

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

JOURNAL ARTICLE

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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 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 the Command College project are those of the author and are not necessarily those of the Commission on Peace Officer Standards and Training (POST).

THE IMPACT OF INFORMATIONAL TECHNOLOGY ON THE LOS ANGELES POLICE DEPARTMENT PATROL FUNCTION.

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. 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 which allows officers to do their jobs more efficiently. 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 issues. Our challenge and 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.

Law enforcement cannot afford to long delay the acquisition of this technology, because the criminal element is already using them. To quote Charles W. O'neal 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. Fiascoes 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.

BACKGROUND

In the late 1960's, Informational Technology in the Los Angeles Police Department (LAPD) was nearly non-existent. Crime analysis consisted of hand tabulated pin maps. Citizens' calls for police service were physically recorded and verbally assigned by RadioTelephone Operators. Field officers checked for potential stolen vehicles by comparing the suspected vehicle's license plate number against a hand typed "Hot Sheet". Warrant employees assigned to the Records and Identification Division accomplished checks requested by field officers through hand searches. Officers routinely experienced a wait of approximately 20 minutes between the time the request was made and the response was broadcast to them. Since that time things have changed dramatically. By 1988, The LAPD 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 regarding 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 LAPD 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? 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 basis for a study was formed which resulted in this article: "**The Impact of Informational Technology on the Los Angeles Police Department Patrol Function.**"

NOMINAL GROUP TECHNIQUE

As part of the research necessary to study this issue, a group of nine individuals were assembled to participate in a Nominal Group Technique (NGT) exercise. The panel compiled two prioritized lists of eleven events and ten trends. 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. Lastly, a Cross-Impact Matrix was used to evaluate the impact of the events on each of the trends. This allowed the evaluators to understand the interrelationship between the events and trends to identify those events, which will have the most impact on certain significant trends. The leadership of an organization can then attempt to influence various trends by encouraging or discouraging the occurrence of

particular events.

Though the original intent was to focus on the LAPD, it soon became clear that the resulting information was applicable, to some degree, to all of the California Law Enforcement community.

EVENTS AND TRENDS

Events

- E-1 The Failure of High Cost Purchased Technology to Perform as Anticipated.**
- E-2 The Installation of Fiber Optics on a City Wide Basis.**
- E-3 The Possibility of a Major Natural Disaster Occurring in the City of Los Angeles.**
- E-4 A Mandated Increase in the Education Requirement for Entry Level Officers.**
- E-5 Severe Budget Cuts Result in a Sudden Loss of Available Technology Funds.**
- E-6 The City of Los Angeles Declares Bankruptcy.**
- E-7 A Major Positive Public Relations Event Transpires.**
- E-8 A Major Negative Public Relations Event Transpires.**
- E-9 A New Chief of Police is Appointed.**
- E-10 A Field Data Capture System is Implemented.**
- E-11 City Voters Support the Passage of a Special Tax for the Acquisition of Technology**

Trends

- T-1 The Availability of Data to LAPD Field Officers.**
- T-2 The Use of Electronic Monitoring Devices to Support the LAPD Patrol Officer.**
- T-3 The Level of Rapid Obsolescence of the LAPD's Informational Technology**
- T-4 The Rate of Transfer of Military Technology to the Los Angeles Police Department.**
- T-5 The Cost to Purchase Informational Technology Hardware.**
- T-6 The Degree of Governmental Accountability Due to Increased Levels of Technology.**
- T-7 The Level of Political Support for the Acquisition of Informational Technology.**
- T-8 The Level of Technology Sharing between the LAPD and other Public Agencies.**
- T-9 The Level of Information Exchanged with the Public.**
- T-10 The Cost to Purchase Informational Technology Software.**

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*. Scenarios literally give strategic planners alternatives or choices, which can be used to assist their

organizations in moving into the best possible future. This scenario contains words that are in **bold face type**. They 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.

