

HOW WILL USE OF VIDEO MONITORING TECHNOLOGY IMPACT FIELD
OPERATIONS IN MID-SIZED LAW ENFORCEMENT AGENCIES BY 2007?

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Peace Officer Standards and Training

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POST STATEMENT

This Command College Project is a FUTURES study of a specific 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.

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CHAPTER I

ISSUE IDENTIFICATION

Statement of the Issue

This project seeks to address the following question: “How will use of video monitoring technology impact field operations in mid-sized law enforcement agencies by 2007?” As technology continues to advance at what often seems a dizzying pace and the use of video monitoring devices proliferate, their impact on law enforcement field operations cannot be ignored. Improved equipment and lower costs have made the private use of video monitoring devices explode and increasingly law enforcement applications are more likely and may be even inevitable.

For this project, video monitoring technology is defined as visual technology that allows for the passive recording or active watching of activities or individuals. Passive monitoring systems are generally designed to record video images for playback at a later time. Active monitoring systems are designed to be watched by live personnel.¹ Video surveillance and video monitoring are often used synonymously, but the term video monitoring better describes the use of both passive and active systems. Surveillance tends to imply the close observation of one under suspicion and that is not necessarily true of all video monitoring systems. This project presents a study of the current state of video monitoring technology. It addresses private and public applications, privacy and legal concerns, social implications, and the impact its use may have on field operations in a mid-sized law enforcement agency like the Fremont, California, Police Department.

Introduction

Video monitoring technology is relatively new, having truly evolved only in the past fifty years. Since the arrival of the video camera in the 1960s, video technology has experienced dramatic improvements and vast applications. Today, cameras seem to be everywhere. In 1999, Associated Press reporter Don Knapp wrote, “Look around and it’s clear America loves to spy on itself. Video cameras record people in banks, convenience stores, casinos, offices, day care centers, schools, buses, and prisons. They monitor freeway traffic; they are atop buildings as television news skycams.”² Spying has of course been around since way before the video camera; Sun-tzu dedicated an entire chapter to the employment of spies in his classic work “The Art of War” written over 2500 years ago.³ Modern video monitoring technology however has made it possible for spying to reach a whole new level. Not all video monitoring is spying, not in the sense that it is done covertly or with hostile intent as defined in Webster’s Dictionary. But the ability modern video monitoring technology provides for spying has raised the level of concern with some members of the public, particularly when the technology is used by law enforcement.⁴ Many law enforcement agencies in the United States and around the world are applying video technology to enhance their operations including the monitoring of public areas for criminal activity.⁵

Proponents of this technology suggest that video monitoring technology offers the public and law enforcement another tool for preventing crime and increasing security. Opponents suggest it can be used as a tool for repression and to violate individual rights to privacy. For over 20 years private individuals and businesses have used video monitoring technology to protect their property from crime. Banks, convenience stores, casinos, and many other business and retail establishments have made video monitoring a normal component of their security.

Law enforcement agencies throughout the world have increasingly embraced video monitoring to enhance public safety. Britain, considered the leader in the use of Closed Circuit Television (CCTV) cameras, has made video monitoring an integral part of its crime control policy, social control theory and community consciousness. British police and politicians promote video monitoring as the primary solution for urban dysfunction and credit video monitoring technology for having had more impact in the evolution of law enforcement policy than any other technology in the past two decades.⁶ In the United States, the use of video monitoring systems by law enforcement has been steadily increasing.⁷ In-Car Mobile Video, portable Cams, Red Light Photo Enforcement, Photo Radar, and CCTV cameras are some of the systems currently in use by U. S. agencies. The number of private individuals using video monitoring systems is unknown but is estimated to be in the hundreds of thousands. “Web cams” that can be accessed through the Internet alone are in the thousands. Today one can view live images of cityscapes, landscapes, wild animals, famous locations, individuals going about their daily activities and more. In April of 2000, one Internet site alone offered the opportunity to monitor Mexico’s Popocateptl volcano, wild bears in Alaska, the summit of Mount Everest, and sharks in an aquarium, all from the comfort of one’s home computer.⁸

So are we living an Orwellian nightmare? Is Big Brother watching our every move? The evidence seems to indicate otherwise. For one thing, the vast majority of video monitoring systems are privately owned and operated and are not government controlled. For another, systems that are government owned and operated are apparently not being used for the repressive purposes Orwell warned about. Most use of video monitoring technology has general public acceptance. In an article for Surveillance Camera News, Jeffery Rosen wrote the following:

Instead of being perceived as an Orwellian intrusion, the cameras in Britain proved to be extremely popular. They were hailed as the people’s

technology, a friendly eye in the sky, not Big Brother at all but a kindly and watchful uncle or aunt. Local governments could not get enough of them; each hamlet and fen in the British countryside wanted its own CCTV surveillance system, even when the most serious threat to public safety was coming from mad cows. In 1994, 79 city centers had surveillance networks; by 1998, 440 city centers were wired. By the late 1990's, as part of its Clintonian, center-left campaign to be tough on crime, Tony Blair's New Labor government decided to support the cameras with a vengeance. There are now so many cameras attached to so many different surveillance systems in the U.K. that people have stopped counting. According to one estimate, there are 2.5 million surveillance cameras in Britain, and in fact there may be far more.⁹

Support for public video monitoring by law enforcement in the United States has not reached British level, but there are indications that support is growing. Even before the terrorist attacks of September 11, 2001, police cameras monitored public streets in a number of U.S. cities. By some estimates another 200,000 video lookouts were in place and monitoring in and around private homes.¹⁰ One such camera helped catch a suspected killer and rapist in Sacramento, California. The camera, which cost \$2400, was purchased by 10 neighbors and was installed by one of them to monitor their court.¹¹ There are accounts of similar cases in many other communities. And while there is opposition to government video monitoring of public areas by groups like the American Civil Liberties Union (ACLU), they say they have no position on private video monitoring of public areas.¹²

In his forward to a publication of the Constitution of the United States Warren Burger, Chief Justice of the United States wrote, "Ever since people began living in tribes and villages, they have had to balance order with liberty. Individual freedom had to be weighed against the need for security of all."¹³

The challenge to find the right balance has today perhaps been made more difficult by technologies like video monitoring. Yet, no one more than government, and law enforcement in

particular, has the duty and responsibility to try to achieve that balance. The power of video monitoring technology is great and therefore the potential for abusing it is great. The courts will ultimately decide which law enforcement uses of video monitoring technology are acceptable and which are not. As the public servants tasked with maintaining order, law enforcement must guard against being overzealous in the use of video monitoring technology and tipping the scale completely against individual freedom.

The Current State of Video Monitoring

Video monitoring has increased at an explosive rate in the United States in the past ten years. The most dramatic growth has been in the private sector with residential, commercial, and industrial applications, but growth has also been significant with law enforcement applications.

In a 1995 survey, less than 20 American city law enforcement agencies indicated they had implemented or were in the process of implementing some kind of video monitoring of public areas in an effort to prevent crime and promote public safety.¹⁴ Today it is estimated that hundreds of American city law enforcement agencies use video technology to monitor public areas.¹⁵ In a report on the use of closed circuit television (CCTV) video cameras in law enforcement, published in March of 2001 by the International Association of Chiefs of Police, it was reported that law enforcement agencies have used video technology to monitor special events, high crime areas, courtrooms, school exteriors, school interiors, streets, traffic lights, transit stations, parks, traffic direction, traffic speed, and public housing. The report stated, “It is no exaggeration to conclude that CCTV technology has had a significant impact on law enforcement.”¹⁶

Other reports indicate that the average citizen is captured on over a dozen video cameras during the course of the day.¹⁷ These include highway traffic cameras, and cameras located in convenience stores, ATM machines, restaurants, parking lots, industrial and commercial buildings, and in the workplace. The vast majority of the cameras that capture individuals during the course of a day are private cameras and not cameras operated by law enforcement. Few U.S. cities have the extensive CCTV networks that British cities have. But increasingly American cities are looking to apply video technology to augment police field operations.

Lack of public acceptance and opposition to law enforcement use, as well as lack of financial and technical resources, are the primary reasons cited by American agencies for not using video technology. Some applications have in fact faced strong opposition and a number of cities attempting to implement programs abandoned their efforts. Early systems in the 1970s and 1980s not only faced opposition and lack of public acceptance, they were found to be deficient and provided poor images. Many agencies simply lack the financial and technical support to acquire and maintain these systems.¹⁸ The vast majority of systems in operation today use CCTV camera networks connected to video tape recorders. Collecting, archiving, storing, and retrieving information and proper disposal of the tapes proved to be a challenge. Significant personnel time, technical expertise, and storage space was found to be needed.

Recent advances in video technology, however, have made the situation considerably better. Video monitoring technology has improved dramatically from the days of early systems. Advances in miniaturization, digital, optics, and wireless promise to make systems much more efficient and practical.¹⁹

Public acceptance of the use of video monitoring by law enforcement also appears to be increasing. The September 11 terrorist attacks demonstrated to many that there may well be a

need for use of this technology by law enforcement to provide security. News accounts of two of the terrorists caught on video by cameras prior to boarding the plane used in the attack of the World Trade Center, demonstrated how video could help law enforcement identify suspects and retrace their activity during the course of an investigation.

