LAW ENFORCEMENT COMMUNICATIONS CONSOLIDATION IN EAST SAN DIEGO COUNTY BY THE YEAR 2000

by

ALLAN L. JOSLYN

COMMAND COLLEGE CLASS X

PEACE OFFICER STANDARDS AND TRAINING (POST)

SACRAMENTO, CALIFORNIA

1990

10-0187

This Command College Independent Study Project is a FUTURES study of a particular emerging issue in law enforcement. Its purpose is NOT to predict the future, but rather to project a number of possible scenarios for strategic planning consideration.

Defining the future differs from analyzing the past because the future has not yet happened. In this project, useful alternatives have been formulated systematically so that the planner can respond to a range of possible future environments.

Managing the future means influencing the future--creating it, constraining it, adapting to it. A futures study points the way.

The views and conclusions expressed in this Command College project are those of the author and are not necessarily those of the Commission on Peace Officer Standards and Training (POST).

Copyright 1990
California Commission on Peace Officer
Standards and Training

LAW ENFORCEMENT COMMUNICATIONS CONSOLIDATION

IN EAST SAN DIEGO COUNTY

BY THE YEAR 2000

by

ALLAN L. JOSLYN

COMMAND COLLEGE CLASS X

PEACE OFFICER STANDARDS AND TRAINING (POST)

SACRAMENTO, CALIFORNIA

1990

EXECUTIVE SUMMARY

Through the 1980's and into the 1990's, San Diego County and several of its municipalities, large and small, are facing demands for services beyond their abilities to generate the revenues to pay for them. Public safety services, police and fire, have for the most part been spared massive budget cuts and have been exempted from hiring freezes. As the budget dilemma worsens, governing bodies are now looking more closely at how these services do business.

Within the county, nine incorporated cities fund and operate their own police departments. The sheriff provides contracted policing services for the remaining cities and is the law enforcement arm for the unincorporated areas. Each of the nine cities and the sheriff operate separate communications centers utilizing low band, UHF, VHF, and high band. There is significant duplication of personnel resources and underutilization of communications staff. Smaller agencies are being left behind as technical advancements in computerization and radio equipment are beyond their financial means. There are no general standards or specifications for equipment that facilitate intercommunications among the various agencies. As the ability to communicate quickly and effectively becomes more critical, serious consideration must be given to alternative communication system configurations.

In this document, the researcher presents a future study and a strategic plan that includes scenarios depicting the impact of the existing trends and possible future events as developed by a select group of professionals. The report focuses on agencies in the county, east of the city of San Diego. It presents an analysis of the present organizational situation, evaluates important stakeholders, and selects policy alternatives recommended for implementation.

Policies chosen create a program that will facilitate consolidation of communication centers within the county. These policies also address the need for intercommunication among all local law enforcement agencies.

The final portion of the strategic plan establishes steps to guide the organization through a transition on into the 21st century.

In conclusion, the author recommends that the policy makers act now to establish equipment and networking specifications as standards that will facilitate effective and efficient law enforcement communications in the entire county for the future.

CONTENTS

INTRODUCTION

A Time for Consolidation?....1
A Need for the Study....3

PART I: Defining the Future, The Configuration of Law Enforcement Communications in San Diego County by the Year 2000.

Issue Statement....8
Definitions....10
Researcher Assumptions....10
Preparation Research....11
Nominal Group....16
Trends....16
Events....25
Cross-Impact Analysis....29
Futures Scenarios....34
Scenario #1-Exploratory-San Diego Daily News, August 24, 1998...35
Scenario #2-Exploratory-La Mesa Budget Report, 1999....38
Scenario #3-Hypothetical-Police Technology Monthly, Oct. 1999...41
Summary....43

PART II: Strategic Management, A Model Plan for a Medium-Sized Agency's Move to Consolidation of Police Dispatching Communications

Statement....45
Environmental Analysis....46
The Department....46
WOTS-UP Analysis....47
Organizational Capabilities and Resources....54
Mission Statements....58
Stakeholder Analysis....59
SAST Technique....65
Negotiation Strategies....67
Modified Policy Delphi....69
Policy Alternatives....70
Alternative Policy Analysis....73
Recommended Policy Strategy....76
Administration and Implementation....77
Summary....79

PART III: Transition Management, The Move to Regional Communications for Law Enforcment Communications in San Diego's East County

Statement....81
Methodology....81
Critical Mass Selection and Assessment....82
Management Structure....86
Technologies and Methods....87

Responsibilities.....90
Summary.....92

Conclusions and Recommendations.....93

Appendixes.....96

Appendix A - Nominal Group Composition.....97
Appendix B - Trends.....98
Appendix C - Events.....99
Appendix D - User Fee Schedule.....100
Appendix E - Joint Powers Agreement.....101
Appendix F - Desirability & Feasibility Rating Definition.....107

Bibliography.....108

PART I: DEFINING THE FUTURE

The Configuration of Law Enforcement Communications
in San Diego County by the Year 2000

PART II: STRATEGIC MANAGEMENT

A Model Plan for a Medium-Sized Agency's Move to
Consolidation of Police Dispatching Communications

PART III: TRANSITION MANAGEMENT

The Move to Regional Communications for
Law Enforcement in San Diego's East County

INTRODUCTION

A time for consolidation?

The city of La Mesa, California, with its 53,000 residents on nine square miles, is sandwiched between the cities of San Diego on the west and north, El Cajon on the east, and Lemon Grove on the south. Unincorporated areas of the county adjoin the city limits to the southeast. This population is expected to grow by 6 percent by the year 1995 according to forecasts made by the San Diego Association of Governments (SANDAG) and by around 10 percent by the year 2000. As the city of La Mesa enters the last decade of the 20th Century, the community has found itself having to deal with the same financial difficulties that many cities have faced before. Recent years have seen the annual budget expenditures increase at an average rate of 9.2 percent per year while revenues have increased an average of only 7 percent, requiring the city to cut deeply into its reserves.[1] The cost of meeting public demands for services continues to increase along with the number of unfunded, yet mandated, programs. The community's interest in maintaining the city's perceived "quality of life" will require new and innovative ideas about the manner in which the city utilizes and expends its resources and in the way it cooperates with its neighbors.

After nearly fifteen years with the city of La Mesa Police Department, this reseacher has gained a great amount of respect for those who have the responsibility for managing the budget for any city. Being actively involved

---

. La Mesa City Administration, Operations and Staffing Study of the La Mesa Police Department, Staff Study, La Mesa, 1990

in the preparation of the police department's budget for five years and debating the merits of the proposed budget in the hearings before the city manager for many of those years, this author has to become very familiar with city financing. Looking at the budget from the line officer's prospective, the tendency is to focus on pay raises and the availability of equipment. City and police management must take a much broader view, realizing that the pot of money is not bottomless and there can be no deficit spending.

During the police department's proposed budget review for fiscal year 1989-90, La Mesa's new city manager raised several questions regarding the staffing levels in various positions. Considering the city's financial condition, he was very concerned about being able to meet the need to increase the number of police officers while personnel costs of the support staff were so high. The manager questioned the efficiency of maintaining a dispatching staff twice the number necessary to staff the one critical radio operator/dispatcher position. He queried police management as to whether there had been any consideration given or research done toward joining a consolidated dispatch center or contracting police dispatching from another agency. He reported that such an operation was proving very successful in the police department at his previous post in the San Francisco Bay area. He had seen significant annual savings in personnel costs as well as in equipment maintenance and replacement costs.

As a result of that budget hearing, a study was ordered into the feasibility of operating or joining a consolidated police or police/fire dispatching center with another agency(ies) in the east San Diego County region. Although consolidation of governmental radio systems is not a new concept in California

and elsewhere, this researcher could locate no available studies among law enforcement agencies in San Diego County that actively pursued consolidation of any police department functions prior to 1990. Fiscal considerations make consolidation of certain functions a future alternative to the high cost of maintaining the separate facilities, the equipment, and the personnel necessary to the operate full-time dispatch communications centers. Even with innovative financing plans, cities like La Mesa are finding themselves unable to afford the latest technology.

A need for the study

The topic of consolidation is a futures issue worthy of consideration as it applies to San Diego County and east county in particular. There was no "how to" study to provide La Mesa or any other San Diego agency with guidance and direction toward a significant change such as consolidation. In the early 1980s, the city of Imperial Beach, California, situated just north of the Mexican border, was forced to disband its police department. The decision to dissolve the police department was not made because that department was not performing its mission, but because the city could no longer afford the "luxury" of fielding its own officers. The Imperial Beach situation is the extreme, but for the county of San Diego, the land of milk and honey is running dry. The days of government grants for funding unique programs are all but gone. The "tax when necessary" mentality has been overthrown by the taxpayers revolt. Cities and counties are faced with making difficult decisions, "to fund or not to fund." Local governments are finding themselves less able to afford to "go it on their own." New ways of doing business are the future in this county.

> The fragmented communications systems operated in the county have resulted in a significant duplication of personnel resources and underutilization of communications staff in local law enforcement and fire service agencies. Many agencies have needed improvements in their emergency communications systems for years. Existing facilities would require substantial re-engineering to be fully supportive of field units. Additionally, inter-agency and inter-service coordination is poor. The flow of information between the public and the safety agencies, and between the safety agencies themselves is seriously lacking.
>
> Dispatch centers throughout the county are becoming outmoded. They have, for the most part, not been modernized to keep pace with developments in the public safety communications field. Reduced incomes to the cities are making it even more difficult for departments to make substantial improvements on an individual basis. As new advances in technology come along, the expense to each agency as an entity to itself is prohibitive; therefore, the individual communications system will continue to become further and further behind as time goes by.[2]

The preceding two paragraphs describe San Diego County emergency communications today, but they are actually a quote from a consolidationed communications study done for Contra Costa County, dated April 17, 1981. The communications system operators in San Diego County are planning for significant changes over the next several years. Unfortunately, these changes are being handled piecemeal, jurisdiction by jurisdiction with little or no regard for the interoperability or compatibility with its neighbors. The largest change in the planning stages will see the City of San Diego install an 800MHz trunking system. The police department and the city are in the midst of preparing for the bid process. One north county police department has already changed to 800MHz as has a fire district in the same area. The Heartland Fire Communications Facility Authority in San Diego's east county has accepted a bid for an 800MHz system to be

---

2. Contra Costa County Sheriff's Office, Planning and Research Section, West Contra Costa County Emergency Communications Consolidation Plan, 1981

installed before January, 1991. Those trunking systems already installed or those where the bid has been accepted are maunfactured by one company. There are several companies that manufacture 800MHz trunking systems, and the system of one company is not compatible with that of another. With no countywide standards for equipment compatibility, the city of San Diego could accept the bid from a supplier for equipment that could not communicate with the 800MHz systems of its neighbors. If that should occur, San Diego County will be little better off than it is today.

The communications systems that will be available by the beginning of the 21st century will offer technology that is only a vision today. Unfortunately, many jurisdictions in San Diego are dealing with significant revenue and budget shortfalls. The City of San Diego is facing a very lean budget for the fiscal year 1990-91. Funding such a large expenditure as a communications system in the present economic environment could be impossible if it's done for each separate jurisdiction, but combining resources and, perhaps, consolidation may be a solution for this dilemma.

With the improvement anticipated with the 800MHz system for Heartland in the east county, and the outstanding working relationship established between La Mesa and El Cajon, the area's two largest municipal police agencies, it appears that the time has come to move toward consolidation. At first blush, the move would benefit both agencies by improving the ability to communicate. Both agencies are using equipment that is nearing the end of its service life. The VHF frequencies currently allocated to each agency are inadequate to allow expansion into mobile data terminals, to handle tactical situations without

severely impeding day to day operations, or to take advantage of the benefits of computer-aided dispatching (CAD).

A successful consolidation of police communication centers in the east county could serve as the vanguard for a regional concept encompassing all law enforcement agencies in the county. Police and sheriff administrators have long recognized the need for improved radio intercommunication capability.[3] Our highly mobile society, to include its criminal element, has made the isolated jurisdiction a relic of the past. The ability to communicate among officers in critical/emergency situations, without having to switch radio channels, without having to relay through a third party, is the dream of the future for law enforcement in San Diego County.

---

[3]. Chief of Police Jerry Boyd. "Memo to San Diego County Chiefs and Sheriff: Radio Communications", unpublished memorandum, Coronado, CA, 1989.

PART 1: DEFINING THE FUTURE

The Configuration of Law Enforcement Communications in San Diego County by the Year 2000

DEFINING THE FUTURE

This research will study those trends and events that were judged to have the greatest impact on the general issue using futures research methodology. The results of that study will be three futures scenarios based on the data gathered through this researcher's literature searches, interviews with knowledgeable professionals from both the private sector and government, and using the nominal group technique.

Issue Statement

The general issue of this study is the following: "What will be the configuration of law enforcement communications in San Diego County by the year 2000?" Other issues relating to San Diego have been identified:

1. What environmental factors, such as the political, social, and economic climate of the area, and the available technology, will affect the viability of consolidations?

2. Can San Diego County public safety agencies communications centers keep up with the latest technical advances without consolidating resources?

3. Will San Diego County law enforcement benefit from consolidated communications in a regionalization effort?

4. What are the ramifications to be considered should consolidation occur?

5. What would be the effect on local control if police department's consolidated communications functions?

For many familiar with public safety in general, these issues are relevant in the present. Focusing on the San Diego County law enforcement situation changes many of these to future concerns because consolidation of functions has not been seriously studied as an organizational alternative.

For this study, the most relevant subissues deal with the forces that will direct what will be done with the county's communications.

1. Can local governments, especially law enforcement, continue to deliver services in the face of shrinking finances?

2. Can law enforcement save money through consolidations?

3. Could the shrinking labor pool be better utilized by consolidating communications centers?

This study did not attempt to forecast jurisdictional changes in the area, such as city incorporations or unincorporations. It will not delve into such issues as the formation of a regional police force. The researcher did not concern himself with the consolidation of functions other than communications.

Definitions

For clarity, the phrase "communications consolidation" refers to the joining of the police and/or fire dispatching functions shared by two or more public safety agencies. The phrase "800MHz" refers to a radio frequency range. "800MHz trunking system" is a computer-controlled radio system. A system controller accepts an incoming signal from a mobile or portable radio and "assigns" it to an unused frequency among a number of 800MHz frequencies on the system for broadcast. One benefit of this system is that it efficiently uses the limited number of frequencies available. The computer controller "backbone" can be used to control over thirty separate frequencies. Users are assigned to "talk groups" and, in normal operations, members of these groups can only talk and hear each other. To those users, it appears as though they have their own frequency. Under special or emergency conditions, "talk groups" can be realigned, users can be added or deleted within a group, or specific users from different groups can be assigned to a single, separate talk group.

Researcher Assumptions

The basic assumption of this research is that the policing mission and areas of responsibility will remain essentially the same into the 21st century and that policing agencies will still have a need to communicate with each other on a regular basis as well as in mutual aid situations. This study will look at the anticipated advances in radio communication and computer-based technologies in addition to analyzing government's ability to pay for that technology without consolidating or pooling resources. With the potential for additional productivity with the application the latest computer-aided dispatching and

records management systems in consolidated operations, there comes the concerns about records security and the confidentiality among participating agencies. These concerns will be addressed as this researcher develops a strategic plan to implement the forecasted future of east county law enforcement communications. That plan will consider and evaluate the forms that any consolidation could take as well as examining the ramifications of such a consolidation. This study will not attempt to address personnel matters dealing with the possible displacement of current employees or the recruitment and hiring practices for a consolidated center.