BEST CASE SCENARIO - DECEMBER 2002

Lieutenant Johnston was in the watch commander's office. He suddenly realized it was time to begin roll call. He left the **crime database** he had been reviewing and brought up the **video conferencing roll call program**. He remembered how in the past, it had been necessary to gather up his supervisors and all necessary paper work and hand carry it to roll call for distribution. Not any more. Thanks to **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 installed a **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 appeared on the **large projection screen**. Simultaneously, **several cameras in the room began to project pictures onto the four-part screen of his 25-inch monitor.** He observed that nearly all the chairs were filled. 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.** He began roll call. Officers Baptist, Carle, Herizey, Fortuna, Hall, Schiller, Roost, Perez, and Woods sat down in the roll call room and pushed a button on their laptops. Instantaneously, **the computers downloaded all crime and arrest and other information which they had missed while on three days off. 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. Assignments were given via their laptops. Requests for extra patrol and vacation checks were distributed electronically.** A few minutes later the officers filed out and paraded past the kit room. 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.** 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 Boulevard. 10A76, handle Code 3." Schiller said, "That's us" and flipped on the emergency equipment. "Hey Schiller," 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 information. As they approached the scene, the suspect began to flee. Schiller notified Communications and then **activated the Tactical GPS 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 GPS 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 search of the area. The suspect was located a short time later and Officers Herizey and Fortuna approached his position. Fortuna activated his **hand held Weapons Scanner** and panned the suspect's location. It clearly showed that he was holding a firearm in his right hand. 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 interview victims. One, a male Chinese 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 her computer. Passing a mike and earpiece to the victim while retaining one each for herself, Carle began to speak to him. From that point on the interview went smoothly.

Schiller, in the meantime, 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 suspect's 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 databases.** The suspect, it was found, was Tom Smith, a

two striker with a long rap sheet and a warrant for Assault with a Deadly Weapon. 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.

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 NGT, it is clear that there are a number of issues, which will require leadership in order to achieve the *best-case scenario environment*.

IMPLICATIONS FOR LEADERSHIP

One thing is clear. If a police department is to achieve the desired results, the Chief of Police must take a strong leadership role. The current informational technology systems of many police organizations are fragmented, often difficult to access, many are not compatible with each other and a number are somewhat obsolete or are rapidly becoming so. It is obvious that law enforcement in California is at a crossroads and the choices made today will significantly impact

it for many years to come. The person a chief selects to head any group tasked with upgrading a department's technology will play a pivotal role. However, equally important, is the level of support he or she receives from all segments of the organization's leadership. The chief can ensure a high degree of commitment by displaying his or her support. 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. Carefully select the program leaders and support personnel. 2. Study the available technology and form recommendations. 3. Secure approval of the 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.

STRATEGIC RECOMMENDATIONS

The best case scenario depicted earlier in this report illustrates the potential impact upon the patrol function, which can occur with the infusion of computers and related advanced technologies. The following recommendations are submitted for deliberation to assist the departments in achieving these beneficial and dynamic changes:

1. Departments must recognize 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.

2. **Departments must identify and lobby available sources for financial aid in its acquisition of advanced technology.** Cities usually lack sufficient tax revenues to provide the police departments with the funding to acquire the desired and required technology. Efforts must be made to overcome this financial roadblock.
3. **Departments 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 that can assist in its efforts to protect and serve the community.
4. **Departments 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. 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. A team of law enforcement personnel should be gathered from agencies throughout 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.
5. **Departments must evaluate all current informational technology from the standpoint of effectiveness, user friendliness, compatibility and obsolescence.** Once this is accomplished, technology acquisition groups should be assembled to formulate a planning

process which will guide their organizations well into the next century. 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. Departments need to identify the various stakeholders within the communities they serve. Once identified, liaisons should be established to clearly inform them of the goals of the agencies and to gain or enhance their trust. Departments must demonstrate to them the technological needs of the organization and secure their support for the acquisition of these technologies.

7. Departments should implement various types of electronic monitoring to enhance patrol officers performance. 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 their agencies would rise equating to greater trust and higher public and political support. **The monitoring could also serve to eliminate the occurrence of another major negative public relations event.**

CONCLUSION

The information contained within this report clearly demonstrates the potential positive impact which informational technology can make upon the patrol function of the California Law Enforcement agencies. 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 police departments are to maintain and improve upon their current levels of effectiveness into the next century. Strategic planning,

strong leadership, innovativeness, foresight and decisiveness will all be required if the California Law Enforcement agencies are to achieve a *best case scenario* environment in the coming years. The challenge is before us!

ENDNOTES

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1. O'neal , Charles W. And Gary L. Wistrand , "NASA Offers High-Tech Support to Law Enforcement." Police Chief , June 1993, p 50.
 2. Panique Jr., Chester H., Peace Officer Standards and Training , Command College Class XX Journal Article May 1994. "What Methods will California Law Enforcement Use to Identify and Inform Technology Developers of Their Needs by the Year 2004. "