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PLANNING FOR THE TECHNOLOGY TRAINING NEEDS OF CALIFORNIA POLICE ACADEMY STUDENTS BY THE YEAR 2005

BY

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COMMAND COLLEGE CLASS 12

PEACE OFFICER STANDARDS AND TRAINING

(POST)

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

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EXECUTIVE SUMMARY

This study analyzes the technology advancements taking place in the law enforcement, military and private industry and the resulting training needs for future police academy students if this technology is integrated into common police operations. The focus of the study is: What will be the technological/training needs for California police academy students by the year 2005?

SECTION I - A FUTURES STUDY

The study incorporated a review of literature appropriate to the subject matter, interviews with subject matter experts and a polling of police academy recruits on new police technologies. A distillation of current trends and potential events likely to impact the issue was forecast. This distillation forecasting process using a modified conventional delphi panel projected six trends: 1) Public Funding; 2) Computer Literacy; 3) Law Enforcement Specialization; 4) Crime Concerns; 5) Public Support For Police High Technology; and 6) Expert Systems For Patrol. There were six events projected with a high probability of occurrence by the year 2005. The six events evaluated were: 1) Private Enterprise Police Training; 2) Military Research To Law Enforcement; 3) Mobile Data Fingerprint Identifier; 4) Computer Literacy Required For Police Recruits; 5) High Tech Police Bond Issue; 6) Lethal Force Restrictions.

Three scenarios were developed based upon these trends and events; normative, "should be", exploratory and hypothetical scenarios.

SECTION II - STRATEGIC MANAGEMENT

A strategic management plan was developed based upon the "should be" scenario state using the California law enforcement training community. A situational analysis was conducted of the environment and the strengths and weaknesses of the training community. The emphasis of the strategic plan is to establish policies to facilitate 1) developing a technology review committee; 2) study the role of police service to the community in light of new technology; 3) standardize technology training throughout the state; 4) explore alternative funding sources for police technology and training.

SECTION III - TRANSITION MANAGEMENT

To manage the change process of getting us from today's world to the normative scenario, a transition management plan was proposed. The plan calls for POST to take a strong leadership role throughout the plan's multi-year time frame. It suggests the project manager, (a POST executive level position) to spearhead the implementation of the strategic policies recommended in Section II. Several implementation technologies are offered including responsibility charting, developing a shared vision, creating on going involvement, and milestone recognition to create a smooth transition.

CONCLUSIONS

The study concludes that the time to prepare for technology training needs for future police academy recruits is now. Whether the law enforcement community takes advantage of new technologies is dependent upon our actions today. Law enforcement professionals must implement policies that will facilitate shaping the trends in Section I towards the scenario of effective police technology use.

INTRODUCTION

A background is presented on the need for identifying emerging technology training requirements and academy curriculum changes.

SECTION I - A FUTURES STUDY

What will be the technological/equipment training needs for California police academy students by the year 2005?

SECTION II - STRATEGIC MANAGEMENT

A model plan for the State of California in general and POST in particular to implement high technology curriculum in police academies.

SECTION III - TRANSITION MANAGEMENT

A planned transition from minimal high technology academy training to optimal and statewide technology instruction.

CONCLUSIONS, RECOMMENDATIONS AND FUTURE STUDIES

A review of how to obtain an effective future state and what more needs to be done.

ACKNOWLEDGEMENTS

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INTRODUCTION

A BACKGROUND IS PRESENTED ON THE NEED FOR IDENTIFYING EMERGING TECHNOLOGY TRAINING REQUIREMENTS AND ACADEMY CURRICULUM CHANGES.

INTRODUCTION

In the age of computers, lasers, and a variety of emerging high tech apparatus, the complexities of police work have changed dramatically. The computer is becoming as vital as the police car. Techniques such as genetic fingerprinting are becoming regular tools in crime scene investigations. What was written ten years ago as science fiction fantasy will be tomorrow's reality in California law enforcement. As society becomes more complex and technologically dependent so must every police agency if it is to have a successful transition into the 2lst century. These societal complexities and technological advancements (working environment and competitiveness, demographics, fiscal dynamics, automation) and the impact and challenge associated with each will have a profound effect on the law enforcement profession.

Certainly, there have been volumes written on forecasted technologies destined to become available to tomorrow's police officer. Much less, however, has been documented on the training required of our officers to meet technological opportunities. Yet, we proceed aggressively procuring bits and pieces of the latest technologically advanced hardware in weaponry, communications and crime scene investigation equipment, computerized report writing and automated information systems.

As police departments make this transition through the manual to the automated high-tech phase of delivering police services, a surplus of obsolete low-level skilled employees and a void of "high-tech" skilled employees will exist in the work force. Forecasting technological skill requirements for police recruits during the next fifteen years

and implementing appropriate training programs will enable the police profession to broaden the skills of its employees. This will also allow for a successful transition into a demanding world of high-tech law enforcement service.

This research analyzes how emerging technology in the law enforcement profession will require changes in the police academy curriculum. The specific issue examined was:

WHAT WILL BE THE TECHNOLOGICAL/EQUIPMENT TRAINING NEEDS FOR CALIFORNIA POLICE ACADEMY STUDENTS BY THE YEAR 2005?

To define the scope of the issue three sub issues were identified:

*How will police technology be standardized?

*What financial/revenue changes might occur that will affect the ability to train or equip officers?

*How will new technology available to the police impact the level of service provided to the public?

This issue deals primarily with police training on a statewide basis using California as a model. However, the concepts and analysis of the research may be applicable in part or whole to regions, or even to a particular law enforcement agency. Additionally, the data and research indicating new training requirements may be appropriate to in-service employees as well as new employees where desired and appropriate.

BACKGROUND

"One thing is certain: The information revolution is changing our lives, and we need to prepare ourselves to cope with its promise and potential."[1] Senator Al Gore, Jr. -Tennessee

"Thirty years ago, police officers assigned to foot patrol began their shifts with five essential items; a badge, a night stick, a revolver, a hope and a prayer. These five items represented the latest technology at that time." [2]

In the past ten years there has been a significant increase in technology available to law enforcement. By the year 2000, one third of the work force will be teleworking, while half of management will be using electronic work stations. [3] While it has seemingly unlimited potential, technology advancements in law enforcement have yet to be integrated consistently into law enforcement in a significant or universal way. However, this is rapidly changing. Increasingly across the nation we are seeing police agencies implementing computerization of dispatching (CAD), computer terminals at workstations and in patrol vehicles, cellular phones for each beat officer, laser sighted hand guns and sophisticated night viewing devices for patrol work. Police departments that can afford the latest technology provide their officers the ability and opportunity to identify and apprehend criminals more safely and efficiently than ever before. This results in better service to the community. Yet, for many police organizations the newest technology is a hit or miss approach at best simply because of cost. Faced with an increase in demand for police services from the public on one hand and an opposite cry for fiscal restraint on the other, the law enforcement challenge of the 21st century is to do more with less. Recognizing the importance and cost benefits of advanced technology in letting the police work smarter not harder will enhance the profession's capabilities. Training to use this technology effectively is critical.

There are many technology based questions facing tomorrow's law enforcement professionals. Questions related to this study issues include:

** What are the biggest challenges facing law enforcement in the near future and how can technology help?

** Will we, as law enforcement professionals, be ready to fully use this new technology?

** Can technology advancements really make a difference in our quality and effectiveness of service delivery?

** Can the law enforcement profession afford to expand its commitment to these technologies?

** Can we afford not to use new technologies?

** How do we prepare and train our employees for future technology use?

Because there is so much uncertainty and change in technology, there is an opinion by many law enforcement managers that it is both unwise and nearly impossible to plan beyond two to three years. Yet those leaders in the law enforcement profession with a vision of the future see opportunity for both profession and organization growth through adaptation and constant change.

As Sir Levan Maddock wrote...*"to cherish traditions, old buildings, ancient cultures and graceful lifestyles is a worthy thing, but in the world of technology, to cling to out moded methods of manufacture, old product lines, old markets or old attitudes among management and workers is a prescription for (organizational) suicide."* [4]

WHERE WE ARE TODAY

In 1989 California Assemblyman Robert Campbell authored Assembly Concurrent Resolution 58 (ACR 58) requesting the Commission on Peace Officer Standards and Training (POST) to establish a committee to conduct a study on the use of advanced technology and facilities for law enforcement training in California. After extensive research that included review of educational technology, facilities needed, on site visits to high technology facilities and surveys of law enforcement and training officials, a comprehensive report was written for and presented to the California State Legislature.

The report describes the need for appropriate state of the art law enforcement training facilities incorporating advanced learning technologies and delivery systems. See Appendix B (ACR Recommendations).

The committee concluded that the following technologies currently or soon will exist for usage in law enforcement training programs: [5]

ADVANCED TECHNOLOGY TRAINING APPLICATIONS

* Computer based training
* Interactive video disc course-ware
* Telecommunications (telecourse distance learning)
* Simulation programs (computerized simulations)
* Expert computer systems

There were four types of facility needs reviewed by the committee and recommended for California police training within the next 10 years:

TRAINING FACILITIES

* Skill development facilities
* Advanced technology classroom
* Leadership development/Institute center
* Learning technology laboratory

With POST taking a strong leadership role in developing the ACR 58 recommendations, the advanced instruction technologies and facility needs concerns of the legislature have been addressed. The next logical concern is the technology curriculum needs to be taught to tomorrow's police officer. As the title of the ACR 58 Study Committee Report "California Law Enforcement Training In The 1990's: A Vision of Excellence," suggests the citizens as well as the law enforcement community have much to look forward to from better trained officers. The "vision" is the subject of this report.

FORMAT AND SCOPE OF THIS FUTURES STUDY

This report will address training needs for police related equipment and technology forecasted to be in common usage by police departments within the next fifteen years. Some of the technology and equipment is already in place yet sparingly in use by relatively few specialized individuals. Other technology such as computer usage is more common place, however, there is no standardized police training curriculum for any of this technology. With the exception of police vehicle technology advancements this report will address this void.

The majority of charts, tables, graphs and figures are in the Appendix. This will allow for continuity of information flow while still providing easy access to research data.

SECTION I

A FUTURES STUDY

WHAT WILL BE THE TECHNOLOGICAL/EQUIPMENT TRAINING NEEDS FOR CALIFORNIA POLICE ACADEMY STUDENTS BY THE YEAR 2005?

SECTION 1

A FUTURES STUDY

"Our profession has always been highly responsive to criticism, challenge and opportunity for change" [6]

THE NEED FOR FUTURES RESEARCH

This report is an effort to gain a vision of California's law enforcement high tech training needs by the year 2005. It is not a crystal ball forecast into obscurities and haze, but an attempt to clearly see what's around the corner in police technology and equipment training needs. This report; its forecasts, futures scenarios, strategies and transition plans, is based on ideas developed from numerous interviews with professionals in and outside of law enforcement. Its foundation is based on research through hundreds of articles, books and reports covering emerging law enforcement technology, trends and training needs. While there is no scientific methodology guaranteed to accurately predict the future, we must, as the shapers of tomorrow's law enforcement profession, plan ahead with a high degree of certainty. The assumption is that the future can be shaped by actions and decisions. This report may serve as a foundation for change and a preferable future.

The objectives of this futures research report are threefold. First, to create a vivid and

desired picture or scenario of law enforcement technology training needs through the next 15 years that will give us a destination of where we should be. With the "end" state in place we will have an on-going grading system to test our efforts in updating academy training requirements. This will also serve as a continuum base for the next two objectives.

Second, based upon the futures scenario the dependencies of all key players in the law enforcement training process will be defined and analyzed.

Finally, this vision or scenario by the year 2005 will provide the catalyst for the actual plan of how to get from where we are today to where we want to be.

If these three objectives can be fulfilled then this research project will have validity and can serve as a planning tool for implementation of high tech training curriculum in tomorrow's California police academy.

FUTURES FORECASTING METHODOLOGY

With any type of futures forecasting a set of assumptions and parameters of operation should be established for all parties involved in the process. Throughout this research project and specifically within the various futures study processes the operating assumptions set forth verbally to the interviewees, panelists and various helpers are:

* There will be change
* Computer use and dependency will increase in our society
* Criminal activity will continue
* Our basic criminal justice system will remain intact

* POST will remain the overall coordinating agency for California police training
* Technological advancements will continue
* The year 2005 will be the distant point of this research project

The goal of this report is to address specifically, the issue and sub-issue.

These assumptions were set forth and presented to all parties involved in the futures study processes. While setting assumptions can limit imagination, these research parameters were necessary in order to give focus to the issue question and avoid unrealistic and time consuming discussions.

THE ISSUES

In this futures study project the broad scoped issue question is: What will be the technological/equipment training needs for California police academy students by the year 2005? To direct and give focus to the project this main issue was further defined and structured with three sub-issues distilled after the initial literature scanning, interviews and a group process. These three sub-issues are:

* How will police technology be standardized?
* What financial/revenue changes might occur that will affect the ability to train or equip officers?
* How will new technology available to the police impact the level of service provided to the public?

The goal of this research report is to address specifically, the issue and sub-issues.

ISSUE RESEARCH - SCANNING OF THE ENVIRONMENT

An environmental scanning process was conducted consisting of three separate yet sequentially dependent steps: A literature review, polling of police academy graduates and selected personal interviews. Much of the data received in these environmental scanning processes is discussed in the introduction and is utilized in the various scenarios. A brief description of the processes follows.

LITERATURE REVIEW

Over 150 articles, reports, books and Command College papers were reviewed, categorized and summarized. The literature was categorized into sections dealing with future technologies, training, privacy issues, funding/revenue and future law enforcement. Sources of articles included NIJ computer search, POST Library, California State Library, etc. A bibliography of sources actually used or of general interest to the issue question, is contained in Appendix A

POLICE RECRUIT POLLING

For a background on emerging technologies in law enforcement approximately 125 police recruits were polled as to their perspective of this subject. Approximately 30 new technologies were identified as having application for law enforcement use by the year 2005. This information was used during a group process introduction to give direction to the issue question.

PERSONAL INTERVIEWS

Five interviews were conducted throughout the state with subject matter experts to gain insight into the issue question and help formulate sub-issues. Two POST consultants

gave much of their time and expertise in the area of future academy training methodologies and advanced technology training applications.

An emergency response magazine publisher was interviewed for his guidance and perspective from other safety disciplines outside of law enforcement.

A police academy administrator helped greatly in giving background on the politics, procedures and challenges of academy curriculum changes.

A low angle laser light scattering photometer technician from a national corporation was interviewed as to his perspective of emerging technologies and training requirements in laser and infrared technologies.

STEEP ANALYSIS

Using these environmental scanning processes, a "futures file" was developed incorporating the STEEP acronym to categorize the information having a direct impact or correlation to future police technology training.

STEEP - Social, Technological, Economic, Environmental, Political

Future Technological/Equipment Training

STEEP Analysis

Social	Technological	Economic	Environmental	Political
Public Awareness	Computer Dependency	Government Spending	Haz Mat	War
Expectations	Reliability	Taxes	Environ. Caps	Service Levels
Comm. Support	Liability	Inflation	Regional Prob.	Contracting
Crime Rate	War Technology	Equipment Costs	Traffic	State vs. Local
Privacy Issues	Specialization	Federal Support	Inner City Blight	Crime Levels
Lethal Force Restrictions	Computer Literacy	Government Bankruptcy		Private Business Pressure

This STEEP Analysis was then used in presenting the issue during the next process.

