

**WHAT WILL BE THE IMPACT OF
INFORMATIONAL TECHNOLOGY ON
THE LOS ANGELES POLICE
DEPARTMENT PATROL FUNCTION
BY THE YEAR 2003?**

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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 considerations.

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.

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INTRODUCTION

The world today is faced with many serious challenges. Global warming, pollution, and shrinking natural resources are just three of many. Many of the world's leaders are looking to technology for solutions to these and other challenges. Many law enforcement agencies are also looking to the field of technology for solutions. One segment of that field, **Informational Technology**, has the potential to revolutionize law enforcement practices and procedures.

What is Informational Technology? It is a broad term which was purposely selected in order to include the wide spectrum of concepts, ideas, and existing and future technology which are capable of providing various types of information to the law enforcement community. These technologies might take the form of data systems such as criminal records information, an automated reporting system such as a field data capture process, an electronic monitoring process such as a global positioning system, an in-car video or even a computerized case management process. The form it takes isn't as important as the fact that its only reason for existence is to provide information; information useful to field officers, supervisors, detectives, managers, the law enforcement agency and the general public. Information which allows them to do their jobs more efficiently and effectively.

Currently this information is available in many forms and from many sources. We are being overwhelmed by it. But having access to this flood of data and making effective use of it are two entirely different things. Our challenge and our goal in the coming decade will be to develop programs, procedures, processes, and equipment which will efficiently collect, sort and

correlate data, and then feed it back to us in a form which we can understand and use to perform the many diverse requirements which are part of our service to the public.

We cannot afford to long delay the acquisition of this technology, because the criminal element is already using them. To quote Charles W. Oneal and Gary L. Wistrand of NASA, whose article appeared in the June 1993 issue of Police Chief, "... Today's criminals are not only more sophisticated in the commission of traditional crimes, but have used state-of-the-art technology to devise new computer-based crimes [L]aw enforcement agencies must also adopt and learn to exploit the technological advances." ¹

Presently many law enforcement agencies are in the process of attempting to achieve this goal. Not all are doing well. There are several reasons. To begin with, technology itself can be confusing and even somewhat frightening. A recent study conducted by the United States Government and cited by Newsweek magazine in the February 27th 1995 issue stated that 55% of those surveyed would be classified as "technophobes". Technophobes are people over age 45 who did not grow up with the technological devices they are now expected to master.² Nearly all law enforcement agencies have a great percentage of employees in this age group. Additionally cutting edge technology is very expensive and few, if any, law enforcement agencies are without budget restraints. Because of the high cost City leaders are often unable to reconcile the expenditure with their need to maintain a balanced budget. As a result, there is often a lack of necessary political support for acquiring technology. Lastly, because of the combination of high cost and low availability of technology dollars, the fear of not making the right choice for the best system, program or related hardware, often plagues law enforcement agencies to the point

that no choice is deemed more acceptable than making the wrong one. Fiascos such as one suffered by the United States Internal Revenue Service in its failure to properly develop and implement an effective computer program to manage their organization's business operations is an ever present example of bad choices and poor oversight resulting in wasted tax dollars. In light of all of this it is more important than ever before for law enforcement agencies to carefully study, plan, and implement effective acquisitions of informational technology systems. Wrong decisions made by misinformed or unknowledgeable persons will always result in less than satisfactory outcomes. Once a poor choice has been made there is seldom the opportunity or funding to make it right. It must be done correctly the first time!

BACKGROUND

In the late 1960's, Informational Technology in the Los Angeles Police Department was nearly non-existent. Crime analysis consisted of hand tabulated pin maps. Citizens' calls for police service were physically recorded and verbally assigned by Radio Telephone Operators. Field officers checked for potential stolen vehicles by comparing the suspected vehicle's license plate against a hand typed "Hot Sheet". Warrant checks requested by field officers were accomplished through hand searches by employees assigned to the Records and Identification Division. Officers routinely experienced a wait of approximately 20 minutes between the time the request was made and a response was broadcast to them. Since that time things have changed dramatically. By 1988, The Department had access to 71 internal and external automated

systems. Today's field officers routinely access various computer data bases via Mobile Digital Terminals (MDTs) which give them instantaneous responses as to wanted suspects, stolen vehicles, vehicle ownership, driver's license information and more. Calls for service are received and dispatched with the assistance of computers. Report writing is accomplished via computers tied into both Local Area Networks (LANs) and Wide Area Networks (WANs) which allow access to many different data bases and other useful computer programs. Current crime pattern and suspect information is made available to field officers via divisional Crime Analysis Details (CADs). All of these systems have a common thread. They are all part of the ever and rapidly expanding field of Informational Technology.

Like all police agencies, the Los Angeles Police Department is faced with a number challenges in regards to Informational Technology: 1) What to acquire? 2) How to acquire it? 3) Where or from whom will it be acquired? 4) How to adapt it to the needs of the Department? 5) How to effectively share it with the personnel of the Department? And 6) How to integrate it into the Department's current technological framework? The impact of technology on the patrol function of the LAPD has only just begun. Once these and other challenges are met and overcome it will be possible for the Department to move onto the next plane of effective and efficient service to the community. One can only wonder what the duties and functions of a patrol officer will be by the year 2003. Thus the issues for this study was formed: **“What Will Be the Impact of Informational Technology on the Los Angeles Police Department Patrol Function by the Year 2003?”**

NOMINAL GROUP TECHNIQUE

Nine individuals in addition to this author participated in the Nominal Group Technique (NGT) exercise. The group consisted of: Lieutenant Paul Enox, of the Los Angeles Police Department (LAPD), Commanding Officer of the Systems Development Task Force (SDTF); Sergeant Craig Crosby, LAPD, former Assistant Commanding Officer of the SDTF; Detective Thomas Barnhart, LAPD, Department Liaison to the Detective Case Management Tracking System (DCTS) development group; Mr Ken Peters of the Information Technology Agency, City of Los Angeles, lead Program Analyst for DCMTS; Senior Lead Officer Timothy Kidd, BBS and Web Site Developer for West Valley Area, LAPD; Ms Gloria Grube, Management Analyst II, LAPD; Ms Evelyn Zelmanovitz, Senior Police Service Representative, Communications Division, LAPD; Mr Andy Anderson, field representative for the Enterprise Consulting Services Section of the Compaq Computer Corporation; Mr Eric Rose , Senior Field Representative for Ms Laura Chick, Los Angeles City Council. The participants were chosen for several reasons: their varied backgrounds, their exceptional knowledge of computer technology and information systems, their political insight, and their cumulative and diversified police experience.

The group identified 16 events and 15 trends which they believed would to some degree affect the studied issue. Two final prioritized lists of eleven events and ten trends were compiled by the panel through a consensus process. These events and trends became the basis for further discussion as to the probability and possible timing of their occurrence and the degree of impact they might exert on the selected issue. The results of these discussions are contained, in sequence of selected importance, within the Trend and Event Evaluations section of this report.

EVENT AND TREND EVALUATIONS

Event Summary Table

What will be the impact of Informational Technology on the LAPD Patrol Function by the year 2003	YEAR	PLUS 5 YEARS	PLUS 10 YEARS	PLUS OR MINUS
E1 TECHNOLOGY FAILURE	2	66%	75%	-10
E2 FIBER OPTICS INSTALLED CITY- WIDE	2	87%	96%	+10
E3 MAJOR NATURAL DISASTER OCCURS	3	40%	67%	0
E4 INCREASE IN EDUCATION REQUIREMENT	4	48%	63%	+5
E5 SUDDENLOSS OF TECHNOLOGY DOLLARS	4	455	56%	-10
E6 LOS ANGELES CITY DECLARES BANKRUPTCY	2	19%	27%	-10
E7 MAJOR POSITIVE PUBLIC RELATIONS EVENT	2	62%	65%	+7
E8 MAJOR NEGATIVE PUBLIC RELATIONS EVENT	3	41%	58%	-7
E9 NEW CHIEF OF POLICE SELECTED	2	40%	95%	+6
E10 FIELD DATA CAPTURE SYSTEM IMPLEMENTED	2	65%	84%	+7
E11 SPECIAL TAX FOR TECHNOLOGY PASSED	3	53%	71%	+10

Events Analysis

E-1 The Failure of High Cost Purchased Technology to Perform as Anticipated. The group as a whole believed that the possibility of technology failure was relatively high with a **66%** probability of occurrence in **five years** and a **75%** possibility at **ten years**. The effect of this event, if it occurs, would be to severely negatively impact the acquisition of future technology because of the political impact of the prior failure. This would result in a snowball effect with the LAPD situated on the wrong side of an ever-widening technology gap.