While the technology continues to improve and public acceptance grows, financial and technical support needs remain. Video monitoring technologies may be more affordable and user friendly, but they still require a significant investment in equipment and need to be maintained by qualified technicians.

Opposition to video monitoring by law enforcement in the United States remains strong in some circles. Privacy advocates and civil liberties groups like the American Civil Liberties Union (ACLU) are firmly opposed to the use of video monitoring technology by law enforcement. In 1997 and again in 1999 the City of Oakland, California Police Department attempted to install video cameras in an area of the city. On both occasions, the ACLU launched an aggressive campaign that ultimately convinced city officials to scuttle the program. In an 11-page letter to Oakland's Public Safety Committee and City Council, the ACLU raised a number of questions and ACLU representatives wrote, "Unless and until these questions are satisfactorily answered, Oakland should not recklessly gamble its precious right to privacy and its scarce financial resources by serving as a guinea pig for the proponents of video surveillance."²⁰

Poor implementation of programs by some agencies has done little to help gain confidence and support for the use of video monitoring technology by law enforcement. In September 2001, a San Diego judge ruled that evidence provided by the red light cameras at traffic lights was, "so untrustworthy and unreliable that it should be abandoned." He then

disallowed 300 traffic citations issued due to the cameras. The City of San Diego suspended the red light program.²¹ State lawmakers have also entered the arena and some are questioning the appropriateness of law enforcement use of red light cameras and other video technology to monitor public areas.²²

The Future of Video Monitoring Technology

There is little question that the use of video monitoring technology will continue to expand. Increased private use is certain. Increased use by law enforcement, at least in the United States, is less certain due to opposition and public mistrust. Increased use by American law enforcement will largely depend on how well law enforcement demonstrates to the public that use of such technology would enhance police operations and the security of communities and will not be abused. Miniaturization, digitalization, facial recognition, event detection, motion detection, automation and the wireless transmission of visual images are some of the features now emerging. These advancements have the potential of providing law enforcement greater capabilities and efficiency for crime detection and investigation, and could radically change police field operations. Dr. David D. Friedman, of the Foresight Institute recently wrote, “In the not too distant future you may be able to buy an inexpensive video camera with the size and aerodynamic characteristics of a mosquito. Even earlier, we will see—are already seeing—the proliferation of cameras on lamp posts designed to deter crime.”²³

Emerging digital technology systems alone promise to make the storage and retrieval of visual images far easier and more efficient than the cumbersome and time-consuming methods inherent with current tape systems. During a test and evaluation of an in-car camera video system using tape recording technology, the City of Fremont, California Police Department

found that while the system worked well, the collection, storage and retrieval of information required a great amount of personnel time and significant storage facility space. In early 2002, a company in the process of developing a digital in-car video camera system offered to have Fremont police officers test and evaluate their digital system. Some problems were encountered with the wireless downloading of the digital recordings from the vehicle unit to the hard drive. But the high resolution of images, volume of storage space, automatic archiving, and easy retrieval of information offered by this system demonstrated digital technology's superiority over tape systems. This evaluation convinced the Fremont Police Department that the future of video monitoring is digital.

Advances in miniaturization and the wireless transfer of digital visual images will offer law enforcement a greater range of possible applications for video monitoring. Pedagog USA, a wireless application service provider, has developed software that enables video images to be transmitted over wireless networks to portable devices such as Palm Pilots or laptop computers for a fraction of the cost of traditional CCTV systems.²⁴ Imagine an officer being able to show a supervisor, investigator, deputy district attorney, or crime lab technician visual images from a crime scene, in real time, and they in turn being able to monitor the officers progress from a remote place, like the police station, their office, or another location. Supervisors, detectives, and district attorneys would be able to directly assist in a crime scene investigation from afar and give officers advice on how to proceed through the crime scene as well as in the identification, preservation, and collection of evidence. Radical as it sounds these applications of video monitoring technology in police field operations are possible, and there are many more possibilities as technologies continue to be integrated.²⁵

The integration of biometric face recognition software and video monitoring has recently attracted the attention of law enforcement, as well as opponents of video monitoring technology. The City of Tampa, Florida decided to beef up security for the 2001 Super Bowl by focusing video cameras on the fans as they entered the stadium and comparing them to digital images of suspected criminals and known terrorists in a computer database. Tampa Police Major K.C. Newcomb, said the technology was offered to them as an experiment to help security and they saw it as an asset.²⁶ The face-recognition software, developed by Visionics Corp., takes an image captured by a camera and routes it through a computer where it is compared to digital images in the database. If the captured image matches a database image on record, a sound alerts the officer monitoring the system. The officer then compares the two images and decides if further inquiry is warranted. If the officer decides it is not, the captured image is deleted. If the officer decides that the captured image does match that of a suspect, an officer in the field is alerted.²⁷ After the Super Bowl, Tampa became the first city in the United States to use face recognition video cameras as a public safety initiative to monitor an area of the city. The Tampa system uses 36 cameras positioned to monitor a 16-block area of a rejuvenated entertainment district known as Ybor City. Detective Bill Todd of the Tampa Police Department stated the computer database is designed to eventually contain up to 30,000 images of sexual predators, suspected felons, and runaway children and teens.²⁸

Opponents of facial recognition question the reliability and effectiveness of the system and are concerned that it infringes on the rights of individuals. One month after the September 11 attacks, a panel convened at the Churchill Club in Silicon Valley to discuss security technologies. The panel urged caution toward the use of facial recognition software. On the panel were Lee Tien, senior First Amendment attorney with the Electronic Frontier Foundation,

Doron Rotman, a partner with KPMG Consulting's Information Risk and Advisory Services group, and James Watkins, Chief Information Officer at the California State Office of Emergency Services. The panel agreed that facial recognition software to identify bad guys carries a wealth of problems. "Big questions include how to decide which faces go into the database, and who will keep tabs on law enforcement groups to ensure they don't abuse their spying privileges."²⁹ David L. Callahan wrote:

It is not yet clear how much privacy Americans will be ready to sacrifice for greater security. In the wake of the September 11 terrorist attacks, the New Jersey-based Visionics Corporation, which developed the face recognition system used in Tampa, reports that it has received thousands of inquiries about its product. Many Americans would probably accept face recognition systems or other biometric technologies in airports, since they are already accustomed to having their privacy compromised in this environment for the sake of security. But deploying such surveillance systems more widely, especially in public places, will remain controversial for good reason.³⁰

No technology promises to impact police field operations more than the integration of video monitoring technology and wearable computers. Wearable computers with video capabilities would not only allow officers in the field to record whatever is in their field of vision but also give them continuous video retrieval capabilities, and provide them with augmented memory, augmented reality, face recognition, ground positioning satellite navigation, and enhanced awareness.³¹

The research and development labs of Accenture, a Palo Alto, California venture are developing a wearable computer they call Personal Awareness Assistants that combine miniature cameras and microphones with voice and facial recognition software, global positioning and other technologies to help individuals gather and process information.³² Other companies like Xybernaut Corporation of Virginia are developing wearable computers for the military, hospitals, private industry, and the general public.

Law enforcement stands to benefit from these developments as many of the capabilities of wearable computers could enhance police field operations. Imagine officers at all levels of command having access to critical data that is inserted into their vision during the course of their shift, in real time.³³ Some years ago the U.S. Army launched a program to develop wearable computers as standard equipment for soldiers. This equipment is intended to provide soldiers with augmented reality that allows them to see annotated warnings, such as land mines, and enemy movements and to be in constant awareness of the latest intelligence reports and command decisions. A commander in a command post a 1000 miles away would be able to sketch maneuvers on an input tablet and have his sketch appear in each soldier's head-up display, adjusted for position and view of the war zone.³⁴ What police commander or supervisor wouldn't love to have these same capabilities? By 2007 it may well be possible.