Preparation Research

The research for this study began in December 1989, with literature scanning, site visits to consolidated communications operations, and telephonic and face-to-face interviews. These interviews were conducted with administrators of consolidated centers as well as with staff officers in agencies serviced by those centers. The interviews were designed to determine the conditions that led to consolidation, to judge the benefits derived from the operation, and to list the problems confronted during and after the implementation of consolidation.

Interviews with the director of Monterey County's Department of Communications, his deputy director, and the managers of the Contra Costa County system provided insight into a possible future for San Diego County communications. These experts agree on the following and are supported by the staffs of the agencies involved in these consolidations:

* There has been a significant cost savings to member agencies as a result of the consolidations when compared to what would have been spent on separate operations.

* Consolidated operations have permitted less affluent agencies to share in such technologies as computer-aided dispatching and records management systems they might not otherwise have afforded.

* Consolidation has relieved smaller agencies of personnel management headaches associated with maintaining dispatch staffing levels and training.

* Agencies that have consolidated, especially those that contract with another department, are not willing to return to operating their own centers.

During the interviews, the author found the most prevalent reason for joining a consolidated center was the promise of excellent service at a significant cost savings. In the early 1970's, Monterey County established a county-wide system used by every governmental agency within the county except the city of Carmel. With few changes, that same system is working today, as a separate county-level department, under its original director. Mr. Art McDole, a former sheriff's administrator, had drafted the original 911 communications proposal for Monterey County and then was selected to head up the new department for communications. Surprisingly, there was a minimum of paperwork done when the plan was

implemented. Mr. McDole explained, "We did things a little differently back then."

Prior to 1970, in Monterey County, the sheriff's department took over dispatch functions for several small police departments after 5 PM when it was time for the dispatcher/clerks to leave and the offices closed for the day. Phone calls received after normal business hours from residents in these cities were routed directly to the sheriff's dispatch center. As these cities grew, their leaders elected to have the sheriff handle all calls requesting a police officer response. The cities found the contract with the sheriff less expensive than operating their own centers on a full-time basis. As the emergency 911 system and, later, enhanced 911 neared reality in Monterey County, a study completed for the county found that it was feasible and efficient to operate consolidated emergency dispatch centers. The recommendations of that study were adopted and, using a Law Enforcement Assistance Administration grant, two communications centers were established, one covering the coastal areas and the second broadcasting in the valley. That county covers 3,324 square miles with a population of 345,000 people. The communications system dispatches for twenty-six fire departments and fire districts, twelve law enforcement agencies, and eight ambulance districts from the two consolidated centers. These centers also dispatch after-hours public works units and for the Social Service Child Abuse Dispatch service. The cost of Monterey's Coordinated Emergency Communications System is borne by all of the users, including the sheriff, based on a formula which considers each jurisdiction's assessed evaluation, its population, and the dispatch activity generated by its units. Appendix D provides an example of Monterey County's emergency communication billing structure.

Monterey County communications has not adopted an 800MHz system, but uses the frequencies assigned to its users. The assistant director, Mr. Jerry Verwolf, cited the county's mountainous terrain and cost factors involved in setting up a system to cover the county as reasons for staying with present frequencies.

Before the county established its communication center, the city of Salinas police department operated its own communications center, utilizing five radio frequencies and computer-aided dispatching (CAD). According to Captain Roy Hanna, police officers were often pulled off of the street to fill in for absent dispatchers. When the county took over the communications system, Salinas joined in what Hanna called a cooperative conversion. By transferring the responsibility of dispatching to the county, the department no longer had to concern itself with staffing the center. On a department that normally has a twenty-five percent vacancy rate, not having to take an officer from the field would be enough reason to justify the conversion. When problems have arisen with a dispatcher or in the manner in which a call was handled, the police department has received a quick and appropriate response from the communication center's supervisor.

Having another agency run communications is not without its drawbacks. When the county decided to install a new CAD program, all involved agencies named coordinators to provide input. Unfortunately, the CAD system selection process was very time-consuming, and several of the agency coordinators, including the person from Salinas PD, were unable afford the adequate time. As a result, the county selected a CAD system that was not "user friendly" when compared to what

Salinas had been accustomed to. Hanna's recommendation was that an agency coordinator be assigned on a full-time basis anytime a change that significantly impacts the agency is contemplated. The problems notwithstanding, Salinas PD would not return to operating its own separate system.

The reasons Contra Costa cities entered consolidated centers were much the same as those in Monterey County. The sheriff's department could offer competent dispatching at a contracted price and relieve the smaller agencies of the difficulties of operating separate facilities. Contra Costa's east county Delta Regional facility is a joint powers agency established in September, 1981. A copy of that agreement can be found in Appendix E. That center, operated by the sheriff, dispatches for the three cities, six fire districts, the marshals, and the sheriff's east county units. After nearly nine years in service, the agreement is showing signs of breaking up as participating fire districts are complaining about the lack of specific fire dispatching training and the police departments are dissatisfied with perceived differences in the types of service received by one agency as opposed to another. As a result, at least one of the joint powers cities involved in Delta has decided to contract with the sheriff directly. The sheriff has provided contract services since the early 1980s for cities like El Cerrito from the main communications center in Martinez, California. According to El Cerrito Police Lieutenant Lee Blevins, the contract with the sheriff is saving the department nearly $117 thousand per year compared to what the lieutenant estimated the city would have to spend to operate its own center. When asked their preference as to which agreement worked best, joint powers agreements or contracted services, the sheriff's communications managers overwhelmingly favored the contract.

In 1985, several fire districts in the eastern San Diego County formed a regional communication center called the Heartland Communications Facility Authority (Heartland). This center dispatches men and equipment on a "closest available unit" concept regardless of the jurisdiction where the emergency occurs. This was the first attempt at consolidation of any public safety function in the east county. This center is dispatching fire, emergency medical technicians, and paramedic units for the cities of La Mesa, El Cajon, Santee, and Lemon Grove, as well as for the fire departments serving the unincorporated areas covering Lakeside, Spring Valley, and the homes and businesses in the Grossmont/Mount Helix area.

During the budget year 1989-90, Heartland sent to bid the specifications for an 800MHz trunking radio system. This $1.5 million trunking system will be completed by December 1990, and it will be able to handle over eighteen hundred radio units separated into any number of subgroups. Such a system will provide some of the latest in technological advances available to public safety. With a price tag that size, only the wealthiest of individual jurisdictions could afford such a system by itself. Through consolidation, multiple jurisdictions are able to shoulder this expense.

THE NOMINAL GROUP

Trend Selection.

To assist the researcher in measuring the state of the communications at present and in forecasting the future of San Diego County, an eleven-member panel of law

enforcement professionals, city administrators, and members of the communication equipment manufacturing community (Appendix A) were invited to participate in a trend-screening process using the nominal group technique (NGT). The group brainstormed a list of candidate trends that related to the issue (Appendix B). After the list was complete, the trends were discussed, duplications eliminated, and terms defined. The process of distilling the listed trends to a manageable number incorporated a voting procedure where each member selected ten trends from the list of forty-seven. Each member then prioritized his selected trends by assigning ten points to the trend most worthy of consideration working downward giving one point to the lowest rated trend on his list. This method resulted in the following list of six selected trends to be studied by the group:

1. The level of radio technology available will change over the next decade.

2. The availability of revenue sources and the level of net revenues receipts by governmental entities will change over the next ten years.

3. The level of demographic impact on, and demand for,law enforcement and other governmental services will change over the next ten years.

4. The cost of providing law enforcement will change during the decade.

5. The level of concern for officer safety will impact law enforcement.

6. "Customer" expections of government and law enforcement will change during the next ten years.

Trend Forecasting.

The six listed trends were evaluated by the group using the Trend Evaluation Form (Table I). With the 1990 level of the trend equal to 100, members were

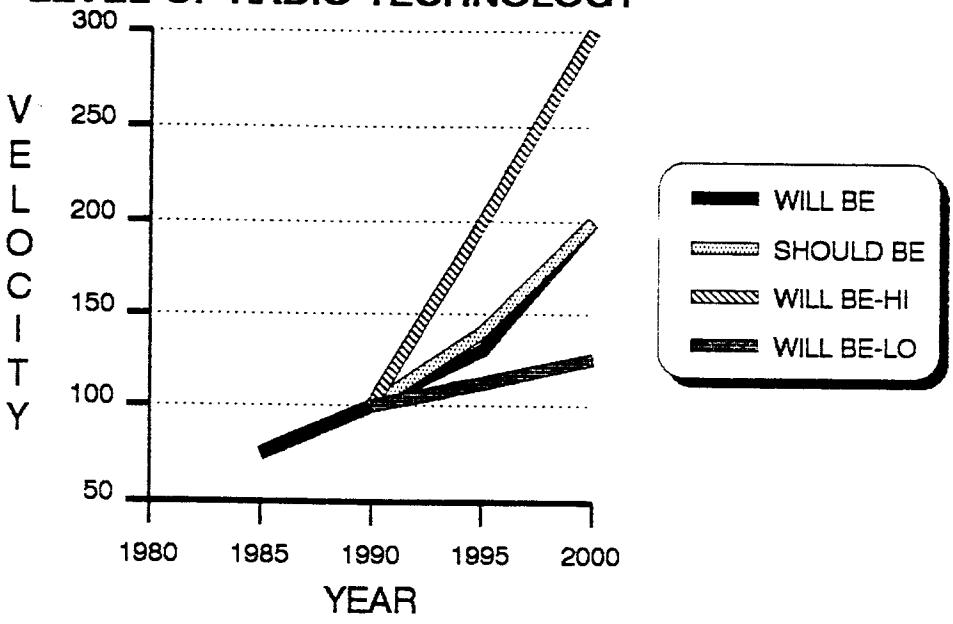
asked to estimate the level for five years ago. Next, the members were instructed to forecast the level of each trend to where they thought that trend will be in five and in ten years from today given there are no intervening events that would significantly impact that trend. With that completed, the group further forecast each trend to a level they felt the trend should be in ten years. The group's mean figures were used in Table I.

Table I **TREND EVALUATION**

TREND STATEMENT	Level of the Trend (Ratio: Today = 100)			
	5 Years Ago	Today	Will be in 10 Years	Should be in 10 Years
1. Level of Radio Technology	75	100	200	200
2. Availability of Revenue Sources	105	100	110	170
3. Level of Demographic Impact on Law Enforcement	80	100	130	130
4. Cost of Providing Law Enforcement Services	85	100	135	120
5. Level of Concern for Officer Safety	90	100	120	150
6. Customer Expectations of Government	80	100	150	120

The following pages contain graphs (Figures 1-6) depicting the selected trends using the group's mean figure for each "will be" and "should be" level. Also shown are lines denoting the diversity of opinion among the group as to where the trends levels "will be" over the next ten years. Trend statements have been shortened. Each graph is followed by an analysis of the trend.

Figure 1

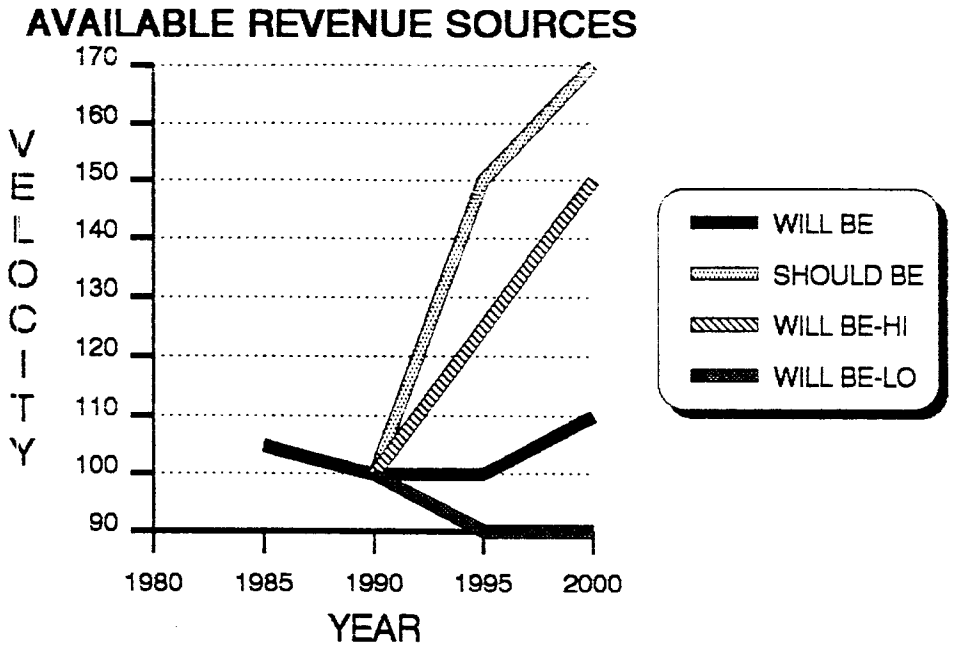


Trend Statement #1:

The consensus of the nominal group was that the level of radio and dispatch technology available to local governments and law enforcement agencies will double over the next ten years. New systems will increase in size and capacity while offering the capability of intercommunication between field units of different agencies, thus providing an added measure of safety when seconds matter in an emergency situation. Specifications for these new systems will

require the equipment of one manufacturer to "talk" to that of another, compatibility being the "buzz word" of the decade. These advancements in technology will not come cheaply. If this trend, coupled with the group's #2 trend selection regarding anticipated revenues, follows the levels forecast during the NGT, local jurisdictions will find it difficult, if not impossible, to afford to keep up with these advances.

Figure 2

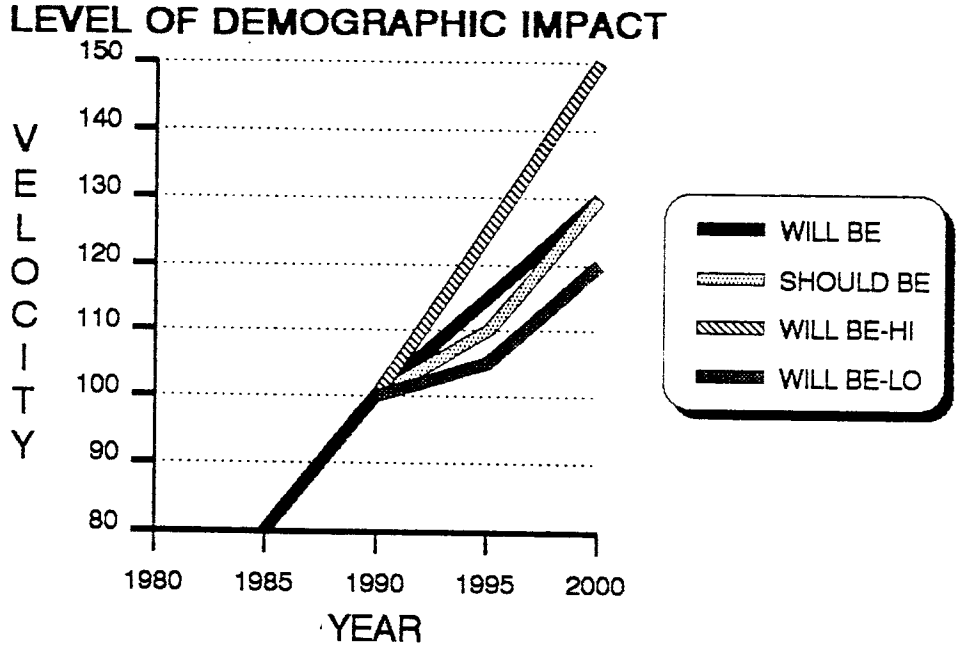


Trend Statement #2:

The level of revenues received by local governments will remain virtually stagnant through the turn of the century. The group felt the level of revenue receipts and the development of new revenue sources was five percent higher, adjusting for inflation, five years ago than it is presently. Without an intervening event(s) or a changes in policy, members anticipated no real growth

in the level of revenues over the next five years and estimated the level to have increased only ten percent by the year 2000. This trend is especially significant when evaluating the impact of two others of the selected trends: #4, the cost of providing services, and #6, customer (public) expectation of service levels. Difficult decisions regarding what services will be offered and the selection of alternative cost effective methods for delivering those services will be based on revenue projections like this trend.