E-2 The Installation of Fiber Optics on a City Wide Basis. The probability of the occurrence of this event was extremely high with **87%** assurance that it would take place at **five**

years and **96%** chance at **ten years**. The impact of this event is a very positive one. All members of the panel believed that fiber optics would vastly enhance the ability of the Department to transfer and acquire electronic information both from within and without the organization.

E-3 The Possibility of a Major Natural Disaster Occurring in the City of Los Angeles.

The possibility of this event taking place at **five years** was thought to be **40%** with it increasing to **67%** at **ten years**. Surprisingly, the impact of this event was judged to be neutral, due to the strong belief that any major disaster will also result in Federal financial assistance. Thus, the loss of equipment and structures would be off-set with the replacement by newer, federally funded acquisitions, thereby canceling the negative effects and possibly even an improvement over the Department's prior status technology wise. Additionally, in times of disaster the public perception of most government agencies improves, especially of those providing emergency services.

E-4 A Mandated Increase in the Education Requirement for Entry Level Officers.

The probability of this event taking place was thought to be **48%** at **five years** and **63%** at **ten**. The participants believed that such a requirement would have a positive impact on the issue. The group's opinion was there currently exists a measurable lack of techno-skills among members of the organization. It was felt that better education was synonymous with higher levels of technological proficiency. This proficiency would allow Department employees to better utilize available technology thus improving performance and increasing effectiveness and productivity.

E-5 Severe Budget Cuts Result in a Sudden Loss of Available Technology Funds.

The panel, no doubt influenced by past City financial crunches, strongly believed that the possibility of such an event happening was **45%** at **5 years** and slightly exceeded **56%** at **ten**. Such an occurrence would of course have a devastating impact on the issue being studied. Without funds, technology cannot be acquired. Thus the Department would fall substantially behind other agencies which could negatively impact recruitment and also find itself hard pressed to deal with sophisticated criminals in the coming years. Morale, productivity and efficiency would suffer as well.

E-6 The City of Los Angeles Declares Bankruptcy. Recent articles concerning the possibility of the secession of the San Fernando Valley no doubt had a heavy influence on the participants in regard to this event. Though the group did not believe it likely to occur, giving it only **19%** chance at **five** years and **27%** at **ten** , they nonetheless considered it very important.

On a ten scale, the group rated it a ten as to the negative effect it would have on the acquisition of technology. With no technology available, the issue of “the impact of technology on the patrol function” diminishes immensely and officer productivity, morale and efficiency would be measurably impacted as well.

E-7 A Major Positive Public Relations Event Transpires. In the immediate aftermath of the now famous “North Hollywood Shootout” the Department experienced the most positive period of community and political support since the successful policing of the 1984 Olympics. The group consensus was that the likelihood of another such event occurring was **62%** at **five** years and **65%** at **ten**. Though not an overpoweringly high percentage, it is still high enough to

bear serious consideration and to be planned for to some degree. Such an event could heavily influence voters to support a bond issue or a special tax for technology acquisition.

E-8 A Major Negative Public Relations Event Transpires. Just as the possibility of a positive event must be considered, so must we also be prepared for the likelihood of a negative one. The panel's opinion was that there was a **41%** chance of occurrence at **five** years and a **58%** possibility at **ten**. It was also discussed that the event need not necessarily involve LAPD personnel but that such an event which involved *any* local law enforcement agency would serve to be sufficiently destructive for purposes of the studied issue.

E-9 A New Chief of Police is Appointed. The group did not believe that there was a strong possibility of a new chief taking office by year **five** only assigned it a **40%** probability. However, due to timing of the NGT session and the existing Charter requirements, the possibility was placed at **95%** at year **ten**. The understanding of and support for technology by a chief is always a major factor in its acquisition by his or her agency. Also, the leadership and direction set by the chief has a strong impact on a Department's ability to acquire equipment, technological or otherwise, through the budgetary process. And the chief's ability to secure financial funding for special projects and other Department needs are directly related to the level of his or her political support both in the community and among government office holders.

E-10 A Field Data Capture System is Implemented. The participants were of a strong consensus in regards to this event occurring and its impact of the studied issue. They gave it a rating of **65%** at **five** years and **84%** at **ten**. They believed that an effective field data capture system would be the basis for the procurement for additional interrelated technology. I.E. one

successful program will lead to another and another etc. The Department's ability to add onto the proposed system would rely upon the flexibility and open-endedness built into the original project. Therefore, great care and consideration should be given to the hardware which will be eventually purchased to put this system into operation.

E-11 City Voters Support the Passage of a Special Tax for the Acquisition of Technology

Of the events forecasted to occur this would be the most positive. The panel projected that such an event might first take place by year 3. It was believed that there was a **53%** chance of it occurring at year **5** and a **71%** chance at year **10**. The ability of the Department to acquire technology as needed would allow it to build a great amount of adaptability into its systems. Old, inflexible systems could be replaced with state-of-the-art interactive programs and hardware that would place the LAPD in a leadership role in the area of Informational Technology. The Los Angeles Police Department has always lacked for sufficient numbers of field officers. It has only been through a combination of mobility and proactiveness that it has been as effective as it has. The efficient and successful use of technology would serve as a *force multiplier*. The resulting effectiveness which would be achieved through the use of these modern systems would provide the citizens of Los Angeles with unmatched police service and would enhance the image of the Department as well.

TREND SUMMARY TABLE

<u>WHAT WILL BE THE IMPACT OF INFORMATIONAL TECHNOLOGY ON THE LAPD PATROL FUNCTION BY THE YEAR 2003</u>	<u>MINUS 5 YEARS</u>	<u>TODAY</u>	<u>PLUS 5 YEAR</u>	<u>PLUS 10 YEARS</u>	<u>LEVEL OF CONCERN 1-10</u>	<u>TREND DIRECTION</u>
<u>T1 AVAILABILITY DATA FIELD OFCRS</u>	<u>49</u>	<u>100</u>	<u>510</u>	<u>1440</u>	<u>+8</u>	<u>RISING</u>
<u>T2 ELECTRONIC MONITORING=LAPD</u>	<u>20</u>	<u>100</u>	<u>280</u>	<u>600</u>	<u>+6</u>	<u>RISING</u>
<u>T3 LEVEL OF RAPID OBSOLECENSE</u>	<u>60</u>	<u>100</u>	<u>200</u>	<u>740</u>	<u>-6</u>	<u>RISING</u>
<u>T4 TRANSFER MILITARY TECHNOLOGY</u>	<u>30</u>	<u>100</u>	<u>200</u>	<u>400</u>	<u>+5</u>	<u>RISING</u>
<u>T5 HARDWARE COSTS</u>	<u>230</u>	<u>100</u>	<u>70</u>	<u>40</u>	<u>+7</u>	<u>FALLING</u>
<u>T6 LEVEL GOVT. ACCOUNTABILITY</u>	<u>65</u>	<u>100</u>	<u>230</u>	<u>400</u>	<u>0</u>	<u>RISING</u>
<u>T7 LEVEL OF POLITICAL SUPPORT</u>	<u>30</u>	<u>100</u>	<u>180</u>	<u>300</u>	<u>+3</u>	<u>RISING</u>
<u>T8 TECH SHARING BTWN AGENCIES</u>	<u>40</u>	<u>100</u>	<u>220</u>	<u>400</u>	<u>+5</u>	<u>RISING</u>
<u>T9 LEVEL INFO EXCHANGE W/ PUBLIC</u>	<u>50</u>	<u>100</u>	<u>230</u>	<u>420</u>	<u>+5</u>	<u>RISING</u>
<u>T10 SOFTWARE COSTS</u>	<u>70</u>	<u>100</u>	<u>210</u>	<u>500</u>	<u>-6</u>	<u>RISING</u>

Trends Analysis

T-1 The Availability of Data to LAPD Field Officers. The group projected a high level of increase for this trend with over **fives times** its present level in **five** years and over **14 times** by the year **ten**. The importance of this trend was assigned a **positive eight** on a **ten scale** denoting the group's belief that a greater availability of data at the field level will have a significant positive impact on the performance of field officers.