Legal Considerations

Most legal analysts have concluded that the use of video technology to monitor public places is permitted and does not present significant legal obstacles. Although the courts have not addressed the issue directly, there is significant case law on closely related issues to support this position.³⁵ In a Public Law Research Institute study that considered the impact of the First and Fourth amendments of the United States Constitution, federal statutory law, specifically the Electronic Communications Privacy Act, and California tort law on the legality of continuous video surveillance, Scott Sher concluded:

Continuous video surveillance does not implicate First Amendment, Fourth Amendment, or tort law concerns. Even though courts have not addressed the precise question as to whether or not continuous video surveillance would survive legal scrutiny, past Supreme Court and lower court decisions strongly suggest that this type of police monitoring is a valid exercise of a state's police powers.³⁶

While monitoring of public places using video technology is legal, it is not without restrictions. In *Katz v. United States*, the Supreme Court declared that, “the Fourth Amendment protects people not places.”³⁷ The court further added, “What a person knowingly exposes to the public, even in his own home or office is not subject to Fourth Amendment protection,” but, “what he [that person] seeks to preserve as private, even in an area accessible to the public may be constitutionally protected.”³⁸ In an effort to balance the privacy interests of individuals and society’s desire to maintain effective law enforcement, the court adopted a two-part test. This test, known as the *Katz* test, asks the following questions: “(1) Has the individual manifested a subjective expectation of privacy? and (2) Is society prepared to recognize that expectation as reasonable or legitimate?”³⁹ Based on this test the prevailing opinion is that individuals have no reasonable expectation of privacy on public streets from visual observation, including video monitoring cameras. However, the use of cameras that rotate and have superior visual enhancing capabilities able to capture activity in private property from afar do not always satisfy the *Katz* test and may violate Fourth Amendment protections.⁴⁰ As Dr. Friedman has observed:

Few would consider it objectionable to have a police officer wandering a park or standing on a street corner keeping an eye out for purse snatchers and the like. Video cameras on poles are simply a more convenient way of doing the same thing—comfortably and out of the wet. Cameras at red lights, or photometric monitoring of a car’s exhaust plume, are merely cheaper and more effective substitutes for traffic cops and emission inspectors.⁴¹

The problem comes when this video monitoring technology is combined with others, such as biometric facial recognition, thermal sensing, infrared, and others.⁴² Dr. Friedman added, “Some technologies make the job of law enforcement harder. Others make it easier—even too easy.”⁴³

The use of cameras with audio recording capabilities that capture sound may also violate Title 1 of the Electronic Communications Privacy Act. Title 1 limits law enforcement's ability to monitor or intercept conversations without a warrant. Title 1 prohibits the intentional interception or attempted interception of any wire, oral, or electronic communication. Title 1 does not restrict the use of silent video monitoring cameras that do not capture audio signals.⁴⁴

In California the courts have recognized privacy under tort law. But most legal scholars have concluded that video cameras in public places do not physically intrude into a person's sphere of privacy, and any invasion of privacy caused by them is minimal. Thus the use of video cameras to monitor public places has been considered permissible and not liable under California tort law.⁴⁵

In short, most legal scholars agree that past court decisions suggest the use of video monitoring technology is allowed, within certain limitations, as a valid exercise of a state's police powers to provide for the safety of a community.⁴⁶

Social Implications

The use of video monitoring technology by law enforcement, even if determined to be legal, carries with it some far-reaching social implications. Americans take pride in having the world's most free society and have come to expect both security and liberty, not one over the other. Video technology has made it possible for law enforcement to constantly monitor people and places. Many feel that law enforcement use of this technology undermines American values and the American way of life. Today the question regarding the use of video monitoring technology in police field operations is not, can we? The question is, should we?

There is significant anecdotal data that suggests video monitoring technology can in fact help law enforcement keep American communities safe.⁴⁷ Many of the agencies using video monitoring systems report success in varying degrees. Few individuals would argue that using video monitoring technology to keep communities safe is not well intentioned, however, there are those who point out that history has shown good intentions often lead to undesirable outcomes. Video monitoring by law enforcement implies Big Brother to many and that automatically incites challenges and generates discomfort and distrust. The concept of maintaining order by visual monitoring is not new and its social implications were debated long before George Orwell warned us of Big Brother. In 1791 Jeremy Bentham, an inventor and moral philosopher, proposed the panopticon as a way to bring order and humane treatment to the horrific conditions imposed on the swelling population of criminals in England.⁴⁸ The well-intentioned Bentham imagined the social benefits of balancing freedom and control by building a structure that could ensure proper conduct. The structure was described as a circular ring of rooms with a tower in the middle. In the rooms would be housed prisoners, orphans, paupers, and others who would be subjected to constant observation by someone in the tower. The design of the structure was such that the person in the tower would be able to see into the rooms but the people in the rooms would not be able to see into the tower.

The word panopticon comes from the Greek word panoptes, meaning all seeing. In Bentham's plan, the panopticon had the capacity of overseeing every aspect of an individual's actions and behaviors. Bentham believed that being under constant observation, or under the threat of constant observation, would cause individuals to lose the power and desire to do evil.⁴⁹

Briskin wrote:

The panopticon supported hierarchy by proposing to diminish acts of disobedience before they happened. It lessened the demand that authority be a

relationship, albeit among unequals, and fostered an invisible network of methods for monitoring and detecting exceptions to the normal. Bentham anticipated a time when surveillance would be taken for granted, when the individual would anticipate being watched and would therefore police himself or herself. Right conduct would come not only from fear of reprisal but also from the anticipation of guilt if one betrayed the internalized social eye. The chains are removed, but freedom is now bound by the decorum established by the collective will over what is the correct way to think and behave.⁵⁰

The panopticon has come to be seen as a metaphor for social control and domination. It has not escaped observers that similarities exist between the use of modern visual monitoring technology and the panopticon. Some feel that the use of video monitoring technology is in fact implementation of the panopticon on a somewhat larger scale.⁵¹ Some feel the social implications of the panopticon are no different than the social implications of a society where nothing is private due to video monitoring technology. Some suggest that, like the panopticon, modern video monitoring technology has the power of watching over us and demanding compliance in an implicit way.⁵² Even those who acknowledge that video monitoring technology may in fact make police field operations more efficient, and there are many who do, wonder about the social cost. Will the use of this technology make officers and citizens feel safer and more secure? Or will it only make them distrusting and induce them to social conformity only because they can't be sure when they are being watched? David Brin argues that the effectiveness of modern video monitoring technology as a crime prevention and investigative tool makes privacy no longer an option. Regarding Brin, Friedman wrote:

More interestingly, he argues that that may be a good thing. He proposes as an alternative to privacy universal lack of privacy—the transparent society. The police can watch you—but someone is watching them. The entire system of video cameras, including cameras in every police station, is publicly accessible. Click on the proper web page—read, presumably, from a hand held wireless device—and you can see anything that is happening in any public place. Parents can keep an eye on their children, children on their parents, spouses on each other, employers on employees and vice versa, reporters on cops and politicians.⁵³

In Brin's transparent society not only would the community be safer and more secure from criminals, it would also be safer and more secure from police misconduct, like in the Rodney King incident. Police agents, according to Brin, would know that they may be on camera and would conduct themselves accordingly.

In a paper that discussed privacy issues of wearable cameras versus surveillance cameras, Professor Steve Mann, who has worn a computer with video capabilities for over 20 years, argues that surveillance cameras take a bigger bite out of one's soul than Dad's Super-8 movie camera, or Grandma's instamatic 110. He ranks cameras in increasing order of acceptability (fairness) as follows:

- Government looking at people.
- Establishments looking at people.
- Establishments looking at establishments or people looking at people (neutral position).
- People looking at establishments ("Shooting back").
- People looking at government ("Shooting back").⁵⁴

Mann wrote, "Surveillance is actually desirable when aimed at Big Brother (and possibly also Big Business). It would seem logical that organizations capable of wrongdoing should be placed under a degree of surveillance proportional to their capacity to inflict damage to society."⁵⁵

In his book, "World without Secrets: Business, Crime and Privacy in the Age of Ubiquitous Computing," Richard Hunter says that technology has not halted a march towards a time when people are surrounded by computers, sensors, transmitters, and cameras linked to extensive networks and databases. He argues that if Americans aren't involved in resolving

these issues, the issues will be resolved without them.⁵⁶ The question is, what role is law enforcement prepared to play in resolving these issues?

University of Kansas Professor John Nalbandian wrote, “The primary political value in our culture is responsiveness of governmental officials to public wants and needs. The value of responsiveness is reflected in demands for representation, efficiency, individual rights and social equity.”⁵⁷ He elaborated further:

Representation. This is the deep-seated belief that government answers to the will of the people through elected representatives. The wishes of citizens should be represented in governing bodies. If a public policy is going to have an impact on a group of citizens, that group should have the opportunity to be heard.

Efficiency. Citizens expect government to be run prudently. This is achieved through cost consciousness and rational, analytical decision-making and through an emphasis on expertise and professionalism, planning and merit.

Individual Rights. Citizens are granted legal rights that protect them from arbitrary decisions by those who govern—both elected and appointed officials. These rights may be expressed in ordinances, statutes and laws, and the constitution. Property rights and civil rights fall into the broader value of individual rights.

Social Equity. Frequently, citizens are treated as members of groups rather than individuals. Sometimes we classify people as veterans, disabled, African American, female and senior citizen rather than as Jose, Mary, Rita, and Jacob. As group members they expect treatment equal to members of other groups. And they compare their treatment with that given to members of other groups. For example, people living in one neighborhood expect to receive a level of government service similar to that received in other neighborhoods; older neighborhoods might expect more service.⁵⁸

In the United States the decision to use video monitoring technology to support police field operations will likely be made at the community level by local government officials and local law enforcement agencies. In deciding whether or not to apply this technology it would be

wise for an agency considering the use of video monitoring technology to keep in mind the political values of American culture mentioned by Professor Nalbandian.

Video monitoring technology has the potential to dramatically increase police field operation efficiency. It also has the potential to radically alter American culture as a social consequence.