Figure 3

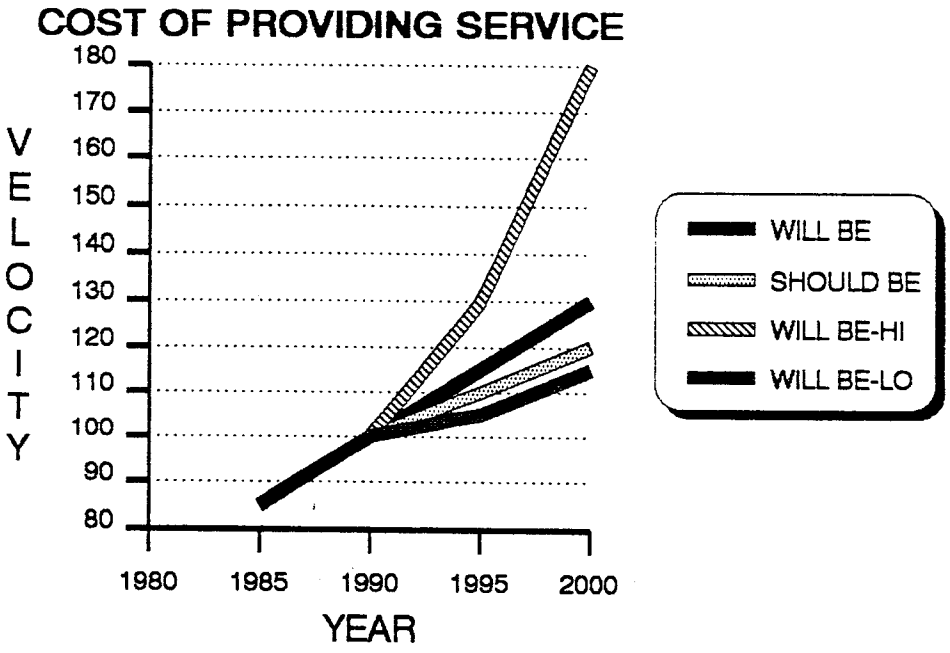


Trend Statement #3:

Governments are sensitive to demographic pressures and will attempt to anticipate demands for service based on such projections as a population's race, its ethnicity, its range of ages, its location, an area's growth and crime rate, etc. The members of the NGT also considered the overall environment, such a

the size of buildings, roadway construction, traffic, and so forth as concerns that law enforcement must face to a greater extent in the future. Over the next ten years, the impact of demographic concerns will increase by thirty percent. Physical resources will be stretched. The nominal group did not see this increase as unreasonably high for the year 2000, but it felt the 1995 estimate of demographic impact would be higher than government could effectively handle. The group sensed a need to educate the public as to what services it could expect to receive and a requirement of government to foster efficient alternative methods to providing those services.

Figure 4

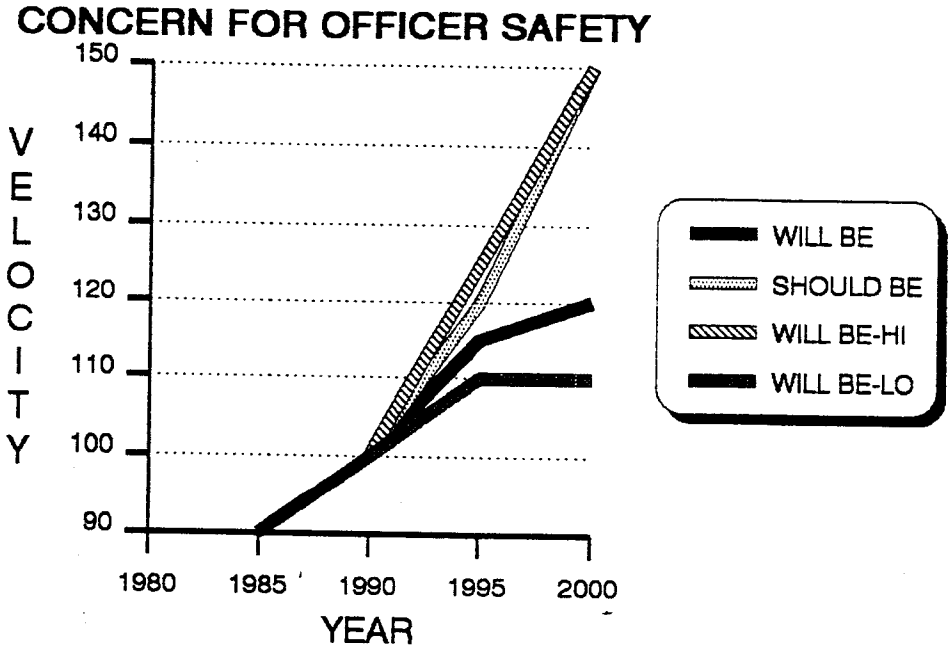


Trend Statement #4:

The cost of providing service will increase by more than a third over the next ten years. That figure is low considering the inflation rate over the last

several years. As mentioned earlier, this trend is significant when considered in a future where lower anticipated revenues, higher demographic pressures, and greater customer expections for service are forecast. Cities and the county will be faced with the possibility of reduced workforces unless funding is found to supplement existing revenue sources. If a reduction of the size of the workforce is necessary for financial reasons, alternative methods, such as communication center consolidations and regional law enforcement services, will have to be developed.

Figure 5

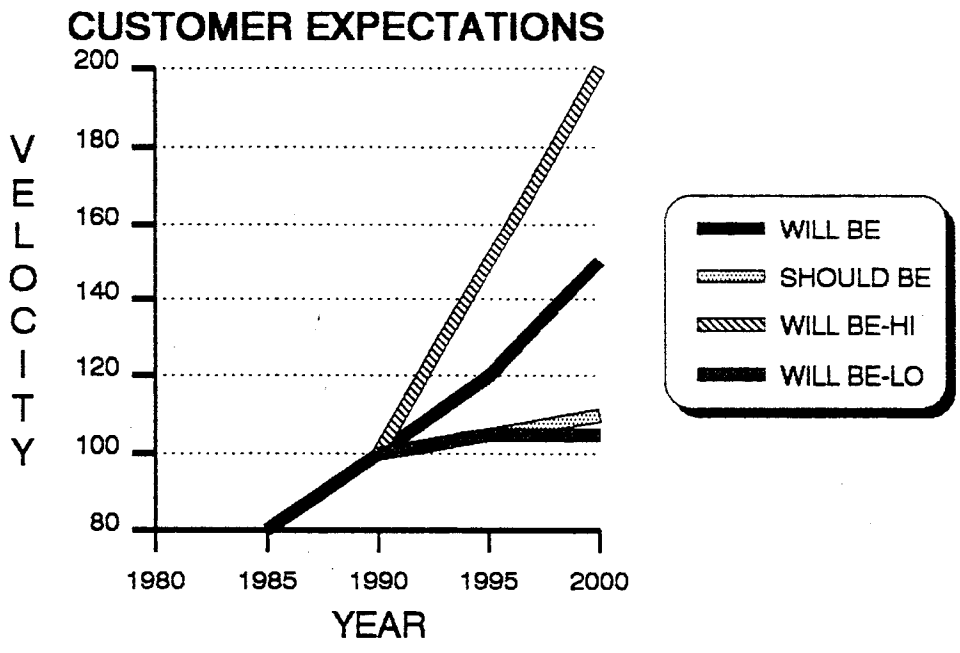


Trend Statement #5:

Law enforcement officer safety concerns will continue to impact decisions made regarding communications and the use of other technology. With an increasingly mobile society and crimes that know no jurisdictional boundaries, officers from

one agency can find themselves in a neighboring city during a pursuit or following an investigative lead, unable to communicate with their own dispatcher, let alone an officer in the other city. It is for such situations and for even greater emergency conditions that a communication system, and perhaps communication consolidation, is becoming a necessity. The technology available within the decade will allow agencies to communicate among themselves. Officer safety issues may facilitate and/or expedite a suitable configuration for a countywide radio communication system. Another trend that received a respectable amount of attention was the move toward the interoperability of radio equipment and frequency interconnection. The group voted to focus its attention to the officer safety issue because the two trends appeared to address the same concerns.

Figure 6



Trend Statement #6:

Law enforcement has traditionally attempted to provide services above those normally associated with "protecting life and property" and the public has come to expect that level of service. The group did not see that trend leveling off during the remainder of the decade and forecast the level of expectation will be fifty percent over today's, a figure forty percent higher than it should be. High customer expectations are not just the concern of law enforcement; other government services will also be impacted. If the forecasts regarding the anticipated revenues and the rising cost of providing services hold true, it will be incumbent upon government to educate the public as to what services they can expect to receive and where they can go for those services government can no longer afford to provide.

Event selection.

A list of three "candidate" events was reviewed by each member of the NGT group prior to the meeting. These candidate events were gleaned from literature and personal interviews conducted by the researcher. The participants were asked to consider and add future events to that list that they felt related to the issue and could affect San Diego County law enforcement communications. During the meeting, the members were given additional time to reconsider and add to their selected events. A final list of thirty events was accomplished during a round-table brainstorming session (Appendix C). The listed events were discussed at length for the purpose of insuring that the members fully understood the meanings of the phrasing used to describe the events. The top five events were selected for further consideration based on their probability

of occurrence and their impact on the issue. Those events are listed and discussed below.

1. Recession. The group members felt that there is a high probability of a recession in the future. With most local governmental agencies relying on sales tax receipts for a large proportion of their revenues, an extended recession would likely prevent jurisdictions from upgrading equipment in order to have monies available to maintain reasonable levels of service. Such a recession could also force policing agencies to look seriously at alternative cost-cutting and cost-saving measures such as coordinated communications equipment purchasing, consolidating communication center operations, or contracting to private enterprises offering the service.

2. Major earthquake or similar widespread natural disaster. Although the possibility of a natural disaster is always present in the Southern California area, the group decided that there was a fifty/fifty chance of a major disaster by the year 2000. This event could cause a severe drain on the operating and discretionary funds available to maintain or construct the future communication systems for San Diego County. Depending on the damage done to existing communication systems and the availability of emergency and/or federal relief funds for cleanup and repair, such a catastrophe could turn into a blessing in disguise, giving rise to the opportunity to build the latest interagency communication operation from the rubble left behind.

3. San Diego Countywide 800 MHz system. In the next ten years, law enforcement and other county communication systems will be extended to their limits. There

is little compatibility between the various systems and virtually no provisions for intercommunication among agencies. Planning for the eventual upgrading of the county's system is under way and the county's largest policing agency, the San Diego Police Department, has reserved several 800 MHz frequencies. The nominal group felt that there is a fifty/fifty probability of the county forming an integrated communication system by the year 2000.

4. 911 surcharge for communications. The costs of the latest communications equipment, its systems, and its maintenance are major considerations when deciding what configuration the east county's system will take. A possible solution would be the enactment of a surcharge added to that already in place to fund the 911 emergency phone system. Such a surcharge or another type of user fee could facilitate the construction of an integrated communications system in the county.

5. East county 800MHz system on line. The Heartland Fire services network has completed the bid process for an 800MHz system to serve nine fire districts in the area east of the city of San Diego. In the planning stages and in the reservation of the necessary frequencies, consideration was given to the possibility of sharing the backbone of the new system with other governmental agencies in the region. The joint powers agreement (JPA) that formed the Heartland Fire network is funding the project through assessment payments from its members. The system will be built so that unused access to the mainframe can be leased to potential customers like the city of El Cajon, California police department and the city of La Mesa, California police department. The availability of the system should provide a cost savings when these cities

upgrade their radios to 800MHz. Although the system will allow remote operation of separate centers, it lends itself well to the cost-cutting alternative of a consolidated communication center.

Event evaluation.

The selected events were studied further. Group members evaluated the events using the Event Evaluation Form (Table II). Each event was judged as to the year in which there was a probability of that event first occurring. Next, the members noted the respective probabilities of the events occurring in five years (1995) and in ten years (2000). The net impact on the issue area (configuration of county law enforcement communications) was rated on the basis of plus 10 to minus 10. Mean ratings of the group are noted in Table II.

Table II EVENT EVALUATION FORM

EVENT STATEMENT	Probability			Impact on the Issue Area if the Event Occurred	
	Year that Probability First Exceeds Zero	Five Yrs From Now (0-100)	Ten Yrs From Now (0-100)	Positive (0-10)	Negative (0-10)
1.RECESSION HITS COUNTY ECONOMY	1993	50	60	2	8
2.EARTHQUAKE OR OTHER NATURAL DISASTER HITS COUNTY	1990	50	50	3	10
3.COUNTYWIDE 800MHz RADIO SYSTEM IS PUT ON LINE	1995	10	50	8	2
4.911 SURCHARGE FUNDING IS AVAILABLE FOR COMMUNICATIONS	1994	50	50	9	1
5.EAST SAN DIEGO COUNTY HAS AN 800MHz SYSTEM ON LINE	1991	100	100	7	2

Cross-Impact Analysis.

The nominal group members were asked to evaluate the interrelationships between events and between trends and events using the Cross-Impact Evaluation form (Table III). The selected events and trends were noted horizonally across the top of the form. The events were listed vertically in the left column. The members were instructed to consider each event as though it had actually occurred and to judge how that occurrence would affect the probability of each of the other events. Once this was completed, the group used the same

occurrence consideration and judged the affect of the event on each trend. The following is a description of the cross-impact results.

Event #1. A recession would significantly impact the building of a countywide 800MHz radio system, reducing the occurrence probability of that event by fifty percent. In those trends where monies to purchase equipment and to provide services were involved, the recession will have the greatest impact. Available revenue for communications purchases could be reduced by as much as thirty percent. Additionally, a recession would adversely affect the private sector, negatively impacting the trend level in development of radio technology by an estimated thirty percent. The group reasoned that equipment manufacturers, with lower sales, would have less money to invest in research and development of new technologies. In a recession, new taxes or charges would not meet with favor, lessening the probability that a 911 surcharge would be approved. The group also saw a recession as accentuating the demographic impact and the increased customer expectations, as joblessness increased.

Event #2. The nominal group felt that a major earthquake or other natural disaster would have the greatest impact on the probability of the institution of a surcharge on 911 to fund communication systems. The need for updated systems would be most evident during and after a disaster, helping to justify unique funding measures. As could probably be anticipated, the trend levels of customer expectations, demographic impact, and the cost of services would show increases of between twenty and twenty-five percent, according to the group's estimate, after a

natural disaster. Repairs to infrastructure, replacing equipment, hiring of additional personnel to assist in cleanup, rebuilding incentives, responding to additional calls for service, etc., would raise the cost of doing business.

Event #3. If the county operated an areawide 800MHz or similar radio communication system, the greatest impact would be felt in the trend levels of customer expectation and officer safety. Both trend levels would increase by twenty percent. The group's reasoning for the increases was that a coordinated system would be more efficient, giving the public the perception that law enforcement should be able to do more. Intercommunication capability could facilitate quicker aid from available resources in an adjoining agency to help an officer or a citizen who needs assistance.

Event #4. The event that would be most significantly impacted if a surcharge for communication was enacted was the building of a countywide radio system. The group felt the county and its incorporated areas would be in a difficult financial position regarding the building of a radio system if there was no alternative funding source(s) available. Since there will be a need to update the county's current system at or around the year 2000, the availability of surcharge funding could move forward the update and expansion of a countywide system by one or two years. Available funding will also encourage the equipment industry to perfect greater technology to fill the needs of law enforcement.