NOMINAL GROUP TECHNIQUE

Futures Wheel Exercise

Eleven expert panel members were selected to participate in a nominal group technique to develop a futures wheel around the broad topic of future police technology and training (See Illustration 1)

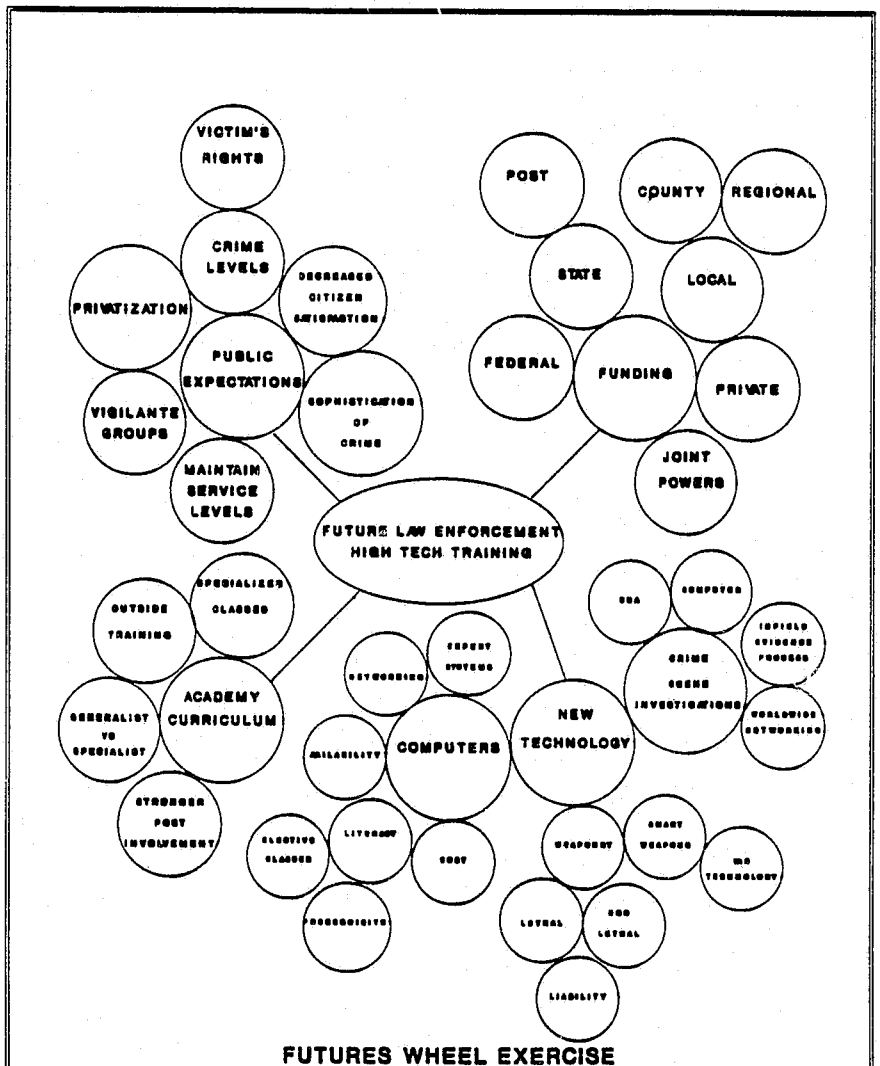


ILLUSTRATION 1

This technique was used to narrow down and focus the issue and to help refine the sub-issues. As can be seen from the futures wheel, many sub-topics and issues are related to this area.

NOMINAL GROUP SELECTION

The eleven individuals selected came from a cross section of disciplines both in and out of law enforcement yet all having expertise in topic related areas.

* Two were top level managers of mid to large size municipal police departments
* One was a mid manager of a local police department and a Command College graduate
* A crime scene investigator chosen for his involvement with procurement of high tech crime scene investigation equipment
* A president of a police computer consulting firm
* A crime analyst for a medium size police agency
* A police academy administrator
* A supervisor of a white collar, high tech crime investigations unit with a medium size police agency
* Two computer/white collar crime investigators
* A professor from a Southern California State University

These individuals were brought together in order to formulate a list of emerging trends, events and technologies which would impact the area of future police training. The group identified 57 trends and 43 events during round one of this group process. These

numbers were reduced to 28 and 30 as future discussion about the issue question ensued. (See Appendixes C, D) The group worked collectively on the futures wheel and from that effort the three sub-issues were finalized.

A review of the groups effort was conducted by the author and a Command College graduate colleague producing a list of 13 trends and 10 events most appropriate to the issue question.

MODIFIED CONVENTIONAL DELPHI TECHNIQUE

A modified Conventional Delphi (MCD) panel was selected to judgementally forecast the trends and events and their probable impact on the issue being studied. The MCD panel included several members from the nominal group and:

* Law enforcement training division manager
* Emergency services magazine publisher
* Police attorney
* Laser specialist
* Police command officers (3) from medium size police departments
* Police computer specialist

A total of eleven members were selected to be involved in the MCD process. The process allows for varying individual's expertise through the use of questionnaires and mailed or faxed responses. Consisting of two rounds, (refer to Appendixes E and F) each panel member was asked to respond to a questionnaire containing a distilled list of 13 trends and 10 events. In round one the panel was asked to rank the importance of trends

and choose the most likely events. Definitions of the trends and events were supplied as well as the MCD process instructions. The panel results were reduced to the six trends and events deemed to be most relevant, probable and having the most impact on the issues. In round two the panel was asked to forecast trend levels and event probabilities. The results of round two were then tabulated and the median values obtained for use in a cross impact analysis.

TRENDS

The methodology for trend forecasting given to the panel was that of a ratio scale. Today's assumed value of each trend is 100. An estimate of the trend value at a different point in time could be equal to today's value (100); less than today would be less that 100 or greater that today would be more than 100. The forecasting required trend estimates of 5 years ago and both nominal (will be) and normative (should be) future estimates of 5 and 10 years from now. Table 1 depicts the results of the final MCD panel's trend forecast using median values. The panel's full ranges and graphs of the these trend levels are contained in appendixes G and H.

TABLE 1

TREND EVALUATION

Trend #	TREND STATEMENT (Abbreviated)	LEVEL OF THE TREND ** (Today = 100)			
		5 Years Ago	Today	* Five years from now	* Ten years from now
1	PUBLIC FUNDING	85	100	110/115	120/130
2	COMPUTER LITERACY	40	100	120/135	140/160
3	LAW ENFORCEMENT SPECIALIZATION	70	100	115/130	130/140
4	CRIME CONCERNS	75	100	115/95	135/100
5	PUBLIC SUPPORT FOR POLICE HIGH TECHNOLOGY	70	100	120/130	135/160
6	EXPERT SYSTEMS FOR PATROL	50	100	120/130	130/150

** Panel Medians
N=11

* Five years from now: "will be" / "should be"

* Ten years from now: "will be" / "should be"

The six trends that the panel believed could have the most impact on the issue are:

TREND 1 - PUBLIC FUNDING

Certainly, in most governmental programs the amount of funds available has a direct impact on the overall success of program implementation, maintenance and effectiveness. This trend relates to the future levels of tax generated revenue for city, county and state governments. Operational decisions about police technology procurement and training relate directly to funding availability. A cost benefit analysis of any new police technology appears to be in order as the median and ranges of the MCD panel indicate continued lean fiscal years for governments over the next 10 years. Some of the panel members thought that the relative funding for government would actually go down over the next 5 to 10 years. Overall, this trend according to the panel, will reflect a slow growth of revenue for governments over the next 10 years. Interesting to note that the "should be" median value is only 128 at 10 years. Discussion from the panel was that government already takes its fair share of taxpayer monies. Even though many of the MCD panel are government employees their perceptions are similar to non government employees when it comes to government spending.

TREND 2 - COMPUTER LITERACY

One of the assumptions given during the structured group process was that computer usage and dependency in our society will increase. The MCD panel felt that specifically within police work this assumption is valid. In concert with increased computer usage will be the need for computer literate police recruits entering law enforcement. Most MCD respondents projected that law enforcement

recruits will either be required to pass computer literacy tests before entering the academy or trained in computer use during the academy. Several respondents felt, however, that while computer usage would increase dramatically over the time period the need for computer literacy would actually decrease (10 year range, low end = 90). Their reasoning for this is that computers would be so user friendly within 10 years that virtually any police recruit would be able to operate them without prior computer knowledge. One of the respondents felt that computer literacy of police officers will lag over the years and will be consistently below the need unless police management becomes innovative in its training.

TREND 3 - LAW ENFORCEMENT SPECIALIZATION

Defined as the level of need for specialized law enforcement in light of new technology equipment and investigations, this trend is forecasted to reflect a steady growth. The panel felt that with criminals becoming more sophisticated entering areas such as computer fraud, information theft, and automated white collar crimes, the need for specialized police units to investigate such crimes will increase.

While the range by MCD respondents was wide for this trend (100-180 at 10 years), the median values for 5 and 10 years reflect a definite increase in law enforcement specialization, not only in crime investigation but in response to in-progress crimes as well. One panel member with an extensive SWAT background felt that by the year 2005 most patrol forces within municipal police agencies will have tactical squads of sworn police officers. These squads would respond to the

dangerous in progress life threatening calls, do little if any report writing and have civilian aides do all follow up work. He foresees the day when the police academies train some officers who specialize in tactical response while others are trained in the more traditional police roles.

As with trends 1 and 2, the "will be" is forecasted to be substantially less than the "should be".

TREND 4 - CRIME CONCERNS

The level of crime in our society is a concern to everyone. As the MCD panel reflects its forecast in this trend a steady increase in the crime rate is expected. While the panel hopes that the crime level in 5 and 10 years drops from or maintains at today's level its professional "will be" forecast is that we will continue to see crime levels escalate. All respondents to this trend agreed that the smarter use of our police resources through new technology will be a key to fighting and responding to crime in our society. One respondent thought that the level of crime may actually decrease in the next 10 years if the police can fully incorporate, procure, and train with emerging crime fighting technologies.

TREND 5 - PUBLIC SUPPORT FOR POLICE HIGH TECHNOLOGY

This is the overall community demand for and acceptance of high technology use by the police. The MCD panel provided median estimates which support increased use of emerging technologies to help solve and respond to crime problems. The "will be" forecast ranges at the 5 and 10 year points were 90-150 and 90-180, respectively; the "should be" ranges were even higher at 100-170 and 100-200.

Clearly, this trend along with trend 4, reflect the growing concern about the state of crime in our society and the willingness of the public to do something about it.

TREND 6 - EXPERT SYSTEM FOR PATROL

Defined as the trend of emerging technology for smart computers or expert systems for everyday patrol use, this trend reflects most of its growth in the "should be" 10 years from now. The panel felt that the cost of expert systems will be the driving force in this trend is development. The use of this technology will apparently increase as expert systems become less costly.

EVENTS

Through the MCD process the events selected during the NGT process and environmental scanning exercises were distilled to six. These events were felt to have the most relevance, impact and probability of occurrence. The MCD panel was asked to forecast each event in terms of:

* Number of years until the probability of each event first exceeds zero
* The probability of occurrence of each event 5 years from now
* The probability of occurrence 10 years from now
* The negative and/or positive impact of the event on the issue

The probability scale is 0% (event will probably not occur) to 100% (event will probably occur) by that time limit. A zero to 10 scale was used for both the positive or negative impact rating. Table 2 represents the MCD panel medians of all six forecasted events. Appendixes I and J depict the respondents full ranges of event data and graphic

interpretation of this data.

Events play a major role in shaping our future. They can change the course of a trend immediately (such as an earthquake) or play a more subtle role (such as a police brutality incident on national T.V.). Events impacting future police technology/equipment training are likely occur.

TABLE 2

EVENT EVALUATION

Event #	EVENT STATEMENT	* YEARS UNTIL PROBABILITY FIRST EXCEEDS ZERO	* PROBABILITY		IMPACT ON THE ISSUE AREA IF THE EVENT OCCURRED	
			Five Years From Now (0-100 %)	Ten Years From Now (0-100%)	* POSITIVE (0-10 scale)	* NEGATIVE (0-10 scale)
1	PRIVATE ENTERPRISE POLICE TRAINING	3	60	80	7	0
2	MILITARY RESEARCH TO LAW ENFORCEMENT	3	70	85	8	0
3	MOBILE DATA FINGERPRINT IDENTIFIER	4	60	90	9	0
4	COMPUTER LITERACY REQUIRED	4	65	90	7	0
5	HIGH TECH POLICE BOND ISSUE	4	40	65	6	1
6	LETHAL FORCE RESTRICTED	5	25	40	0	8

* Panel Medians
N=11

The following is an analysis of the six events evaluated by the MCD process:

EVENT 1 - PRIVATE ENTERPRISE POLICE TRAINING

Definition: POST allows private enterprise training in the police academies for instructing recruits on new technology i.e., vehicle locator systems, computers, weaponry, etc. that most agencies utilize.

With the anticipated influx of new technology and specialized equipment into police work, the MCD panel felt strongly that this event would occur soon. In this area of private academy training there would be a 60% probability within 5 years and an 80% probability within 10 years. Curriculum appropriate for private enterprise instruction might include:

* Computer literacy classes
* Non-lethal defensive tactics/weaponry
* Lethal weaponry - laser, smart, robotic
* Evidence analysis

Many of the MCD panel felt that manufacturers of statewide "police systems" would have the best instructors for the technical use aspects of their products. It was also felt that the general idea of police officers teaching police might soon give way to much better instruction by "experts" in various fields.

The positive impact of such an event was seen as 7; no negative impact.

EVENT 2 - MILITARY RESEARCH TO LAW ENFORCEMENT

Definition: Persian Gulf War brings advance technology to law enforcement use i.e., smart weapons, night vision devices to everyday law enforcement.

The MCD panel forecast a strong, positive impact if this event were to occur. Much of the world's population viewed for the first time at the sophisticated weaponry and equipment that our military forces incorporated in their war to free Kuwait. Daily accounting and detailed explanation of practically all military hardware was published in newspapers, magazines and T.V. The MCD panel felt that within 5 years there would be a 70% probability of this military equipment being tailored to law enforcement and an 85% probability within 10 years. The overall impact of such an event was viewed as being a positive 8.

The panel indicated adaptation of military technology to law enforcement would occur most likely in the following areas:

* Chemical weapons (non-lethal)
* Laser weapons
* Communications equipment
* Officer safety clothing and uniforms
* Robotics
* Smart weapons for patrol use

EVENT 3 - MOBILE DATA FINGERPRINT IDENTIFIER

Definition: This is the point in time where a touch pad in each police unit allows a suspect's fingerprints to be quickly identified within minutes, either from an in-custody field encounter or from latent fingerprints.

While this technology is currently available, the cost, reliability and networking make it prohibitive. The MCD panel felt, however, that within 5 years there is a 60% probability that this technology would be cost effective for every day patrol use. Within 10 years this probability jumps to 90%. A positive impact to the issue of 9 is expected if the event occurs.

The panel was optimistic about this equipment being incorporated into the future law enforcement's arsenal of crime fighting technology. Training of all police recruits would be required similar to radio use instruction in today's academies.

EVENT 4 - COMPUTER LITERACY REQUIRED

Definition: POST requires all police academy applicants to pass a computer literacy test prior to police academy graduation.

The panel felt there is a strong likelihood that within 5 years computer usage would be so universal in police work that there would be a need for computer competency or skills test required of all police recruits. This would minimally include:

* Computer keyboard skills
* Privacy, liability, misuse issues
* Law enforcement computer system networking and access

This event has a probability of 90% within 10 years and a positive impact of 7.

EVENT 5 - HIGH TECH POLICE BOND ISSUE

Definition: A bond issue is presented on the statewide election ballot which would set up a funding system for law enforcement agencies to purchase hardware for automated criminal investigative systems (statewide system) and appropriate training in their use.

Funding for high tech police equipment and technology will be a major obstacle to its implementation. The trends seen today in the world, national and local economic situations will result in a tightening of available funds for public safety services. The panel felt that there was a 40% probability within 5 years that the public would support a bond issue for law enforcement funding of high tech crime scene investigations technology, equipment and training. A positive impact of 6 and a negative 1 was forecasted for this event. It was also felt that POST and other statewide law enforcement organizations will need to take a strong leadership and innovative role in this area. There is a 65% probability that the event will occur within 10 years.

EVENT 6 - LETHAL FORCE RESTRICTED

Definition: California Supreme Court prohibits the use of lethal force by police unless a suspect is known to be armed with a firearm. Alternative to lethal force must be used in all cases.

The MCD panel forecast a 25% probability within 5 years and a 40% probability within 10 years. The overall impact of such an event was viewed as being a negative 8; no positive impact. The panel felt strongly that the impact of this event

would require much additional training in the police academy and drastic changes to its curriculum in the areas of:

* Self defense/defensive tactics
* Use of force
* Officer safety/patrol procedures
* Firearms training
* Communications skills/interpersonal communications

This event was going to be dropped from further analysis within this report. However, due to the timely event of an apparent excessive force/police brutality incident shown numerous times on nationwide T.V., the author has decided that this event may have taken on additional impact from the panel's forecast.

CROSS - IMPACT ANALYSIS

The value of forecasting trends and events related to the issue question is greatly enhanced when their interrelationships are assessed and analyzed. That is, if an event were to occur what impact might it have on the other trends and events forecasted? To analyze this cross impact of six trends and events, a sub-group of the MCD panel was asked to help with this process. The cross impact analysis panel consisted of the author and three other persons. The three included two police managers and the president of the computer consulting firm.

TABLE 3

CROSS-IMPACT EVALUATION N = 4

MATRIX Maximum Impact (% change ±)

GROUP CONCENSUS

**	E1	E2	E3	E4	E5	E6	T1	T2	T3	T4	T5	T6	"IMPACT TOTALS"
E1	X	+15	+10	+05	+10	0	-10	+15	+20	-	+25	+50	E1 9
E2	+20	X	-	+10	+20	+10	+10	+20	+30	-10	+45	+40	E2 10
E3	+20	-	X	-	+15	-	-	+10	+05	-15	+50	-	E3 6
E4	+20	-	-	X	+10	-	+05	+15	+35	-	+25	+10	E3 7
E5	+10	+15	+10	+10	X	-	+15	+10	+10	-15	+60	+15	E5 10
E6	+10	+05	-	-	+10	X	-	-	-	+10	+25	-	E6 5

"IMPACTED" TOTALS

E1	E2	E3	E4	E5	E6	T1	T2	T3	T4	T5	T6
5	3	2	3	5	1	4	5	5	4	6	4

** Legend

E1 Private Police Training
E2 Military Research to L.E.
E3 Mobile Fingerprint Identifier
E4 Computer Literacy Reqrd
E5 High Tech Bond Issue
E6 Lethal Force Restrictions
T1 Public Funding
T2 Computer Literacy
T3 Law Enfrcmnt Specialization
T4 Crime Concerns
T5 Public Support for High Tech
T6 Expert System for Patrol

CROSS IMPACT ANALYSIS METHODOLOGY

Using a pre established cross impact matrix (See Table 3) the six actor events were listed vertically on the matrix and the six events and six trends are recorded horizontally. The impact of the actor events (vertical axis) is recorded as the percentage change (+ or -) over the original MCD median forecast on the reactor events and trends (horizontal axis). Any percent change in a matrix box is recorded as an "impact".