T-2 The Use of Electronic Monitoring Devices to Support the LAPD Patrol Officer. The panel described monitoring devices as anything that either gave the Department information

concerning the activities of its officers or gave officers information about activities occurring within the community they serve. They might take the form of a Geographic Information System (GIS) which would constantly display a police vehicle's location and movement³, an in-car video system⁴ or surveillance cameras at key locations throughout the city.⁵ The panel projected nearly a **threefold** increase of these activities in **five** years and up to **six times** by year **ten**. Though electronic monitoring has had a negative connotation for most police officers in the past, it appears that this attitude is changing. The trend was assigned a **factor of plus six**, strongly inferring that it would have a very positive impact on both the Department and the patrol function.

T-3 The Level of Rapid Obsolescence of the Department's Informational Technology

The group consensus was that obsolescence in the Informational Technology arena would **double** in the next **five** years and rise to a level of over **seven** times its current rate in **ten** years.

The level of impact is rated as a **minus six** on the ten scale which is high. It must be assumed therefore that the technology of the Department would be impacted at least to the same degree.

The obvious problem of rapidly changing technology is that any equipment now possessed by the Department becomes less compatible and less effective at an ever increasing pace. No publicly funded government organization can afford to buy new technology as soon as it becomes available. Instead, using normal budget cycles, most agencies including the LAPD must seek to buy a product which will prove effective and useful over the long term of five to ten years.

T-4 The Rate of Transfer of Military Technology to the Los Angeles Police Department.

The United States Government routinely spends large amounts of funds for defense research. As the military applications which are developed become outmoded, their existence is revealed and they are made available to the general public.⁶ The panel agreed that the level of transfer would increase by **twofold** in **five** years and at least **fourfold** in **ten**. Its level of impact on the studied issue was a **positive five**. Aside from the direct transfer from the government to law enforcement, there is also the availability of the indirect transfer from government vendors in private industry. In the first case, equipment can often be secured from the Federal Government at little or no cost. In the latter, such technology would have to be first identified, adapted to law enforcement, and then purchased at the going rate.⁷

T-5 The Cost to Purchase Informational Technology Hardware. The participants believed that although new hardware is still expensive the constant introduction of newer products has established an ongoing trend of decreasing costs. They projected a **decline** in costs to approximately **one-third** current rates in **five years** and up to **two-thirds** less in **ten**. This of course would have a very positive impact on the Department's ability to purchase technology as each available dollar would then buy greater quantities of hardware. The level set was a **positive five** for the studied issue.

T-6 The Degree of Governmental Accountability Due to Increased Levels of Technology. The group raised the issue of legal actions against the Department. It was a uniform belief that as the Department's ability to receive, process and interpret information increases so will its liability. The group's unique consensus was that the Department will, in general, be more aware about a greater variety of things which are taking place, such as crime patterns, officer

misconduct trends, officer availability for calls for service, etc. This being the case there is an ever increasing chance that we will be held liable, to a greater degree, for our failure to respond in a timely or appropriate manner. The group projected an increase in liability of nearly **two and one-half times** in **five years** and one of **four times** higher in **ten**. Surprisingly, the group did not view this trend as either a positive or a negative. Instead, the overall belief was that it could work both for and against the Department and that careful management could prevent a negative impact to a great degree.

T-7 The Level of Political Support for the Acquisition of Informational Technology.

The trend was assigned a **positive three** as its degree of impact on the issue. If the Department is successful in implementing its different technological advances then it will also be equally as successful in improving its level of service to the community. More suspects will be arrested, higher levels of crime will be cleared, crime should decrease, and response to calls for service should improve. This success will equate to increased levels of both community and political support. Assuming successful technological implementation the group foresaw a nearly **twofold** increase in support in **five years** and **threefold** in **ten**.

T-8 The Level of Technology Sharing between the LAPD and other Public Agencies.

This trend was interesting in that it did not limit itself to police agencies but included any which might be connected even remotely to law enforcement - parole, probation, prisons, schools etc, at state and federal levels. It also included the sharing of equipment and or access to data bases. This blending of technology would serve to improve cooperation between various agencies and eliminate existing red tape while enhancing the degree of service to the public. The group

projected an increase of over **two** times by **five years** and **four** times by **ten**. The measured impact on the issue on the ten scale is calculated at **positive five**.

T-9 The Level of Information Exchanged with the Public. During the past five years the Department has embarked on an ambitious Community Based Policing Program. Interaction between the public and officers has grown as a result of it. The panel predicted a level of over **two** times the interaction with the public in **five years** and one of over **four** times by year **ten**. The level of impact on Department operations and the studied issue was measured to be a **positive five**.

T-10 The Cost to Purchase Informational Technology Software. The participants were of a consensus that specially designed software costs were an increasing trend. The costs of writing programs for particular agencies or even certain business fields is increasing. This is no different for law enforcement. The panel projected that the trend would continue with a slightly larger than **twofold** gain in **five years** and one of **fivefold** in **ten**. The higher costs of course would translate into less product for the Department's technology dollars and would have a negative impact of **minus six** on the studied issue.

CROSS IMPACT MATRIX ANALYSIS

The purpose of a cross impact matrix is twofold. First, it is used to evaluate the possible degree of impact of the various proposed events on each of the identified trends. This allows the evaluator to better understand the potential interrelationship between the events and trends. Second, armed with this information, the evaluator can then identify those events which will have the most potential impact on certain significant trends. Using this information, the leadership of an organization can then attempt to influence various trends by encouraging or discouraging the occurrence of particular events. These attempts are usually long term in nature and are directed by concepts and ideas which are contained within guidelines known as strategic

plans. These plans are used to help the organization obtain the most positive environment while working to achieve the goals it has set for itself. In this particular case the goal would be to establish the best possible environment to integrate informational technology into the patrol function of the LAPD. Based upon this supposition the study of the Cross Impact Matrix produced the following analysis.

Cross Impact Matrix Table

TRENDS												
EVENTS	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	# EVENTS IMPACTED	EVENTS RANKED
E1 TECH FAIL	YES 5-	YES 4-	NO	YES 4-	NO	YES 3-	YES 6-	YES 4+	YES 4-	NO	7	-4
E2 FIBER OPTICS	YES 7+	YES 6+	YES 5+	YES 2+	NO	YES 3+	YES 5+	YES 4+	YES 5+	NO	8	+2
E3 MAJOR DISASTER	YES 3-	YES 2-	NO	YES 2-	NO	YES 0	YES 2+	YES 2+	YES 0	NO	7	-5
E4 EDUCA. REQUIRE	YES 3+	NO	NO	NO	NO	YES 2-	YES 3+	NO	NO	NO	3	+6
E5 LOSS TECH	YES 8-	YES 6-	YES 5-	YES 7-	NO	NO	YES 2-	YES 5-	YES 4-	NO	7	-2
E6 CITY BANKRUP	YES 10-	YES 8-	YES 6-	YES 7-	NO	NO	YES 5-	YES 4-	YES 5-	NO	7	-1
E7 POSIT EVENT	YES 3+	YES 3+	YES 2+	YES 6+	NO	YES 4+	YES 6+	YES 4+	YES 2+	NO	8	+3
E8 NEGAT EVENT	YES 4-	YES 1-	YES 2-	YES 2-	NO	YES 7-	YES 7-	YES 3-	YES 3-	NO	8	-3
E9 NEW CHIEF	YES 4+	YES 2+	YES 2+	YES 4+	NO	YES 2+	YES 4+	YES 2+	YES 2+	NO	8	+4
E10 FLD DATA	YES 8+	NO	NO	NO	NO	YES 3+	YES 2+	NO	NO	NO	3	+5
E11 TAX PASSED	YES 10+	YES 6+	YES 8+	YES 6+	NO	YES 4+	YES 6+	YES 5+	YES 5+	NO	8	+1