Event #5. The event having the earliest impact on the issue area will be the establishment of an 800MHz radio system in the east county. Success with such a system will undoubtedly spur interest in a system to service the rest of the county. As the technology improves and the benefits to the east county are realized, it will be less difficult to justify the expenditures required to update, improve, and expand a countywide system.

The following events are forecast to be "actors" because of the number of impacts on the cross-impact matrix:

Event 1 (Recession) - impacts three other events and six trends.
Event 2 (Earthquake) - impacts three events and six trends.
Event 4 (911 Surcharge Fund) - impacts two events and five trends.

The following events and trends are forecast to be "reactors" because of the number of events impacting them:

Event 2 (Countywide 800MHz System) - impacted by four events.
Event 4 (911 Surcharge Fund) - impacted by three events.
Event 5 (East County 800 MHz System) - impacted by three events.
Trend 1 (Radio Technology) - impacted by five events.
Trend 2 (Revenue Sources) - impacted by five events.
Trend 4 (Cost of Services) - impacted by five events.
Trend 5 (Customer Expectations) - impacted by five events.
Trend 6 (Officer Safety Concerns) - impacted by five events.

TABLE III

CROSS-IMPACT EVALUATION FORM

PROBABILITY BY YEAR 2000

SUPPOSE THAT THIS EVENT ACTUALLY OCCURRED

		HOW WOULD THE PROBABILITY OF EVENTS BE AFFECTED					HOW WOULD THE LEVEL OF THESE TRENDS BE AFFECTED					
		E 1	E 2	E 3	E 4	E 5	T 1	T 2	T 3	T 4	T 5	T-6
E 1	60		0	-50	-20	-30	-30	-30	+10	+10	+5	-10
E 2	50	0		+10	+30	+10	+10	-10	+20	+20	+25	-10
E 3	50	0	0		+10	0	+10	+10	0	+5	+20	+20
E 4	50	0	0	+50		+10	+20	+20	0	-5	+10	+10
E 5	100	0	0	+20	0		+5	+5	0	+10	+10	+10

E 1 - COUNTY WIDE RECESSION
E 2 - EARTHQUAKE OR NATURAL DISASTER HITS COUNTY
E 3 - COUTY WIDE 800 MHz RADIO SYSTEM IS PUT ON LINE
E 4 - 911 SURCHARGE FUNDING AVAILABLE FOR COMMUNICATIONS
E 5 - EAST SAN DIEGO COUNTY HAS 800 MHz SYSTEM ON LINE

T 1 - LEVEL OF RADIO TECHNOLOGY
T 2 - AVAILABLE REVENUE SOURCES
T 3 - LEVEL OF DEMOGRAPHIC IMPACT
T 4 - COST OF PROVIDING SERVICE
T 5 - LEVEL OF CONCERN FOR OFFICER SAFETY
T 6 - LEVEL OF CUSTOMER EXPECTION

FUTURES SCENARIOS

Possible Futures for Law Enforcement Communications
in San Diego County by the Year 2000

Scenario #1 - Exploratory ("Desired and Attainable")

San Diego Daily News, August 24, 1998

Radio Communication System to Cost $25 Million

After nearly five years of budget hassles, two years of specification writing, and two bid openings, the county of San Diego announced that it has accepted the bid from Motorola Communications and Electronics for the construction that will complete a countywide 800MHz radio system. This system, fashioned after several in operation in the state, will integrate the systems already on line in the city of San Diego, Oceanside, Carlsbad, Escondido, and at the Heartland Dispatch Center in east county. Construction is due to start in January, 1999, and is expected to take about two years to complete.

The staff report furnished by county communications specialists indicates that the new system will offer state-of-the-art electronics with the latest computer-aided dispatching. Microwave antennas and remote receivers will provide coverage for the entire county. The computer-driven system will be paid for from the 911 surcharge fund and matching monies through assessments to the member agencies. The new equipment will facilitate the consolidation of several police communications systems. While Oceanside, Encinitas, and Carlsbad will maintain separate facilities, National City and Chula Vista have opted to consolidate their emergency and police dispatch operations in a yet-to-be constructed facility in National City. Poway and San Marcos will consolidate

their dispatch centers with Escondido on a contract-for-service basis . The cities of La Mesa, El Cajon, Santee, Lakeside, Valley de Oro, and Lemon Grove will continue the operation of their joint powers consolidated facility located in El Cajon. The sheriff will maintain communications for the remainder of the county and for those cities that contract with him for law enforcement.

The shift in philosophy toward consolidated radio operations came as a result of a research study completed in the early 1990s and the advancements in radio technology over the last ten years. As a part of that study, the San Diego County Chiefs' and Sheriff's Association formed a committee with countywide representation to formulate standards for the public safety radio equipment purchases of the future. The equipment had to be compatable with 800MHz and permit intercommunications with other law enforcement agencies in the county. Up until then, the county's law enforcement agencies purchased radios that did not have the ability to communicate with other jurisdictions without some elaborate switching, if at all. The new system will allow for expansion as new agencies are assigned 800MHz frequencies. There is a nominal charge for coming into and using the system, but nothing approaching what it would cost to fund a new communications system from the ground up.

Now, police radio communications during pursuits or special operations crossing jurisdictional lines will be handled without much more than the dispatcher's push of a button on a radio console. The new system should provide excellent coverage during natural disasters like the moderate earthquake that rocked the area in 1997, since it will have its own backup power and antenna systems.

Proponents are pleased with the success of the smaller system that has been on line in east county for three years and expect the new system to function every bit as well. The various police labor groups have praised the new system because it addresses officer safety issues involving officers in need of help outside their own jurisdictions.

Scenario #2 - Exploratory ("Most Likely")

La Mesa City Budget Report to the Mayor and City Council - 1999

The La Mesa Municipal Code requires that the City Manager prepare and submit a recommended annual budget to the City Council. I am pleased to submit my recommendations to you for the City of La Mesa's annual budget for Fiscal Year 1999-2000.

As you are aware, the City's revenues have not kept pace with the increasing costs and continued requests for service for the last eight years. Until five years ago, we were able to respond to this dilemma by using available reserves. When this option was no longer available, we were required to critically examine all programs to try to reduce costs. Further revenue reductions forced City departments to lay off employees in order to keep the City solvent. The direction provided through our mid-year budget review has been extremely helpful in meeting the challenge of trying to continue to provide the highest level of service possible to our citizens in the face of limited revenues. The recommended budget provides for more than $23 million of appropriations/revenues in the General Fund, and $47.3 million for all funds including Capital Improvements and Redevelopment. This is an increase of 2.8 percent overall and constitutes only a 9 percent increase from the Fiscal Year 1989-90 budget.

Summary of Major Budget Year Situation.

Fortunately, our revenue picture has brightened slightly since our initial projections from December, 1998. The revenues are expected to return to the level they were prior to the recession in 1994-96, and they will allow the City to meet its obligation to its citizens and employees without imposing stricter restraints.

Overall Recommendations for Public Safety.

1. After a careful review of the City's joint powers involvement in the Heartland Dispatch Facility, the police and fire departments should continue to have their calls for service dispatched from that consolidated operation. The savings realized when general funds were not needed for the replacement of a major component in the police department's radio system where significant enough to justify the move to consolidate communications operations with the El Cajon Police Department made in 1996. Concerns relating to the loss of actual control of the communications function have diminished and the facility operators have been extremely responsive to the needs of our citizens. The efficiency resulting from the computer-aided dispatching and the automated records management system has permitted each department to absorb reduced office staff positions while maintaining excellent service levels. This budget recommends a modest adjustment in the contract price charged to the City for the operation of the facility.

2. Authorize the police department to fill police officer positions left vacant due to the hiring freeze. The police department will be authorized to maintain

a full strength of 57 sworn officers and will not be subject to the 120-day hiring freeze. These officers are needed to respond more quickly to the calls for service generated by our citizens.

Conclusion

The City still faces some formidable challenges in trying to balance its revenues and expenditures while maintaining service levels. I believe this recommended budget accomplishes this task. Decisions made in the mid-1990s to join hands with neighboring cities in a regional approach to addressing mutual concerns have proven successful. Strategies developed several years ago have allowed the City to do more with the resources at its disposal.

I am looking forward to meeting with you to develop a final budget for the City of La Mesa.

Respectfully submitted,

Robert A. Bing

City Manager

Scenario #3 - Hypothetical ("What If")

Police Technology Monthly, October 1999

The ultimate in privatization has occurred in the provision of communication services for law enforcement. RadioTech Corporation, a company formed as a subsidiary of Motorola Communications and Electronics, is offering radio and dispatch packages that many small and medium sized agencies are finding hard to resist. RadioTech has stepped into an area of communications never before trod in California. Contrary to what one might believe because of its parent company, RadioTech does not sell equipment. This company is in business to provide, for a contract price, every service related to police and sheriff communications. Their equipment, not surprisingly, is built by Motorola and has the latest state-of-the art technology, from 1200MHz trunked microwave systems to satellite communications, from mobile data terminals to portable and laptop computers. Repair is warranteed for the life of the contract and is completed by factory trained professionals. The performance contracts normally provide for "loaner" equipment so the agency is never short of contract equipment. No radio or police communications need is left unfilled.

Beyond the equipment and repair, RadioTech also operates the most modern communication center, staffed with well-trained and knowledgeable personnel. Computer-aided dispatching and an automated records management system is based

on the IBM System AQ2000, the fastest mainframe computer available. The record management system provides privacy and confidentiality, yet it is "user friendly" for those with the proper access code.

The company has built a reputation on service and response to customer needs. Administrators are viewing the company as an answer to their prayers. Relieved of the headaches of managing and staffing dispatch centers, they are able to focus their attentions on issues relating to the delivery of service to their communities. Further, RadioTech is able to provide the latest technology in a timely manner.

Such technology does not come cheaply, but agencies are finding that they will save money in the long run when taking into consideration constant equipment upkeep and replacement costs. A company consultant works closely with each agency to fine tune its actual requirements and contracts are tailored to the customer's needs. Equipment that is utilized only rarely is maintained at the company's warehouse and charges for its use do not start until the equipment is delivered to the agency. During trial periods offered by RadioTech, agencies are seeing dramatic increases in the productivity of their officers and business office personnel. In a climate of shrinking government revenues and escalating costs, police and city administrators are looking for alternatives to the way they do business. RadioTech and further private industrialization may be the wave of the future that will carry law enforcement into the 21st century.

SUMMARY

Part I consisted of futures research using literature scanning techniques and the nominal group technique for the development of trends and events that were judged could have an affect on the configuration of law enforcement communications in San Diego County, California. The nominal group further established potential interrelationships among these trends and events through the end of the 20th century. With this information, three future scenarios were created. The sections to follow will formulate policies and plans that will attempt to cause the scenario considered "desirable and attainable" to occur.

PART II: STRATEGIC MANAGEMENT

A Model Plan for a Medium-Sized Agency's Move to Consolidation of Police Dispatching Communications

STRATEGIC MANAGEMENT

Statement

The following section of this study develops a strategic plan for the implementation of a program that will impact the configuration of public safety communications centers within San Diego County by the year 2000. This plan is based on Scenario # 1 with an outcome that was "desired and attainable." The plan established during this research will focus on east San Diego County and the cities of El Cajon and La Mesa.

The objective of the strategic plan is to implement a program to consolidate the police communications function of the La Mesa Police Department with that of another agency. This objective is to insure that the scenario comes true with the proper planning and cooperation. Such consolidations may be a necessity if law enforcement agencies are going to meet the public's expections of the best level of service and efficiency in the future.

The methods used in preparation of the plan are the following:

1. Weaknesses, opportunities, threats, strengths (WOTS UP) analysis by a group from interested agencies looking at an organizational entity.
2. Group discussion to determine stakeholders related to the issue.
3. Strategic Assumption Surfacing Technique (SAST) evaluation of the most important stakeholders.
4. Group selection of policy alternatives.

5. The development of mission statements.

The phases in the strategic management process are as follows: 1. analyzing of the environment in which the agency operates; 2. developing of mission statements; and 3. identifying of alternative strategies.

Environmental Analysis

The Department

The La Mesa Police Department has a budgeted strength of fifty-six sworn officers and under twenty civilian employees. The budget for FY 1989-90 was nearly $4.2 million. The department is a full-service police agency divided into three division: operations (patrol and traffic), investigations, and services (business office and communications). Communications personnel and the full-time clerical staff for the business office are one in the same. With a job classification of dispatcher/clerks, they can be assigned to processing reports, assisting customers at the front desk, and answering phones one day and be working the radio console the next, although they normally shift positions every two weeks. At least two dispatcher/clerks are on duty, 24 hours per day, to provide relief for the one radio operator and to assist in the center during times of excessive radio traffic. In addition to dispatching calls for police officers and animal control personnel, the radio operators answer "911" calls at the console and act as a link between field officers and the various computer information systems. La Mesa does not have CAD or an automated records system. The department's radio equipment, including the main console and most of the mobile and portable radios, was upgraded by Motorola in 1985. The console

equipment that was replaced had been in use by the police department for twelve years and was used equipment when it was installed. The portable radios were to be replaced over three years in order to spread the cost over as many budgets. After one year, the money needed to replace the remaining radios was needed more elsewhere. According to industry standards, the equipment purchased at a cost of over $200 thousand in 1985 should be replaced after seven to ten years of service life.

WOTS-UP Analysis

The organizational entity's abilities to respond to the strategic issue are evaluated through a WOTS-UP analysis. The environment forecasted through the trends and events must be carefully considered when developing a plan to reach the desired results. The environment will create threats to be mitigated and opportunities to be taken advantage of and planners must consider these when developing a strategy. This analysis was accomplished by police administrators and staff personnel from law enforcement agencies in San Diego's east county and evaluated those east county agencies likely to utilize a consolidated operation. The listed opportunities and threats were gathered through a brainstorming exercise.

Trend 1 - Increasing level of radio technology over the next decade.

Impact:

1. Opportunity for easier handling of emergency radio communications.

2. Possibility of lower cost, more equipment for less money.

3. Greater capacity, faster access to information, less space needed for equipment.

4. Opportunity to consolidate with systems capable of expansion.

5. Opportunity to share costs of computer backbone equipment among different agencies, giving less affluent communities the chance to keep up with technological advances (computer-aided dispatching, etc.).

6. Systems become more user friendly.

7. Opportunity to standardize field operations and the training of dispatchers.

8. Threat of loss of local control if smaller agencies must share costs with a larger agency in order to take advantage of the technology.

9. Threat that less affluent departments may not be able to afford the technology, pricing them out of the market, and making it impossible to communicate with surrounding agencies because of incompatible equipment.

10. Threat that advances in systems could allow unauthorized access to restricted records via connecting phone or microwave lines and increased difficulty supervising the use of information available through the systems.

11. Threat that new system may require a more sophisticated work force in a shrinking labor pool.

Trend 2 - Lower availability of revenue sources and net receipts.

Impact:

1. Opportunity for evaluate cost-saving alternatives to operating separate communications centers. As the cost of providing other services increase (Trend 4), more efficient use of support personnel will be required as will the sharing of expenses to upgrade systems.

2. Opportunity to join agencies in contracts for the purchase of equipment to negotiate lower prices and foster closer relationships between agencies on matters of mutual interest.

3. Threat of insufficient funding to keep up with technology.

4. Threat to consolidation when it may be easier to stay in separate communications centers with known expenses rather than venture into the untried consolidation. The status quo becomes an affordable option.