The following question was then asked of the group: If event 1 (E1) actually occurred, what would be the percentage change (plus or minus) of event 2 (E2) at the point of greatest impact? The group was reminded that the impact of an event actually occurring on another event or trend might have no impact at all. Additionally, any percent change estimated for a reactor trend or event should be the maximum possible if the event were to occur.

The cross-impact analysis process identified three actor events with a high impact score upon the other events and six trends. These events therefore will be the primary targets for future policy actions with the goal of making it (the event) more likely or less likely to occur.

As a result of this cross impact analysis the following observations can be made:

1. EVENT 1 - PRIVATE ENTERPRISE POLICE TRAINING (9 IMPACTS)

   The forecasted event of private enterprise providing high technology training to the police academy recruits would have an impact of increasing the probability of four events and four trends. It would reduce the level of one trend. Allowing private high technology businesses into police training would, according to the panel, increase the likelihood of military research transfer to law enforcement (E2) as well as pushing for earlier implementation of Mobile Fingerprint Identifiers (E3). Event 5 (High Tech Bond Issue) would have an increased probability if private industry is providing the training for their products. Event 4 (Computer Literacy) would be a side benefit of most any increased technology training and will have a higher probability of occurrence should Event 1 occur.

Privatization of police high tech training might reduce overall public funding of police academies thereby reducing the level of E1. Trends 2, 3, 5, and 6 all show increased levels. Public support for high technology (T5) may be increased through the occurrence of E1. Law enforcement specialization (T3) would increase if specific training were to be provided by private industry. And finally, if POST were to allow private high tech training into the police academies the panel felt that application of expert systems for patrol (T6) use would reflect a higher level.

2. EVENT 2 - MILITARY RESEARCH TO LAW ENFORCEMENT (10 IMPACTS)

If this event were to occur it would have significant positive impact on four events and five trends. All events with the exception of E3 (Fingerprint Identifier) would have an increased probability of occurrence. Many of our high tech military personnel are already computer literate (E4) increasing the likelihood and ease of implementing this event and increasing Trend 2 (Computer Literacy). We may see more specialization within police work (T3) just as we have in the military over the last 30-40 years.

Crime concerns (T4) should show a decrease if E2 were to occur as the public sees the results of military research and technology applied to law enforcement. Similarly, public support for Law Enforcement High Technology (T5) should increase if this event were to occur. Expert systems play a major role in everyday military operations. Trend 6 (Expert Systems for Patrol) should increase if E2 were to occur.

3. EVENT 5 - HIGH TECH POLICE BOND ISSUE (10 IMPACTS)

Most research about government funding forecast continued lean times ahead. Budget priorities of law enforcement agencies will remain on maintaining existing resources. High technology equipment to let police work smarter not harder will probably be "nice to have" items as the costs remain relatively high. A partnership between the police and community may well produce special funding for the needed high tech equipment through statewide or local bond issue(s). If this were to occur and pass, the overall impact would be positive to most of the events and trends. Events 1-4 dealing with direct application or training of high tech police equipment would have significant increased probabilities. This bond issue event would also impact every trend. It would increase computer literacy (T2) levels; allow for specialization (T3); reflect higher levels of public support for high technology use by the police (T5); and increase the use of expert systems for patrol use (T6).

SCENARIOS

Three scenarios or possible futures will be presented based upon the analysis of trends and events discussed in this section. These scenarios are used in futures research to describe an envisioned future of what could be.

Three modes of scenario forecasting will be used:

* EXPLORATORY - (Nominal or most likely to occur)

  This is a surprise free scenario and looks at the most likely future based

upon what we know today. The "will be" trends and events data are used to develop this scenario. Only events which are likely to occur will be used in this scenario.

* HYPOTHETICAL - ("What if" or best case/worse case)

  This is an alternative future developed through manipulating data to produce a "what if" scenario.

* NORMATIVE - (Desired and attainable "should be")

  This model takes a proactive stand and develops a future which is "good" and has a likelihood of happening. It may be achieved through lessons learned from the past and present, and implementation of policies to shape the future. It incorporates the "should be" trend levels forecasted by the Modified Conventional Delphi panel. This is a desired and attainable future state.

EXPLORATORY SCENARIO

More or less of the same old thing

Proposition 657, the so called Computer Cop Tax, failed by a 2 to 1 margin in last year's November statewide ballot. The proposition, if passed, would have created a 1.4 billion dollar bond for all California police agencies to purchase and train in several new crime fighting computer systems. Once again, however, no miracle revenue source will be forth coming to improve law enforcement technology. The budget crisis in all levels of government from the early 1990's has continued without relief five years into the new millennium. All government agencies (federal, state and local) have continually cut back

on services.

Except for a minor upturn in the economy after the Persian Gulf War, years 1992-1993, the per capita expenditure on law enforcement in California has declined an average of 2% per year.

A real dichotomy exists in the year 2005 in that the public demands more accountability from and asks more of their police, yet refuse to give additional funding to fight a spiraling crime rate. The gang warfare so prevalent in Los Angeles and other large inner cities, has spread throughout all areas of the state. Calls for police services continue to rise year by year. Crime, along with the on-going social problems of abortion rights, homelessness and AIDS, continue to rate as the top domestic concerns in polls across the nation.

With the exception of several regional attempts at implementing expert systems for patrol resource deployment and integrating automated crime analysis computer systems the technology of the year 2005 is much the same as it was 10-15 years ago.

Certainly, the computers are smaller and faster yet the integrating of these systems on a statewide or nationwide basis has been dismally slow.

Several of the state's larger agencies began requiring computer literacy for their police recruits in the mid 1990's. Most of the rural and smaller agencies, while having the desire, lack the need to require this training.

Public support for high technology in their police departments continues to be lacking as evidenced by the defeat of Proposition 657. However, with the State Legislature's

endorsement in 1992 of the ACR 58 report and POST taking a strong leadership role, advanced learning technologies have been fully integrated into all twelve of the state's regional police academies. Unfortunately, this state of advanced technology has not crossed the threshold into practical everyday use by the police. Many agencies are still using mobile data terminals that are 15 years old and most all systems are localized with little if any networking.

The criminal justice problems of the early 1990's exist today in 2005. Lack of training, crime problems, an over burdened court system and under-funding continue to plague the criminal justice system. Individuals who complained years ago that the police were not sufficiently coordinating their activities were right. There are specific isolated regions or departments who, through exceptional vision, were able to procure the latest in crime fighting technologies and train all their officers in its use. Some, such as the 8000 officer SVPD have even incorporated computer literacy and law enforcement technology classes in their basic academy curriculum.

The 1991 Persian Gulf War made available new and sophisticated technologies appropriate for law enforcement. However, funding has been the problem for this cross over. That appears to be changing, however, as the demand for this technology in foreign markets has driven the cost down. It is expected that soon, every officer working the streets in California will be issued night vision goggles, laser sighted weapons and in-field automated radio transmitted reporting systems.

Advanced technology in law enforcement has certainly fallen short of late twentieth century expectations. Training in advanced technologies in the statewide police academy

curriculum is almost non existent. Yet, there is hope for a brighter future. Proposition 678 has qualified for the ballot next June and is backed by all three political parties, the governor and virtually every component of the criminal justice system. If passed nearly 2.7 billion dollars will be made available to law enforcement, the court and corrections system. A completely integrated criminal justice system may finally be on the horizon. Whats more, over 500 million dollars is earmarked for training of all in service and academy recruits in 120 hours of computer use, advanced technology applications and expert system integration.

HYPOTHETICAL SCENARIO

"What If" (Worst Case)

HEADLINES

"Techno-Criminals Have A Circuit Of Power"

"Illegal Use Of Computers Overwhelms Police"

"This one is kind of embarrassing Sarge. It looks like that guy we arrested the other day for computer theft made good on his promise to place a virus in the department's crime analysis software. The whole system has taken a crash. It looks like it is ruined. Thank God we have the tape backups".

Sgt. Johnson reflected when police work used to be tangible, predictable and "fill the jail" attitudes used to prevail. Now in the year 2003 stealing money is done through computers without the suspect even showing his face. We not only are at a loss to know who's doing the crimes but we don't even know whose jurisdiction, what type of crime

or even for months later that a crime has occurred. Law enforcement always has been in the rear when it comes to apprehending computer criminals. Ever since Proposition 474 failed in 1995, which would have funded a statewide high technology crime investigations unit and training within the police academy in these crimes, the gap between the computer crook and police has been steadily growing. With government budgets shrinking and computer crimes growing, the police have been unable to compete with the talents and machines of their criminal counter parts. Computer crimes now make up the largest percentage of any Part I crime surpassing burglaries in 1998.

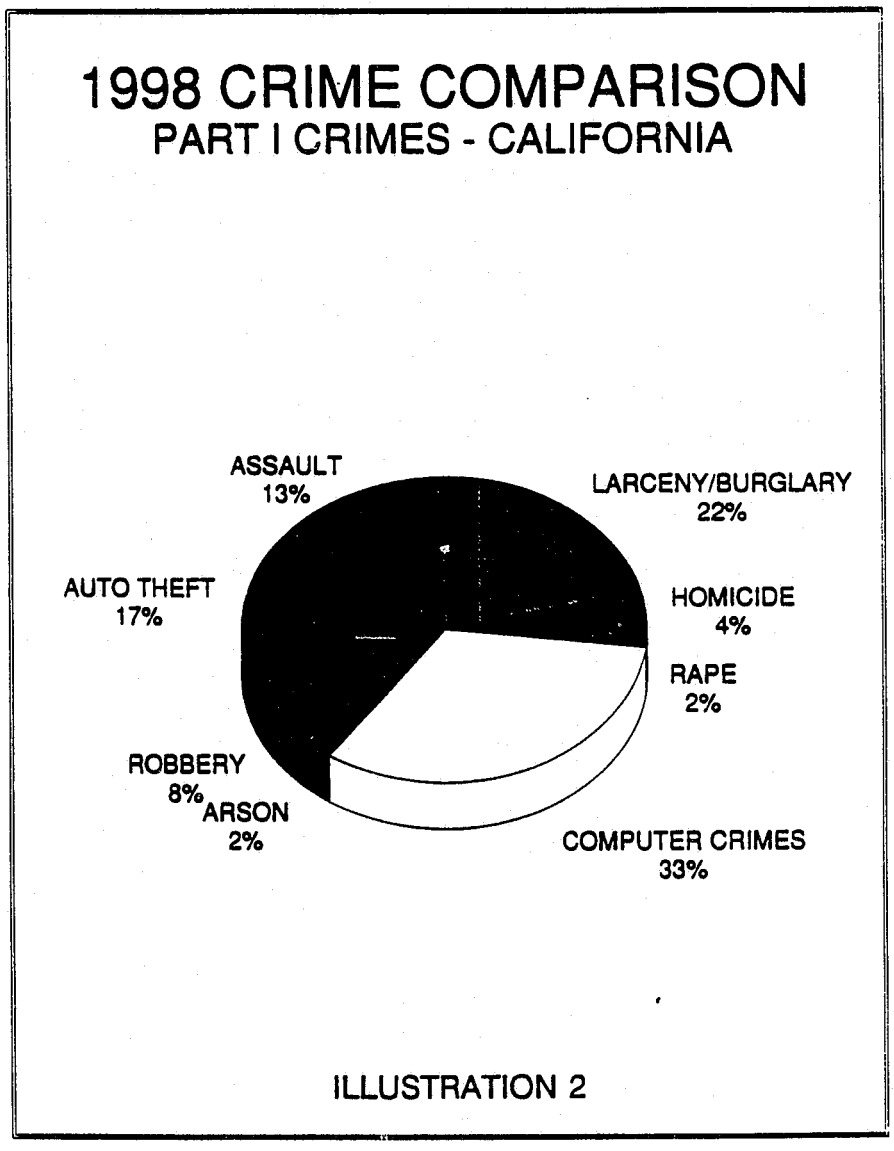


ILLUSTRATION 2

The computer age has created a new kind of crook (techno-crook.) Police academy and in-service training to address this growing crime problem is practically non-existent. While it's costing the American consumers billions of dollars each year we will never see the police attack computer crime like the drug or gang issue simply because it is not visible and lacks the emotional impact. Computer crime is up 350% since 1993 yet within the entire state there is less than 125 high tech crime investigators.

POST's 1997 proposal to train specialized civilian police investigators in computer crimes failed due to lack of funding and support. What little discretionary funding exists for high technology and training continues to be directed towards non-lethal weaponry. However, even this has been inconsequential in comparison to the sophistication of legal and black market high-tech weapons being adapted for gang warfare, drug trafficking and computer crimes.

Police work sure has changed since Sgt. Johnson started in 1981. The inability of the police to keep up with the criminal's technological advances has created a group of pretty bright techno crooks able to make millions of dollars with little if any chance of being caught.

NORMATIVE SCENARIO

Desired and Attainable

HEADLINES

"Police Get The Upper Hand In Crime Fighting Technology"

"Proposition 316 Passes - Police Obtain Funding For High Tech Training"

"State Requires Computer Literacy For Police"

"Seaside Strangler Captured Through Use Of Mobile Data Fingerprint Terminal"

"S.V.P.D. Graduates Seventeen Officers From Specialized Academy"

The adoption of recommendations in the ACR 58 report to the California State Legislature served as the catalyst for future studies and recommendations in police high technology training and use. The ending of the Persian Gulf War in 1991 gave rise to a wealth of military research and technology adaptable to police work.

The passage in 1996 of Proposition 316, a bond issue to fund police technology and training, showed an overwhelming display of public support for the police and a desire to do something pro-active about the spiraling crime and violence problems plaguing our society.

The year is 2001 and every police agency in California is mandated to use S.M.A.R.T. (Strategic Management of Allocations, Resources and Tactics) for their resource deployment. S.M.A.R.T. is an automated expert system developed by I.C.M. (International Corporate Management) for the State's three largest police departments. Implemented in 1996 through funding by both I.C.M. and the State, S.M.A.R.T. was so successful in deploying officers both before and after crime incidents that in 1999 the State legislature

passed a law mandating its use in all police and sheriff's departments. Proposition 316 was already in place so funding was not a problem.

The only obstacle to the S.M.A.R.T. System was the need for computer literate police personnel. The test agencies sent their officers to a two week computer training program taught and funded by I.C.M. While the S.M.A.R.T. System is extremely user friendly, its networking with virtually all national and world wide criminal justice computer systems made computer literacy necessary. Anticipating a statewide implementation of S.M.A.R.T., POST added performance objective 13.1 to its basic academy curriculum requiring computer training of all police recruits.

Funding for police programs outside of Proposition 316 has remained lean ever since the tax payer revolt days of the mid 1970's. However, through increased use of civilians, specialized forces within law enforcement, and taking advantage of significant reductions in the cost of computers, software and high tech equipment the police are more effective in the year 2001 at fighting and preventing crime then ever before.

The year 1991 saw a tragic abuse of police power in the unnecessary and overly excessive use of force by the police. The entire incident was captured on video and broadcast numerous times on T.V. across the nation. Creating an outrage within both the law enforcement community and the general public the California legislature responded by restricting the use of lethal force and the police baton except in cases of dire self defense and/or where the suspect is armed with a firearm or deadly weapon.

New and effective non-lethal weaponry became available by 1994 including gasses, stun grenades, laser weapons and air shock rifles. So effective were these weapons that POST added performance objective 7.31 to the academy curriculum requiring 80 hours of non-lethal weaponry training and 40 hours of practical exercises involving simulated field encounters in less that lethal force situations.

Reacting to an upturn in sophisticated computer crimes the South Valley Police Department created a 30 officer specialized unit of high technology crime investigators. By 1997 computer fraud and theft was so prevalent it became a separate Part I crime. Most medium size and larger police departments established separate specialized units to take the initial high tech crime reports and conduct follow up investigations. By the year 2000 computer crimes out numbered residential burglaries. Most of the high tech crime investigation units in police departments were civilianized and in 2002 POST held its first 12 week high tech crime investigators academy. The graduates were civilian police officers under the California Penal Code with full arrest powers as sworn police. The only difference in these specialized police is all their work is done through, in, on and by computers and they are unarmed. Seldom if ever is there face to face contact with the suspect except in the court room.

The planning, networking and automation of the early 1990's has paid off.