This chapter focused on law enforcement and private use of video monitoring technology, current state, the future, legal issues, and social implications. Available information suggests that video monitoring technology may provide an effective and inexpensive way of fighting crime. Reports indicate that images captured by video cameras provide irrefutable evidence of criminal acts and save investigating officers and detectives significant time and effort identifying suspects and testifying in court. Video recordings of police activity may also increase public support and confidence in officers and their actions. The private sector has embraced video monitoring technology as a crime prevention tool and has come to recognize it as a normal component of security operations.

The controversy over the use of video monitoring technology largely centers on the social implications of its increased use, particularly by law enforcement. Some see it as a means of providing security at the expense of privacy and an altering of American values and the American way of life. Concerns of Big Brother and turning communities into panopticons have raised a number of questions and fueled debate on the use of this technology. Emerging technologies and their integration with video monitoring technology will only increase public concerns and add fuel to the debate.

Legal scholars agree that law enforcement use of video monitoring technology is, with certain limitations, a legal and valid exercise of the state's police powers. Private use has been widely accepted and is also, with some limitations, considered legal and valid.

The following chapter will present an analysis of future trends and events which may significantly impact this issue. An analysis of how trends and events may influence each other will also be presented, along with three possible future scenarios.

CHAPTER II FUTURES STUDY

“Distant ridges. Far way clouds...All events come from a distance. With a high vantage point, foretelling the future is elementary.”

Tao Te Ching

Introduction

Futures forecasting is used to project the future and influence positive change. Certain actions can be taken to help bring about desired change and avoid negative change. The Nominal Group Technique (NGT) is a tool used in future forecasting. In this chapter an NGT was used to forecast trends and events that may have an impact on the issue. The NGT is followed with three possible future scenarios relative to how video monitoring technology might impact field operations in a mid-sized law enforcement agency, like the City of Fremont, California Police Department.

Nominal Group Technique Session

In February 2002 a Nominal Group Technique (NGT) process was used to identify trends and events that could have the most impact on the issue stated above. The Nominal Group Technique is an effective method of forecasting trends and events that may impact an issue where implicit data is unavailable or limited. There are two types of forecasting methods, implicit and explicit. Implicit forecasting methods involve the use of historical data. Explicit forecasting methods make use of judgmental and mathematical models.⁵⁹

The NGT process involved a small group of experts from diverse fields who were selected for their knowledge and experience. An invitation was extended to each prospective panel member. Upon acceptance each panel member received a packet of information that included the issue question, a description of the process, and rules for the process.

The panel consisted of eight members with the following backgrounds:

- 1) An assistant risk manager.

- 2) A small-business owner.
- 3) An assistant city attorney.
- 4) A senior civil engineer.
- 5) A property owner, and community leader
- 6) An administrator in the office of neighborhoods.
- 7) A photo red light enforcement program administrator.
- 8) An administrative analyst assigned to the police department.

All panel members worked in the City of Fremont and four were Fremont residents. Four were female. Four were Caucasian. Three were of Asian descent. One was of East Indian descent. One was a senior citizen. Six were middle aged. And one was a young adult.

Trends

The group was provided with the following definition of trends: A series of social, technological, economic, environmental, or political forces that tend to drive change in a general direction that can be measured over time.⁶⁰ Each participant was asked to silently write down a minimum of five trends that they felt would impact the issue. Once this task was completed, each panel member was asked to read out loud a trend from his or her list. Following a clockwise rotation each member provided a trend until all trends on their lists were exhausted. An additional person, not a panel member, was assigned the role of recorder. The recorder kept track of all trends read, assigned each a number, and wrote them down on a flip chart. The list of trends was briefly discussed with the group so they could be clarified and agreement reached on their meaning. During this discussion, similar and duplicate trends were combined as one. The panel identified 39 trends they felt could impact the issue (refer to Appendix A).

Each member of the group was asked to silently select the top 10 trends they believed would have most impact on the issue. They were then asked to put a colored mark next to their 10 selections on the flip chart trend list. The trends having the most selection marks were then recorded on a separate flip chart page. These top selections were then discussed and rated in order of importance. The 10 trends selected by the group were as follows:

1. The level of accountability for video monitoring by police.

2. The level of concern about security in the community.
3. The level of public acceptance of video monitoring.
4. The number of businesses and homes having video monitoring systems.
5. The level of use as a training tool for police actions.
6. The number of video cameras in public areas.
7. The number of abuses by law enforcement.
8. The level of advances in video monitoring technology.
9. The number of criminals using video monitoring systems for criminal acts.
10. The level of concern by civil rights groups.

After the top ten list was agreed upon, the panel was asked to individually forecast each of the 10 trends. A poster sized trend table was posted on the wall. The table used a baseline of 100 for today and had blank spaces for five years ago, five years from now, 10 years from now and the level of concern. Panel members were asked to provide a number for the blank boxes for five years ago, five years from now, and 10 years from now, in relation to the baseline representation of 100 for today, and also for the level of concern on a scale of 1-10.

The results of the information provided by the panel are as follows:

Summary Trend Analysis

The following summary trend table represents the mean, from data compiled from the responses of individual panel members. Listed are trend levels for five years ago, the current base level of 100, the five-year future forecast, the ten-year future forecast, and the level of concern on a scale of 1 to 10. Higher numbers mean increased level of activity within the trend for the specified years, the higher the number the greater the activity. Higher numbers for level of concern mean there should be greater concern regarding that trend.

TRENDS

<u>Trend</u>	-5 years	Today	+5 years	+10 years	Concern (1-10)
T1 Level of accountability for video monitoring.	58	100	159	164	6
T2 Level of concern about security.	35	100	161	223	6
T3 Level of public acceptance of video monitoring.	17	100	184	324	8
T4 Number of businesses and homes with video monitoring systems.	23	100	148	314	6
T5 Level of use as a training tool for police actions.	38	100	155	203	6
T6 Number of video cameras in public areas.	35	100	211	441	7
T7 The number of abuses by law enforcement.	41	100	119	126	4
T8 Level of advances in video monitoring technology.	28	100	141	223	5
T9 The number of criminals using video monitoring systems for criminal acts	17	100	248	474	9
T10 Level of concern by civil rights groups.	86	100	216	265	7

Trend #1: The level of accountability for video monitoring by police.

The panel felt that accountability for police use of video monitoring technology was already in place. They thought current law and the courts have enacted a number of restrictions on how and where police may use video monitoring. The group forecast indicated continued increase in accountability. The group felt that advances in technology would, out of necessity, make more accountability necessary. The mean forecast shows a slight but steady increase in accountability in the next five to ten years.

Trend #2: The level of concern about security in the community.

The panel defined this trend as, “the loss of the sense of security due to crime”. The group felt that an increase in general crime did not necessarily translate to a loss in the sense of security. They believed the level of concern about security was related to increase in specific crimes, like terrorism, abduction, and gang violence, and not necessarily with increase in bank robberies, shoplifting, or credit card fraud. The group forecast an increased level of concern about security, in the next five and ten years due to terrorism and a weakening economy. The mean forecast indicates the level of concern about security will be 50% greater in the next ten years.

Trend #3: The level of public acceptance of video monitoring.

The panel felt that if video monitoring became more common, public acceptance would increase. Group members thought that video monitoring was on the rise and would become so common as to be virtually unnoticed by the public. Activity monitored in convenience stores, banks, ATM machines, and at intersections with photo red light cameras has already become common and is generally accepted by the public. The panel forecast increase in public acceptance of video monitoring. The mean forecast indicates a significant rise over the next five to ten years. The panel also indicated this trend should have a high level of concern as potential abuses could take place or video monitors could become so numerous that people develop a false sense of security and become less vigilant.

Trend #4: The number of businesses and homes with video monitoring systems.

Business and home ownership of video monitoring systems will steadily increase, according to the panel. Already some child-care centers are marketing themselves for providing parents with the ability to remotely monitor activity at the care center. The panel forecast that increasingly people would take advantage of monitoring technology for their homes, businesses, and other places of concern such as child-care facilities and elderly-care facilities. The ability to check up on personal interests from remote locations could contribute to peace of mind and would become increasingly popular, according to the panel. The mean forecast indicates significant increase in the number of video monitoring systems in businesses and homes, more so between years 5-10 than in years 1-5.

Trend #5: The level of use as a training tool for police actions.

This is an interesting trend. The group felt that video monitoring was underutilized as a training tool for police activity such as pursuits, crowd control, and contacts with citizens. The Rodney King incident and subsequent riots as well as the infamous Hollywood bank robbery incident showed that video monitoring could be a training tool to improve police response. The group felt that in-car and personal mobile video systems would come to be recognized as valuable tools and would increasingly be used to analyze police actions. The mean forecast indicates increasing level of use of video monitoring systems as a training tool for police officers.

Trend #6: The number of video cameras in public areas.

The panel forecast the number of video cameras placed in public areas will explode in the next five to ten years. The group felt that advances in technology, lower prices, concerns about terrorism, and increasing public acceptance would cause a dramatic rise in the number of video cameras installed in public areas. Possible increases in violence and terrorism would only fuel the demand. The group indicated that it would likely not be law enforcement, but the general public, that would request increasing numbers of video cameras in public areas. They also felt the number of cameras in public areas could reach the point where there may be so many that their crime deterrent impact or value could be lost. The mean forecast indicates double the number of video cameras in public areas in five years and a doubling of that number in ten years. The panel attributed this to fear of terrorism and greater public acceptance for video cameras. The level of concern for this trend is suggested to be in the high end of the scale.