5. Threat of being forced to remain in an unsatisfactory consolidation arrangement because it would be too expensive to return to a separate system.

6. Threat of having to use a deteriorated system when there are inadequate revenues to replace it.

7. Threat of loss of skilled personnel to outside agencies or the private sector because of wages and antiquated equipment.

8. Threat that recovery from a major incident (earthquake, natural or man-made disaster) would be slower.

Trend 3 - Demographic impact on law enforcement.

Impact:

1. Lower expectation of service among some ethnic groups that are gaining in population.

2. Opportunity to evaluate regional provision of services.

3. Opportunity to justify need for resources as crime rate increases.

4. Threat that buildings and other man-made obstacles will interfere with radio communications.

5. Threat that needs will exceed resources.

6. Threat to officer safety as it will be more difficult to travel to cover officers in need of assistance because of traffic, buildings, etc.

Trend 5 - Concern for officer safety.

Impact:

1. Opportunity to build a system that covers the entire county, making areas where that are radio "dead spots" (transmissions can not be received) virtually nonexistent. This addresses concerns for safety when officers are outside their own jurisdictions.

2. Opportunity to justify change for safety's sake.

3. Threat that safety may become more of a negotiation bargaining tool and raise concerns over who decides what constitutes officer safety.

4. Threat that departments may rely on technology as a solution to the concern and officers may rely too heavily on technology as a safety net.

Trend 6 - Customer expections of law enforcement to increase.

Impact:

1. Opportunity to improve public image by efficiently utilizing personnel talents and by fostering better communications between the various agencies. With the largest expense in law enforcement budgets being for personnel, modernizing and computerizing will be necessary to make the payroll "buck" go farther.

2. Opportunity for quicker law enforcement responses to calls-for-service from citizens since a consolidated facility would have up-to-date information as to the resources available in an adjacent jurisdiction for use in emergency cases.

3. Threat of having to expend exorbitant resources to meet demands and the public is unwilling to approve funding for changes necessary to improve communications.

4. Threat that agencies will be too busy fighting "fires" to consider doing business differently. There will be conflicts over how resources are used.

Event 1 - Recession hit San Diego County.

Impact:

1. Opportunity to hire higher skilled people as unemployment rate increases.

2. Opportunity to cull nonessential services and encourage employee creativity.

3. Threat of increased workload, as crime and unemployment increases.

4. Threat of lower efficiency as workload increases and size of the workforce remains the same or decreases.

Event 2 - Earthquake or another nature disaster occurs.

Impact:

1. Opportunity to improve public image with a coordinated response.

2. Opportunity to upgrade infrastructure and equipment through relief funding.

3. Opportunity to judge how well agencies work together during the emergency.

4. Possible slower growth rate in area as disaster publicity spreads.

5. Threat to local economy, lowering revenues.

6. Threat to an agency's ability to provide services for an extended period due to personnel injuries/deaths, damage to buildings and equipment, etc.

Event 3 - Countywide 800MHz radio system on line.

Impact:

1. Opportunity to consolidate to standardize training, field operations, and radio procedures.

2. Opportunity to consolidate to share costs and liabilities associated with operating a system.

3. Opportunity for smaller agencies to transfer responsibility for operating a communications center to a larger agency.

4. Threat of less personal service for individual agencies and officers, as well as the possibility of increased response times to calls.

5. Threat of loss of local control and "turf wars" over what agency will hold the control of the communications function.

Event 5 - East county 800MHz radio system on line.

Impact:

1. Opportunity for east county law enforcement to establish first consolidated dispatch operation in the county.

2. Opportunity to create a consolidated communications model for the rest of the county.

3. Threat of loss of local control of dispatch function found in individual agency centers, deferring to the will of the majority of participants.

4. Threat of citizen objections to calling a dispatch center outside of their city.

Organizational Capabilities and Resources

The WOTS-UP continues with an assessment of the organization's strengths and weaknesses. The analysis was provided by six evaluators. The following tables were used to depict various rating categories. Each evaluator assessed the organization's present strengths and weaknesses and its ability to deal with

change. The tables reflect the average of the responses received for each category.

Table IV depicts resource categories essential to effecting a change. Of concern on this table are the perceptions relating to the facilities and money. Present facilities may be inadequate to allow communications changes and the money situation could curtail movements toward change. The organization's strengths are in its community and council support as well as in the high levels of police officer and supervisory skills. All other resources were rated at average or above.

Table IV **CAPABILITY ANALYSIS: Rating One**

I Superior. Better than anyone else. Beyond present need.
II Better than average. Suitable performance. No problems.
III Average. Acceptable. Equal to other agencies. Not good, not bad.
IV Problems here. Not as good as it should be. Deteriorating. Must be improved.
V Real cause for concern. Situation bad. Crisis. Must take action.

Category:	I	II	III	IV	V
Manpower		2.8			
Technology		2.8			
Equipment			3		
Facility			3.5		
Money			3.8		
Calls for Service			3.1		
Supplies			3		
Management Skills		2.5			
Police Officer Skills	1.8				
Supervisory Skills		2			
Training		2.5			
Attitudes		2.3			
Image		2			
Council Support	1.8				
City Manager Support		2.8			
Specialties		2.8			
Management Flexibility		2.3			
Sworn/non-sworn Ratio		2.8			
Pay Scale		2.8			
Benefits		2.8			
Turnover			3		
Community Support		2			
Complaints Received		2.1			
Enforcement Index			3		
Traffic Index			3		
Sick Leave Rates		2.5			
Morale		2.5			

Table V evaluates the organization as to what type of activity it encourages. The results indicate the organization's appreciation of change, though it favors less than novel changes. Top and middle management are perceived as adapting to or facilitating a greater level of change than the line personnel. This must be considered when moving toward change. Selling the changes and implementing them at an appropriate rate will be key to their acceptance.

Table V **CAPABILITY ANALYSIS: Rating Two**

I Rejects Change
II Adapts to Minor Change
III Seeks Familiar Change
IV Seeks Related Change
V Seeks Novel Change

Category:	I	II	III	IV	V
Top Managers:					
Mentality/Personality			3.8		
Skills/Talent				4	
Knowledge/Education				4	
Organizational Climate:					
Culture/Norms			3.5		
Rewards/Incentives				4	
Power Structure			3		
Organizational Competence:					
Structure			3.5		
Resources			3.3		
Middle Management				4.2	
Line Personnel		2.8			

Mission Statements

The mission statement of an organization defines its areas of operation. The statement expresses values, guides behavior, builds commitment, and insures consistency. The mission statements in this case formalize the direction for the future of the issue of communications consolidation.

The macro-statement addresses the mission of the organization while the micro-statement focuses on the mission of the organization as it relates to the issue.

Macro-mission statement: The mission of law enforcement is to provide all citizens professional, effective, and timely police services; to strive to protect life and property; to enforce appropriate federal, state, and local laws; to identify and apprehend criminals; and to promote and maintain a safe environment.

Micro-mission statement: The mission of a consolidated communications operation is to provide timely and accurate call-taking as well as police dispatching communications for law enforcement within the county; to constantly evaluate the most cost effective methods to achieve the missions, goals, and objectives; and to promote understanding and cooperation among law enforcement agencies, other governmental entities, and the communities they serve.

Stakeholder Analysis

The WOTS-UP group developed a list of stakeholders relating to the strategic issue. Stakeholders are any persons or groups of people who might be affected by or who might try to influence the issue or law enforcement's approach to the issue. Stakeholders can be allies or the opponents to the organization's plans. The list includes non-obvious stakeholders who might cause serious problems during any phase of the implementation of the program. Such stakeholders are known as "snaildarters," named for the endangered species of fish that unexpectedly delayed the construction of a dam project in the early 1970's.

Chiefs of police
Sheriff
City managers
County administrator
Elected officials
   Mayors and city councils
   Board of supervisors
Police officers
Non-sworn police department employees
Employee unions
Police associations
Media
Crime victims
Communications equipment manufacturers, repair and sales personnel
Residents
Business community
Courts
Private industry
Heartland Joint Powers Authority
Chamber of commerce
Fire service administrators
Firefighters
Special interest groups
Police Officers' Research Association of California (PORAC)
Commission on Peace Officers Standards and Training (POST)
California Department of Justice
Other city departments
Other local law enforcement agencies
School districts
Taxpayer groups
Federal law enforcement agencies

State legislature

After discussion, the group selected the twelve most significant stakeholders which are listed and analyzed below:

1. Chiefs of police - The success of the plan for consolidation is dependent upon the full support of the various chiefs whose communications operations are combined into one. Police chiefs will need to have their agencies realize an appreciable increase in officer productivity and officer safety, and decrease in expenditures over the long run before they will fully support consolidations or the funding of a countywide 800MHz system. Each chief will be concerned with the possible loss of control over the police communications function and its impact on the department's ability to provide for officer safety and police services. As the cost of personnel, equipment, and maintenance increases, the chiefs will explore the shared expense alternatives in order to allow some agencies to keep up with the latest technology and to permit intercommunication ability. Convincing chiefs of agencies in areas of economic growth will be more difficult than those in cities where financial difficulties are evident. The loss of total control of the communications function is a drawback for those used to operating their own centers. On the other hand, transferring responsibility for communications to a joint powers authority relieves the individual agencies of the headaches associated with communications centers, but shares the control over the operation. Once the chiefs are comfortable with the concept, they will negotiate the level of service they are to receive. The technology available now and in the future will offer advantages to those who can afford it. Consolidated operations have been successful elsewhere and lend

themselves to better coordination in day-to-day operations as well as during mutual aid situations.

2. Police officer associations - Individual police officers could perceive the considered consolidation as a threat to their safety and may express their concerns through their associations. Movement to consolidation could impact police contract negotiations since changes in working conditions are negotiable items and, as such, could delay or otherwise seriously hamper moves to consolidate. The associations will want an opportunity for input in the planning stages of any changes. Consolidation of dispatch centers could eliminate the "personal service" rendered by dispatchers under the separate systems. There will likely be a lack of dispatcher familiarity with local jurisdictional and officer idiosyncracies. Police officer associations will need to be assured that any changes will not lessen the level of attention their officers will receive in the field.

3. City managers - City and county leadership is often faced with having to plan for providing city services without enough resources to handle all the demands. The budget process can be very painful as decisions are made as to what important programs or services are funded and which can not. City managers and the county administrator will need to present changes that they can "sell" to their respective councils or the board of supervisors. Levels of service and the cost of providing those levels will be a concern. If these administrators are convinced that their respective agencies are receiving their money's worth, consolidation would be given the chance to succeed. Nonetheless, territorial

disputes over control could arise as could debate over what constitutes a "fair share" of the consolidation financing.

4. Non-sworn police department personnel - Dispatchers and their support staffing in an agency may view consolidation as a step to eliminate their positions. Consolidation could reduce the total number of dispatcher positions in the county and would possibly impact the skill level required to work in the various remaining business office positions. Non-sworn communications personnel are in a position to impact the acceptance of consolidation. They will be concerned about officer safety. They will demand training to assist them to becoming more competent with the technology provided them. Negotiations will focus on working conditions and pay. This group will need to see provisions allowing employees input during the planning stages, both for the facility and the equipment.

5/6. Elected officials - With the final authority over the jurisdiction's budget, city councils and the board of supervisors have control over the direction of any communications reconfiguration effort. These groups will be concerned about local control of the operation, public safety's speed of response, and the cost effectiveness of configuration change. These officials will have to be convinced that a consolidation will be a positive step to ensure the effective delivery of services to their constituents and will be fiscally responsible. Elected officials will need to see that they are able to maintain "appropriate" control over the operation and expenditures of a consolidation. Elected officials will need to be involved in planning for the consolidation and will want to see that the concept has benefits for the organization.

7. Sheriff - As the senior law enforcement officer in the county, the sheriff will need to take the lead if a countywide communication system is to happen. As mutual aid coordinator for the county, the sheriff will need to see that the change will benefit the countywide law enforcement effort. Any change from his department's radio system will be an expensive proposition. If he is to build a backbone system, he will expect to see some return on the investment when frequency "space" is leased to other agencies, thereby subsidizing a portion of the cost.

8. Residents - Citizens want a police officer to come to their aid when they call. The community will have to be sold on the idea that the proposed concept is a change that will improve the service delivery. If the consolidated facility outside their own city provides that service and saves money, they will support the concept.

9. Taxpayer groups (snaildarter) - Most of the best-laid plans will require public financing through outright tax increases or through the taxpayer approval of bond issues. Taxpayer groups have been actively opposed to any increases in taxes and have a history of launching court actions when even the smallest sales tax increases have been approved. The two-thirds majority vote required for most tax increases will be a difficult obstacle to overcome if a tax increase is needed to fund the purchase of the latest radio technology or to support a consolidated operation. Taxpayer groups will need to be convinced of the cost-saving and efficiency benefits anticipated before they will be willing to approve funding of the large expenditures that will be necessary to build a

backbone for a 800MHz system for the county. Taxpayer groups in cities that are considering consolidation will also need to see the prospect of efficiency and better service. Conversion to 800MHz will require large initial purchases of equipment. Financially strapped cities will need taxpayer support for additional funding requirements.

10. School districts - Before public safety realized the benefits of 800MHz, a number of school districts were licensed for 800MHz in order to have their own dedicated frequencies. Now that these frequencies are no longer available and the technology is available to more efficiently utilize them, it will become necessary for the districts to share them with law enforcement. The districts will have reservations about sharing these frequencies because of the expense involved in changing their present equipment to that which is compatible with a trunking system. These districts will need to see benefits, both financially and in safety, before they agree to share frequencies with law enforcement.

11. Special interest groups (snaildarter) - Any number of special interest groups could spring up during the planning and implementation phases of a consolidation or the county's conversion to an 800MHz system. Because of the amount of funds necessary to implement a major change in the communications system for the county, other programs may suffer for lack of money. Since money is a major consideration in the maintenance and start up of any project, the allocation of limited funds available will become a hot issue depending on the backers of those other programs.

12. Heartland Joint Powers Authority - Although the cities that are considering police communications consolidation are members of the JPA, fire districts and departments will express concern over what agency(ies) will have priority in cases of system overload. The Heartland 800 MHz system is designed to handle a greater number of units than are available among the users and potential users, but there could come a day when that system might reach capacity. If that occurs, fire officials will want assurances that the interests of their service are properly weighted.