Event 1 Technology Failure (7 impacts)

The data available to field officers would be substantially less, reducing productivity ,

effectiveness and efficiency. Electronic monitoring and the ability to adapt military technology would also suffer. The Department would experience a fair degree of criticism from both the public and the City's political leadership. The level of political support for future acquisition of technology would be measurably reduced, and our ability to exchange information with the public would be hindered. Decreased satisfaction with Department equipment by employees could equate to lower morale and greater degree of turnover. This would then require an increased hiring program and higher training costs. On the positive side, this event does have the potential to increase the need and desire to share technology with other public agencies.

Overall evaluation - Strongly Negative

Event 2 Fiber Optics City-Wide (8 impacts)

The availability of data to the field would be strongly enhanced. A conduit for an electronic monitoring system would be readily available. Rapid obsolescence could be impacted because of the versatility and adaptability of fiber optics. Military technology would be more easily assimilated. The Department would experience positive public feedback and political support for its effective use of budgeted funds. Technology sharing and information exchange would be enhanced. **Overall evaluation - Very Positive**

Event 3 Major Disaster Occurs (7 impacts)

This is a unique event. Though a disaster could easily have a strong negative impact on nearly every trend it does not have to be so. Past experience has shown that major disasters are usually followed by equally major financial aid from the Federal government. It is possible that the effect of such an event would be to allow the City sufficient funds to rebuild its ruined structures

and then fill them with the latest forms of informational technology. On the other hand, if the residents and businesses of the City were to suffer the largest amount of damage and only few City buildings were destroyed, then the impact would be negative since City would be forced to divert funds in order to provide emergency services to the public. **Overall impact - Either Slightly Positive to Somewhat Negative**

**Event 4 A Mandated Increase in Education Requirements for Entry Level Officers
(3 impacts)**

The ability to access and efficiently use data systems is strongly based upon a person's skill and comfort level with a computer. College graduates by the very nature of their advanced education requirements routinely develop enhanced skill levels with computers. In future law enforcement this would translate into more efficient field officers. The ability of officers to acquire data in the field would be directly dependent upon their skills with technological equipment. The better the officer, the more positive the reflection upon the agency for which he or she works. The potential for positive political support and greater agency accountability is also a projected result of this event occurring. On the other hand, higher educational requirements would arbitrarily exclude a large number of potential entry level candidates. Among these would be a substantial number of minorities; therefore, affirmative action would be negatively impacted. Based upon such a forecast, it would be logical to project that political support for implementing this requirement would be insufficient. However, for this study, the occurrence of the event is assumed. **Overall Impact - Mildly Positive**

Event 5 The Sudden Loss of Available Technology Funds (7 impacts)

The probability of event five occurring is extremely dependent upon other events such as the City declaring bankruptcy, the secession of the San Fernando Valley, a major disaster, or even the occurrence of a major negative public relations event. Without one of these , it is doubtful that a sudden loss of funds would take place. However, assuming it did happen, every one of the seven impacted trends would suffer a negative effect. Field data availability, electronic monitoring systems, adaption of military technology, and sharing of technology between agencies would be severely curtailed. The Department's ability to electronically share information with the public would be greatly diminished. Without ongoing funding present equipment would become quickly obsolete and there would be little if any political support for acquisition of any new equipment. **Overall Impact - Strongly Negative**

Event 6 The City of Los Angeles Declares Bankruptcy. (7 impacts)

Of all the events discussed, this would result in the most negative effect upon the impacted trends. Bankruptcy would cause a severe shortage of resources and strong competition for those which remain. The Department would not be able to make use of military technology nor would it be able to share that of other agencies. Its equipment would become rapidly obsolete and field officers would be highly ineffective. Most if not all City agencies would suffer losses of personnel through attrition and or lay-offs. Hiring would of course cease. Normal procedures based upon civil service seniority would result in the last hired being the first fired. This would heavily impact recently hired minorities thus eliminating past affirmative action accomplishments. The flexibility of the Department to deal with fluid issues in an ever changing

environment would be greatly hampered due to the lack of equipment and personnel. High-tech criminals would have little to fear from a Department which does not possess current technology.⁸ Such a negative atmosphere would also lend strong support to an increase in both resignations and retirements of personnel in search of a better work environment. **Overall**

Impact - Strongly Negative

Event 7 A Major Positive Public Relations Event Occurs (8 impacts)

As was previously stated, in the aftermath of the “North Hollywood Shootout,” the Los Angeles Police Department experienced a greater degree of political and public acclimation than at any time since the occurrence of the 1984 Olympics. The outpouring of community support was immeasurable and it resulted in the immediate acquisition of highly needed officer safety equipment. The members of the NGT group forecasted better than a 60% chance of a recurrence of a similar event in the next five years. The results of such an event taking place would be extremely beneficial to the Department, especially if it is prepared to take advantage of the positive environment it brings. Because of the inherent increased public trust which the event creates, it would become much easier to receive political and community support for an electronic monitoring program, such as establishing video surveillance, at key problem intersections or business districts. Funding for various technological projects would also be more easily accessed. Bond issues or even special taxes for law enforcement use only would stand a greater chance of passage if the voting were to occur within a short time after the event. In addition the Department’s ability to secure military technology and or to share the technology of other agencies would also be enhanced to a great degree. Lastly, information exchange with

the public would improve and increase substantially. **Overall Impact - Strongly Positive**

Event 8 A Major Negative Public Relations Event Occurs (8 impacts)

To the degree that the support and trust of the community and the City's political leaders would be enhanced by a positive event, so would it be diminished by a negative event. The leadership of the Department would find itself under siege with special interest groups and critics of the organization using the incident as a means to further their own agenda. All major decisions would be second guessed and political leaders might possibly call for the appointment of a new chief. Chaos would reign within the organization and stagnation would take place pending the selection of a new chief. Important decisions and programs would be placed on hold, possibly losing the window of opportunity in the purchase or acquisition of technological equipment. With the lack of trust would come reduced public and political support for expanded budgets, special taxes or bond issues. The negative atmosphere within the organization would result in increased resignations and retirements by persons seeking a more positive working environment. Vital expertise and experience would be lost and the Department would lose important ground in the technological race with criminals⁹. *It must be noted that a major negative event involving law enforcement from a local Southern California department would also result in a lesser but still negative impact on the LAPD.* **Overall Impact - Strongly Negative**

Event 9 A New Chief of Police is Appointed (8 impacts)

The leadership and direction set by a chief has a strong impact on a Department's goals and objectives. Whether the goals are to reduce crime, improve community relations, or to acquire equipment or technology through the budgetary process, the understanding of and support for

technology by a chief is always a major factor in its acquisition by his or her agency.