Trend #7: The number of abuses by law enforcement.

The panel defined this trend as any and all abuses committed by law enforcement officials anywhere in the United States. The forecast by the group indicates a very slight increase in the number of abuses by law enforcement in the next five to ten years. The group felt that law enforcement overall had learned from previous mistakes and was doing a good job taking steps to prevent abuse. They attributed the slight increases of abuses in the future to

greater scrutiny, increasing number of officers, younger officers, and just plain poor candidates that somehow get through regardless of the screening process. The level of concern, according to the group, is also thought to be relatively low. The group showed a high level of confidence in law enforcement and felt the quality of officers and level of professionalism have improved.

Trend #8: The level of advances in video monitoring technology.

Technological advances in video monitoring will continue in the areas of miniaturization, digital, wireless, optics, motion and sound activation, and battery power, according to the panel. The group felt that technological advances would continue to increase in the next ten years. The new technologies could make video monitoring cheaper, better and much more available to law enforcement and the general public. The group felt that advances in sound and motion recognition to activate units would make video monitoring systems smarter, effective and much more efficient. The mean forecast for the group indicates a steady increase in technological advances. The group saw a mid-range level of concern for this trend. They felt advances in this technology could take on a life of their own and take a direction not necessarily intended, or desired. In other words, they had concerns that technology could create the need rather than the need create a demand for the technology.

Trend #9: The number of criminals using video monitoring systems for criminal acts.

The forecast from the group for this trend indicates dramatic increase in criminal activity using video monitoring systems. As video monitoring increases and its use becomes more widespread and common, the panel felt that criminals would find ways to utilize the technology for personal gain and self-gratification. Members of the group believed criminal opportunists would use video monitoring to stalk victims, obtain personal information, extort and harass others, and for illegal acts yet unseen and unanticipated. The group thinking was that it was inevitable some individuals would find creative ways to take advantage of technology and use it in ways for which it was never intended. Increased availability and acceptance of video monitoring systems would only make it easier for criminals to discover new ways to victimize others. The group felt this trend warranted a high level of concern.

Trend #10: The level of concern by civil rights groups.

Civil rights activists will continue to influence law enforcement actions, policies and use of technology, according to the group. Although civil right groups may not always represent majority opinion, their ability to influence issues cannot be ignored. The panel felt that increased use of video monitoring systems by law enforcement would raise concerns from privacy activists and civil rights groups. Loss of privacy and the Big Brother syndrome would certainly be argued and new concerns could emerge. The mean group forecast shows a significant increase in the level of concern by civil rights groups in the next five years, leveling off somewhat the following five years. The panel felt the level of concerns would decrease slightly after five years due to most challenges being decided by the courts during the first five years. The level of concern, according to the group, should be on the high end of the scale.

Events

The panel was provided with the following definition for events: confirmable occurrences that have a significant impact. They either happen or they do not. If they happen the future will be different.⁶¹ Events were further described as newspaper-headline type occurrences and several examples were given. As with trends, each NGT participant was asked to silently write down a list of events that may have an impact on the issue. The panelists identified 28 events (refer to Appendix B). Like with trends, each panel member was asked to cast a vote for ten events they felt would have the most impact on the issue. The events were discussed and clarified and nine events from the list of 28 were selected by votes as likely to have the most significant impact on the issue.

The panel felt that the use of video monitoring technology was a local issue and would therefore be most impacted by local events. They felt that events not happening locally might influence but would not necessarily have a significant impact on the issue. It was their opinion that events had to occur in the local community for them to have significant impact on the use of video monitoring technology and field operations in a mid-sized law enforcement agency. They argued that a shooting in a faraway Colorado high school, tragic though it was, would not have the same effect on a community as a similar shooting at the local high school. They felt that events taking place elsewhere simply did not create the sense of need and urgency of local events

directly affecting a community. The results were discussed and consensus was reached that the nine events selected were the top events based on the number of votes they received.

The top nine events selected were as follows:

1. Local child abduction.
2. Local bio-terrorist attack.
3. Bombing of a local Islamic Temple.
4. Racial incident involving local police officer.
5. Columbine type incident at local school.
6. Serial criminal targets the city.
7. Ethnic riot.
8. Terrorist incident to local government facility.
9. Local public official assassinated.

The panel was then asked to forecast the number of years from now that the probability of the event occurring first exceeds zero, the percentage chance of the event occurring in five years, and the percentage chance of the event occurring in 10 years. In addition, panelists were asked to evaluate the level of impact the event was likely to have on the issue on a scale of negative 10 to positive 10.

Summary Event Analysis

The following table represents the mean figures compiled from data provided by individual panel members.

EVENTS

Event	Year > 0	+5 Years	+10 Years	Impact (-10 to +10)
1. Local child abduction.	4	25%	38%	+5
2. Local bio-terrorist attack.	7	0	25%	+4
3. Bombing of local Islamic temple.	2	61%	53%	+7
4. Racial incident involving local police officer.	3	23%	29%	+8
5. Columbine type incident.	5	12%	16%	+6
6. Serial criminal targets the city	2	48%	46%	+7
7. Ethnic riot.	5	14%	21%	+5
8. Terrorist incident to local government facility.	5	25%	24%	+6
9. Local public official assassinated.	5	16%	24%	+6

Event 1: Local child abduction.

While child abductions have occurred throughout the country and within close proximity of the local community, the panel felt that a local abduction would be a much more significant event. According to the group, a child abduction occurring in the local community would have much more impact and would place higher demands on the local police agency. They also felt that due to higher awareness, due to the number of highly publicized incidents, the probability of a local child being abducted was lower than in the past but remained relatively moderate, 25% to 38% in the next five to ten years. They also felt that should such an event occur, as tragic it would be, it would have a positive impact on the increased use of video monitoring technology. A member of the panel pointed out that it was the abduction and subsequent murder of a child that was used by the British to justify expanded use of video monitoring cameras in public areas.

Event #2: Local bio-terrorist attack.

The panel felt the probability of a bio-terrorist attack in the City of Fremont, or another mid-sized city, was relatively low. The panel felt that most terrorists would tend to go after symbolic targets generally found in larger cities. However, it was forecast it could happen,

although not very likely, in the next five years. The mean forecast indicates a 4% probability within five years and a 25% probability within 10 years. It was further felt that if such an event did occur it would have a positive impact on the use of video monitoring technology, as the event would be used to argue for increasing the measures of security. The level of impact was thought not to be very high compared to other events.

Event #3: Bombing of local Islamic temple.

The group forecast the probability for such event would first exceed 0 in two years. The mean forecast also indicates a high probability of such event occurring in five years. The panel felt that as a result of the September 11, 2001 attacks, the war in Afghanistan, the war on terror, and the Israeli conflict, tensions were high and tolerance was low. Misguided individuals could take advantage of the situation and see it as an opportunity to attack local Islamic institutions. The mean forecast for the group was 61% probability of such an event occurring in five years and dropping slightly the following five years. As tragic and unjust as such an event would be, the panel felt it would benefit police efforts to use video monitoring technology to increase the safety and security of these and other institutions at risk of reprisal or criminal attack.

Event #4: Racial incident involving local police officer.

The panel felt this event had a relatively low likelihood of occurrence but a high level of impact. The group expressed great concern for such incidents but felt that past incidents had raised the level of awareness and that police agencies had taken steps to prevent such incidents from happening. Some of the things the group mentioned were: better training, better screening of new employees, severe punishment of offenders, change in police attitudes, closer supervision, and a higher level of professionalism. The mean forecast indicates a less than 30% chance of such an event occurring in the next 10 years. A racial incident involving a police officer would be a very negative event for a police agency. If such an event were to occur, according to the group, an agency would experience considerable pressure to control and review officers' field activity. This however would have a positive impact on the use of video monitoring technology, particularly in-car mobile video systems and cop-cam type personal mobile video systems that could be used to monitor officer activities.

Event #5: Columbine type incident.

The group felt that an active shooter event at a local school, like the Columbine High School incident, had a relatively low probability of occurrence. The group forecast a mean probability of less than 16% in the next ten years. It was believed that higher awareness and stricter school policies made it more unlikely for these events to occur. The group also felt that such an event would have a positive impact on the use of video monitoring technology. Senseless incidents, such as Columbine, help justify remote monitoring of schools and adjoining areas for the purpose of increasing the safety and security of the children, according to the panel. Some panel members expressed concern that video monitoring was not already in place and being utilized in all schools.

Event #6: Serial criminal targets the city.