SECTION 2

STRATEGIC MANAGEMENT

A STRATEGIC PLAN FOR THE CALIFORNIA LAW ENFORCEMENT TRAINING COMMUNITY TO IMPLEMENT HIGH TECHNOLOGY CURRICULUM IN POLICE ACADEMIES

SECTION 2

STRATEGIC MANAGEMENT

In Section I the issue question "What will be the technological/equipment training needs for California police academy students by the year 2005?" was analyzed. Trends and events likely to have great impact on the issue were identified and three separate scenarios were developed based upon alternative futures. The main point of the scenario development is that future high technology use, abuse, or non use by law enforcement depends on how well the shapers of our future meet the challenges of planning for police high tech training. The police profession in America and California specifically is on the leading edge of technological advancements which can make a tremendous difference in the quality and effectiveness of police service delivery. Yet, for the most part, law enforcement administrators and trainers have not been proactive in statewide planning or training in high technology use.

What currently exists is agency or region specific high technology equipment or automated systems which is usually procured, retrofitted into existing systems, and in-service training provided. What Section I suggests is a change in the future to a more statewide utilization of high tech police equipment and systems backed by common funding and standardized training.

What follows is a strategic plan for assessing statewide high technology police training needs as influenced by the trends and events analyzed in Section I. This plan will be developed for the law enforcement training community in California. The strategic plan

starts with the knowledge base of what we know about the issue questions and where we should be by the year 2005 based upon the normative scenario. The purpose therefore of the plan is to alter the "will be" future through policy implementation and a structured approach to the unknown future by precipitating events and modifying trends. This in an effort to lead us to the "should be" scenario state. That scenario projected a possible bright future for high tech police training within the next 14 years.

CONTEXT OF THE STRATEGIC MANAGEMENT PLAN

The context of this strategic management plan is the actual California police academy community; its environment, organizations, and facilitators. Under the direction of the Peace Officer Standards and Training (POST) California police officers are perceived to be the best trained in the United States if not the world. Each year over 7 million hours of law enforcement training are provided to both pre-service and in-service police officers in the state. [7]

There are 34 entry level police academies in the state, many of which are run through community colleges. Others are administered by sheriff's departments or large municipal police departments. Under the auspices of POST all academy students are taught through a performance-based training program with emphasis on student learning and demonstrations of proficiency. In 1975 POST implemented a system of performance objectives to further enhance this learning system. Completed in 1980 the performance objectives must all be passed with minimum success criteria ranging from 70% for non-critical areas to a perfect 100% for critical subjects. There are twelve functional areas which organize each of the performance objectives into categories (See Appendix K).

Ranging from law to patrol procedures to community relations each of the functional areas encompass the major responsibilities, roles, requirements or duties of law enforcement work.

With the performance objective system the instructional emphasis is removed from the instructors and is placed upon the students and what they learn. [8] Under the performance objective system the students know what is the expected outcome of the instruction.

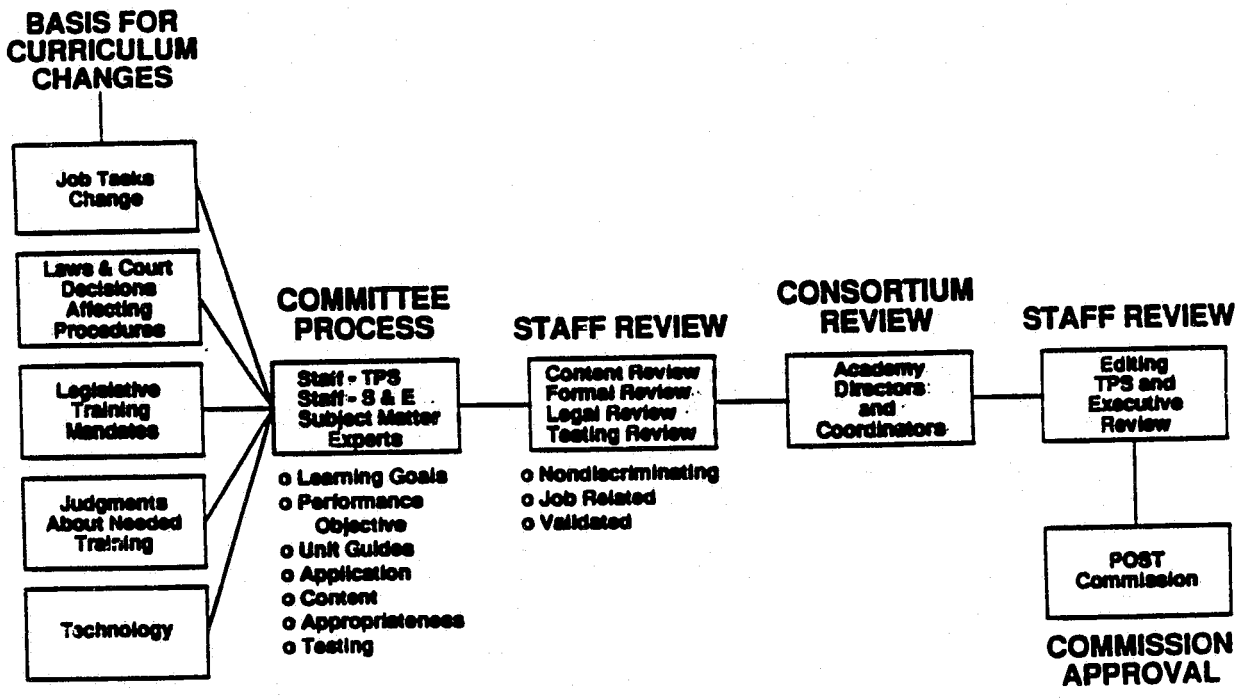
A performance objective consists of four elements. [9]

1. **LEARNER:** Who is expected to perform the required task?
2. **BEHAVIOR:** What it is that the successful student will be able to do.
3. **CONDITION:** Under what conditions will the student perform the stated task?
4. **SUCCESS CRITERIA:** To what extent will the student be able to perform the behavior under the pre-stated conditions?

Performance objectives are added, modified, updated or deleted only after thorough research of need and applicability. The impetus for performance objective updating may come from obvious need, changes in law, court cases, new legislation (federal or state) community pressure or expectations, specific interest groups and technology changes. This update process involves input from academy directors, POST staff, subject matter experts and finally, approval from the POST Commission. Table 4 graphically depicts this update process.

TABLE 4

UPDATE PROCESS



Within this California police academy community there are those who welcome change and actively look for better methodologies of instruction and pro-actively participate in the curriculum update process. There is, however, a resistance to change from past practices or traditional methods by some involved in this community. This strategic plan will attempt to identify these critical players, their influences on this change process and attempt to analyze the strengths, weaknesses, and capabilities of the law enforcement and police academy environment.

MISSION STATEMENT

To give direction, to this issue a macro and micro mission statement needs to be formulated.

MACRO - To provide the highest quality of police services in California.

MICRO - To maximize the effectiveness of police services to the people of California through the use of new technologies in deterring and preventing crime, enhancing citizen and officer safety, apprehending criminals and allowing for the most cost effective and efficient utilization of police resources.

SITUATIONAL ANALYSIS

A critical preliminary process in strategic planning is a situational analysis or assessment of the environment in which the issue question will occur.

A common situation analysis technique is called the WOTS-UP model. WOTS-UP (Weaknesses, Opportunities, Threats, Strengths, Underlying Planning) is intended to examine both the internal and external conditions that will affect the issue question.

Another process, Strategic Assumption Surfacing Technique (SAST) will be used to identify the key stakeholders and analyze the assumptions and importance to the issue.

WOTS-UP ANALYSIS

The WOTS-UP analysis involves two separate assessment processes. The first examines the external environmental trends and events surfaced through scanning and forecasting activities. These trends and events need to be analyzed in terms of their threats and opportunities to the issue question and the mission statement. A threat is any unfavorable condition that could impede progress toward the normative scenario state. An opportunity is a condition which would support or facilitate that progress. The second

WOTS-UP process is a strengths and weaknesses assessment of the California police academy community or in other words the internal environment of the training organization. For this research paper the California police academy community is the organization which includes POST, the POST Commission and the police academy consortium. A weakness is a limitation or barrier which would interfere or hinder the organization in fulfilling an objective or reaching a goal. A strength is an organizational capability which can be used effectively to reach an objective or goal.

WOTS-UP METHODOLOGY

A group of four police department employees who are also currently involved as police academy instructors were involved in the WOTS-UP analysis. Using an informal brainstorming process we began with the trend and event (external) analysis of threats and opportunities. Table 5 reflects this brainstorming process for forecasted trends and events.

Table 5

WOTS-UP

Opportunities and Threats

Trends and Events

Opportunities	Threats
Computer Literacy	Public Funding
Law Enforcement Specialization	Service Demands
Crime Rate	Liability Issues
Community Support	Crime Concerns
Technology (Military Research)	War
Public Acceptance of Technology	Cost of Technology

Private Enterprise Training	Mobile Data Fingerprints
Technology Cost Reductions	Lethal Force Issues
Bond Issues	Recession
Lethal Force Restrictions	Court Decisions
Legislation	P.O.S.T. Requirements
Expert Systems for Patrol	Computer Literacy

TREND ANALYSIS

PUBLIC FUNDING

Threats: General revenue levels for police training and deployment will remain relatively level or possibly decline by the year 2005. New programs of specialization, technology procurement, statewide networking and training will have to compete with existing financial demands and the ever increasing social programs. With the current methods of generating revenues for police programs and POST training there will not be sufficient money to launch into dynamic new programs of high technology training in the police academies.

Most trends indicate a continued bleak outlook with major expected short falls.

Opportunities: Certain labor saving technologies such as expert systems for patrol, automated report writing systems, non-lethal technologies to reduce liability may prove to be an opportunity for specific revenue sources such as grants, bonds, etc. If certain technologies prove to reduce human labor costs or allow the police to work smarter and more efficiently then they may prove to be cost effective in the long run.

COMPUTER LITERACY

Threats: While the trend of computer literacy is expected to increase over the issue question time period the group felt that the police applicant pool might not be those most interested in working with computers. Being more action versus book oriented there may exist a void of computer literate police recruits necessitating preliminary or remedial training in this area.

Opportunities: Overall this trend is seen as an opportunity. As the inevitableness of computer usage in our society increases so will the acceptance of computer literacy as a requirement of most occupations. If the normative scenario develops, our society will begin to work, play, experience and depend on computers more and more. Law enforcement will be an integral part of this computer literate society. A computerized work environment may actually attract more computer literate police applicants.

LAW ENFORCEMENT SPECIALIZATION

Threats: The cost factors associated with creating specialists versus generalists is the major threat to this trend. However, with civilianization specialization may turn this threat into an opportunity.

Opportunities: Police managers have begun to realize that as crime and criminals become more technology dependent so is the need for the police to sophisticate themselves. Specialization may prove to be an opportunity for cost effective delivery of police services by reducing redundancy in investigations, better expertise for specific situations, and reduced liability. If done right there could be tremendous effectiveness in the basic training of these specialized units as private enterprise is allowed into the

teaching process.

CRIME CONCERNS AND PUBLIC SUPPORT FOR HIGH TECHNOLOGY

Threats: As crime most likely will continue to increase the public may adopt a feeling of helplessness or even apathy. This could create a threat to technology and police training if a feeling of disparity sets in. If the public looses confidence in the police abilities to combat crime, gangs, etc. this trend could have threatening consequences. There could be demands for higher productivity from an already over loaded police structure without additional support or resources. This might actually reduce support for technology, procurement and training.

Opportunities: This trend on the other hand certainly presents many opportunities. The increase in crime can be utilized to justify new and effective technologies, new non-lethal weaponry, and innovative networking systems to increase police productivity and efficiency. Working smarter through technology should be the attitude the police adopt and being one step up on the criminals appears to be a strong opportunity within this trend.

EXPERT SYSTEMS FOR PATROL

Threats: If not closely watched the reliance on automated or expert systems may create a dependency by agencies and officers on computers that stifles creativity. Additionally, the training of new recruits into an all expert system law enforcement world could become cost prohibitive and overly extensive. The tremendous implementation time for expert systems to be effective was also seen as a threat.

Opportunities: The ability to direct, deploy and utilize past experience and expertise through the use of expert systems is seen as a strong opportunity. The technological training needs of police recruits by the year 2005 should be greatly enhanced if forecasts about expert systems come true. Not only will all police agencies in the state be using automated computer systems, but expert systems as well for practically every aspect of crime prevention and investigation. So common will be their use as forecasted in the normative scenario that POST will likely add a new functional area to the academy curriculum dealing exclusively with expert system use. Expert systems will provide an opportunity to use resources more effectively than ever before.

EVENT ANALYSIS

PRIVATE ENTERPRISE POLICE TRAINING

Threats: This event could be considered a threat by those who provide public sector police training. This would be a threat to their job security or control over police training. Instead of government intrusion into the private sector the roles would be reversed.

Opportunities: Overall this event is considered an opportunity opening up new areas of police training providing better expertise to the learning environment. It could be cost effective and even provided at no cost under contractual arrangements by corporations with equipment or systems in place in regions or statewide.

MILITARY RESEARCH TO LAW ENFORCEMENT

Threats: Minor or none.

Opportunities: Costly research and development of new technology will for the most part already be done and the opportunity to adapt this to police work will be viewed as a strong opportunity. As technologies become declassified, innovative entrepreneurs will most likely see a lucrative market in police work. The public, police and private sector will all benefit.

MOBILE DATA FINGERPRINT IDENTIFIER

Threats: Might be considered an intrusion on personal privacy to have an instant personal identifying data base available in each patrol vehicle. Cost could also be a threat if the per unit price exceeds local capabilities.

Opportunities: This is another event which would be viewed as an opportunity for law enforcement to become more effective. Public support for this type of technology should be high. This would also open up avenues for other technologies and systems development, i.e. in field evidence processing, retina identifications, etc.

COMPUTER LITERACY REQUIRED

Threats: This requirement could reduce the number of qualified police applicants. Added training hours to the police academy would be a potential threat as well as the cost factor involved.

Opportunities: Overall this event is an opportunity if the scenario is to occur. With the availability of new automated criminal justice computer systems this event will only enhance their effectiveness. In the long run having computer literate employees will reduce in-service training costs.

HIGH TECH BOND ISSUE

Threats: If the bond issue fails this event would be a major threat to the high tech training curriculum of future police academies. Combined with Trend I (public funding) a defeat of this bond issue will severely set back most high tech equipment procurement and training.

Opportunities: If the bond issue passes it would be the window of opportunity that most of the other positive trends and events need to catapult the scenario into reality. Money talks and with this opportunity the training in high technology will become necessary as the new technology is adopted statewide.

LETHAL FORCE RESTRICTED

Threats: Today, less than lethal weaponry is very limited and its effectiveness is questionable. This event is considered a threat as it would severely hinder officer safety and consequently police efficiency. Crime rates might increase as the police would be reluctant to put their lives in overly vulnerable positions.

Opportunities: This event would force the development of better non-lethal weaponry. If an effective non-lethal weapon is developed not only will there be reduced liability, but the stress upon officers of taking someone's life will be greatly reduced.

ORGANIZATIONAL CAPABILITIES ANALYSIS

The next WOTS-UP process is an assessment of the internal organizational capabilities of the California police academy community. The community's strengths and weaknesses concerning the issue of technology training needs will be analyzed.

A strength is an attribute or capability of using resources to achieve a goal or attain an objective. A weakness is a restrictive parameter, limitation, or inability for whatever reason in the organization that hinders the fulfillment of a goal or meeting of an objective.

Table 6 reflects the listing of the California police academy community strengths and weaknesses.

Table 6

WOTS-UP

Strengths and Weaknesses

Strengths	Weaknesses
Legislated Funding	Lean Budgets/Revenue
ACR 58 Background	Training Priorities
High Tech Philosophy	Updated Process
In House Expertise	Large Organization
Fellowship Program	Bureaucracy
Willingness to Contract	Voluntary Compliance
Statewide	
Legislative Liaison/Lobbying	
Proven Track Record	
Worldwide Recognition	
Local Professionalism	
Update Process	

Internal Strengths: The California police academy community provides complete and up-to-date entry level police training. For years POST funding for law enforcement officers has prepared police recruits for the challenges of this demanding profession. The police academy graduate is well prepared both academically, physically, and mentally to go forth

into his or her agency field training officer program. With most academies well over 600 hours in length, California enjoys a sense of pride in its law enforcement profession.

The police academy community continues to progress in the area of state-of-the-art educational technology to enhance the learning environment and capabilities. POST is open to curriculum updates and as new technologies become universally adopted throughout the state by its police departments new performance objectives can be added to the course of instruction. The update process allows for sufficient input from all key players so that any new curriculum is thoroughly researched, reviewed, tested and validated.

The police academy community is adequately funded to provide training as we have been accustomed to. This funding has created a statewide system of standards for basic academy training which results in consistency throughout the law enforcement profession in California. An officer from Los Angeles Police Department passes the same minimum qualifications as an officer from Eureka.

POST also has the ability to establish mandatory in-service training through the Advanced Officer Courses which ensure on going minimum proficiencies.

Advanced educational technologies have become a priority with POST and with the ACR 58 recommendations hopefully approved in the future, high tech curriculum additions would be in concert with this priority.