Additionally, the chief's ability to secure financial assistance for special projects and other Department needs are directly related to the level of his or her political support both in the community and among government office holders. Routinely, a newly appointed chief is granted a period wherein both the community and the political leaders give a high degree of such support. It is during this period that the greatest positive effects may be made on the various impacted trends. An organization could anticipate such an occurrence and could make strategic plans to specifically take advantage of such an event. **Overall Impact - Positive**

Event 10 A Field Data Capture System is Implemented (3 impacts)

The results of this event occurring would have a very positive impact on the trend of making data available to the field officer. Access to instant communications with various data bases through the use of a lap-top computer would vastly expand an officer's ability to conduct field investigations. This in turn would increase the level of effectiveness and efficiency of the field officer resulting in better and more arrests. More arrests could easily translate into reduced crime and a better quality of life for the members of the community. Taking it one step further, safer communities would increase the public and political support for the Department. It can also be projected that a more effective organization will be held to a higher standard by the persons which they serve, thereby increasing the degree of accountability. This can be either a positive or negative situation depending upon the nature of the organization. One that is more effective should have no problems dealing with it. **Overall Impact - Positive**

E-11 City Voters Support the Passage of a Special Tax for the Acquisition of Technology

Of all the events forecasted by the NGT panel, this one had the potential for the greatest positive effect on all of the impacted trends. Having access to a constant source of technology dollars would be a boon to the Department. With careful management and technologically wise choices, it would be possible to place the Los Angeles Police Department at the forefront of the Information Technology curve. Rapid obsolescence would be of little concern if the ability to upgrade was always available. The adaption of the latest military technology would be quite possible and as research progressed, alternative solutions, to very sensitive problems such as the use of deadly force and vehicular pursuits could be achieved. With a large amount of readily available funds in the Department's budget, corporations which specialize in computer programs and hardware would be quite willing to provide software and hardware to meet the Department's particular specifications. The mere fact that the passage of such a tax is indicative of a high degree of public and political support. Lastly, the Department's ability to purchase required equipment would make the sharing of technology between agencies quite easy.

Overall Impact - Extremely Positive

Additional Discussion Points

During the NGT, the group put forward two important points which were neither events nor trends. They are similar but not identical problems which are directly associated with the current Civil Service procedures of the City of Los Angeles. The first was "**The Civil Service Purchasing Procedures Create Obsolescence**" and the second was "**The Civil Service Hiring**

Practices Hinder Outsourcing”

Civil Service Purchasing Procedures Create Obsolescence is based upon the view that the system of using only authorized vendors and strict bidding procedures wastes valuable time, eliminates flexibility, and reduces normal vendor competition. The result being that City will sometimes take significantly longer than necessary to purchase outdated equipment at a higher than usual price. Long delays in purchasing can cause what was once considered *state-of-the-art* technology to become obsolete by the time it is acquired.

Civil Service Hiring Practices Hinder Outsourcing is similar in that Civil Service hiring procedures make it difficult if not impossible to acquire the services of individuals who have special skills, especially if it is for a one time need or occurrence. The requirement that a person go through a testing process, background checks, be rated and placed upon a list, is not in the least in line with rapidly achieving goals in an effective manner. By the time the process is complete, the window of opportunity has already passed and the services of the person are no longer required. It would appear that while the Civil Service system has some benefits, there is also a degree of inflexibility which makes effective management in today’s fast-paced environment extremely difficult. The City, the public, and the Department would be best served if modifications were to be made which would allow Department heads a greater degree of flexibility and control in the selection and acquisition of particular personnel and equipment. Also, the ability to establish short term contracts without the necessity of City Council approval would allow for fast and effective outsourcing on an as needed basis. This of course would require that Department heads have a pre-budgeted source of discretionary funds in order to carry

out such contracts in a timely manner. A similar recommendation was previously made in the Department's *Blue Marble* report.¹⁰

SCENARIO DEVELOPMENT

Scenarios provide a means by which researchers are able to combine the analysis of existing data with creativity in order to provide the reader with a potential *window into the future*. Though it is impossible to predict the future, through the use of scenarios it is possible to present a realistic picture which highlights potential dramatic changes and events. Scenarios literally give strategic planners alternatives or choices which can be used to assist their organizations in moving into the best possible future. The scenarios developed for this study are of three types, *Best Case*, *No Surprises* and *Worst Case models*. The scenarios contain words which are in **bold face type**. These are presented in this fashion to more clearly display to the reader the events and trends which were developed by the members of the NGT group. Related potential outcomes have also been highlighted.

SCENARIO NUMBER ONE- BEST CASE -DECEMBER 2002

Lieutenant Johnston was seated in the watch commander's office preparing for roll call. He glanced up at the clock and realized that it was nearly time to begin. Quickly, he left the **crime data base** he had been reviewing and then brought up the **video conferencing roll call program**. He remembered how in the past, it had been necessary to gather up all of his supervisors, the watch time book, the daily work sheet, subpoena control book, and a myriad of other stacks of paper and then bring it all down to roll call for distribution. Not any more. Thanks to the occurrence of **two major positive public relations incidents, the voters overwhelmingly supported the passage of the technology bond issue and the implementation of a trash tax for law enforcement use** back in mid 1998. These incidents had also garnered a **great level of political support from politicians at all levels, local through federal**. As a result, **many of the manual and paper systems had been phased out**. First, the City had successfully installed a massive underground **Fiber Optics Cable system**. Now, nearly five years later, **almost everything was done via the computer and through these cables**.

Johnston activated the **roll call camera** and his image suddenly appeared on the **large projection screen**. Simultaneously, the **several cameras in the room began to project pictures**

onto the four part screen of his 25 inch monitor. He panned the room and observed that nearly all the chairs were filled. His supervisors were also present. A quick check with the **Personnel Management / Deployment program** assured him that every officer but one had **docked their laptops into the main system and were on line ready to receive information.** Johnston noted that the absent person was Officer Fitzpatrick who had been scheduled to work 10A36 with Officer Woods. **Touching a "hot key", Johnston made a notation that Fitzpatrick was tardy again for the third time this month, and told the computer to print out a "notice to correct".** This system sure made keeping track of things easy. The lieutenant began roll call. Officers Baptist, Carle, Herizey, Fortuna, Hall, Schiller, Roost, Perez, and Woods sat down in the roll call room and plugged in their laptops. They had all been off three days. Instantaneously, **the computers downloaded all crime and arrest and other information for the past three days. Wanted suspects, MO.'s, hot vehicles, Department orders, procedural changes and related information flooded their hard drives. The main menu automatically caused each affected category to flash on the screen, letting the officers know what to check and what to ignore.** Officers Herizey, Fortuna, Carle and Baptist were served subpoenas for up-coming court trials via their laptops. **The subpoena information was automatically transferred into their individual court attendance calendar.** Then as it was entered the officer was instructed to press his or her **right thumb onto a portion of the screen which electronically verified the subpoena as served. Service delays and lost subpoenas had been dramatically reduced ever since this new system had been implemented.** Several minutes went by and then the screen in front of the room lit up and suddenly, there was lieutenant Johnston looking down at them. Roll call began. **Assignments were given via their laptops. Requests for extra patrol and vacation checks were distributed electronically.** Roll call was just concluding when Fitzpatrick entered through the back door and plugged in. A few minutes later the officers filed out and paraded past the kit room. Everything was lined up and ready to go. The individual officers inserted their **ID cards, grabbed up each required item and passed it under the scanner. All equipment including radios, tasers, cars, shotguns, weapons scanners, heart aura monitors and translators were automatically assigned to them via the Property / Equipment Management System.** No more slow and tedious check outs lines as in the old days.