The panel identified this event as a crime spree by an individual occurring within a specific period of time, such as the rash of pipe bombings that occurred in the City of Fremont's Irvington District over a one-month period. The panel felt that a serial criminal targeting the city would be highly beneficial to police use of video monitoring technology. As recent events at airports have shown, people are willing to sacrifice convenience and privacy for security. According to the group, an attack by a serial criminal that directly affects a community would have members of that community demanding higher levels of protection and security. Video monitoring could be requested as a means to increase safety and to capture images of violations and violators for prosecution. The group felt that video monitoring would increase the sense of security and would also have a deterrent effect on crime. The group forecast indicated that the probability for this event would be just under 50% in the next five to ten years and that such an event would have high positive impact on the use of video monitoring technology.

Event #7: Ethnic Rioting.

The group defined this event as a large riot involving one ethnic group. The forecast for the probability of such event was relatively low, according to the panel. Even in a diverse city like Fremont, with large ethnic concentrations of people, the panel felt that such an event was unlikely. According to the group, mid-sized cities, like Fremont, generally address issues involving various groups before they get out of hand and these communities do not generally

face the economic extremes experienced in larger cities. If an ethnic riot were to happen, according to the group, it would have a positive impact on video monitoring. Police already use video to record their response to rioting and other unusual incidents. A future event would help to justify additional and better equipment.

Event #8: Terrorist incident to local government facility.

The group forecast a 25% probability for such an event in the next five years and a 24% probability for ten years. The group felt that if an act of terrorism occurred in a mid-sized city it would most likely be perpetrated by domestic terrorists or some disgruntled individual rather than by an international terrorist organization. Such an event could have a positive impact for police use of video monitoring, as it would fuel the argument for the need to improve monitoring of local government facilities. Although the probability was low, almost every member of the panel felt that this event could happen in the next five years. The general feeling among the group was that local government facilities present easy targets for extremists willing to attack them.

Event #9: Local public official assassinated.

With bombings at the home of the Chief of Police and at the home of a City Council member, and former Chief of Police, a few years ago in the City of Fremont, the panel felt this event could happen. They forecast a 24% probability for this event occurring in the next 10 years. The panel felt that while local public officials are generally not targets of assassins, there are deranged individuals out there willing to make an attempt on their lives. The assassination of a local public official could be traumatic and disruptive to an organization. While such an event would not stop a city government from functioning, it could dramatically change a city government's course. The group saw this negative event as also having a positive impact on the use of video monitoring technology. They felt such an event would encourage closer monitoring of local public officials, their homes and the facilities where they work.

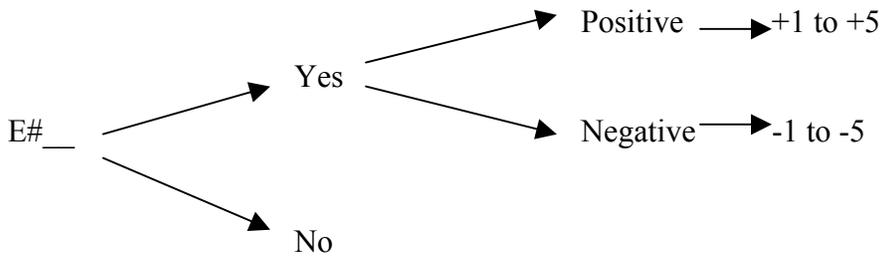
Cross Impact Analysis

The cross impact analysis evaluates the occurrence of an event, its relation to a trend, and its possible impact on the issue. The author and a Fremont Police Captain who is a Command College graduate discussed the possible impact of each event/trend and provided a rating on a scale of -5 to +5.

The analysis was conducted in the following manner:

1. If event # __ happens, will it impact the trend?
2. How will it impact the trend relative to the issue (positive or negative)?
3. By how much will it impact the issue (on a scale of -5 to +5)?

The process is illustrated below:



Results of the analysis were recorded in the following Cross Impact Analysis table.

CROSS IMPACT ANALYSIS

Events	Trends									
	T-1	T-2	T-3	T-4	T-5	T-6	T-7	T-8	T-9	T-10
E-1	0	0	+1	+4	+1	+3	+5	+1	+1	+1
E-2	+3	+4	+2	0	+3	+5	+2	+5	+3	+2
E-3	+2	+4	+4	+3	+3	+5	+2	+5	+3	+3
E-4	+1	0	0	0	0	+5	+3	0	0	+4
E-5	0	+2	+2	+5	+3	+1	+5	+1	0	+1
E-6	+2	+3	+2	+4	0	+5	+2	+2	+1	0
E-7	0	0	0	+5	0	+3	+5	0	0	+1
E-8	+2	+2	+2	+3	+3	+5	+3	+1	+1	+2
E-9	+2	+2	0	0	+2	+5	+2	+2	+1	0
E-1 Local child abduction E-2 Local bio-terrorist attack. E-3 Bombing of a local Islamic Temple E-4 Racial Incident involving local police officer E-5 Columbine type incident at local high school E-6 Serial criminal targets the city E-7 Ethnic riot E-8 Terrorist incident to local government facility E-9 Local public official assassinated					T-1 Level of accountability for video monitoring by police T-2 The level of concern about security in the community T-3 Level of public acceptance of video monitoring T-4 Number of bus and homes with video monitoring systems T-5 level of use as training tool by police T-6 Number of video cameras in public areas T-7 Number of abuses by law enforcement T-8 Level of advances in video monitoring technology T-9 Number of criminals using video systems to commit crimes T-10 Level of concern by civil rights groups					

As was observed by members of the panel, bad events tend to be positive for police use of video monitoring technology. High levels of crime and certain individual crimes, particularly if they are horrible and violent would help justify the acquisition and deployment of video monitoring technology. Video monitoring technology could be used to increase the sense of security, identify and apprehend violators and monitor and control police actions. The number of video monitoring cameras in public areas could only gain public acceptance through a demonstrated need and the likelihood of success. A local crime wave would not only justify the need for the use of video monitoring technology, but could also cause its use to be demanded by the public at large, as was reported to be the case in the City of Baltimore.

Police activity could be monitored more closely and abuses, and other deviant behavior, could be identified and corrected before it becomes normative and institutionalized. Finding and correcting police deviant behavior might in fact be the most valuable use for video monitoring technology in policing in future years. The lack of public trust that continues to persist may finally be overcome if it is demonstrated that the police do police themselves. Many of the concerns of civil rights groups could be overcome if law enforcement officers show a willingness to have their actions monitored on video and available to inspection.

The value of video monitoring is open to interpretation. Opposing sides will continue to argue either for or against it, depending on their position. Whether video monitoring helps police to combat crime is likely to continue to be debated. Its value as additional eyes in the community and as force multiplier has been proven in many of the communities that have photo red light enforcement cameras. By the same token, some of these same cities with photo red light enforcement cameras have shown that video monitoring technology can be abused and that there is the need for some level of accountability.

Scenarios

The following three scenarios were developed to offer a glimpse into possible futures. The scenarios offer a pessimistic, optimistic, and normative view. They are fictional stories that are meant to depict possible futures and should not be interpreted as representations of actual futures. Scenarios help one to gain further insight into potential social, technological, economic, environmental, and political trends and events and provide a context for planning. While the future is unknowable, multiple scenarios can assist planners in anticipating possible forms the future may take.

Scenario 1

A pessimistic view

George Orwell was wrong. His novel “1984” did not come close to imagining the world we would come to live in. The year is 2007. Privacy is all but a memory and will be virtually unknown to those born after the year 2005. For it was in 2005 when privacy became obsolete.

No one knows how it all began. The threat to privacy was recognized long before Orwell warned of “Big Brother”. But many say the beginning of the end was in 2002. It was in that year that a police lieutenant named Gus Arroyo submitted a paper to the California Command College titled, “How will video monitoring technology impact field operations in a mid-sized law enforcement agency by 2007?” He predicted an impact but had no idea how much that would be. The paper was submitted at a time when law enforcement executives suddenly found themselves besieged by a wave of terrorism. The September 11, 2001 attacks that destroyed the World Trade Center Twin Towers had been only the beginning. Attacks followed on government institutions, financial institutions, power plants, power grids, water supplies, food supplies, railways, highways, airports, shipping ports, and shopping malls. Biological agents like anthrax, botulism, smallpox, the plague, hemorrhagic fever, and tularemia killed thousands. Transportation came to a halt. The economy was in danger of total collapse. Crime exploded. And fear gripped the nation. By mid 2003 it was clear al-Qaeda had not been the only threat. Domestic groups emerged and gained notoriety and momentum.

It was then that Arroyo’s city, Fremont, California, decided to take aggressive action against crime and terror using video monitoring technology. Equipment was obtained, borrowed, or seized from electronic stores throughout the city. Cable and other utility company employees were conscripted to assist City of Fremont Police personnel in the installation of

cameras throughout the city. The city's existing cable system was used, when possible, to create a large closed circuit network to be monitored from the police station by a few police officers. In typical Fremont fashion, the entire city came together in support of the project and the system was in operation by the end of the year.

Initial success of the project led other cities to take similar action. Some expanded on the concept and monitored not only public areas but also private businesses and homes. Surprisingly there was little opposition and there were even requests by many residents for this police service. Cities with monitoring systems appeared to take control of crime and disorder and became attractive to business. These cities seemed to experience increased migration and economic prosperity. Politicians saw an opportunity. They figured that if some monitoring was good, more monitoring was better.