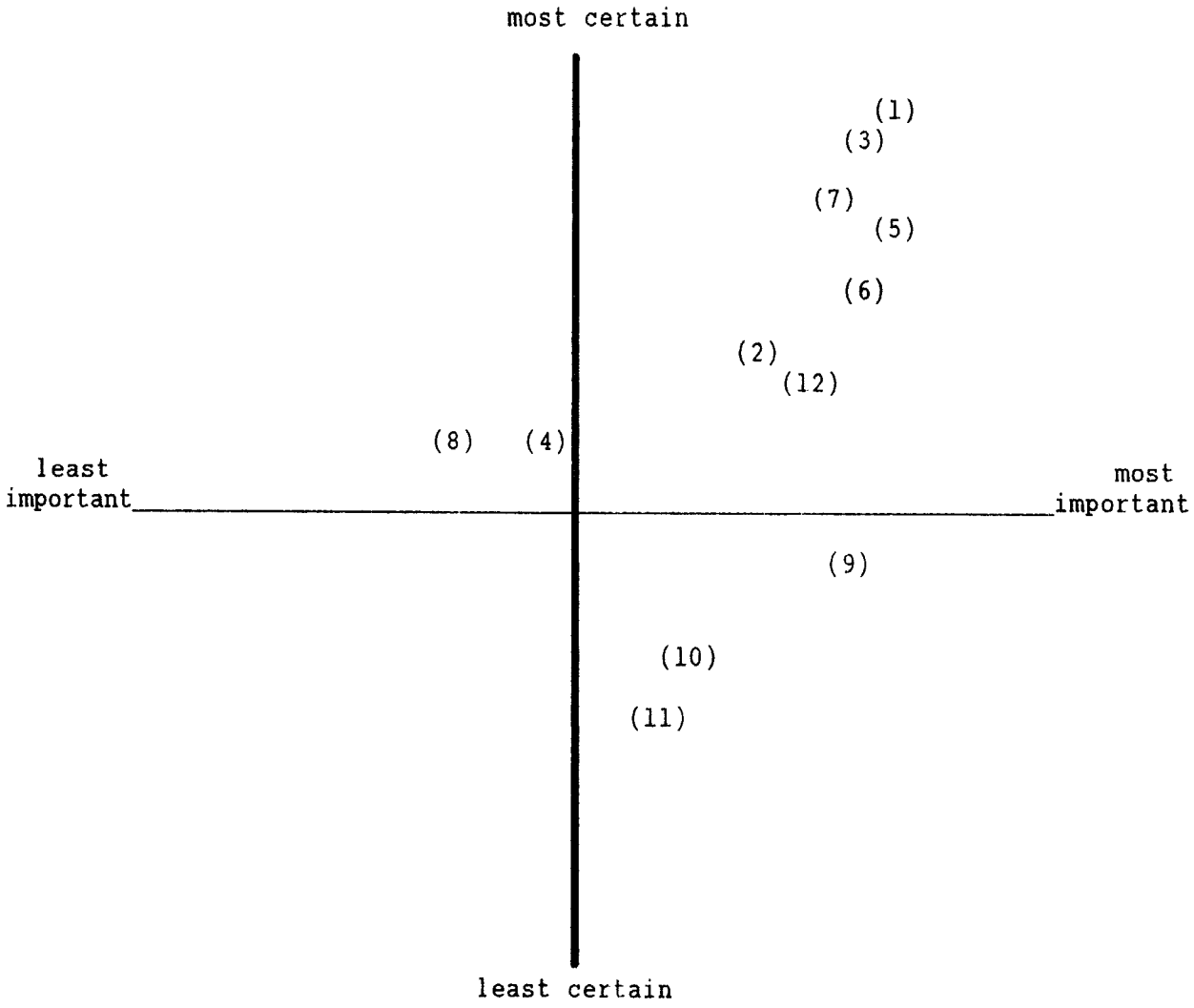
Strategic Assumption Surfacing Technique (SAST)

Table VI employs SAST to evalate each stakeholder in relationship to the issue. The table plots assumptions according to two criteria. The first criterion, plotted on the horizonal axis, marks the relative importance of the stakeholder to the issue. The second, plotted on the vertical axis, charts the certainty that this assumption is correct. SAST acts as an aid in judging how much effort should be expended in garnering a stakeholder's support and to what degree the strategic plan must accommodate the stakeholder.

The most important stakeholders with the greatest assumption certainty are the chiefs of police followed closely by the city managers and the county administrator. These groups will play a significant role in the strategic and transitional plans. The chart also indicates the elected officials and police associations will have key roles, but the assumptions are less certain.

Table VI

Strategic Assumption Surfacing Technique (SAST) Plot



1. Chiefs of police
2. Police associations
3. City managers
4. Non-sworn personnel
5. City councils
6. Board of supervisors
7. Sheriff
8. Residents
9. Taxpayer groups
10. School districts
11. Special interest groups
12. Heartland Joint Powers Authority

NEGOTIATION STRATEGIES

Having "probed the (stakeholder) assumptions,"[4] as Gerard Nierenberg stated in his book and made a stakeholder needs assessment, it is appropriate to consider negotiating strategies judged to be successful when dealing with the stakeholders mentioned above. Details for the strategies used below are covered in Nierenberg's book.

Police chiefs - A plan to implement a consolidation and to establish an effective countywide communication system will require a great deal of cooperation among the chiefs of police and the sheriff and among the chiefs of police themselves. The strategy with the most promise of fostering an adequate degree of cooperation is "how and where" using *participation*, negotiating with a "we are friends" attitude for the mutual benefit of all agencies. Chiefs who are not interested in becoming part of a consolidation will want to negotiate the equipment compatability standards that will be set for new purchases. Chiefs who can see the benefits of consolidating or contracting services will negotiate the level and cost of those services. *Association* will also be used as those chiefs involved in successful consolidations can give testimonials concerning the benefits realized.

Police associations - The negotiation strategies to be used with police associations and the non-sworn personnel will be the "when" and the "how and

---

4. Gerard I. Nierenberg, The Art of Negotiating (New York, Pocket Books, 1981), 143.

where." Consolidation will occur to some extent among agencies in the east county, a *fait accompli*. Once that has been established, *participation*, a working together, will be used to encourage program ownership and improvement suggestions from the associations and the individual membership. The associations will want to negotiate for input into the planning for the new system and in the policy steps necessary to establish the officer's level of service from center personnel. *Crossroads* will be used during contract negotiations when concessions are made on some issues in order to gain acceptance on other major issues.

City manager and elected officials - Negotiations with the city managers with the elected officials will focus on "how and where," *participation* and *association*. These officials will be concerned about balanced funding throughout their cities. City managers are often focused on the bottom line of the budget and will have to be convinced that any consolidation has cost and manpower saving benefits. The manager will negotiate the initial costs associated with consolidating the centers and the agreements that fund the consolidation. Councils, too, are concerned about expenditures, but also in the level of service the public receives. Elected officials, like the city manager, will negotiate costs as budgets come to them for approval. They will be asked to join with law enforcement to improve the level of technology used by the police department which is hoped will better the service provided the public. They will also rely on the input from the professionals and they themselves may be asked by others considering involvement to give testimonials and recommendations regarding the benefits realized from the improved communication system.

School districts and Heartland Authority - "How and where," *participation* and *crossroads* will be used in dealing with the school districts and the Heartland Authority. In order to gain permission to use frequencies licensed to the school districts, the consolidating agencies may have to offer to fund a part or all of the cost to make the district's equipment compatible with the trunking system. Since schools are integral parts of a disaster plan, the districts will enter the negotiations on a friendly note. With Heartland, a method for equitably setting system access priorities will be negotiated from the point of view that "we are friends."

Taxpayer and special interest groups - Taxpayer groups and special interest groups offer difficult negotiating challenges. The environment and the timing of money needs will dictate the best strategy to follow when dealing with these groups. The first anticipated consolidation will coincide with the building of a new police facility in the east county. Plans for that facility include a communications center that would accommodate a consolidated operation. Conversion of existing radio equipment to 800MHz will require funding and the financial condition of the cities involved will determine whether new taxes or bond issues will be necessary.

MODIFIED POLICY DELPHI

During a meeting of individuals with an interest and knowledge of public safety communications, a modified policy delphi process generated several policy

alternatives or strategies for further consideration. A police chief, a police captain, three police lieutenants, and a member of the communications support staff took part in the process. Each member was provided with information on the issue, the trends and events, and the future scenario. The group was asked to assist the researcher in developing a policy statement that would impact the configuration of law enforcement communications in San Diego County by the year 2000. The complete list of policy suggestions follows:

Policy Alternatives.

1. Create a countywide task force, with a limited existence, to develop county standards relating to certain aspects of the implementation of consolidations, agency ability to inter-communicate, equipment specifications, purchase agreements, facility design, hiring standards, and service levels to be provided.

2. Develop joint powers agreements made pursuant to Government Code sections 6500, et sec, for communications consolidations among participating agencies. Such agreements are in place in the Heartland Communications Facility Authority in east San Diego County and at the Delta Regional Communications Center in east Contra Costa County.

3. Establish a countywide communications czar at department level to develop and supervise a county communication system. A county system has been operating successfully in Monterey County.

4. Develop contractual agreements among agencies for the provision of communications service by one of the agencies at a set cost, much like those in force in areas of Contra Costa County.

5. Make no configuration changes. Agencies could continue to dispatch as they do presently, but agree to establish equipment specifications that would facilitate interoperability and intercommunication among public safety agencies within the county.

6. Move to regionalize law enforcement agencies in an area, joining two or more policing agencies in a regional force, including communications functions.

7. "Privatize" the radio communications function.

8. Develop countywide standards and specifications for communications equipment that facilitate the interoperability and intercommunication abilities between agencies.

9. Create a pilot consolidation project for evaluation.

10. The county will construct the radio system computer backbone for an trunked 800MHz system allowing agencies to "add on" to that system as they convert to 800MHz radio equipment. Such a system would share the benefits of countywide coverage, yet allow for consolidation of facilities or for the operation of separate centers.

11. Create a city division head over the communications function.

12. Make no changes in the present configuration or allowance for new equipment specifications.

The modified policy delphi group used a rating sheet to evaluate the feasibility and desirability of each alternative. The list of twelve alternatives was reduced to four. Table VII contains the data from this process. The group selected policy alternatives numbers 1, 2, 4, and 9 for further consideration. Policy alternative number 9 had the most polarized ratings with the widest difference in the ratings.

The rating of each policy was done by adding the feasibility rating and the desirability rating. Those ratings are explained as follows:

DF = Definitely feasible, 3 points	VD = Very desirable, 3 points
PF = Possibly feasible, 2 points	D = Desirable, 2 points
PI = Possibly infeasible, 1 point	U = Undesirable, 1 point
DI = Definitely infeasible, 0 points	VU = Very undesirable, 0 points

Further explanation of the ratings is contained in Appendix F.

Table VII RATINGS FROM THE POLICY DELPHI

Alternative	Score
1. Develop a countywide task force to set specifications	24
2. Develop joint powers agreements for communications	26
3. Establish a county communications czar	16
4. Develop contractual communications agreements	24
5. Make no configuration changes, establish specifications	23
6. Move to regionalize law enforcement including communications	17
7. Privatize the radio communications function	16
8. Develop countywide standards for interoperability	23
9. Create a pilot communications project for evaluation	24
10. Have county build a backbone system	22
11. Place a city department head over communications	15
12. Leave the present systems in place, no changes	13

Alternative Policy Analysis

Once the group made its selections, the author was afforded the opportunity to develop the pro/con analysis, based on his knowledge and research, for the final group of policy alternatives.

Policy alternative 1 - Create a countywide task force.

Pro: This policy, if given the proper amount of authority, could transform the county's communication system into one of compatibility. The technology is available, or will be in the near future, to allow agencies to have their own systems, yet provide for those emergency situations. The task force would provide a direction for the county's communication system of the 21st century.

Con: To be successful, the task force recommendations would require a consensus among the heads of county law enforcement agencies and a financial environment that will allow agencies to purchase the equipment necessary to make a coordinated system function. Consensus will be difficult and, if the trends forcast in this study hold true, the funding may not be adequate to convert to a new system or compatible systems.

Policy alternative 2 - Develop joint powers agreements (JPA).

Pro: This policy, along with alternative 4, would likely have the earliest impact on the configuration of law enforcement communications in the county. Movement toward consolidation could start immediately, allowing enough time to adequately plan and implement a transition. JPAs are made to foster partnership and ownership of the operation by the participating parties. It allows input from the membership and usually acts as the majority directs. The agreements spread the costs of maintenance and upgrade of the mutually used equipment and facilities among the members on a prorated basis. The agreements can relieve certain member agencies from the responsibility (and headache) of staffing a communications center.

Con: Such agreements can be affected by the personalities of those who represent the member agencies. Jealousies can arise over the levels of service afforded one member and not another. Blocks of power can form to the detriment of other members where agencies with different missions (i.e., police vs fire) are not equally represented. Such power struggles

can block progress or "railroad" changes that benefit only one side of an issue.

Policy alternative 4 - Develop contractual agreements

Pro: Contracts for communication and dispatching services have been successful in other portions of the state. The customer negotiates for the desired level of service for a set cost. The contract relieves the customer of the headaches associated with staffing the communications center. Where contract services have been in place for some time, customer agencies would not return to operating their own center even though they could afford to do so.

Con: Contract may lock the customer agency into operating under the same procedures as the servicing agency and not allow agency flexibility. The contracting agency will be locked into the same level of technology as the provider. There can be substantial initial costs for the transfer of phone lines and for equipment purchases to bring the contracting agency to compatibility with the service provider.

Policy alternative 9 - Create a pilot consolidation project for evaluation.

Pro: There is uncertainty in any change, especially a major one like consolidation. By establishing a center, using the available technology, the county and its law enforcement agencies could evaluate the benefits

and weigh those against any drawbacks before making additional changes or moving toward further consolidations.

Con: Deciding which agencies will be the "guinea pigs" would be a difficult proposition. Many departments are in the midst of planning the direction of their future communications needs. Bid processes are currently under way. Trying to establish a project to accommodate every agency in the county and have it impact those agencies' decisions before important purchases must be made would be an monumental undertaking.

Recommended Policy Strategy.

Regardless of which policy alternative is selected (policy number 2, developing joint powers agreements; or number 4, developing contractual agreements), the results would be essentially the same. Consolidation would occur. The choice of policy (joint powers agreement versus a contract for services) would be a matter of what form of management best suits the participants. Contracts for providing communications services have been successful elsewhere in the state. Joint powers agreements have a successful history in county public safety with the Automated Regional Justice Information System providing crime data and Heartland operating such an agreement for east county fire dispatching services. The La Mesa City Council already participates in both of these JPAs and, for that reason, policy alternative 2 will be developed. Policy alternative 1 should also be implemented to develop standards for changes in the county's communications configuration. Policy alternative 9 will not be considered further because of the concerns mentioned earlier.

ADMINISTRATION AND IMPLEMENTATION

The modified policy delphi expressed a concern that change in the way law enforcement agencies communicate among themselves will be necessary in order to better combat the crimes and deal with emergencies that will face the county in the future. The group indicated that the change would take a great deal of planning and, in order to lead county law enforcement communications from the present into the future, that plan must provide a coordinated response to the needs of each community and its policing agency, both for now and into the 21st century.

Whatever the configuration of communications in the county, the change for east county will be accomplished in phases described below:

Phase I - The first step toward consolidation will be the selection of a project manager by the heads of the east county agencies involved in the consolidation. The manager will likely be at the command management level and will lay the goundwork for the later phases. A qualified communications manager, familiar with the operations of a communication center, would be ideal for the development of the program. Each agency involved in the consolidation will consider which of its members are appropriate to assign to positions of department coordinator and as participants on an implementation committee to work closely with the project manager.

During Phase I, the countywide task force will be established under the control of the San Diego County Chiefs' and Sheriff's Association. That organization

has assigned one of its member police chiefs to coordinate radio communications efforts for the county. Phase I will cover 18 to 24 months. This phase could take longer than two years and may overlap portions of phase II.

Phase II - Phase II will begin the transformation to new technology. Mobile date terminals (MDT) will be installed and utilized. This phase will allow time for a training and a familiarization period with the new equipment as well as an opportunity to correct problems that might arise in the MDT program before the actual consolidation takes place. This phase will provide the project manager with actual workload and productivity figures to be used initially to determine appropriate dispatcher staffing levels. Standardizing the call prioritizing system will take place during phase II. Phase II is scheduled to last twelve to fifteen months, depending on the completion of construction on the new police department building in the east county.