The officers began to file out to the waiting vehicles. Suddenly, a loud beep sounded. The equipment sergeant standing at the back door glanced up. There stood officer Roost, his face so red that you couldn't see his freckles. Sergeant Duniga shook his head and pointed back to the scanner. "Go do it right Roost," "But sarge, I'm in a hurry to hit the field. "I'll check it out later". "I said do it now!" Quietly, Roost backtracked and passed the items he carried under the scanner. Sergeant Duniga watched the patrol units slowly leave the station lot as the morning sun rose over the roof of the station. "Another hot and busy day he thought as he turned and walked into the building. The radio beeped and the screen on Officer **Schiller's laptop lit up with a reminder that he was scheduled to conduct a neighborhood watch meeting** for a group of persons in Encino. Shiller looked over at his partner Carle and told him about the call. Suddenly the radio beeped again, followed by the words "All units and 10A76, a 415 Man with a Gun, assaulting passersby, at 17886 Ventura Blvd. 10A76, handle Code 3." Schiller said

“That’s us” and flipped on the emergency equipment. “Hey Shiller,” said Carle , “ there’s a **traffic monitoring camera** in the 17800 block of Ventura. Have Communications turn it to try to spot the suspect and transmit the picture to us.” Shiller did so and soon the **laptop screen was displaying an image of an armed gunman and fleeing citizens**. Schiller said “There he is. Looks like he’s carrying an automatic.” Schiller quickly broadcasted this important information to all responding units. As they approached the scene, the suspect began to flee. Schiller notified Communications and then **activated the Tactical G.P.S. program** with the touch of a “hot key.” He flipped a switch on the car mike, and spoke the location and direction of travel of the suspect into it. The **Speech Recognition software** inputted this information into the Tactical program and soon the computer, **based upon their known G.P.S. locations, was assigning black & whites to intersections in order to block off all potential escape routes**.

Carle and Schiller went into foot pursuit but lost the suspect in a residential neighborhood. Air 10 arrived over the scene, activated the **Heart Aura scanner**, and began a systematic search of the area. The suspect was located a short time later and Officers Herizey and Fortuna carefully approached his position. Fortuna activated his **hand held Weapons scanner** and panned the suspects’ location. It clearly showed that he was holding a firearm in his right hand, pointed in an upward direction. Chambering a round into the shotgun, Herizey ordered the suspect to drop his gun. The sound of the chambering round produced the desired effect and the suspect dropped the weapon and surrendered.

Later, back at the original crime scene, Carle and Schiller began to locate and interview victims. One person, a male Chinese, had been pistol whipped by the suspect. However he spoke only Cantonese. Carle walked him to her locked vehicle and said “open.” The **black & white, recognizing her voice, unlocked all doors**. Carle picked up the **In Field Translator** and plugged it into his computer. Passing a mike and earpiece to the victim while retaining one each for herself, Carle began to speak to him. The victims eyes lit up when he recognized his language being spoken. From that point on the interview went smoothly.

Schiller in the mean time, had secured the suspect’s California Identification Card and ran it through the **bar code device attached to his laptop**. It came back as invalid. The **Infrared scanner revealed it to be a forgery**. Since the suspect refused to cooperate, Schiller **scanned the suspects right hand and sent this information to Records & Identification**. The print was located in the **statewide Shared Criminal Information System, one of several new governmental agencies shared data bases**. Quickly the information returned. The suspect, Tom Smith, was a two striker with a long history of drug usage and an outstanding felony warrant for ADW. “ Well Mr. Smith , it looks like we won’t be seeing you around here for about 25 years or so.” Later, back at the station, the arrestee, angered that he was returning to prison, attempted to file a false complaint against Officers Carle and Schiller, stating that they had made racial remarks and struck him several times while transporting him to the station. The officer’s supervisor immediately **pulled the in-car video monitor tape** and examined it. **The tape clearly showed the entire detention from the time the suspect was placed into the rear seat**. This tape was displayed to the arrestee and he promptly withdrew his complaint.

Officers Schiller and Carle, now free from any distractions finished processing the arrest . Carle booked the suspect while **Schiller plugged in his laptop and told the computer the type**

and number of reports to be completed. After responding to a number of specific questions from the computer, he then quickly dictated the report. Thanks to the high level of technological aids, the officers were able to return to the field in little over an hour after arriving at the station.

SCENARIO NUMBER 2 NO SURPRISES

Lieutenant Mike James was attending the First Annual California Law Enforcement Technology Conference as the representative of the of the Chief of Police for the newly formed **Angeles Valley City (formerly ,The San Fernando Valley)**. Sitting with James were, Sergeant Fine from Beverly Hills, Lieutenant Javier from Dinuba, Lieutenant. Haines from Los Angeles and Sergeant. Taketa from Santa Barbara. The other 49 tables were similarly staffed with police agencies from throughout California. It was quite a turnout, especially for a first time event. The large response really demonstrated the importance which police officials were placing on technology and their desire for greater access to it. The first few hours of the day were to consist of 50 mini round table discussions, concerning the extent of technology in each of their respective agencies. Lieutenant James was chosen to start the interchange. She spoke of the new, **dockable laptop system the Speech Recognition software and the fully integrated Field Data Capture automated paper less reporting system.** All of which had greatly enhanced the effectiveness of the field officers in her department. The city leaders wanted to provide but the city being only one year old , the tax base was not yet able to support any additional expenditures. The Lieutenant from Dinuba talked about **Electronic Video Monitoring** at major intersections, a **new digital video camera / still camera crime scene investigation system** and a soon to be installed **G.P.S. digital communications and dispatch system.** Everyone was impressed when Sergeant Fine from Beverly Hills spoke of his agency. They had everything that Angeles and Dinuba had plus a new **voice stress analyzation program, a G.P.S. tactical response system, face recognition software, automated citation and field interview formats for their laptops, public kiosks for free citizen Internet access to their department and had just purchased a new weapon detection system which could scan through vehicles from twenty feet away.** Of course, Beverly Hills because of its over good financial status was one of the few cities which had nearly an **unlimited budget for police technology.** Something most other agencies would never enjoy. The Sergeant from Santa Barbara discussed their **automated CAD system which included an excellent computer generated photo quality mug component.** They also had been experimenting with a **virtual reality in-service training system and video conferencing for roll calls and case filings.** They, like most everyone else, though not poor, were facing budget belt tightening and were

experiencing a loss of technology dollars. Nor were not able to invest in technology to the degree they would have preferred. The big surprise came however, when Lieutenant Haines of LAPD gave his presentation. Aside from a LAN/WAN system which everyone had but no one bothered to mention, LA only had a fairly effective **Crime Analysis System and a newly implemented Detective Case Tracking System** in place. Though once considered to be a cutting edge police department, its leadership in this area had faltered in recent years. The **secession of the San Fernando Valley** had resulted in a literal halving of the tax base. **This meant severe budget cuts for all city agencies and Department's dreams of advanced technology had been shelved.** The city was beginning to show some signs of recovery but for the LAPD, it would be some time before any new technology would be available. Perhaps , thought Lieutenant Haines, this would change next year. The current chief's contract would be up and maybe the combination of a **new chief who was technology minded coupled with the usual strong political support given them during their first year** in office would allow for the acquisition of some sorely needed high-tech equipment.

SCENARIO NUMBER THREE -WORST CASE- JANUARY 2002

Training officer John Thomson and his partner and trainee Mona Jones pulled away from the curb having just issued a speeding citation to another satisfied customer. He told Mona to show them clear. Mike pushed the clear button on the **MDT and suddenly the screen went haywire.** Mona did her best but nothing she tried corrected the problem. John looked at Mona and he could see that the kid was embarrassed and taking the problem in a personal way. "Don't sweat it Mona, you didn't do anything wrong" ! " It happens all the time " ! "Yeah , it sure does "John thought to himself, "all the time".

It seemed like nothing worked right anymore. Oh , the cars were okay and the other basic equipment seemed to work well enough. **But everything that was supposed to be "high-tech" was anything but that ! The MDT's were 5 years old and had never worked well from the day they were installed in the cars.** The P.D. he had worked for prior to LA had just finished installing **dockable laptops** when he left. At least those computers there had been user friendly but **these MDT's were difficult to use to say the least.** The MDT was supposed to nearly eliminate the need for verbal communication via the radio, but they were "down" so often that the "air" was always tied up with requests to run a suspect or other equally important messages. There had also been a lot of hype concerning new equipment which was going to be given to patrol to make its job easier. Such as the **G.P.S. system which would allow communications to dispatch the closest car to an incoming call.** Then there was the **new global communications system which would have allowed the street cops to tie into any one of 20 different data bases, directly from their cars, via the laptop computers which had never arrived.** Like so many of

the other promised improvements, none had actually become a reality. And now, based upon the **attitude of the community and the way the media was still beating up on law enforcement in general**, it did not appear that these needed systems and the equipment which made them work would be purchased for a long time to come.