Which brings us to today. Monitoring became law in many cities throughout the nation. The result? The greater security experienced initially was short-lived. Criminal activity returned. The crime deterrence initially experienced with use of the cameras disappeared. Criminals found it easy to commit crimes right in front of the cameras, by using disguises to conceal their identity from cameras and the police. Terrorist acts escalated. It has practically become a game to commit a crime in front of a camera and get away with it. Teens have made it a sport to stage apparent crimes in front of the cameras to see how many officers they could get to respond to unfounded incidents. Officers find themselves constantly chasing unidentified suspects, false alarms, and staged incidents. In addition, communities have experienced their citizens becoming increasingly paranoid. Cases of mental illness, suicide, and escalated violence have exploded and there is a near total collapse of civility and common courtesy. And while I have not yet become paranoid, or suicidal, I do occasionally become angry and sometimes

depressed. I must admit that I am pretty disgusted with the current state of affairs, and there are times when I too long for the days of fewer cameras and a greater sense of privacy.

Scenario 2

Normative view

It is the year 2007. The war on terror is practically over. Unemployment is low. The economy is strong. Crime is down. The nightmare George Orwell warned us about in his novel “1984” has not materialized. Video monitoring technology has not only not turned government into Big Brother, its potential to enhance law enforcement efficiency has barely been explored. The limited use of video monitoring technology by law enforcement has continued, but has not been as dramatic as some predicted five years earlier.

For various reasons, many law enforcement agencies have not pursued the implementation of a video monitoring technology program. Red light video monitoring systems, in-car video camera systems and Closed Circuit Television (CCTV) systems continue to be used by some agencies, but the majority of agencies have shown little enthusiasm. Some proponents still believe that video monitoring is a major crime deterrent. And although there is a significant amount of anecdotal data to indicate that is the case, few objective studies have been done to confirm that, one way or the other, so many remain skeptical. There is also little information on what impact the use of video monitoring technology by police has had on police/community relations.

Many of the agencies that attempted to implement video monitoring programs and suffered setbacks early on, have not revisited the possibility of implementation. As a result, little progress has been made to determine the value of video monitoring technology for law

enforcement and opportunities to enhance police efficiency have not been explored and may have been lost.

Scenario 3

Optimistic view

Fremont, January 2007 – The City of Fremont, California installed the first red light enforcement cameras at a major intersection in September of 2000. By September 2002 red light enforcement cameras monitored ten major intersections. Today, red light enforcement cameras monitor traffic at twelve intersections throughout the city. Police have not installed cameras in public areas of the city to monitor other activity. It is unknown how many privately owned cameras monitor activity in and around commercial establishments and residences of the city but estimates put the number in the hundreds.

Video monitoring by police continues to be controversial and its value is debated. Police see it as a force multiplier and a way of obtaining irrefutable evidence. They contend that the video cameras benefit the public by deterring crime, improving police response, minimizing witness error, and increasing criminal apprehension. Critics see it as further erosion of Americans' rights to privacy and government's way of imposing additional control on its people.

The Fremont Police Department recognized that not everyone would approve of the use of video monitoring technology. To gain approval and support for the red light enforcement cameras, the police included the public in efforts to balance the need for using these tools to improve public safety and the desire to protect privacy. Community meetings were held where the issue was debated. Police objectives were presented and agreements were reached on how and where the police would use video technology to monitor public areas. With approval of the

City Council intersections were selected for video monitoring as a pilot project. Results were favorable and a few additional intersections were later also approved for red light video monitoring.

Some critics of the program remain but the citizens of Fremont have been generally supportive of video monitoring by police. The budget has been increased to allow for additional equipment and to add two positions to the Video Technology Unit. The Video Technology Unit was created in 2003 when it became clear that personnel with special knowledge and skills were needed to support the equipment and to retrieve increasing amounts of video evidence, generated by both police and private systems.

The use of video monitoring technology continues to increase in the City of Fremont. The Video Technology Unit is the second fastest growing unit in the police department, next to the Information Systems Unit. Patrol officers are now able to access a number of police cameras via their vehicle laptop computer. Steps are on the way to integrate fixed monitoring systems with the officer's mobile in-car camera units.

When a news reporter recently asked a Fremont officer what he thought of the video monitoring system, the officer responded, "I don't know how we ever got along without it".

CHAPTER III

STRATEGIC PLANNING

Strategic Plan

A strategic plan is a tool that allows individuals and organizations to prepare for the future. Strategic planning follows a structured approach to address issues of concern. The purpose of a strategic plan is to help manage a desirable future. Identifying and considering trends and events that may have potential impact on the issue is a critical component of a strategic plan. Those responsible for designing and implementing the plan are obligated to look for opportunities to influence the future and bring about positive change. The objective of strategic planning is to seek out trends and events that will have a positive impact on the issue and avoid those that will have a negative effect.

A strategic plan is needed for a law enforcement agency to be successful in implementing a video monitoring technology program to augment police field operations. To that end, the following strategic plan is presented. It includes information obtained from environmental scanning and a Nominal Group Technique process. Five steps were followed in the process: 1) selection of a vision statement and organizational goals, 2) External analysis, 3) Internal analysis, 4) Strategy development, and 5) implementation of plan.⁶²

Vision Statement

Developing a vision statement is essential for achieving the desired goal and keeping those involved in the process focused. The vision statement needs to reflect the mission and values of the organization and can be used to chart a course for where the organization wants to

go and how it will get there. The following is an example of a vision statement for consideration:

As law enforcement officers our responsibility is to the community we serve. We are committed to providing the highest caliber services possible and to attaining the highest degree of customer satisfaction. To that end we pledge to work in partnership with members of our culturally diverse community to identify and solve problems, prevent crime, and meet current and future needs. We will strive to be leaders in innovation and customer service and to be recognized as the finest and most progressive organization in the United States.⁶³

This chapter provides law enforcement agencies with a road map for effectively implementing a video monitoring program to improve police field operations. This means working in cooperation with diverse members and groups of the community and giving them voice and representation in the decision to implement a video monitoring program. The desired outcome of this plan is to gain public trust and support for the application of video monitoring technologies and pursue those applications that meet with community approval and avoid those that do not. No law enforcement program can be successful without public support, no matter how beneficial it may be to police field operations. Law enforcement can benefit from video monitoring technology only when there is a clear understanding of the community's level of trust and level of support for law enforcement's use of this technology.

External Analysis

External forces in the environment can often affect change and therefore need to be considered in the strategic planning process. The butterfly theory says that, when a butterfly flutters its wings in one part of the world, it can eventually cause a hurricane in another.⁶⁴ In essence, the butterfly theory cautions that any event, no matter how insignificant or remote it may seem, can have far reaching implications. So doing an analysis of environmental factors to

identify trends and events that have clear implications is important in preparing for future change. The STEEP model is one method of analysis. The STEEP model examines five external forces that influence change – Social, Technological, Environmental, Economic, and Political.⁶⁵ The results of the STEEP analysis can have a significant influence on the strategy to implement a program for the use of video monitoring technology in police field operations. The following are examples of issues to consider when implementing a video monitoring technology program for police field operations:

Social

- Fear and suspicion of video monitoring by police.
Americans value privacy and liberty and fear Big Brother and a repressive police force.
- Advancements in technology have the potential of altering American values and the American way of life.
Technology has now made it possible for us to become a transparent society where individuals can be constantly monitored and where everything about them is known. This tends to go against the idea of independence and freedom that America was founded upon.
- Society demands that police become more efficient.
The cost of maintaining a police force is high and some question the effectiveness of police officers. Technology can offer effective and inexpensive alternatives to officer patrols and may help in crime prevention.
- Courts and juries demand video proof of police actions.

The credibility of police has been questioned due to irregularities brought to light in recent high profile cases, such as Rodney King, O.J. Simpson, and the Los Angeles Police Rampart scandal. Police officer testimony is no longer trusted and may need to be supported with recorded visual corroboration.

- Society demands greater police accountability.

Mistrust of police may call for greater citizen control and monitoring of police actions. Citizens may demand that officer activities be recorded on video for public review. They may demand to being given the ability to watch the watchers.

- Shortage of police officers.

Police agencies are having a difficult time finding qualified candidates to fill vacant police officer positions. It may become necessary to augment police operations with video monitoring technology due to shortages of personnel.

Technological

- Current limitations of video monitoring technology.

Although great advances have been made in video technology, limitations still exist making some police applications not very practical or efficient at the moment.

- Advances in miniaturization.

Advances in miniaturization will make video monitoring units smaller and more efficient, and will allow for greater integration with other technologies increasing the range of applications.

- Biometric software.

Emerging biometric face, retina, and voice recognition technologies can give added capabilities to video monitoring systems.

- Digital video systems.

Digital video monitoring systems promise greater efficiency and may facilitate the collection, archiving and storage of video images.

- Wearable computers.

The development of wearable computers could make it possible for individual officers to wear video monitoring units with full computer capabilities which will augment memory, augment reality, and will act as personal awareness assistants, able to video record every officer contact for review.