Phase III - Phase III will begin with the actual consolidation of police dispatch operations in the east county. The desired outcome of this phase is the smooth transition from separate dispatch communications centers to an more efficient operation. Phase III will take eighteen to twenty-four months as operations are examined, the system is fine tuned, and the appropriate levels of service are solidified. The consolidation will be evaluated using the following dimensions among others to be determined later:

1. Cost effectiveness (cost/benefit analysis)
2. Employee acceptance
3. Employee productivity
4. Citizen comments/complaints

5. Interagency cooperation

SUMMARY

Part II assessed the environment where the change will occur. The model organization's strengths and weaknesses were analyzed as well as the opportunities and threats posed by trends and events. Stakeholder assumptions were examined and a list of possible policy alternatives was compiled. From the information before them, a Modified Policy Delphi selected policy alternatives that were identified as desirable and feasible. A three phase plan was drafted to implement the desired policies.

PART III: TRANSITION MANAGEMENT

The Move to Regional Communications for Law Enforcement Communications in San Diego's East County

THE MOVE TO REGIONAL COMMUNICATIONS

As stated in Beckhard and Harris's book, Organizational Transitions, "...any major organizational change involves three distinct conditions: the future state, where the leadership wants the organization to get to; the present state, where the organization currently is; and the transition state, the set of conditions and activities that the organization must go through to move from the present to the future."[5]

Statement

The objective of this section of the study is to develop a transition management process designed to facilitate the creation of a consolidated police dispatch communications center in San Diego's east county. The process will guide the La Mesa Police Department from its current state to the desired future state through the use of the technology, resources, and agreements with its neighboring cities.

Methodology

Before delving into the transition process, it is important to identify the critical mass of individuals or groups whose active commitment is necessary to provide the energy for the change to occur. The critical mass players will be judged as to their readiness and their capability for change. Further, their current commitment to the proposed change and the level of their commitment

---

[5]. Richard Beckhard and Reuben T. Harris, Organizational Transitions, second edition (Menlo Park, CA, Addison-Wesley Publishing Company, 1987), 29.

necessary for the plan's success will be charted. The process will include establishing a management structure and control systems to maintain direction and minimize uncertainty, responsibility charting to establish responsibility within the management structure for each activity, and developing a monitoring system to evaluate progress during the change.

Critical Mass Selection

The critical mass players were identified from among the list of stakeholders who may impact the selected policy(ies). It is not necessary for all stakeholders to participate in the transition in order to assure success, but those outside the critical mass will be kept informed concerning the progress of the change. The following list of key players was selected with the assistance of four management-level officers in the organization.

1. Chief of police, La Mesa
2. Chief of police, El Cajon
3. City manager, La Mesa
4. City manager, El Cajon
5. City council, La Mesa
6. City council, El Cajon
7. Police associations, La Mesa and El Cajon
8. Project manager

Critical Mass Assessment

Chiefs of Police, La Mesa and El Cajon - Without the support and commitment of the chiefs of police involved in the proposed consolidation, it is almost assured that the plan will not be successful. The decisions of both city

managers relating to operations within their police departments are influenced by recommendations by the chiefs. At times, chiefs can have more influence over a city council than even the city manager. Although a project manager will have day-to-day control over the transition, the chiefs must commit to providing the resources necessary for implementation of the program. Both chiefs of police have registered their complete support to make the change happen, and that is the appropriate level of commitment.

City managers, La Mesa and El Cajon - To be successful, a consolidation will require the support of both city managers. It may be necessary that these individuals be involved from the early stages of planning through the implementation. Their control over the budgets of the police department and their influence with their respective city councils cannot be overlooked when making such a significant change as consolidation. Their level of commitment is to help the change happen. It is important that the benefits of the change are related to the managers in order to place them in a position to make the change happen.

City councils, La Mesa and El Cajon - The councils are the final approving authority of any contract or joint powers agreement necessary to establish a consolidated center. Their concerns over local control of the operation and the quality of service delivery must be addressed by the plan to gain their support. The plan will have funding requirements and policy changes that must receive council approval. Members of the councils are able to influence the public when its support is necessary. The program will not be successful without the financial and philosophical support of both city councils. At this point,

certain council members have expressed a wait-and-see attitude. It is important that the benefits to the city and law enforcement are worthy of a "help it happen" level of support.

Police associations, La Mesa and El Cajon - The membership, through their presidents, have the ability to delay or facilitate the implementation of this change. It important to involve members of the associations in the planning stages of the process in order to nurture support. Concerns over what aspects of the implementation and the consolidation fall under the Meyers, Milias, Brown Act, must be considered when measuring the impact of the change. It will be necessary to highlight the officer safety benefits and the technology that will be available in order to move the group from a "block change" or "no commitment" position to a point where the groups will let the change happen.

Project manager - The character of the project manager will have a great deal of influence over how the change is accepted by the involved agencies. It is important that this individual keep the critical mass players informed during every phase of the transition. The project manager will be working closely will all levels within city government and must do so with the utmost tact. His/her relationship with the employees that will make the system work is crucial. He/she must be able to accept and hand out criticism in as positive a way as possible, keeping the goal of establishing a successful consolidation in mind.

Table VIII is the assessment of the present state of the players' readiness for and capability of change. The assessments are based on interviews with and correspondence from representatives with insight as to a group's readiness and

capabilities. A lead candidate for the position of project manager was also interviewed. Readiness for change has to to with willingness, motives, and aims. Capability involves power, influence, authority to allocate resources, and the possession of information and skills required to carry out the necessary tasks.[6]

Table VIII **READINESS and COMMITMENT**

CRITICAL MASS READINESS and COMMITMENT to CHANGE

Key Players	Readiness			Capability		
	High	Medium	Low	High	Medium	Low
Police Chief, La Mesa	X			X		
Police Chief, El Cajon	X			X		
City Manager, La Mesa	X				X	
City Manager, El Cajon	X				X	
City Council, La Mesa		X			X	
City Council, El Cajon		X			X	
Project Manager	X			X		
Police Associations			X			X

Table IX depicts the current commitment levels based on the assumptions made above and the desired commitment levels of the key players judged to be necessary to successfully bring about the change.

---

6. Beckhard & Harris, *Organizational Transition*, 61.

Table IX **COMMITMENT PLANNING CHART**

Critical Mass Key Players	No Commitment	Let Change Happen	Help Change Happen	Make Change Happen
Police Chief, La Mesa				XO
Police Chief, El Cajon				XO
City Manager, La Mesa			X----------→O	
City Manager, El Cajon			X----------→O	
City Council, La Mesa		X----------→O		
City Council, El Cajon		X----------→O		
Project Manager			X----------→O	
Police Associations	X----------→O			

Legend: "X" = Where the critical mass player is now.

"O" = Where the player needs/should be

MANAGEMENT STRUCTURE FOR TRANSITION MANAGEMENT

The management structure will employ the use of a project manager selected by the chief executives of the impacted agencies. The chiefs must maintain their leadership roles within their organizations to interact with stakeholders external to their agencies. By designating a project manager, which would be a command-level member from one of the involved agencies, the chiefs can review and approve the actions of the manager without becoming involved with the daily "nuts and bolts" operation of the implementation program.

The project manager will have the responsibility of coordinating implementation activities between the involved agencies. Each impacted agency will assign a department staff level coordinator as part of an implementation committee with the necessary staff to work closely with the manager during the transition period. The project manager will have the clout to mobilize resources to keep the change moving, the respect of the existing operating leadership, and the effective interpersonal skills necessary to insure a smooth transition.

TECHNOLOGIES AND METHODS

Because a consolidation of dispatch communications is a significant change from the present state, more than one intervention technology will be utilized to garner support for the implementation.

A three- to five-year preparation period is anticipated before the consolidation will take place. That time frame is established to coincide with the completion of construction of, and the purchase of new radio equipment for, the new police station in El Cajon. Prior to the consolidation, mobile data terminals will be installed as a pilot project. The MDT will ultimately become part of the larger system. Bringing the technology into play in phases will allow the officers to become comfortable with the equipment and permit the programmers adequate time to fine tune the equipment in advance of the dispatching change.

Educational intervention will be used with groups in the community, within the police departments, and in the city governments. Stakeholders will need to be informed about the planned changes. Although the council members and the city managers will be heavily involved in certain phases of the implementation, there

will be a need for interim briefings and status reports. During the planning stages for the CAD system and MDTs, training sessions and the opportunity for exchanges of information will be offered to officers and support staff personnel.

Another recommended intervention strategy will be the use of a task force in the form of an implementation committee. This technology will involve persons at different levels of the organization who are able to generate support for the implementation within their departments. The committee's goals will include assisting the project manager in the planning for a smooth transition to the consolidated center and in soliciting for input from those that will be most impacted by the changes in radio technology and working conditions. After being selected, committee members will meet for a team building workshop. This will give the chiefs from the involved agencies an opportunity to communicate their support for the consolidation and emphasize the importance of committee's objectives. The committee members are expected to keep their peers and subordinates informed concerning the changes. A second workshop will provide an opportunity for the committee to evaluate the input and suggestions they have gathered. Roles and responsibilities of the players will be finalized during this workshop.

The responsibility chart (Table X) will be the tool used to provide consistency during the transition period.

Table X

RESPONSIBILITY CHART

ACTIONS/ DECISIONS	PLAYERS: Chief La Mesa	Chief ElCajon	City Mgr, LM	City Mgr, EC	City Council	City Council	POA LM/EC	Project Manager
Name Proj Manager	A	R	I	I	-	-	-	-
Select Dpt Coordinator	R	R	I	I	-	-	-	I
Select Committee	S	S	I	I	-	-	S	R
Status Reports	I	I	I	I	I	I	I	R
JPA Draft	I	I	S	S	A	A	I	R
Equipment Lists	A	A	-	-	-	-	I	R
Operations Level	A	A	I	I	-	-	I	R
Funding Proposal	I	I	S	S	A	A	-	R
Training of Personnel	S	S	-	-	-	-	I	R
Budget	S	S	A	A	A	A	-	R
Personnel Mngmnt Plan	S	S	A	A	I	I	I	R
Organization Communication	R	R	I	I	-	-	R	S
Equipment Decisions	A	A	I	I	-	-	I	R
Systems Modification	A	A	I	I	I	I	I	R
Program Implemented	A	R	A	A	I	I	I	S

R=Responsibility(not necessarily authority); A=Approval(right to veto); S=support(put resources toward); I=Inform(consult before action; (-)=Irrelevant

Responsibilities

It is appropriate to consider the responsibilities of critical mass players who will have a part in the transition management:

The Chief of Police for La Mesa has a lead role in the transition process. His support, and that of his counterpart in El Cajon, will be a key factor in moving the organization from its present to its future. He will take the lead in insuring that the interests of his organization are properly served. The chief will take a lead role in negotiating with stakeholders. He is in a position to influence the city manager and the council as they evaluate the joint powers agreement. He will take an active role with the El Cajon chief in the selection of a project manager. His selection of La Mesa's project coordinator and members of the implementation committee/task force will set the tone for the transition. He has approval authority on a number of sensitive issues. As the head of the agency, the chief will take the responsibility for communicating the progress of the program to those inside the agency and to those in city government.

The Chief of Police in El Cajon also plays an important role in the transition. Beyond his selection of the project manager and the implementation committee, his active support is necessary to ensure success. The new facility his agency will be building will house the consolidated operation. In his leadership role, he must garner the support of his city manager and the council for the joint powers agreement to operate the consolidated center.

The police association representatives for the separate agencies will perform the roles of information conduits during the implementation to provide vital two-way communications outside the normal channels.

The project manager will have general goals that revolve around coordinating the transition from separate communications operations to a consolidated center. A number of goals will be monitored during more than one phase and these goals include, but are not limited to, the following:

1. Formulation of draft joint powers agreements for consideration by participating agencies and cities.
2. Develop lists of equipment necessary for conversion to 800MHz.
3. Coordinate with any county task force regarding equipment specifications required for county system compatibility.
4. Draft equipment specifications for bid submittal and work closely with purchasing agents for agencies involved in the consolidation.
5. Coordinate with manufacturers regarding bid questions.
6. Work with agency representatives to establish service levels and to develop the specifications for the CAD and records management system.
7. Develop facility design specifications in cooperation with the agency constructing the building that will house the operation.
8. Develop budget proposals for the operation of the center.
9. Provide implementation status reports to interested parties.
10. Make recommendations for modifications as the program progresses.

SUMMARY

Part III identifies the players in the critical mass and analyzes their readiness and capabilities for, as well as their commitment to the proposed change. A management structure was designed with responsibilities assigned to provide direction and to reduce uncertainty as the organization moves from its present state, through the transition state, into the future state.

CONCLUSIONS

AND

RECOMMENDATIONS

CONCLUSIONS

There is growing concern within the public safety sector in San Diego County, especially among law enforcement agencies, over the inability to effectively communicate during times of mutual aid and other joint operations. The leaders of these organizations are focusing beyond the present to the time when there is a countywide radio system that integrates the latest technologies while maintaining the benefits associated with individual communication centers. The leaders must consider setting aside some of the values of the present in order to identify those that will shape a more desirable future for county communications. Instead of considering ways to overcome the self-imposed obstacles to inter-communications, they must realize the wisdom of cooperation in the setting of realistic equipment standards for new or replacement purchases throughout the county. Decisions such as these will determine the state of county communication into the 21st century.

The future of communications in San Diego County will not be a mirror of the past. Beyond the equipment and systems that will be the technology of the future, there is evidence that the financial woes that are currently confronting cities and the county will continue through the end of this century. Finding the means for constructing radio systems or replacing the present ones has required several agencies to evaluate alternatives to the current methods of operation. Cities are looking at a future that will make consolidated communication centers a way for smaller agencies, and those less affluent, to afford the technology of tomorrow.

RECOMMENDATIONS

The findings of this study indicate that it is important for the policy makers of San Diego County to act now to establish radio equipment standards and networking specifications to facilitate efficient and effective law enforcement communications for the entire county. To continue the piecemeal replacement of systems for even a few more years may only aggravate an already unsatisfactory situation and postpone real progress beyond the year 2000.

Although the focus of this study was the configuration of east county law enforcement communication operations, another important issue surfaced during the research that did not relate to the main issue. That issue concerned itself with the concept of a regional police response to calls-for-service. Fire services within certain areas of the county provide fire suppression and emergency medical services on a regional or "closest unit" basis. Research is necessary to determine if the public would be better served, especially in an emergency, if law enforcement operated under a similar policy.

The study points out a subissue that was mentioned briefly, yet will require additional attention as consolidations become more prevalent. That issue poses the question of what are the ramifications of consolidation beyond the threat to records security and investigative confidentiality.

APPENDIXES

APPENDIX A - NOMINAL GROUP

1. Chief of Police, La Mesa, California

2. Chief of Police, Coronado, California, and Chairman of the San Diego County Chiefs' and Sheriff's Association Committee on Communications

3. Captain, San Diego Police Department, Communications Manager

4. Director of Communications, San Diego Sheriff's Department

5. Design Engineer, Motorola Communications and Electronics

6. Government Sales Representative, Motorola Communications and Electronics

7. Regional Sales Director, Motorola Communications and Electronics

8. City Manager, City of La Mesa

9. Electronics Technician, City of San Diego

10. Captain, La Mesa Police Department, Communications Manager

11. Lieutenant, El Cajon Police Department, Communications and Long Range Planner

APPENDIX B - TRENDS

1. Civilianization of positions.
2. Number of contract cities and city incorporations.
3. Cost of computing.
4. Radio technology in size and capacity of systems.
5. Efficiency.
6. Computer enhancements and data transmission.
7. Skill and literacy of the labor pool.
8. Customer (the public's) expectations.
9. Use of task forces to attack problems.
10. Envionmental and site considerations.
11. Training.
12. Revenue sources for communications.
13. Public awareness.
14. Information throughput.
15. Interoperability (interagency communication capability).
16. Cost benefit.
17. Ergonomics (user efficient technology).
18. Land values.
19. Consolidation of law enforcement functions including communication operations.
20. Privatization of services.
21. Cost of providing services.
22. Available management information.
23. Officer safety concerns.
24. Employee morale.
25. Asset seizure money available.
26. Money available to criminals (drug money).
27. Demographic impact on law enforcement.
28. Changes on types of services and methods of delivery.
29. Cost recovery.
30. Competition for dollars, space, time, labor.
31. Dispatcher pay and career path.
32. Standards and protocol among radio equipment vendors.
33. Radio frequency conservation.
34. Nature and types of crime.
35. United States/Mexico conflict over frequencies.
36. Lease vs purchase financing.
37. Mobile satellite technology.
38. Need to track hazardous materials through a jurisdiction.
39. Communications system costs.
40. Cooperative procurements of equipment.
41. Value-added purchases, delivery of vendor resources.
42. Number of federal and state mandates.
43. Amount of litigation.
44. User requirements.
45. Standardized mapping system requirements.
46. Communication system control and flexibility.
47. Revenues available to fund city/county services.