The police academy community enjoys a close working liaison with political lobbyists,

legislatures and organizations. Political support for POST and law enforcement should continue to be strong during the issue question time frame.

Weaknesses: While funding is listed as a strength (more as a consistent source versus unlimited supply) it also is a weakness in that most police training in the State comes from POST. Most local agencies budget little extra money for additional training. Such a dependency has been created on POST for training that unless a police seminar or training course is POST reimbursable, many police agencies will not send their personnel. In other words, there is a monopoly in the State on sources of funding for police training.

POST mandated training for the police increases every year and many agencies find it difficult to meet both training obligations and their day to day deployment requirements. Additional mandated academy or in-service training might be met with opposition.

There is a feeling at times that POST is law enforcement's "Big Brother" and little room for flexibility or negotiations exists.

The law enforcement training community is weakened due to its decentralized philosophy of course presentations, recruitment and policy making processes. While POST is the central authority in setting minimum and conformance training standards, there does not exist one central body to present to the public or legislature coordinated efforts for all of California law enforcement. This lack of centralization reduces effectiveness when attempting to present proposals on a statewide basis. This decentralization of the law enforcement community has also hindered efforts toward resource regionalization and the

sharing of innovative programs and new technologies. Consequently, within a particular California urban county, one may find numerous automated systems all doing the same function yet none able to "talk" with each other.

Resistance to change is a weakness of the community. There are still many in the profession who promote status quo. As with any bureaucracy these entities must be convinced of the need for change, bypassed in the change process, or forced to change.

Lastly, there is a great sense of brotherhood, ownership and isolation within the family of law enforcement communities. Reluctantly at best, will the police give up operational or procedural information, be proactive with the media or open their doors for examination or audit. The scenario(s) suggest we must start relying on the private side for technologies, expertise and financial support. This can only occur if we open our doors and establish mutually beneficial relationships with the outside.

STRENGTHS AND WEAKNESSES SUMMARY

Based on the strengths and weaknesses analysis of the law enforcement training community, the State is in relatively good condition to make a transition into high technology use and training. The weaknesses, while not by any means inconsequential, are able to be overcome through long range planning and creative management. As the original sub-issues suggest the weaknesses identify challenges in the area of funding, and standardization.

STAKEHOLDER ANALYSIS

STRATEGIC ASSUMPTION SURFACING TECHNIQUE (S.A.S.T.)

In any change process there is a need to identify those individuals or entities which will have impact on the chosen strategy or be impacted by it. In the issue of high tech police training there are literally hundreds of potential impacted key people ("stakeholders") up and down the State who have a stake or vested interest. These stakeholders and their assumptions about the issue need to be analyzed. These stakeholders are likely to influence the strategic plan and issue in one of three ways; supportive, create opposition or have mixed or conflicting interest. Some stakeholders may not appear to be important or have an apparent role in the issue but can, if not planned for, cause tremendous conflict down the road. Such stakeholders (sometimes called snaildarters) may even lead to program failure if they are not taken into account.

A discussion of the most significant stakeholders and their assumptions about the issue follows:

1. POST
2. Police Officers
3. Legislature
4. Public
5. Regional/Statewide Training Officer Organizations
6. Police Officer Academy Coordinators
7. Academy Instructors

8. Private Enterprise

9. Private Training Firms

10. Community Colleges

11. Governor

12. California Police Professional Organizations

13. Media

14. Courts

15. American Civil Liberties Union

16. Tax Payer Associations

17. Military

18. Public Defender

STAKEHOLDER ASSUMPTIONS

1. POST -Supportive

   A. Strong history of high technology (ACR 58 study) use

   B. Set minimum standards

   C. Informed legislative lobbying

   D. Play important leadership role

2. Police officers mixed (snaildarter)

   A. Technology seen as possible threat to their jobs

   B. Supportive of increased officer safety through technology

   C. Supportive of technology which will make their job more efficient

   D. Will fear high educational requirements

E. Old timers may sabotage new technologies

3. Legislature - Mixed, but generally supportive

   A. Receptive to public demand for better police services

   B. Will have funding authority

   C. Will seek to expand its authority to review police practices within the state

   D. Will address privacy issues

   E. Will increase bureaucracy to monitor technology use

4. Public/Citizens - Supportive (with restrictions)

   A. Supportive of better police services through technology use

   B. No new taxes philosophy

   C. Grass roots efforts enhanced as crime soars

5. Regional/Statewide training officer organizations - Supportive

   A. Greatly expand their realm of responsibility

   B. Always eager to expand into new areas

   C. Close working relationships with POST

   D. Liaison with training entities, i.e. community colleges, private firms, etc.

6. Police Officer Academy Coordinators - mixed but generally supportive

   A. Job expansion/security

   B. Some old timers - resistant to change

   C. Many years of expertise - innovative ideas on how to make it work.

   D. Liaison with community colleges

7. Academy Instructors (sworn officers) - snaildarter to opposed

A. Will fight private business instructors

B. May not have expertise to teach the use of new technologies

C. See themselves as second rate instructors

8. Private Enterprise - Supportive

A. New area for profit

B. Expansion of their customer market

9. Private Training Firms - Supportive

A. Source of great profit

B. Better areas of specific expertise

10. Community Colleges - Snaildarter

A. Will see private training firms as competition

B. Loss of ADA revenue

C. May be resistive to new technology if funding is not provided

11. Governor - Supportive or Snail Darter

A. Politically wise to support law and order

B. Controls final budget allocations

C. Depending on social program priorities may have hidden agenda

D. Could be one who vetoes funding for any "Big Brother" technology

12. California Police Professional Associations - Supportive

A. As a statewide organization would be supportive to increase technology use and necessary training

B. Influential group on local and statewide politics

C. Always looking for ways to increase job effectiveness and reduce liability

13. Media - Mixed to Snaildarter

A. Supportive of reporting on high technology

B. Always willing to sensationalize negative aspects

C. Interested in the cost benefit analysis

14. Courts - Snaildarters

A. Never know what the courts will rule

B. Court rulings on various technologies, especially automated information systems, may invalidate their use

15. American Civil Liberties Union (ACLU) - Mixed and Snaildarter

A. Will watch closely automated criminal history record information systems and statewide/nationwide networking

B. Will advocate non-lethal weaponry technology

C. Will monitor closely misuse of computer networking systems for violations of civil rights

16. Tax payer associations - Mixed

A. Will support training for and use of new police technology if no extra cost and increases levels of service

B. Concerned about all revenue perspectives

C. May want elaborate cost benefit analysis

D. Want overall increased government effectiveness

17. Military - Mixed

A. Reluctant to give up technology intelligence

B. Source of surplus equipment

C. Could be cooperative ventures in compatible use of technologies, win-win situation, i.e. use of satellite technology

18. Public Defender - Snaildarter (opposed)

A. Technology will take away their defenses

B. May challenge admissibility of automated/expert systems

MAPPING OF STAKEHOLDERS AND THEIR ASSUMPTIONS

The SAST map in Appendix L graphically displays the stakeholders in relation to their importance to the issue and how certain or uncertain is their assigned assumption(s).

Many of the stakeholders and their assumptions fall into the most important-most certain section of the SAST map. Certainly POST, the public, (including taxpayer associations), the legislature and the rest of the direct law enforcement training community must be considered when developing policies and strategies to gain their support. There are also other key players as depicted on the map such as the Governor, ACLU, etc. which could seriously hinder or enhance the strategic plan.

Generally the stakeholders and specific assumptions in the upper half of the map are the most certain and will probably require the most attention by the future shapers. The stakeholders in the lower half are not necessarily less important just less certain of their assumptions to the issue. The less certain but most important stakeholders and assumptions may actually require more leadership and direction from the future shapers.

EXECUTION

So far in this section stakeholders have been identified having impact on the issue, a mission statement was formulated which guides actions towards a goal and an assessment of today's situation in terms of organizational capabilities was analyzed. The next process develops and considers alternative policy strategies that should be adopted to ensure achievement of the normative scenario.

MODIFIED POLICY DELPHI

The methodology of policy development is the Modified Policy Delphi (MPD). This written instrument group process is used to generate, distill and analyze strategic policy alternatives which the California law enforcement training community might implement to progress towards the mission goal.

The MPD panel was made up of seven members in round one and six members in round two. The panel consisted of Command College graduates, law enforcement professionals and one police academy representative. In round one of the MPD, the panel was asked to draft policies which would be issue related and facilitate progress toward the normative scenario (refer to Appendix M). Their responses were distilled into 14 alternative policies for which, in Round 2, the MPD panel was asked to provide pros and cons of the policies and to rate each for feasibility and desirability. Appendix N provides Round 2 instructions.

MPD PROCESS ALTERNATIVE POLICY STRATEGIES

The five highest rank-ordered policy alternatives from the MPD process, along with the

pros and cons are:

1. POST TECHNOLOGY REVIEW COMMITTEE

POST established a committee of statewide representatives from agencies with solid track records of sophisticated technological applications, with an objective to glean technology from military and private enterprise that has potential transferability to civilian law enforcement. Meets annually.

PRO:

*POST has proven a leadership capability in educational technology application

*Centralizes responsibility

*POST has fellowship programs it can utilize in this effort

*Positive on-going planning and review process

*Will set tone for on-going technology application and training

*Unified lobbying source

*Encourages statewide participation and representation

*Private vendors see a coordinated effort

CON:

*May limited smaller agency representation

*Increases power and control of POST

*Cost of convening committee may be high

*Requires considerable time commitment

2. TECHNOLOGY STANDARDS AND TRAINING BUREAU

A new Technology Standards and Training Bureau in POST needs to be

established to set high tech equipment specifications for regional or statewide applications. Additionally, this bureau would make minimum police academy training recommendations to the academy consortium and POST Commission.

PRO:

*Achieve statewide technology standardization

*Central source for technology recommendations

*State bidding system for equipment purchase

*Reduced cost of equipment purchase for local agencies

*Ability to implement academy training standards, i.e. computer literacy, non-lethal weaponry tactics, etc. as new technology becomes available

*Ability for smaller agencies to have same information access as all other agencies

*Continual review process

*Easy to expand on performance objective (P.O.) system in appropriate areas of academy curriculum

CON:

*New state bureaucracy may be developed

*Might overlook regional concerns

*Advisory process only - Can't force agencies to comply with standards

*Funding availability

*Big Brother perception

3. CALIFORNIA CHIEFS OF POLICE ASSOCIATION

California Chiefs of Police Association should support a Governor's Commission

to re-study the "Role of Police In A Free Society" with special emphasis on:

A. The increasing violence, high tech and computer crimes in our society and the community's response in solving this problem

B. Police response in escalation of force

*Increased brutality complaint

C. Use of non-lethal force by the police

D. Rights of privacy in the computer age

E. Evaluation of education and training requirements for police

PRO:

*Cause the public and police to view crime as a societal issue

*Give impetus to more high tech police training

*Could set standards for higher education requirements and possibly education grants/loans

*Increase public awareness

*Establish a list of recommendations for addressing these issues

*Increased perception of professionalism

*Gives statewide attention to the issue

*Timing is right for review of police practices

CON:

*Slow process - Government involvement *Non binding recommendations

*Could be expensive

4. HIGH TECH CRIME FIGHTING SURCHARGE

Legislature passes law establishing a .01% surcharge tax on credit card transactions, computer sales, banking transactions, etc. to fund white collar crime investigation technology and training.

PRO:

*Needed investigative technologies would be funded

*Provide funding for training in police academy and in-service advanced officer programs

*Allow for specialized white collar crime academy

*Allow for statewide networking

*Pay for private funding

*Set the tone for statewide bond issue on the ballot to fund high tech training

CON:

*Would require massive grassroots support from CPOA, PORAC, California Chiefs Association, POST, etc.

*May be a hard sell to an already over taxed society

*Extreme logistical challenges on money disbursement. Who gets what?

5. POST CERTIFIED PRE-ACADEMY HIGH TECH COLLEGE PROGRAM

POST should formulate pre-academy training courses (semester length) in conjunction with local community college criminal justice programs. POST would give grants to in-service police officers. The courses would involve curriculum

related to the issue and possibly include:

A. Computer literacy

B. Non-lethal force techniques and weaponry

C. Computer crime investigations

PRO:

*The courses could eventually become prerequisites for academy attendance

*Higher levels of police officer expertise and education

*Method of keeping actual academy length in check

*Will increase qualified labor pool

*Reduces fear of computers before police recruits enter law enforcement

CON:

*Training funding is expensive

*Resistance by community colleges-loss of control

*Hard to ensure consistency of training throughout the state

RECOMMENDED STRATEGIES

The goal of maximizing the effectiveness of police services through the use of new technologies requires many alternative policies to be analyzed and implemented in part or whole when the timing, economics, and political realities are right. Because this is a complex statewide issue involving many large and powerful stakeholders, the alternative policies will require much support, funding and sensitivity to everyone's needs.

There is little doubt that POST will continue to take a leadership role in future police

technology development and related academy training. However, there needs to be cooperative ventures in this area with the military and private enterprise. Local and regional efforts in high technology applications have produced pockets of excellence and can be used as the foundation for statewide or nationwide systems. In order for this to occur there not only needs to be strong centralized leadership, but it must be cost effective from the user perspective while profitable for the technology vendors.

With these considerations in mind, and the issue and sub issue questions as a focus, the recommended strategy to reach the normative scenario state include the following policies:

1. ESTABLISHING A TECHNOLOGY REVIEW COMMITTEE

   POST or another statewide organization must begin to formulate a review process of emerging technologies applicable to law enforcement. If this does not occur, we will continue to experience fragmented systems, redundant training and high costs for new technology. This policy will provide a centralized direction to approved technology use, training and possibly funding.

2. STATE STUDY ON THE ROLE OF POLICE IN OUR SOCIETY

   The timing is right for an evaluation within California on how the police are to function with the new technologies, use of force and privacy issues that are quickly emerging as controversial trends and news worthy events. Impacting the issue, these subjects need to be analyzed with the results and recommendations used

as a plan for technology application and training.

The study needs to encompass the public's perspective of how much latitude the police should be given in the high tech future. Without this public support and input all other recommended strategies have little chance of success.

3. TECHNOLOGY STANDARDS AND TRAINING BUREAU

In conjunction with strategy #1, a formal process must be established to ensure on-going review of technology training in the academies and in-service training. This would be a nuts and bolts approach to academy curriculum review and development. Out of necessity the process must incorporate experts from the academic, private and public sectors. The process for curriculum update (Table 4) may be left in tact, however, the use of subject matter experts must be established.

4. FINANCIAL PLANNING - HIGH TECH CRIME FIGHTING SURCHARGE

All is for naught if funding for police high technology and training is defeated. Creative funding sources should be explored if the normative scenario is to be realized. These might include high tech surcharges, bond issues, federal grants or donated services from private enterprise.

ACTIONS AND TIMELINES

The implementation of the policies described and the strategic management plan in total must be charted. The components of this plan have been identified; the action steps and

timelines are general in nature and provide enough flexibility to take into account the complexities of the issue and slowness of program development through large bureaucracies.

The law enforcement training community led by POST has overall responsibility and strategic accountability for researching, planning and implementing police academy curriculum changes. POST must make a continued effort to be a leader in the area of high technology equipment research, coordination, and training and be willing to commit its resources to this effort. It must solicit support from organizations such as California Police Chiefs Association, California Police Officers Association and others or else the program will be seen as being dogmatic rather than a cooperative venture.

PLAN IMPLEMENTATION

Phase 1 - Gain Program Support

Timeline 0 to 2 years

*POST staff develops high tech training program preliminary goals, objectives

*Discuss high tech training needs at consortium meetings

*Assess the current levels of high tech police curriculum in police academies nationwide

*Forecast future high tech training needs of police

*Develop report for presentation to California legislature soliciting support for committee to study the issue similar to (ACR 58) report. This would be the

Technology Review and Needs Assessment Committee (Recommended Strategies 1 and 2).

Phase II - Committee Process

Timeline 2 to 4 years

*Member selection

*Technology presentations and review

*Technology and police role analysis

*In depth job analysis

*Public hearing symposiums on police use of technology

*Analysis and recommendations development

*Analyze high tech training revenue sources

Phase III - Committee Recommendations Implementation

Timeline 4 years to Indefinite

*Establish technology standards and training bureau

*Implement technology review and needs assessment committee recommendations

*Evaluate, analyze, modify and recommend

SECTION 3

TRANSITION MANAGEMENT PLAN

A PLANNED TRANSITION FROM MINIMAL HIGH TECHNOLOGY ACADEMY TRAINING TO OPTIMAL AND STATEWIDE TECHNOLOGY INSTRUCTION

SECTION 3

TRANSITION MANAGEMENT PLAN

"Change does not necessarily assure progress, but progress implacably requires change....Education is essential to change, for education creates both new wants and the ability to satisfy them" *Henry Steele Commager*

Transition management facilitates change from where we are today to where we want to be in an orderly and logical process. The success of this change process hinges on the ability of key people and organizations to manage this transition state. The transition management plan necessitates identifying these key players, developing their support and commitment or possibly overcoming their resistance, designing appropriate management structures and finally selecting methodologies to assist in program implementation.