John picked up the mike and when the air cleared he told the RTO that he was available for calls. She quickly responded with a message for him to go to the station, Code 2, and see the watch commander. Thomson looked at his partner as if to say “what did we do now”, shrugged his shoulders and headed back to the barn. That had been two hours ago and here **he was sitting in the report writing room wasting valuable time**. Officer Thomson mumbled briefly under his breath. He was angry because he very much rather be in the field handling calls for service than sitting here doing a follow-up report on a previous arrest for some district attorney he never even heard of. This was the second time this month that he had to do this and he was one of a number of officer’s on his watch who had been called out of the field to literally re-write their entire report. What really made him the angry was the fact that it wasn’t anything he had done wrong. **All he had done was type his report on the Department’s supposedly state-of-the-art, paper less reporting WAN system. It sure was paper less. Apparently the day after he typed it, it disappeared forever into some black hole in cyberland**. No report, no paper. Somehow, John did not think that was the way the system was designed to work. No, in fact it was the darn city’s fault not his. They had bought the computer equipment and installed the programs. **Now it was coming to light that due to anticipated high costs and projected equally high budget deficits, the city had quietly gone out and purchased a faulty cut-rate system that didn’t work**. A perfect example of **technology failure** if there ever was one. And to make matters worse, the vendor went out of business six months after they had installed this mess. So much for the theory of buying from the low bidder.

The more he thought about it, the more he realized that it was the only the city’s fault. **First had come the court decision which made it illegal for cities to levy special fee’s or taxes. Next had come the law enforcement disaster of the century which had made “Rodney King” look mild. Even though it had involved the Los Angeles Sheriffs, the fall-out had impacted all law enforcement across the state. With the local community so upset at the police and with the nearly total absence of political support, it was no surprise that the three bond issues which were to pay for new technology had failed**. Then as had been expected, the **San Fernando Valley separated from the rest of L.A. . As a result, the City of L.A. declared bankruptcy about six months later**. That was about two years ago and the system was quickly approaching melt down status. So here he was doing the whole thing all over again. Only this time he wasn’t taking any chances. The heck with computers, he was going to use a good old reliable number 2 pencil. So what if it took longer, it was still quicker than writing the whole thing twice.

STRATEGIC PLANNING FOR THE FUTURE

As was previously stated , one purpose of scenarios is to provide a *window into the future*. However only looking through this window will not allow an organization to reach a *best case scenario environment*. To achieve that type of goal requires significant effort combined with a clearly defined strategic plan. Upon reviewing the results of the “Event Summary Table (EST) “ the Trend Summary Table(TST)” and the “Cross Impact Matrix (CIM)“ it is clear that there are a number of issues which will require leadership in order to achieve the *best case scenario environment*. This will be the focal point of the discussion of the next section of this report.

IMPLICATIONS FOR LEADERSHIP

The Chief of Police must take a strong leadership role if the Department is to achieve the desired results. The current informational technology systems of the organization are fragmented , often difficult to access, many are not compatible with each other and a number are somewhat obsolete. The Department is at crossroads and the choices made today will significantly impact the organization for many years to come. The person or persons which the chief selects to head any group tasked with upgrading the Department’s technology will play a pivotal role. However, equally as important, is the level of support he or she receives from all segments of the leadership of this organization. The chief can ensure a high degree of support by displaying his commitment to this venture. Once this is done lower management will commit as well. A basic eight step process can be used by the Department to achieve its goals. 1. Select the program leaders and support personnel. 2. Study the available technology and form recommendations.

3. Secure approval of Chief and Police Commission 4. Establish liaisons and gain the necessary support for acquisition of technology. 5. Secure funding sources. 6. Budget for the technology if and as required. 7. Purchase the selected technology. 8a & 8b. Implement program / train personnel.

Of a lesser importance but still significant is the need to modify current Civil Service hiring and procurement practices of the City. The entire system need not be changed. A small modification of the existing requirements could be accomplished which would allow for a more simplified and efficient process to be utilized in *special circumstances*. These circumstances would be stated in writing and would require the recommendation of the Chief and the Commission and the approval of the City Council. This flexibility would ensure the ability to either secure the services of experts for onetime projects or to purchase special and highly needed equipment in a rapid and or cost saving manner.

The Department must communicate the technological needs of the organization to the public and the political leaders of the City . Without the support of both the public and the political leaders it will be impossible to achieve a best case scenario environment. As in many cities across the nation, finances are in short supply. Budgets are being cut by as much as ten percent and there is no positive outlook for the immediate future. Clearly the only *guaranteed* method to secure sufficient funding would be through the raising of special tax dollars to be used solely, by the Police Department and perhaps the Fire Department, to acquire technology. Recent Department related bond issues have not faired well within the City of Los Angeles. Only a sustained effort to educate the public, thereby gaining their support, will ensure the

passage of such a bond measure. This effort would not be as difficult as it may seem. The Department has established many ongoing community contacts over the past years. These channels of communication are open and ready to be used.

Of a similar vein is the need for the Department to be ready to respond and function in a changing financial environment. Though several years away, there is still a strong possibility that segments of the City will be successful in their attempts to secede. Such an event could have a great negative impact upon the financial status of the of the City. The Department does not have the ability or the legal right to influence the outcomes of such actions. However it does have an obligation to be prepared if such an event occurs. It would be wise if upper management considered the impact which secession might have on any technology procurement goals and planned accordingly. One such action would be to establish a purchase plan which allow equipment to be acquired in stages. Each stage would be compatible and would build upon another but at the same time each would stand alone. This would allow the system to function effectively, even if subsequent stages could not be purchased due to a sudden loss of funding.

In light of a potential loss of funding it would also be expedient for the leadership of the Department to consider requesting a second Mayor's Alliance for a Safer Los Angeles (MASLA) as occurred previously in 1994. The funds raised at that time through donations from private industry were earmarked to purchase computer technology. Because of the political nature of the liaisons it would be best worked, as in the past, through the offices of the Mayor and City Council. This would prevent any such solicitation of assistance being misconstrued by anyone or any group within the community and would protect the Department from false charges of

corruption or favoritism. As in all else, the Chief would have to take the lead in initiating the process and once established he could assign the person or persons best suited to bring the program to fruition. The visible backing of the Chief would be very necessary and would assure a high level of public support.

Another important area which will require visible leadership is the "Field Data Capture" program with which the Department is currently experimenting. Based upon the group's evaluation and the results of the Cross Impact Matrix this venture, more than all others, has the potential will have a very strong positive or negative impact on the patrol function of the Department. If implemented successfully the level of information available to the field officers will be greatly enhanced. The program has a much better chance of success if the person selected to guide it and to make the day to day decisions concerning equipment and program formats etc. is highly knowledgeable in these areas. The decisions once made will be extremely difficult and unnecessarily costly to reverse.

The use of electronic monitoring by the Department has the potential to become a bone of contention between management and the union which represents field officers. GPS vehicle locating and dispatching and video and audio taping of field officer performance has never been strongly accepted by the rank and file. However with the current trend in lawsuits still on the upswing and with personnel complaints a common event within the organization it is incumbent upon the leadership of the Department to take every step possible to reduce City liability. Though it may not appear to be a positive issue on the surface, in reality it is exactly that. Officers who are aware that their performance is being monitored have a much greater likelihood

to act in a professional manner. Additionally, the presence of video and audio tapes can serve to protect personnel from false complaints and trumped up lawsuits. A number of officers are now voluntarily carrying pocket recorders and view it as a protection device for their benefit. If handled properly by management all other electronic monitoring will be accepted in the same manner. A second aspect of electronic monitoring requiring leadership is the area of monitoring of public areas, such as street corners, parking lots or busy intersections for the purpose of reducing criminal activity and or identifying perpetrators. Civil liberties groups and some portions of the general public will balk at the idea citing *invasions of privacy* concerns.