APPENDIX C - EVENTS

1. Recession.
2. East county 800MHz system is on line.
3. Major earthquake or other natural disaster.
4. Renewal of LEAA or similar funding from the federal government.
5. Proposition 13 or other restrictive spending measures overturned.
6. Mexican-United States treaty on radio frequencies signed.
7. Licensing of NIP pact frequencies.
8. 911 surcharge for funding communication.
9. Authorized uses of asset seizures expanded.
10. Political changes.
11. Boycott of foreign equipment.
12. Subregional consolidation of police dispatching.
13. Expanded narcotics laws enforcement.
14. Trade war declared.
15. Service charges for police services enacted.
16. City/county consolidation.
17. Interest rates lowered.
18. Intercity disaster communications plan instituted.
19. Digital voice communications on line.
20. Labor strike among public employees.
21. Additional mandated reporting requirements.
22. Atmospheric disturbance.
23. Expansion of east county judicial system.
24. Gann spending limits enacted.
25. Regional law enforcement mandated.
26. Countywide 800MHz or similar system on line.
27. Sheriff wins approval to use frequency in television wave band.
28. Communication technology breakthrough.
29. Major event (Olympics, national convention) occurs in county.
30. 911 emergency system enhanced.

APPENDIX D

COUNTY OF MONTEREY
Coordinated Emergency Communications System

CHARGES TO CITIES FOR 1989-1990

	--Assessed Valuation-- Base	Allocation	---Population--- Base	Allocation	Dsptch Activity Base	Allocation	Annual Fee per Agreemnt
CITIES							
Del Rey Oaks	$60,226,229	$3,137	1,781	$3,593	4,061	$6,042	$12,771
Gonzales	142,044,305	7,399	4,036	8,141	7,025	10,452	25,991
Greenfield	89,453,420	4,659	6,630	13,373	6,347	9,443	27,476
King City	204,074,878	10,630	7,587	15,304	8,256	12,283	38,216
Marina	396,298,577	20,642	30,113	60,741	26,277	39,094	120,477
Monterey	1,742,288,450	90,747	31,529	63,597	62,836	93,486	247,830
PacGrove	669,337,104	34,863	16,616	33,516	31,174	46,380	114,760
Salinas	2,603,381,063	135,601	101,925	205,593	144,001	214,242	555,436
Sand City	52,079,262	2,713	217	438	1,274	1,895	5,046
Seaside	480,169,390	25,010	36,698	74,024	58,032	86,330	185,878
Soledad	83,823,051	4,366	6,640	13,394	10,803	16,073	33,832
Subtotal cities	6,523,115,729	339,767	243,772	491,713	360,086	535,729	1,367,209
Monterey County	6,812,130,263	354,820	100,577	202,874	106,775	158,858	716,552
TOTAL	$13,335,245,992	$694,587	344,349	$694,587	466,861	$694,587	$2,083,761

TOTAL 1987-88 COSTS FOR ALLOCATION

1988-89 dispatch costs per 1990-91 Countywide Cost Allocation Plan		$2,247,277
Net cost of computer aided dispatch system		(761)
Subtotal		2,248,038
Less:		
State of California "911" funding earned in 1988		-$72,070
Received from other agencies:		
Fire districts	$21,648	
Social Svcs Child Abuse Dsptch	70,560	92,208
TOTAL:		$2,083,760

APPENDIX E

JOINT POWERS AGREEMENT
EASTERN CONTRA COSTA COUNTY DISPATCH CENTER

1. Parties.

The County of Contra Costa, hereinafter referred to as "County" for the Sheriff-Coroner Department, and the Bethel Island, Brentwood, Byron, Oakley, and Riverview Fore Protection Districts, and the Cities of Antioch, Brentwood, and Pittsburg hereby mutually agree and promise as follows:

2. Term.

This agreement is effective_____ and shall remain in effect until terminated in accordance with paragraph 3.

3. Termination.

After June 30, 19__, any party to this agreement may terminate their participation upon at least one year's advance written notice to all other parties. Notice must be given before June 30 to be effective on July 1 of the next calendar year. Termination shall only be effective on July 1, and at no other time. This agreement may also be terminated upon mutual agreement of all parties.

4. Purpose.

The purpose of this agreement is to establish, maintain, and operate a centralized police, fire, and emergency medical service dispatch center in the Eastern Contra Costa County, hereinafter referred to as "Center".

5. Administrative Entity.

The County shall administer this agreement in accordance with its terms and conditions. The agreement shall not be construed to create an agency separate and apart for the County and the other parties.

6. Costs.

(a) Shares.

The initial and annual costs of the establishment, maintenance, and operation of the Center, not paid by the State of California, shall be paid by the parties in the following proportions:

Agency	Percentage
Sheriff (County)	23.0
City of Antioch	24.0

City of Pittsburg	23.0
City of Brentwood	.7
Riverview FPD	24.0
Oakley FPD	1.8
Brentwood FPD	2.0
Bethel Island FPD	.6
Byron FPD	.6
Delta Marshal	.3

(b) Review.

On July 1, 19__, the above percentages shall be reviewed and, if necessary, revised to more accurately reflect the actual usage of the Center by each party. The above percentages are binding on all parties and may be adjusted only upon the agreement of all parties.

(c) Bill, Pay.

The County Auditor-Controller shall determine the intial and annual costs and bill each party to this agreement their proportional share. The billing shall be done on a quarterly basis and each party shall be provided with a cost breakdown. Records of the County Auditor-Controller documenting incurred costs shall be available to any party upon request. Payment is due within 30 days of the invoice date.

7. Legal Authority.

This contract is entered into under and subject to the following legal authorities: Government Code sections 6500 ff.

8. Indemnification.

(a) Standard of Care.

Nothing in this agreement shall be construed to affect the legal liability of any party by imposing a standard of care with respect to performance under this contract different from the standard of care imposed by law.

(b) Cities.

The Cities, and each of them, shall defend, hold harmless, and indemnify the County and its officers, agents, and employees against any and all claims, demands, damages, costs, expenses, or liability, including, without limitation, all consequential damages, from any cause whatsoever arising from or in connection with any work performed under this agreement, except for liability arising out of the sole negligence of the County, its officers, agents, or employees.

(c) Fire Districts.

The Fire Protection Districts, and each of them shall defend, hold harmless, and indemnify the County and its officers, agents, and employees against any and all claims, demands, damages, costs, expenses or liability, including, without limitation, all consequential damages, from any cause whatsoever arising from or in connection with any work performed under this agreement, except for liability arising out of the sole negligence of the County, its officers, agents, or employees.

9. Operation of Center.

The County shall operate the Center, answer "911" emergency telephone and other calls, and shall dispatch police, fire, and emergency medical units for all the parties to this agreement. The County shall provide staff for these functions and to manage and maintain the Center.

10. Building Space.

The County shall by separate lease or agreement obtain building space to house the Center. The costs of building space shall be shared by all parties to this agreement as part of the costs of the Center. Nothing in this Agreement shall be construed as a lease for building space.

11. Implementation Committee.

(a) Composition.

An Implementation Committee, which will guide the overall development and start-up of the Center, is hereby created. The Committee shall be composed of one member from each party to this agreement, designated by the Board of Supervisors or City Council respectively, and one emergency medical service representative from the ambulance companies who are under contract with the County to provide service to the Eastern County area. The emergency medical service representative will be selected by majority vote of the remainder of this committee.

(b) Terms.

The term of the Committee members shall commence upon execution of this agreement and terminate when the Center has formally commenced operation as determined by the Sheriff. At that time, the Committee is dissolved.

(c) Duties.

The duties of the Implementation Committee are as follows:

1. Coordinate the preparation and approval of the initial budget, including representation before the Board of Supervisors, in matters directly affecting the Center.

2. Recommend to the County proposed contracts for service, building space, and equipment acquisition.

3. Establish levels of communications services to be provided.

4. Effect liaison with the County Auditor-Controller for purposes of billing and cost apportionment.

12. Operations Committee.

(a) Composition & Beginning.

There is hereby created an Operations Committee composed of one representative each from the following: County Sheriff's Department, City of Antioch, City of Pittsburg, City of Brentwood, and the Riverview Fire District, plus two additional representatives selected by the remaining fire districts; but if there is only one remaining fire district, it selects only one representative. The Operations Committee shall take effect on the day the Implementation Committee is terminated as determined by the Sheriff.

(b) Duties.

This committee shall prepare an annual budget proposal, advise the County regarding proper operation of the Center, and hear complaints and resolve issues that arise during the day to day operation of the Center. It may appoint sub-committees, as needed, charged with specific tasks including, but not limited to, system design, computer use, procedural matters, and modification of radio and telephone systems, including "911" emergency telephones problems. It shall report its findings and recommendations to the Sheriff and to appropriate Councils, Commissions, and Boards of Supervisors.

(c) Budgets.

The Operations Committee shall prepare annual budgets for operation of the Center and present them to the Sheriff, in time to meet the annual budget cycles of every party to this Agreement.

13. Equipment.

Except as provided in paragraph 18, the County shall own and maintain all equipment, apparatus, and furnishings at the Center, and associated therewith; but the costs of such equipment, etc., and of its maintenance and upkeep shall be included in the Center's budget and shall be part of the costs of operating the Center. The existing depreciation and replacement schedules shall be used, and disposal of equipment shall be by the County Purchasing Agent in accordance with County policy and practices. The proceeds from equipment disposal shall be used to offset costs of replacements or new equipment, etc., or of operating expenses, or shall be refunded to the parties in accordance with paragraphs 13 & 5(a) as determined by the Sheriff and County Auditor.

14. Forfeiture of Equipment.

Any party withdrawing from participation in the center and terminating its participation in this agreement shall forfeit its interest in any equipment donated or otherwise acquired for use at the Center, unless, in the opinion of the Operations Committee, the return of any equipment owned by the participating agency prior to its entry into this agreement will not materially damage the operation of the Center.

15. Surplus Money.

Upon termination of this agreement, any surplus money on hand shall be returned to the parties in the proportions specified in paragraph 5(c).

16. Temporary Closure of Communications Center.

If the Center is disabled or damaged by any cause, including, but not limited to, Acts of God, riot, public insurrection, or other such disturbance, the County will use whatever temporary means are available to continue to provide essential police, fire, and emergency medical radio and telephone communications, to the extent practicable, although the level of service may be severly curtailed and the "911" emergency telephone system may not function at all. Temporary communications, both in method and location, shall be provided and used at the discretion of the Sheriff, with such counsel from the Operations Committee as is practicable. The Operations Committee shall provide the Sheriff with alternatives, anticipated schedules, and restoration plans, and the County will make reasonable efforts to restore service to normal. Alternatively, the communications system may operate on a decentralized basis using dispatching equipment engineered into the basic design of the system and normally used for day to day special events, at the discretion of the Sheriff.

17. Alarms.

The Center shall monitor those alarms, if any, which, in the judgement of the Operations Committee, are necessary for the protection of life and property.

18. Radio Frequencies.

(a) The Center shall be equipped to use all existing and available radio frequencies for police, fire, and medical dispatching, and further engineering shall take place on an on-going basis to enhance the communications capability.

(b) The County (Sheriff) shall manage and be the licensee for all radio frequencies used by the Center. If a party chooses to withdraw from this Agreement and the communications system, none of the police radio frequencies used by the Center shall be assigned to the departing party, except that a police UHF frequency shall be assigned to the City of Pittsburg if Pittsburg withdraws.

19. Communications Equipment.

(a) Each party shall buy and replace all radio communications equipment not part of the fixed base station assemblies and all initially purchased status heads, including, but not limited to, mobile radios, portable, and other specialized devices. However, the County may, at its discretion, act as the procurring agency of approved equipment (see (b)) at an "at cost" basis, and shall be reimbursed by the respective party.

(b) The Operations Committee shall review and approve mobile radio equipment for compatibility with the consolidated communications system.

20. Legality, Separability.

If any section or part of this Agreement is held by a court to be invalid, it shall not affect the validity of any other part of this Agreement.

21. Amendments.

This agreement may be amended or modified at aly time upon the mutual agreement, in writing, of all parties hereto.

22. Signatures.

These signatures attest the parties agreement hereto:

APPENDIX F

DESIRABILITY & FEASIBILITY RATING DEFINITIONS

FEASIBILITY

Definitely Feasible	no hindrance to implementation no R&D required no poitical roadblocks acceptable to the public
Possibly Feasible	indication this is implementable some R&D still required further consideration to be given to political or public reaction
Possibly Infeasible	some indication unworkable significant unanswered questions
Definitely Infeasible	all indications are negative unworkable cannot be implemented

DESIRABILITY

Very Desirable	will have positive effect and little or no negative effect
Desirable	will have positive effect, negative effects minor beneficial justifiable as a by-product or in conjunction with other items
Undesirable	will have a major negative effect harmful may be justified only as a by-product of a very desirable item
Very Undesirable	will have a major negative effect extremely harmful

BIBLIOGRAPHY

Appel, Stephen. "Information System Integrated with Digital Computerized Dispatch." Law and Order 36:2 (February 1988): 28-31.

Birchler, Mark. "The Future of La Enforcement: Laptop Computers." The Police Chief LV:5 (May 1988): 28-30.

Burden, Ordway P. "Police in the Year 2000." Law and Order 36:9 (September 1988): 39-42.

Clark, Charles, and Diane Maus. "Selection and Installation of a Mobile Digital Communications System." The Police Chief LV:5 (May 1988): 36-40.

Contra Costa County Sheriff's Department. West Contra Costa County Emergency Communications Consolidation Plan. Martinez, CA: Contra Costa County Sheriff's Department, 1981.

Fischel, Michael B., and William N. Brown. "Computer-aided Dispatch Center Protects Fairfax County, VA." Law and Order 36:2 (February 1988):25-26.

Herley, Peter G. How Can the Consolidation of Functions Between Small California Police Departments Ensure the Departments' Viability by the Year 2000?, Sacramento, CA, POST, 1989.

Kuykendall, John L. Police Communications 2000, Riverside County. Sacramento, CA, POST, 1986.

Moran, John, and Karen Layne. "Enhanced 9-1-1/CAD: Interfacing New Technology to Fight Crime." The Police Chief LV:8 (August 1988): 25-29.

Smith, Les. "A Systems Management Approach to Mobile Data Terminals." The Police Chief LV:5 (May 1988): 40-43.

Tafoya, William L. "The Future of Policing." FBI Law Enforcement Bulletin (January 1990): 13-17.

Toffler, Alvin, and Heidi Toffler. "The Future of Law Enforcement, Dangerous and Different." FBI Law Enforcment Bulletin (January 1990): 2-5.

Vitale, J. "Code of Silence (Digitally Coded Trunking System)." Channels of Communication, Vol. 6, June 1986: 7.