As this issue is statewide, is full of unknown complexities and its components are at best expert judgmental forecasts there must be room in the transition management plan for much flexibility. There can be no one plan or structure that will work for every change process in an issue of this magnitude. Therefore this transition management plan will address the broad spectrum necessitated by the issue.

CRITICAL MASS ANALYSIS

The critical mass are those individuals or groups whose support is essential to the success of the strategic plan. They are the "key" stakeholders or minimum number of key players who, if they support the change will make the change successful; and who if they

are against the change will cause or let it fail. From the group of stakeholders in Section 2, this definition of critical mass identifies those that are most improtant to the issue and strategic plan. Those stakeholders who are considered to be a part of the critical mass are:

*POST

*LEGISLATURE

*POLICE ACADEMY COORDINATORS

*PRIVATE ENTERPRISE VENDORS

*GOVERNOR

*TAX PAYER ASSOCIATIONS

COMMITMENT PLANNING

Table 7 is a depiction of the critical mass actors and their preceived current level of commitment toward implementing the strategic plan. Additionally, a projection of the actual needed commitment from each actor to make the change successful is plotted. Following the table is an analysis of each critical mass actor and the appropriate strategies to be used to gain their needed commitment during the transition plan.

TABLE 7

CRITICAL MASS COMMITMENT CHART

CRITICAL MASS INDIVIDUALS/GROUP	BLOCK CHANGE	LET CHANGE HAPPEN	HELP CHANGE HAPPEN	MAKE CHANGE HAPPEN
POST			X——————> 0	
LEGISLATURE		X——————> 0		
POLICE ACADEMY COORD	X——————> 0			
PRIVATE ENTERPRISE			X0	
GOVERNOR		X——————> 0		
TAX PAYERS ASSOC.	X——————> 0			

X = PRESENT COMMITMENT

0 = NEEDED COMMITMENT

POST - POST has a proven track record in high technology research and use. POST will continue to play the leadership role in California law enforcement training. Recent efforts in procuring advanced technologies for law enforcement training have been met with great success. This success will carry over and be the framework for high technology curriculum changes. The present level of commitment by POST is in the "help change happen" category. Unless a new statewide organization or committee is formed, POST will need to become very proactive and be moved to the "make change happen" category. POST has the most influence with members of the law enforcement training community and will be the catalyst in pushing high technology curriculum through the training process bureaucracy. POST also has the ability to create fellowship research programs which will prove a valuable asset in researching the goals and objectives of a technology review committee. Combined with the logistical support of POST staff this fellowship program will serve as the initial planning process for the entire issue question.

Each step in the development and implementation of the strategic policies outlined in Section 2 will require the full support of POST. If this support is lacking or less than a complete effort, the four recommended strategic policies will fail or fall far short of expected results.

LEGISLATURE - The legislature has several responsibilities as a critical mass actor in this issue. First, it controls funding for statewide programs and without budgetary support the recommended strategies will never be implemented. Second, the legislature has the power to commission special studies, i.e. strategy 2 - State study of role of police in our society and to act upon the study's recommendation.

The legislature's current perceived level of commitment is in the "let change happen" category. It needs to move to a position of "help change happen". That can best be accomplished by POST and other key stakeholders approaching individual assembly men and senators in a lobbying effort for support of the recommended strategies. This is especially valid for strategy 4 dealing with the high tech bond issue or surcharge tax.

POLICE ACADEMY COORDINATORS - Initially, academy coordinators may display resistance to any proposed changes in the police academy curriculum. They may view the changes as a threat to their autonomy, costly to implement and a threat to their job security. This may be especially true if private vendors or enterprise is allowed into the training academy. The academy coordinators therefore are seen in the "block change" category and will need to be influenced into the "help change happen" category. There support is critical unless POST completely changes its academy system away from community colleges. This is highly unlikely. The academy coordinators must be included in strategies 1 and 2 and they must be made to realize that they are part of the issue questions and solutions. They need to realize there will be great opportunities for job expansion and responsibilities.

PRIVATE ENTERPRISE - Much of the anticipated new technologies will be created by private enterprise with profit as an incentive. Law enforcement, and government in general, has been reluctant to allow private enterprise into their empire. However, as government continues to out price itself, a reliance on private enterprise must be explored. In the field of high technology for police work this will become critical. Private industry must be viewed as a helper and partner in this issue venture. It would be wise

to include private sector representatives in strategies 1-3. Their support will be critical in strategy 4 - financial planning efforts.

While a cooperative effort between the public and private sectors is necessary, there must be continued realization that the motivating factor for their involvement is profit. If there is no acceptable profit margin for the private sector their loss will effectively end their participation and high tech program development.

GOVERNOR - The governor who has budgetary veto power is seen as being in the "let change happen" category. His or her support is necessary in order to help prioritized the issue to the California citizenry. The governor is the one centralized individual stakeholder who is most visible and influential. He along with the legislature not only controls funding, but can heavily sway public opinion for or against several of the recommended strategies; especially the tax surcharge or bond issue.

It would be wise to keep the governor's office and staff intimately involved with the recommended strategies.

TAX PAYER ASSOCIATIONS - Seen originally in the "block change" category, this group which really is the general tax payers in California, must be moved to the "let change happen". This will be accomplished through education and realizing the cost benefit of high technology use by the police in combating crime. The governor, legislature and many of the key stakeholders must mobilize the support of this critical mass actor group.

TRANSITION MANAGEMENT STRUCTURE

Most large and complex organizations such as the law enforcement training community are resistant to major change. Researching and recommending large scale curriculum changes in the police academy may create a reluctancy to follow the current leader of this group, POST, unless most stakeholders involved have a chance for credible input. There needs to be a temporary management structure employed during the transition phase which is suited to the task at hand and which is specifically focused on the change process. This transition phase includes all three of the timelines outlined in section 2 including the implementation process.

The transition management structure needs to be flexible, able to expand or contract as needed. There must be clear responsibilities assigned to the management structure components.

As indicated in the critical mass analysis, POST will need to be involved throughout the change process. This is a long term project involving input from many individuals and groups outside of POST. Most of these groups such as private training institutions, community colleges, professional associations and technology vendors are well established and available to help. The existing law enforcement training community (consortia and training manager groups) can be used as the initial audience for POST to formulate specific program ideas, strategies and methodologies of operation. Certainly phase 1, dealing with program support, would require this groups input and commitment. POST will need to appoint, with the group's support, a high level executive such as a

deputy executive director, to be the transition team project manager. He will be given the authority to make critical decisions regarding POST funding, logistical support and project direction. This person must be a proven leader with a solid history of major project accomplishments. The project manager will report to the executive director of POST and lead the efforts of the Technology Review Committee. He will also be involved in the "role of police in our society" study process.

IMPLEMENTATION TECHNOLOGIES - The transition management plan must have direction and be methodically organized. While this transition management plan spans over many years there never-the-less must be specific and tangible technologies and methodologies used throughout to reach final program implementation. These technologies will address the anxiety and confusion oftentimes created by change. Many within the law enforcement training community might resist any major curriculum changes if arbitrarily forced upon them. The transition management plan technologies must emphasize thorough communications flow, consistency of plan implementation, sensitivity to the change process and realistic time frames for implementation.

The following implementation technologies are selected for this transition management plan:

RESPONSIBILITY CHARTING - In an effort to further clarify the individual roles of the critical mass, a process known as responsibility charting is used. Every critical mass actor is analyzed to concisely fix responsibility for decisions and actions that affect the change process. Appendix O is a responsibility chart which outlines the critical actions and decisions that need to be taken by the critical mass. It breaks down the tasks

needed to accomplish each objective and indicates who has responsibility, who must approve, support or be kept informed. Most of the critical tasks are under POST responsibility while approval may be at the consortium level or legislature depending on the specific issue. Based upon the tasks identified in the chart, there is not one overall critical mass actor responsible for or approving of all tasks. Rather, many of the actors may share in the task approval process and are responsible for various components of the strategic plan. This will keep the plan decentralized and allow many of the critical mass stakeholders to feel a sense of ownership and involvement. This is absolutely necessary for a project of this magnitude to avoid confusion and to define relationships.

DEVELOPING A SHARED VISION

Developing and communicating a vision of high technology use and training by California law enforcement is one of the first steps to be taken. In concert with the mission statement development, the training community needs to share this vision early in the transition management process. Where we are today and where this vision will lead us by the year 2005 needs to be addressed through written reports, video presentations and special POST seminars throughout the transition process.

ONGOING INVOLVEMENT

Early and ongoing involvement in the transition phase of all impacted stakeholders is critical to program success. This involvement allows the transition management team the opportunity for pertinent input, creates less resistance during program implementation, and provides quicker feedback from those stakeholders considered the users of new police technologies. POST must continue to keep all components of the law enforcement

training community represented in the strategic policy development processes. Representatives from small to large police agencies must feel they have had an opportunity for valid input and that their needs were listened to.

MILESTONE RECOGNITION

The transition management team should identify certain special events (such as mission statement development, reports to legislature and launching the role of police in society study, etc.) and formally recognize these achievements in the press and throughout the training community. This will serve several functions. First it will be a method of keeping stakeholders informed. Second it will serve as a motivator for those involved with the plan and lastly, it will serve as a positive public relations mechanism throughout the multiyear time frame of this plan.

ONGOING ASSESSMENT - EVALUATION AND FEEDBACK

A formal system of obtaining feedback especially, during program implementation should be developed. Just because the initial studies proposed in Section 2 have been completed and recommended academy curriculum changes are in place does not mean the task is complete. An ongoing assessment serves as a checks and balance system to determine what areas of the plan are working, which need to be expanded or deleted. Without ongoing assessments of the plan it will soon be antiquated. Tracking of recruits, testing their knowledge retention after one year, and surveys from throughout the State as to the effectiveness of the curriculum changes will be effective evaluation and feedback methods to determine program success.

CONCLUSION RECOMMENDATIONS

AND FUTURE STUDIES

A REVIEW OF HOW TO OBTAIN AN EFFECTIVE FUTURE STATE

AND WHAT MORE NEEDS TO BE DONE

CONCLUSIONS AND RECOMMENDATIONS

What will be the technological/equipment training needs for California police academy students by the year 2005? How will police technology be standardized? What financial/revenue changes might occur that will affect the ability to train or equip officers? How will new technology available to the police impact the level of service provided to the public?

These issue and sub-issue questions have been addressed in this futures report through the creation of a vision by the year 2005 of what California law enforcement can become. This vision was based upon trends occurring today that will affect the ability of law enforcement to incorporate high technology use by the year 2005. Computer literacy for officers, public funding for government resources, the growing crime problems, and emerging military and private enterprise technologies being made available to the police are trends which need to be closely monitored and acted upon.

Events likely to occur having substantive impact on the trends were mandatory computer literacy for police recruits, breakthroughs in new technologies directly applicable to police work, lethal force restrictions and new revenue resources for government.

The normative or "should be" scenario created in Section 1 can be achieved through hard work and dedicated professionals in the law enforcement training community by adopting and implementing key strategic policies. POST, it appears, must take a strong leadership role in developing and implementing these policies.

These strategic policies discussed in Section 2 addressed the sub issue questions dealing with technology standardization, revenue resources and service to the community because of new police technology. The strategic management plan called for establishing a technology review committee to standardize technologies utilized by the police. Parallel to this is a new POST bureau called the Technology Standards and Training Bureau which would be formed to insure appropriate and up-to-date technology training in the police academy. A state study on the role of police in our society is necessary to address the emerging trends of privacy issues, use of force, and high technology use by our police. Finally, a methodology to explore financial planning for funding of police high technology was suggested to facilitate the realization of the normative scenario.

These strategic policies need to be addressed in the near future and will require a high level of commitment by many of the stakeholders identified in Section 2. There will be many risks associated with implementing these policies including rethinking the police relationship with private enterprise. The law enforcement profession simply does not possess the expertise, resources, nor time to lead itself into the high technology 21st century without a cooperative venture from the private side.

In Section 3 a transition management plan was recommended to get us from where we are today to the normative scenario state. Key stakeholders, called the critical mass, were identified. These critical mass stakeholders have the power to make change happen through their endorsement or support of the various recommended policies. POST would be the catalyst to get the transition management plan under way and will provide the necessary leadership to the law enforcement training community in this endeavor.

Having far reaching impact, the issue of high technology police training needs will require the involvement of all levels of the state government from the Governor and Legislature to the California citizenry.

California law enforcement must begin now to develop its long term strategies for high technology use and training for its police officers. There must be a vision created with input from all affected areas of the police profession. A partnership comprised of civilian, law enforcement, military and private enterprise must be explored. There must be innovative thinking to overcome anticipated revenue shortfalls for government programs. It will be absolutely essential that POST play a leading role in the transformation of today's law enforcement profession into the high technology world of the 21st century. We must begin today to educate our entry level and in service officers to ensure that everyone is prepared to meet the exciting challenges of this new high tech world.

The time to act is now. All responsible stakeholders in the law enforcement training community must work together to assure the progress towards meeting the technological training needs of the police officer by the year 2005.

RECOMMENDATIONS FOR FURTHER STUDY

Several topics worthy of additional research arose out of this study. The first is an expansion on the strategic policy recommending a study on the role of police in our society in reference to the use of new technologies. We may expect many trends emerging from the police use of new technologies in the areas of privacy, use of force restrictions and the possible willingness of the citizens to abandon some of their constitutional or civil rights to combat the spiraling crime rate.

Another area which must be researched is future funding for governmental programs. As this project is being written (1991), the State of California is expecting a 10-15 billion dollar shortfall in revenue. There simply must be new and innovative methods of raising resources needed for police programs.

Finally, there appeared to be a need for further research in the area of specializing law enforcement in high tech crime investigations and traditional crime fighting forces. We may be at the point in time where it is simply not feasible to train existing officers to become computer experts. Reference was made in this report of an unarmed police investigator who would handle sophisticated high technology white collar crime and who had been trained in a special basic police academy for this purpose. The time may be appropriate for diverging police work into specialized career paths at the point of hire rather than years into an individuals career.

APPENDIX A

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APPENDIX B

ACR 58 RECOMMENDATIONS

The ACR 58 Study Committee recommended to the Legislature that a law should be enacted:

1. Declaring a statement of legislative intent to integrate advanced technology into law enforcement training programs and to seek establishment of needed training facilities described in this report.

2. Directing the Commission on POST to establish and staff an organizational unit to provide learning technology and systems development expertise as described in this report.

3. Directing the Commission on POST to begin now with prototypes and demonstration projects consistent with resources available to the Peace Officer Training Fund by appropriating to POST monies available in that fund.

4. Directing the Commission on POST to develop a law enforcement training facilities needs assessment and long-term funding plan and report to the Legislature prior to conclusion of Calendar Year 1993.

5. Exempting the Commission on POST from the provisions of Government Code 11700, et seq., relating to the Officer of Information Technology oversight for computer acquisition as it pertains to training applications.

6. Providing the Commission on POST with express authority to use Joint Powers Agreements with other governmental agencies and to commend the use of innovative and entrepreneurial approaches for the purposes of developing and providing law enforcement training programs as appropriate.

Appendix C

Trends Identified by Nominal Group/Technique

Technical crime trends
Public information availability
Budgeting for law enforcement technology
Outside civilian expertise
Prerequisites for police academy students
Computer literacy requirements
Lethal force restrictions
Use of sworn personnel for felony crime response
Multi lingual officers
Use of force liability
Specialized law enforcement technologists
Police academy entrance requirement
Technical training in police academy
Formal education requirements for police
Public funding
Violence in society
Leadership roles in high-tech
POST funding for high technology
Private enterprise police training
Use of crime solving computers
Consumers paying for high tech anti-theft devices
War technology for police work
Public support for high technology
Computer portability
Computer availability
Level of crime in community
Quantities of police candidates
Worldwide computer networking

Appendix D

Events Identified by Nominal Group Technique

Laser weapons replace firearms
State launches police satellites
ACLU sues state to ban police satellites
POST requires high-tech equipment training
Private enterprise develops low cost night vision devices
Tax payer revolt
Incarceration limited to violent offenders
Tracking device implanted in all parolees
POST allows private enterprise training in police academy
POST requires 2 year college degree of all police recruits
DNA identification is upheld by U.S. Supreme Court
Paperless reporting is utilized by 80% of police agencies
Low priced super computers developed
Major economic depression occurs
Voice recognition computer developed for police work
Nation wide linkage of all police computers
Federal trust fund established for law enforcement technology
Persian Gulf War brings smart weapons to law enforcement
National fingerprint files automated
"Touch pad" fingerprint
Voice translator computer
POST requires computer literacy/typing prerequisite
POST reimburses for elective courses in police academy
Body fluid samples taken from all prisoners for DNA testing/registration
Court prohibits lethal force by police unless suspect is armed
POST require computer crime investigation course in police academy
Military surveillance satellites made available for law enforcement
California Supreme Court rules nationwide criminal justice computer networking is unconstitutional
Technological break through in non-lethal weaponry
Bond issue passed to fund police high-tech

APPENDIX E

MODIFIED DELPHI
ROUND 1
INSTRUCTIONS

Thank you for agreeing to help me with my Command College project. I have attached a listing of trends and events which have been identified as being important to the subject of police technology training by the year 2005. The lists were developed through interviews and a futures scanning process which some of you were involved with. The purpose here is for you to view each list separately and rank the items on each list in order of their impact on the issue questions. Please make any comments about the specific trends or events.

