecommunications capabilities or the utilization of the new technologies being developed by the LEAA.

[illegible] the quantity and quality of telecommunications expertise available for the planning and management of telecommunications efforts. The lack of technical telecommunications staff severely handicaps those SPA's affected in providing detailed analysis of the technical content and feasibility of telecommunications grant applications. It further makes difficult the development of technically adequate, comprehensive state plans.

Lack of telecommunications detail in many of the plans can make it impossible to adequately determine whether grant applications for telecommunications projects are in consonance with the objectives of the plan. It can result in a fractionalization of the grant process and subsequent dilutions of the effectiveness of the block grant program.

Law Enforcement Telecommunications guidelines are incorporated as part of the Project 13 Report. These guidelines provide the basis for a rational, standardized approach to telecommunications planning at the local level. They ensure the consideration of key planning factors in the development of plans, and provide a common level of understanding of plan content by the planner and the reviewer.

Project 13 was one of the most ambitious study efforts ever undertaken in the field of public safety telecommunications. The LEAA, its instigator, deserves great credit for the initiative and integrity they demonstrated in pursuing such a project. The findings have already had significant impact upon the law enforcement community. It is hoped that this project will be only the first of many self analysis activities that are the foundation of a program of continued improvements.

END