However if presented purely as a public safety issue and done in small increments , these objections should eventually be overcome. Specific initial areas for video deployment must be identified , using clear justification based upon crime statistics coupled with public requests for intervention. Locations which have been ongoing problems that visible patrol and enhanced enforcement has not been able to eliminate should be among those first selected. Other cities have shown that such monitoring , if properly handled can be very successful in improving public safety while reducing visible criminal activity. The Department, though larger (personnel-wise) than at any time in its history is still smaller than it should be if it is expected to be successful in eliminating crime from the streets of the City. The use of such monitoring devices will serve as a *force multiplier* , thereby enhancing effectiveness at a significantly reduced cost.

STRATEGIC RECOMMENDATIONS

The best case scenario depicted earlier in this report illustrates the potential impact upon the

patrol function of the Department which can occur with the infusion of computers and related advanced technologies. The following recommendations are submitted for deliberation to assist the Department in achieving these beneficial and dynamic changes:

1. **The Department must realize the high financial cost of advanced technology, its potential impact on future budgets and plan accordingly.** Such plans should include justification for such technology based upon proven financial savings through the elimination of current repetitious time-consuming tasks and duties and / or through demonstrated enhancement of field officer performance which clearly results in greater effectiveness. The EST results show that **two of the events which will impact the research issue in the most positive manner are the installation of the City-wide Fiber Optics system (E2) and the implementation of the Field Data Capture system(E10).** Each of these events have yet to happen but should take place within the next few years. The Department must support any and all efforts to make these events occur as soon as possible. If these events occur then 8 of the ten trends (T1, T2 , T3, T4, T6, T7, T8, and T9) will all be enhanced to the benefit of the Department.

2. **The Department must identify and lobby available sources for financial aid in its acquisition of advanced technology.** The effectiveness of this process was most recently validated through the acquisition and implementation of a Department Wide Area Network (WAN) made possible by the MASLA. It is also clear that the city currently lacks sufficient tax revenues to provide the Department with the funding to acquire the desired and required technology. **The EST results show that two events, a New Chief Selected (E9) and a Special Tax for Technology Passed(E11) have the greatest potential to impact this area of the research**

issue in a beneficial manner. The first of these events has just taken place and the Chief has shown a very positive interest in acquiring and using technology and he has the support of both the public and the elected officials. Additionally, the Department's image is the best it has been in over five years. Using this as a spring board and barring the occurrence of other unforeseen wildcard events, now would be a good time to lobby for a ballot measure for the passage a special tax to be used solely for the acquisition and maintenance of technology for the LAPD.

3. **The Department should establish active liaisons and affiliations with private sector industries engaged in the development of advanced technology which is either already adapted to or capable of being adapted for law enforcement needs.** Private industry must be better informed of law enforcement's needs and law enforcement must better understand what technology exists can assist in its efforts to protect and serve the community. As in the case of MASLA, it is quite clear that there exists an abundance of potential financial and technological aid amongst private sector industries. The more effective and efficient the Department becomes, the safer also becomes the business work environment. The safer the work environment, the greater will be the influx of industry to the City which in turn will equate to a growing tax base. The enhanced tax base will allow the Department's budget to expand making the purchase of advanced technology possible. **The establishment of these liaisons will also serve as a buffer in reducing the impact of the events E1, Technology Failure, E5 Loss of Tech Dollars and E6 City Bankruptcy, should they occur.**

4. **The Department should consider the establishment of alliances with other law enforcement agencies for the study of current technology and the exploration of future**

possibilities. This recommendation relates directly to recommendation number three. Currently, California Law Enforcement is a very fragmented market. Hence most major technology vendors have no great desire to produce products which are solely police related. A more unified market would have greater buying power and would therefore apply greater financial incentive to vendors to produce programs and equipment for police specific functions. Additionally, police agencies across the state are currently involved in integrating technology into various levels of their organizations. Each is in possession of important information garnered through personal experience and on sight implementation and each has gained valuable insight. There is much that can be learned from this experience. It is important that this information not be wasted or lost. A team of law enforcement personnel should be gathered from agencies throughout Southern California and tasked with identifying technology which is adaptable to law enforcement's requirements. Once this is accomplished, recommendations from the joint body could be reviewed by each agency to ensure that the technology is clearly useful to them. Such joint recommendations would carry greater weight with the political leadership of the various entities. Additionally, with the acquisition of like or nearly similar technology would automatically come a higher degree of compatibility leading to an easier exchange of information and greater potential cooperation between agencies. The establishment of this group would serve to enhance several trends. **T8 for example, Technology Sharing between Agencies, would automatically increase simply because of the constant interaction between the various agencies. T4, the Transfer of Military Technology would also be enhanced because each agency possesses current contacts with various government organizations which will become shared**

information over time. T5 Hardware Costs and T10 Software Costs could also be positively impacted through the purchase of larger quantities of products from vendors when multiple agencies buy simultaneously.

5. **The Department must evaluate all of its current informational technology from the standpoint of effectiveness, user friendliness, compatibility and obsolescence.** Once this is accomplished a technology acquisition group should be assembled to formulate a planning process which will guide the Department well into the next century. The group should have members of the field force among its ranks to ensure that the goal of enhancing the patrol function is not lost during the planning stages. Members of this group should also represent the Department on the multi-agency alliance group thus allowing for the greatest exposure to the largest variety of available technology for these individuals. The group should consider formulating a plan which will allow for acquisition in yearly stages which are compatible with the current City budget process but could also be implemented more rapidly in the event a *special tax for technology* is passed by the voters. The plan should be based on the concept of procuring equipment which is highly flexible and open-ended to deter the effects of obsolescence as much as is possible.

6. **The Department needs to identify the various stakeholders of the community and form them into an advisory steering group.** Once identified, liaisons should be established to clearly inform them on the goals of the Department and to gain or enhance their trust. The Department must demonstrate to them the technological needs of the organization and secure their support for the acquisition of these technologies. It is suggested that various representatives

from these stakeholders be assembled into a type of *advisory steering group* similar in concept to the current Community Police Advisory Boards (CPAB) . These members would act as liaisons between the Department and the community to ensure that the needs and plans of the organization are clearly communicated to the public thereby gaining their support. The most obvious stakeholders are the political leaders, the business community, various special interest groups and the many communities which make up the City of Los Angeles. The Department's current Community Based Policing approach is being expanded to include a much greater portion of its field officers. **The changes, coupled with the recommended liaisons will have a very good impact on trends, T6 Level of Governmental Accountability, T7 Level of Political Support and T9 Information Exchange with the Public. This could substantially lessen the effect of any major negative public relations event.**

7. **The Department should implement various types electronic monitoring to enhance the performance of its patrol officers.** In-car videos, audio taped field conversations and video and audio recording of all station desk operations would serve both to enhance performance and protect officers from false complaints. The public's opinion of the Department would rise equating to greater trust and higher public and political support. The support garnered could be the difference in the passage or failure of a needed bond issue. **The monitoring could also serve to eliminate the occurrence of another major negative public relations event.**

Additionally it is recommended that this monitoring be expanded to include GPS, vehicle locator information, to assist in effective dispatching of field unit to radio calls and an experimental program of public surveillance cameras at problem locations throughout the city. These

locations would be equally drawn from each of the councilmanic districts and consist of intersections or sections of public streets which have experienced high crime upon which routine patrol has had little or no impact. Such surveillance cameras have shown themselves to be very effective in other cities across the country.

CONCLUSION

The information contain within this report clearly demonstrates the potential positive impact which informational technology can make upon the patrol function of the Los Angeles Police Department. Identifying this technology, adapting it to organizational needs, securing required funding and implementing the various technological programs are each important and difficult obstacles which must be successfully overcome if the Department is to maintain its current level of effectiveness into the next century. Strategic planning, strong leadership, innovativeness, foresight and decisiveness will all be required if the Department is to achieve a *best case scenario* environment in the coming years. The challenge is before us!

ENDNOTES

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