There are 13 trends and 10 events which deal directly with my futures study issue of:

> "What will be the technological/equipment training needs for California police academy students by the year 2005?"
>
> Sub issues identified are:
>
> *How will police technology training be standardize within California?
> *What financial/revenue changes might occur that will affect the ability to train or equip police recruits during the next 14 years?
> *How will new technology available to the police impact the level of service provided to the public?

The enclosed documents are the first of two rounds of a Modified Delphi futures forecasting vehicle. **Please complete the forms and return them to me by Wednesday, February 27, 1991. I prefer you FAX them to me at (714) 724-7191.**

Thank you for your help.

VIC THIES
Lieutenant
Irvine Police Department

NAME _____

TRENDS IMPACTING POLICE TECHNOLOGY TRAINING

A trend is defined as an on-going series of events. It is not a directional statement (that is it does not require increases or decreases). Trends last over a period of time. A trend can be looked at from a different perspective by different people so its importance to the issue may vary greatly.

The purpose of examining the issues through the use of a Delphi panel is that the various expertise and perspectives gives a broad view of the issue and does not subject individual members to the influence of others in a group meeting process.

In rating the following trends please rank order the items based upon that trend's importance or impact on the issue questions. **In ranking them, use the number 1 as being most important trend with each larger number corresponding to less important trends.**

Rank order 1 - 13 Trends 1 -13

FUNDING

___ Trend 1 - Public Funding
Funding for most law enforcement comes from taxes. This trend relates to the future levels of tax generated revenue for city, county and state governments.

___ Trend 2 - Private Enterprise Funding
This trend deals with private enterprise funding of police training or equipment technology.

___ Trend 3 - POST Funding of New Technology
Traditionally, police equipment is funded from general fund revenues. This trend deals with the level of POST or state revenues for new police technology to local police.

PERSONNEL

___ Trend 4 - College Degree Pre-Requisite
This trend is overall demand for officers entering police work to possess a college level education.

___ Trend 5 - Law Enforcement Specialization
This trend is defined as the level of need for specialized law enforcement in light of new technology, equipment and investigations.

___ Trend 6 - Computer Literacy
This is defined as the need for police recruits entering law enforcement to be computer literate.

___ Trend 7 - High Tech Recruitment Pool
This deals with availability of police applicants possessing high technology skills from past military service, work experience or college training.

TECHNOLOGY

___ Trend 8 - Computer Crimes
This trend is the emerging level of sophisticated white collar or computer crimes in our society.

___ Trend 9 - Expert systems for Patrol
This is defined as the trend of emerging technology for smart computers or expert systems for every day patrol use.

___ Trend 10 - Computer Networking
This is the level of criminal justice computer networking up to worldwide capability.

___ Trend 11 - Lethal Force Restrictions
This trend deals with the level and type of lethal force restrictions imposed on law enforcement.

PUBLIC EXPECTATIONS

___ Trend 12 - Public Support for Police High Technology
This is the overall community demand for and acceptance of high technology use by the police.

___ Trend 13 - Crime Concerns
This is the level of crime in our society.

EVENT EVALUATION

The next evaluation is issue related events. An event is a singular occurrence which would have happened at a point in time, is verifiable and has an impact on the issues. I request your read through the following events, and with your expertise, forecast those five (5) most likely to occur within the next 15 years and which would be likely to have an important impact on my study issue.

Choose your top 5 events. Rate them 1 (top) to 5

EVENT DEFINITIONS

___ Event 1 - State Launches Law Enforcement Satellites
Satellite to be used by California law enforcement for surveillance, communications, vehicle locator systems, etc.

___ Event 2 - Private Enterprise Police Training
POST allows private enterprise training in the police academies for training recruits on new technology, i.e. vehicle locator systems, computers, etc. that most agencies utilize.

___ Event 3 - Military Research to Law Enforcement
Persian Gulf war brings advance technology to law enforcement use, i.e. smart weapons, night vision devices to everyday law enforcement use.

___ Event 4 - Mobile Data Terminal Fingerprint Identifier
This is the point where a touch pad in each police unit allows a suspect's fingerprints to be immediately identified within minutes either from an in custody field encounter or from latent fingerprints.

___ Event 5 - Computer Literacy Required
POST requires all police academy applicants to pass a computer literacy test prior to academy graduation.

___ Event 6 - High Tech Police Bond Issue
A bond issue is presented on the statewide election ballot which would set up a finding system for law enforcement agencies to purchase hardware for automated criminal investigative systems (statewide systems) and training for same.

___ Event 7 - DNA Identification is upheld by U. S. Supreme Court

___ Event 8 - Lethal Force Restricted
California Supreme Court prohibits the use of lethal force by\ police unless a suspect is known to be armed with a firearm. Alternative to lethal force must be used in all other cases.

___ Event 9 - ACLU Challenges Legality of Law Enforcement Computer Networks
This event is a constitutional suit by the ACLU on the legality of all law enforcement computer systems to be networked throughout the state and nation based upon privacy, confidentiality and accuracy of information issues.

___ Event 10 - Tax Payer Revolt
This event occurs and all government spending is cut by 30% with only CPI inflation adjustment to be added to yearly budgets. Such an event would have severe fiscal consequences on governments ability to deliver services and procure equipment.

APPENDIX F

MODIFIED DELPHI - ROUND 2

TREND/EVENT EVALUATION

Round one of the Delphi process involved the ranking of trends and events by the panel which had been previously identified as having an impact on the issue questions relating to police technology training by the year 2005.

The most impactive trends and events identified in phase one are listed as well as their definitions:

TREND DEFINITIONS

TREND 1 - Public Funding

Funding for most law enforcement comes from taxes. This trend relates to the future levels of tax generated revenue for city, county and state governments.

TREND 2 - Computer Literacy

This is defined as the need for police recruits entering law enforcement to be computer literate.

TREND 3 - Law Enforcement Specialization

This trend is defined as the level of need for specialized law enforcement in light of new technology, equipment and investigations.

TREND 4 - Crime Concerns

This is the level of crime in our society.

TREND 5 - Public Support for Police High Technology

This is the overall community demand for and acceptance of high technology use

by the police.

TREND 6 - Expert Systems for Patrol

This is defined as the trend of emerging technology for smart computers or expert systems for every day patrol use.

EVENT DEFINITIONS

EVENT 1 - Private Enterprise Police Training

P.O.S.T. allows private enterprise training in the police academies for training recruits on new technology, i.e. vehicle locator systems, computers, etc. that most agencies utilize.

EVENT 2 - Military Research to Law Enforcement

Persian Gulf war brings advance technology to law enforcement use, i.e. smart weapons, night vision devices to everyday law enforcement use.

EVENT 3 - Mobile Data Terminal Fingerprint Identifier

This is the point where a touch pad in each police unit allows a suspect's fingerprints to be immediately identified within minutes either from an in custody field encounter or from latent fingerprints.

EVENT 4 - Computer Literacy Required

P.O.S.T. requires all police academy applicants to pass a computer literacy test prior to academy graduation.

EVENT 5 - High Tech Police Bond Issue

A bond issue is presented on the statewide election ballot which would set up a funding system for law enforcement agencies to purchase hardware for automated

criminal investigative systems (statewide systems) and training for same.

EVENT 6 - Lethal Force Restricted

California Supreme Court prohibits the use of lethal force by police unless a suspect is known to be armed with a firearm. Alternative to lethal force must be used in all other cases.

In phase two of this Delphi you are asked to complete remaining steps of the process. They are as follows;

1. The completion of the Trend Evaluation Form
2. The completion of the Event Evaluation Form
3. Add comments for each trend and event - your insight as to their importance or impact on the issue.

STEP ONE

THE TREND EVALUATION FORM

Look at the Trend Evaluation Form. Note that the trends are already filled in. What I am asking you to do here is to note what you think the level of the trend was in the past and what it will be in the future. For purposes of a baseline we will assume that the level of the trend today is 100 (already typed in on the form).

If the level of the trend today is 100, then your determination of its level 5 years ago can be anywhere from 1 to 99 (remembering that a trend is moving in one direction). For example, if you believe that a particular trend 5 years ago was half of what it is today then the number 50 would be placed in the "5 years ago column".

Now look to the "Five years from now and Ten years from now" columns. The top slant portion of each box is where you place the number that reflects what you think <u>will be</u> the trend level for that five or ten year period. This number can exceed 100. For example: If you feel that the trend will be almost twice that it is today, 5 years from now, a number close to 200 would be placed in the upper slant portion of the box. If you believe the level of the trend <u>will be</u> three times what it is today in ten years, then the number 300 would go in the upper slant box in the ten year column row. (see the example Trend Evaluation below).

Keep your attention to the five and ten year columns, please look at the lower slant portions of the box(s). This lower slant portion is where you put the number that reflects <u>what you believe the trend level should be</u> in 5 or 10. <u>Should be</u> is where you believe the

level would be best in serving the issue of police technology training by the year 2005. (see example)

When this process is completed for all six trends, then the Trend Evaluation Form is done.

An example is as follows:

Trend	5 years ago	Today	5 years from now	10 years from now
Cost of Computers	120	100	110/90	80/70

In the case of this trend the panel member felt that the cost 5 years ago was higher than today. In five years from now the forecast is that prices will increase by 10% (will be) but "should be" lower by 10%. The ten years from now forecast is a decrease to 80% (will be), and 70% (should be) from today's level.

STEP TWO

THE EVENT EVALUATION FORM

The selected events from round one are already numbered and type in on the Event Evaluation Form. The first column, "years until probability first exceeds zero" simply means the number of the year from now (0) that this event may first have some chance or probability of happening. For example, if you believe a Democrat will be elected to the Presidency, the earliest that could happen is 1992 so this column would reflect 1 (1 year from now). If, however, for whatever reason there was no chance for this to occur until 1996, then the year 5 would be reflected. Fractions of years are acceptable.

The other columns are:

*Probability - Five years from now and ten years from now.
This is your forecast as to the probability the event will occur within five years from now and ten years from now. The probability is based on a percentage. Thus, 50 means it is as likely to occur as not to occur, 90 means it has a very good possibility of occurring, etc.

*Impact on the issue area if the event occurred.
This is your opinion as to the impact on the issue studied if the event occurred. Positive and negative impacts may or may not be linked. Consider them separately and rank them on a 0 to 10 (ten being the greatest impact) scale.

An example is as follows:

Event	Years until Probability Exceeds Zero	Probability		Impact	
		5 years	10 years	Pos	Neg
Democrat is elected President	1	30	50	5	

In this example, the panel member believed the event was possible 1 year from today. He felt that there was only a 30% probability it would occur in five years and a 50% probability in ten years. He also felt it would be a positive impact on the study issue.

Please send or preferably FAX your responses back to me by March 7, 1991.

Thank you for all your help.

VIC THIES
Lieutenant
Irvine Police Department

TREND EVALUATION RANGES - APPENDIX G

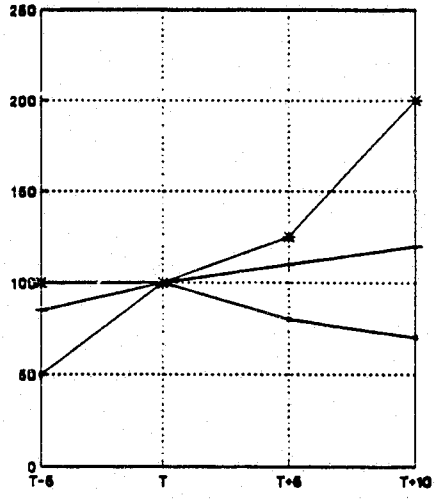
Trend #	TREND STATEMENT (Abbreviated)	LEVEL OF THE TREND ** (Today = 100)			
		5 Years Ago	Today	* Five years from now	* Ten years from now
1	PUBLIC FUNDING	50 - 100	100	80-125 / 80-140	70-200 / 70-200
2	COMPUTER LITERACY	5 - 80	100	80-200 / 100-200	90-200 / 100-200
3	LAW ENFORCEMENT SPECIALIZATION	50 - 85	100	80-135 / 100-160	90-160 / 100-180
4	CRIME CONCERNS	60 - 90	100	80-150 / 70-140	70-200 / 50-150
5	PUBLIC SUPPORT FOR POLICE HIGH TECHNOLOGY	35 - 90	100	90-150 / 100-150	90-180 / 100-160
6	EXPERT SYSTEMS FOR PATROL	25 - 80	100	100-150 / 100-170	100-170 / 100-200

** Modified Delphi Forecasts (Low - High)

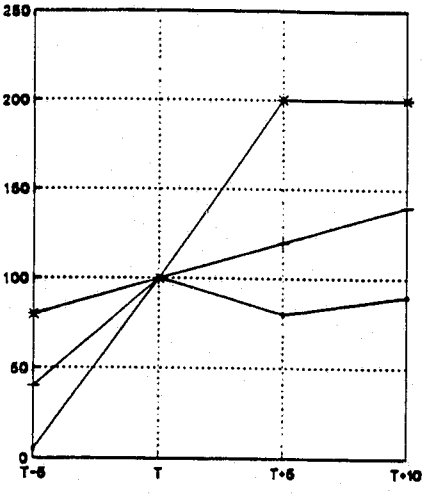
* Five years from now "will be" / "should be"

* Ten years from now "will be" / "should be"

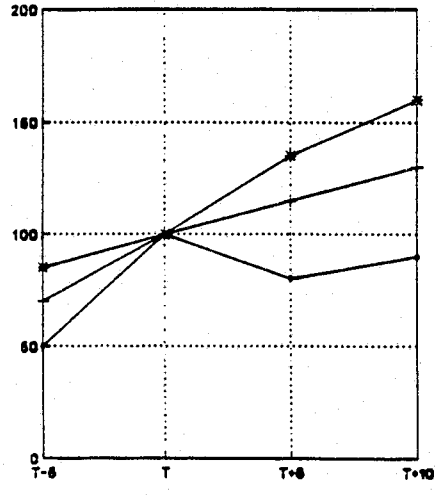
APPENDIX H
TREND EVALUATION GRAPHS



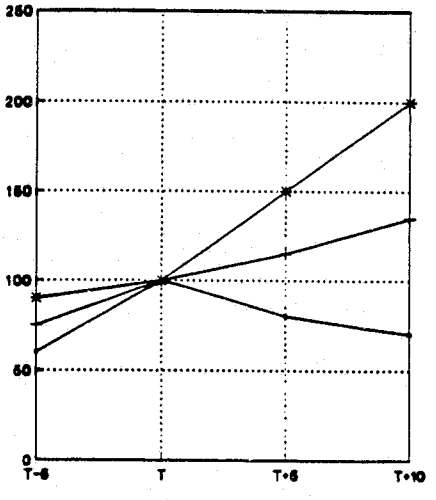
T1 Public Funding



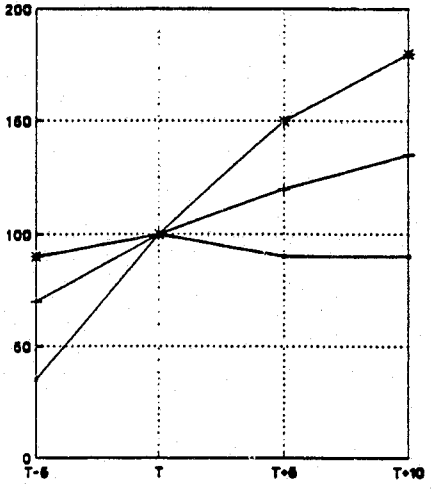
T2 Computer Literacy



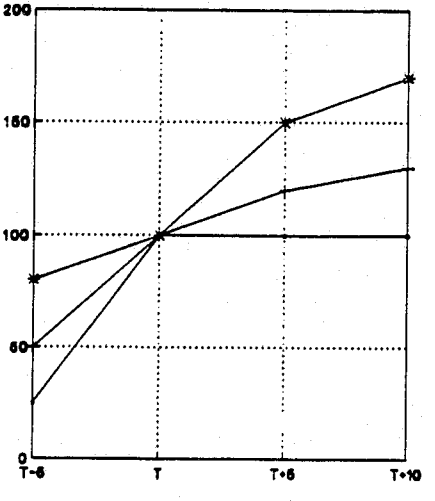
T3 Law Enforcement Specialization



T4 Crime Concerns



T5 Public Support For Police High Tech



T6 Expert Systems For Patrol

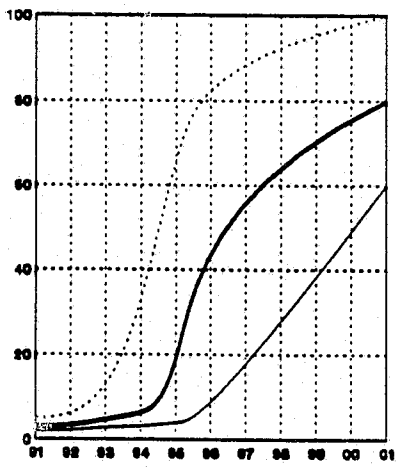
LOW MEDIAN HIGH

EVENT EVALUATION RANGES - APPENDIX I

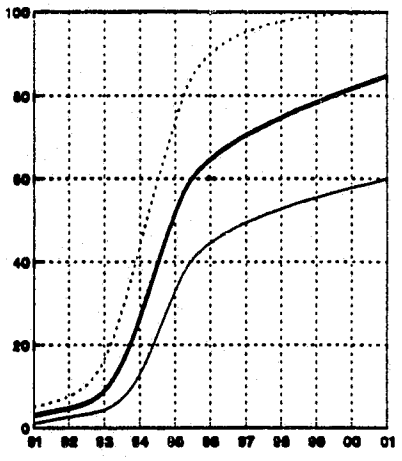
Event #	EVENT STATEMENT	* YEARS UNTIL PROBABILITY FIRST EXCEEDS ZERO	* PROBABILITY		IMPACT ON THE ISSUE AREA IF THE EVENT OCCURRED	
			Five Years From Now (0-100 %)	Ten Years From Now (0-100%)	* POSITIVE (0-10 scale)	* NEGATIVE (0-10 scale)
1	PRIVATE ENTERPRISE POLICE TRAINING	2 - 5	5 - 90	60 - 100	4 - 9	
2	MILITARY RESEARCH TO LAW ENFORCEMENT	1 - 5	50 - 100	60 - 100	7 - 10	
3	MOBILE DATA FINGERPRINT IDENTIFIER	3 - 6	40 - 95	75 - 100	8 - 10	
4	COMPUTER LITERACY REQUIRED	2 - 5	20 - 90	70 - 100	3 - 10	
5	HIGH TECH POLICE BOND ISSUE	3 - 10	10 - 75	25 - 90	6 - 10	0 - 3
6	LETHAL FORCE RESTRICTED	0 - 10	0 - 80	0 - 95	0 - 5	5 - 10

* Modified Delphi Forecasts (Low - High)

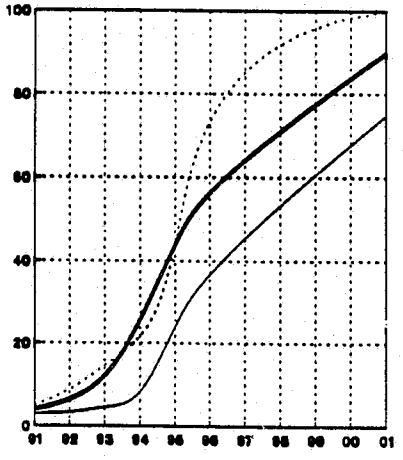
APPENDIX J
EVENT EVALUATION GRAPHS



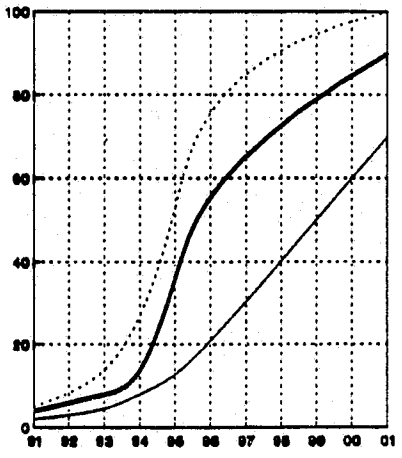
E1 Private Enterprise Police Training



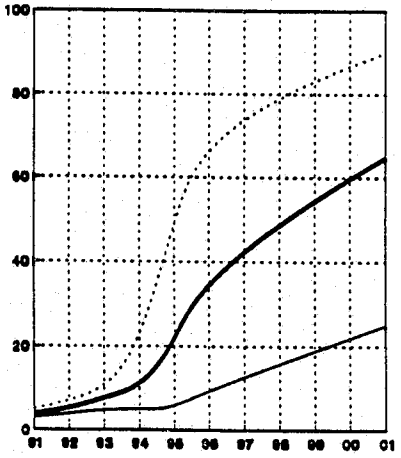
E2 Military Research to Law Enforcement



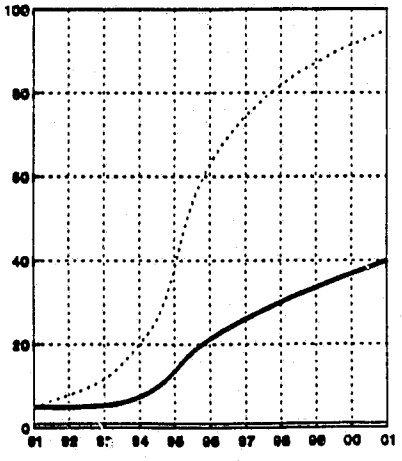
E3 Mobile Data Fingerprint Identifier



E4 Computer Literacy Required



E5 High Tech Bond Issue



E6 Lethal Force Restricted

LOW MED HIGH

APPENDIX K

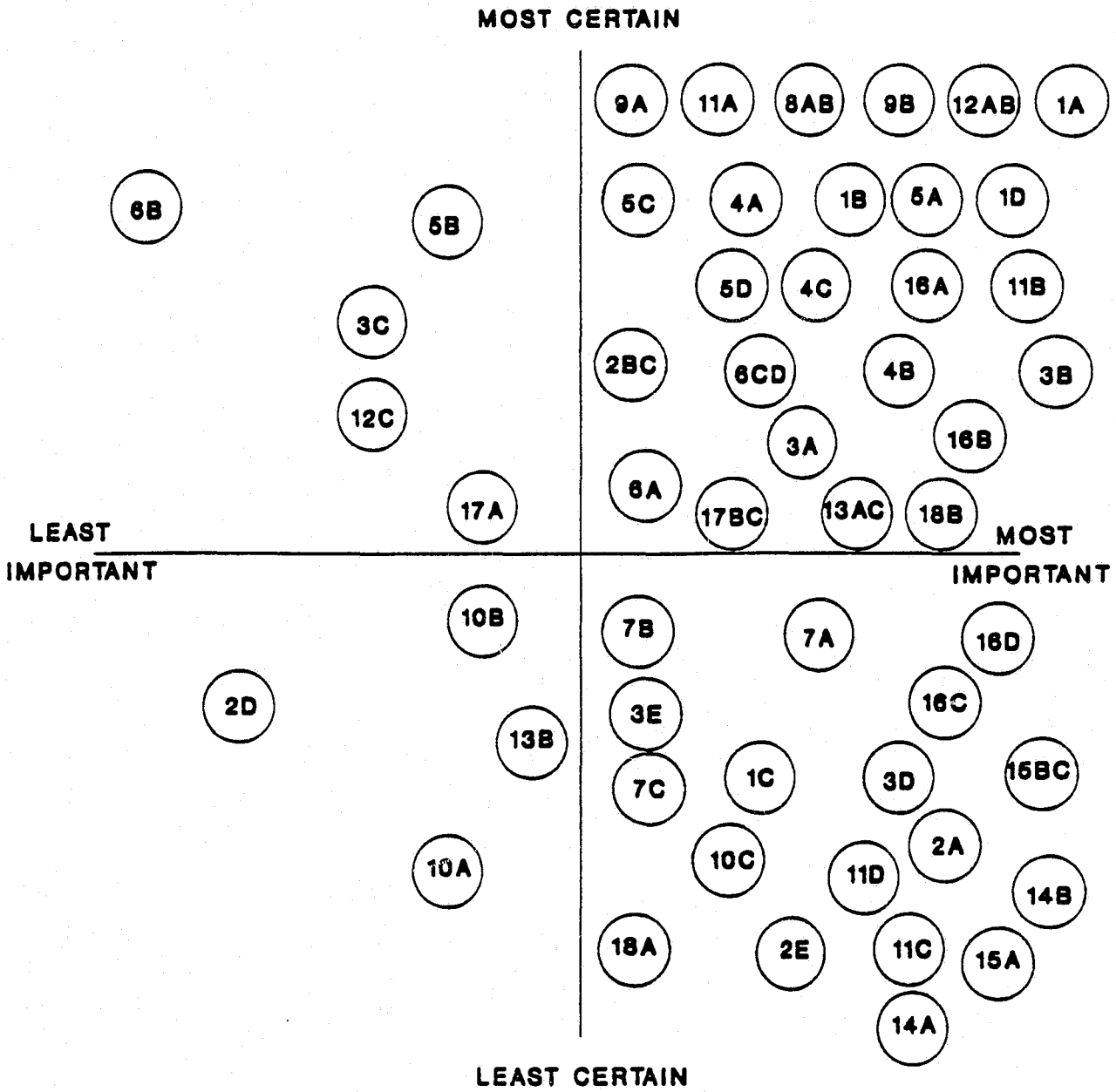
POST BASIC ACADEMY

FUNCTIONAL AREAS (FA)

FA#

1. Professional orientation
2. Police community relations
3. Law
4. Laws of evidence
5. Communications
6. Vehicle operations
7. Force and Weaponry
8. Patrol procedures
9. Traffic
10. Criminal investigation
11. Custody
12. Physical fitness and defense techniques

APPENDIX L
STRATEGIC ASSUMPTION SURFACING MAP



1. POST
2. Police Officers
3. Legislature
4. Public
5. Regional/State Training Assoc.
6. P.O. Academy Coordinators
7. Academy Instructors
8. Private Enterprise
9. Private Training Firms
10. Community Colleges
11. Governor
12. Ca. Police Professional Organizations
13. Media
14. Courts
15. American Civil Liberties Union
16. Tax Payer Associations
17. Military
18. Public Defender

APPENDIX M

Modified Policy Delphi

ROUND I

A part of my Command College project necessitates formulating policies that will allow or encourage a future desired and attainable scenario to occur. The attached scenario is centered around the issue question of:

> "What will be the technological/equipment training needs for California police academy students by the year 2005?

To give further focus and limit the issue, three sub-issues have been incorporated:

* How will police technology be standardized?
* What financial/revenue changes might occur that will affect the ability to train or equip officers?
* How will new technology available to the police impact the level of service provided to the public?

I am requesting your help by being a part of a Modified Policy Delphi (MCD) panel. The purpose of this process is to ensure that the policies developed reflect a wide range of expertise and thought processes. Some of you were involved in the Modified Conventional Delphi process in which trends and events were forecast. These were used in developing a scenario which is not only feasible but desired and attainable for California law enforcement.

The scenario which follows is included in my Command College project. This scenario would need policies implemented in the near future in order to come true.

I am requesting you read through the scenario and then make a list of five recommended policies which would help this scenario come true. Remember that the scenario and issues are statewide situations and your policies should not be limited to a particular agency or region. They do, however, need to be realistic policies that can be implemented in the real world and relate to the issues.

A policy example might be: POST coordinate and fund an on-going high technology review committee to develop police technology/equipment curriculum for California police academies.

After you return the policies to me (by April 1, 1991, sorry for the quick turnaround) I will compile the results and send them back to you for a final round. In that round I will need you to give pros and cons to each policy and numerically rate them.

Thanks for your help.

VIC THIES
Lieutenant
Irvine Police Department

RECOMMENDED POLICIES

1.

2.

3.

4.

5.

NAME: _____

FAX # 724-7191

APPENDIX N

Modified Policy Delphi (MPD)

ROUND II

We meet again! Thanks for your participation in Round I of the MPD. In that round you read the scenario of future law enforcement technology use and training in California over the next 14 years. You developed policies which would allow and encourage that possible future state. Attached is a list which reflects the distilled list of these policies.

In this Round I request you review the policies and give your pros and cons for each policy. Please make your comments brief. Remember the issue question when making your comments, and how the policy impacts the scenario.

Lastly, you are requested to rate each policy using the attached sheet. The scale for the rating is contained on the rating sheet.

Please return your responses to me by Thursday, April 4, 1991.

Thanks once again for your help.

VIC THIES
Lieutenant
Irvine Police Department

FAX # 724-7191

MODIFIED POLICY DELPHI

ALTERNATIVE POLICIES

1. POST establishes committee of statewide representatives from agencies with solid track record of sophisticated technological applications with a policy to glean technology from the military and private enterprise that has potential transferability to civilian law enforcement.

2. California Chief's of Police Association adopts a policy that gives hiring preference to police applicants who have a demonstrated computer technology proficiency. This policy is supported by the Federal E.E.O.C. with the understanding that the hiring priorities will be balanced against the need to continue the recruitment of qualified minorities.

3. California League of Cities adopts a policy presented by the City Managers Association to strive for police forces composed of 50% civilian employees in functions traditionally performed by sworn police officers.

4. The California Chief's of Police/Sheriff's Association adopts a statewide policy that permits sharing of a data base directed at analyzing the application of the various use of force alternatives employed by member agencies.

5. District Attorney's Association formulate policy encouraging police agencies to enhance their abilities to properly investigate computer related crimes. This policy allows for case filing preference to those agencies which have specialized units to

deal with computer crimes.

6. Federal government awards grants to defense contractors to develop non-lethal weaponry.

7. POST establishes high tech pre-academy training program where high tech crime investigation schooling is paid for by the state. Student grants for higher education is given to in-service police students with grants repaid through years of service in law enforcement.

8. Department of Justice coordinates statewide information data banks accessible to all law enforcement agencies linking all police booking facilities, pawn shops, banking, permit/licensing, gun dealers, etc. All fingerprints and photos would be accessible via remote terminal stations.

9. POST establishes a Central State Police University (similar to West Point). All officers required to attend this university. Attendance and graduation from different programs permit the person to apply for police officer positions in the state. Minimum education requirements:

    AA degree: Street Officers

    BA degree: Sergeants and Lieutenants

    MA degree: Captains and up

    University is a resident college.

10. POST assumes the role of standardizing high tech equipment requests to private

vendors to encourage profitable development of products which, in turn, will be affordable to all agencies.

11. Chief's of Police Association statewide should support a governor's commission to restudy the "Role of Police in a Free Society" with special emphasis on:

    A. Increasing violence in society and the community's response.

    B. Police response in escalation of force.

    C. Use of non-lethal force.

    D. Rights of privacy in the computer age.

    E. Evaluation of educational and training requirements for police as it relates to criminal investigation.

This would cause the public and police to view crime as a societal issue, not just a police problem and would provide need funding for education and high tech research.

12. State legislative passes a law establishing regional white collar crime task forces. Breaking the state into 4 to 5 major urban regional task forces they would develop and implement indexes of white collar-high tech crime suspects and be ultimately responsible for apprehension of statewide white collar crime suspects.

13. POST establishes performance objectives for all sworn and non-sworn academy recruits in the elements of white collar-high tech crime investigation and its effect upon the community.

14. Legislature to establish a POST fund for high tech police training. Funding would come from a .01% surcharge on all credit card and banking transactions, software sales, etc. Funds would be used for expanding high tech training in the basic police academy, providing in-service police training and technology research.

APPENDIX O

RESPONSIBILITY CHART

DECISION/ TASK	POST PROJECT MANGER	LEGISLATURE	ACADEMY COORD. TRAINING COMM.	PRIVATE ENTERPRISE	GOVERNOR	TAXPAYERS ASSOCIATION
INITIAL PROGRAM DESIGN	R	I	I	I	I	-
DEVELOP MISSION STATEMENT	A	I	R	I	I	-
DEVELOP STRATEGY	R	I	A	I	I	-
DEVELOP TIMELINES	A	S	R	S	I	-
EST TECHNICAL REVIEW COMMITTEE	R	A	A	S	A	S
CONDUCT ROLE OF POLICE STUDY	R	A	S	I	S	S
FINANCING	R	A	S	S	A	A
EST. TECH STANDARDS DIV	R	A	A	S	A	-
PREPARE REPORT	R	I	A	A	I	I
DEVELOP TRANS. MANAGEMENT TEAM	A	S	R	S	S	-
)GRESS REPORTING	R	I	S	S	I	-

R - RESPONSIBILITY - NOT NECESSARILY AUTHORITY

A - APPROVAL (RIGHT TO VETO)

S - SUPPORT (PUT RESOURCES FORWARD)

I - INFORM (TO BE INFORMED OR CONSULTED)

ENDNOTES

1. Gore, Senator Al. "The Digitization of Schools," Business Week. Number 3191, December 10, 1991, pp Ed. 29.

2. Sharp, Arthur G. "Technology: The Extra Officer," Law and Order, 1989, 7 pp 41-45.

3. Harris, Philip. Global Managers in the New World Culture. Harris International, La Jolla, Ca.

4. Maddock, Sir Levan. "Why Industry Must Learn to Forget," New Scientist. February 1982.

5. POST, "ACR 58 Report to the California Legislature," January 1991, pp 4-7.

6. Tully, Edward J. "The Near Future: Implications for Law Enforcement," FBI Law Enforcement Bulletin. Vol. 55 No. 7, July, 1986, pp 1-9.

7. ACR Report, pp ii.

8. POST, Performance Objectives For Basic Course. 1990, pp viii.

9. Ibid.