Environmental

- Increasing population.

As the population increases so do the demands on the police. More people mean more customers needing and asking for service.

- Greater diversity.

As the community becomes more diverse service requirements change. With diversity come greater variety, energy, and opportunity but also conflict. Greater diversity means greater challenges for law enforcement and the need to invest more time and effort understanding the needs and sensitivities of individual groups.

- Generation X and Generation Y.

As older generations are replaced by younger generations the fear and resistance to technology may change. The younger generation has grown up with video

cameras in 7-Elevens, and ATMs their whole life. They see video cameras as a normal part of their environment.

- Video monitored communities.

Camera use has proliferated and video cameras are already pretty much everywhere. Video cameras have become so ubiquitous that they are no longer noticed and are often accepted.

Economic

- Cost of video monitoring technology.

Video monitoring technology continues to be costly. However, the private sector has long recognized it as a cost-effective way of providing security. The British experience indicates it may be an effective and inexpensive way to reduce crime.

- Impact of a soft economy.

With softening of the economy, funding may not be available for video monitoring technology. Budgets may not support the cost of equipment, training and maintenance. On the other hand, it may be a cost saving measure over paying officers to watch intersections for red light runners, or in preventing liability from accidents.

Political

- Public resistance.

There are those who see video monitoring as an assault on privacy and civil rights and will staunchly oppose it.

- Need for tighter security.

The threat of terrorism has some officials calling for greater applications of technology to prevent acts of terrorism.

- Relaxed restrictions on police use of technology.

Since the September 11 terrorist attacks, many are more willing to allow law enforcement more latitude with the use of video monitoring and other technologies.

- Allocation of resources.

The high cost of police personnel and the demand for security has resulted in federal, state, and local officials allocating more funds for technology.

Internal Analysis—Strengths and Weaknesses

Every organization needs to examine itself from time to time. The purpose of this examination is to determine the organization's health as objectively as possible in order to better plan for change. The SWOT analysis looks at internal strengths, weaknesses, opportunities and threats in the environment. It provides a framework for gauging how well change might be accepted by the organization. The following is a SWOT analysis relevant to the issue, using the Fremont Police Department as a model.

Strengths

- The organization is flexible and effective.

The crime rate is consistently one of the lowest in the country for a city of this size.

There is no hesitation to try new deployment configurations and shift resources to address emerging issues.

- Community trusts and supports the police department.

A long series of cooperative efforts between the community and the department to address crime and quality of life issues over the years has built a close bond between the department and the community. Community engagement specialists have been designated to help develop neighborhood leaders, and to work with neighborhoods in problem identification and problem-solving efforts. The trust and support for law enforcement in the community should ease efforts to improve services with video monitoring technology.

- Strong organizational commitment for using technology to advance the department's mission.

For many years the department has embraced new technologies to augment police functions and be more effective. The department was among the first to install lap top computers in vehicles and has been aggressive in testing and evaluating new technologies.

- Officers support and trust the administration.

Joint labor management committees meet regularly to discuss issues and share information. Representatives from every unit in the organization are included in these committees and have the opportunity to provide input on issues affecting their respective group.

Weaknesses

- Low staffing levels.

The department has had difficulties expanding services due to a chronic shortage of staff. It may be difficult to support positions necessary to operate, maintain and manage a video

monitoring program. The department has prided itself for operating on a very lean staff over the years; that leaves little room for expansion of new programs or services.

- Resistance to change.

Like most organizations, the Fremont Police Department has experienced and continues to experience resistance to change at various levels. Increasing demands, and shortages of staffing have left a number of employees feeling frustrated and confused over the capabilities of the department. Recent requests to tighten the budget, due to the weak economy, have forced vacant positions to be left unfilled, and has put additional demands on what was already a lean staff. This will aggravate the usual resistance to change encountered when trying something new.

- Insufficient support from within the organization.

Employee unions may see this as a threat to future authorized positions. Some may view this as a luxury and not a necessity, especially in a city with a low crime rate.

- Inadequate funding.

There never seem to be enough funds in the budget to support normal operation costs let alone additional costs. Even if approved, a video monitoring program might not receive the funding needed to adequately finance and maintain such a program. Training and equipment is costly and could have a significant financial impact on the organizations.

- Lack of personnel with necessary technical expertise.

Law enforcement agencies throughout the nation are having trouble recruiting and retaining qualified personnel. Those with technical knowledge have opportunities outside of law enforcement and generally go there. Designating and providing an officer

with the technical expertise needed to maintain and support a video monitoring system could be difficult.

- Rapid advances in technology soon outdate existing technology.

Keeping up with new technology is difficult and costly. New technologies soon make older ones incompatible and often obsolete. Replacing or updating equipment is costly and disrupts daily operations.

Opportunities

- There currently exists a heightened level of concern by citizens for safety and security.

The September 11 terrorist attacks made people feel vulnerable and threatened.

- High profile crimes (bombings, rapes, shootings) in certain city locations may create a sense of urgency and citizen demand for proactive police response.

Citizens want to see what police are doing to protect them. Video cameras provide tangible displays of police using technology to improve services.

- Video cameras can promote a higher sense of security.

Cameras may make citizens feel safer from criminal activity and police misconduct.

- Some see a need for greater police accountability.

Video recordings of police actions could be available for administrative and public review and may counter distrust of police by the public.

- The community supports continued advancement of community policing efforts.

The use of video monitoring technology could enhance police community partnerships.

- Public recognition that technology can enhance police efficiency.

- Increased expectation by the public for visual record of police actions.

Video recordings could enhance police credibility and protect officers from false and malicious accusations. Television programs showing police activities have increased and the public expects agencies to have video recording capabilities in their vehicles.

Threats

- Budget cuts to the department's operating budget.

It would be difficult to justify or request video monitoring technology when the department's budget is being cut due to revenue shortages in the city.

- A civil rights or privacy advocate group can launch an opposition campaign.

A strong opposition campaign can very easily sway public opinion and political support against the program.

- Not obtaining adequate support and buy-in from members of the community.

Should the general community not be persuaded to support the plan, implementation should be dropped.

- Not generating sufficient interest or commitment by key city administrators.

The plan will fail if there is no interest or commitment toward implementation of the plan.

Stakeholder Identification and Analysis

To increase the possibility for a successful plan, key individuals and groups having a stake on the issue need to be identified. Stakeholders can help make the program be successful or can derail it. Stakeholders are those individuals or groups who can impact or might be impacted by the plan. The stakeholders could be internal and external individuals or groups. Stakeholders may oppose, support, or be neutral on the issue. To ensure success on implementation of the plan, efforts must be made to maintain the support of those in favor of the

plan and to gain the support of those neutral or in opposition to the plan. It may be necessary to amend the plan in order to gain favor with those who are neutral or opposed. Some of the stakeholders to consider when implementing a video monitoring program for police field operations are listed below:

Community Members

- Pay law enforcement officers to serve and protect the community.
- Have certain expectations regarding what police should or should not do.
- Want a safe and secure community.
- Generally support efforts that enhance safety and security.
- Expect police to be effective and efficient.
- Are law enforcement's primary customers.

City and Police Administrators

- Decide if program is appropriate.
- Allocate funding.
- Dedicate necessary resources.
- Present program to city council and community.

Privacy Advocates and Civil Rights Organizations

- Generally resist government actions that could be seen as repressive.
- May launch an opposition campaign.
- Can influence public opinion.

Business Establishments

- Have significant influence on local politics.
- Are interested in doing business in a safe and secure environment.

- Can assist with purchase costs of equipment.

Media

- Influences public opinion.
- Avenue for informing the public.
- May be of assistance in gauging public opinion.
- Venue for public discussion.

Police Unions

- Represent line officer interests and concerns.
- Influence line personnel acceptance or rejection of plan.
- Influence police administration.

Police Officers

- Do the day-to-day work.
- May be reluctant to support plan.
- Suggest most effective applications.
- Responsible for safety of the community.

Manufacturers and Suppliers of Video Monitoring Equipment

- Provide information on equipment available.
- Assist in installation, training, and operation of the system.
- Provide maintenance and technical support.

Special Interest Groups

- Can provide perspectives not easily recognized.
- May raise unanticipated concerns.

Serious consideration should be given to identifying all stakeholders including those who may appear insignificant. If overlooked, they could prove to be unpredictable and derail the plan.

Development of Alternative Strategies

As part of the strategic plan, it is prudent to develop alternative strategies to build on the organization's strengths and correct its weaknesses and to take advantage of opportunities and diminish threats. Based on the research and results of the NGT process, three alternatives were developed for implementing video monitoring technology in police field operations in a mid-sized law enforcement agency.

Strategy One – Do not implement video monitoring technology program.

This strategy is the easiest course of action since it requires the agency to do nothing. This alternative may be the simplest, but it does nothing to address the continued march of video technology and its proliferation in society. Not addressing this issue is equal to ignoring it and granting it permission to control, rather than taking control of it. The number of private video cameras monitoring homes and businesses will continue to grow. The reality is that if video monitoring technology is ignored, society may end up being subservient to it.

Strategy Two – Implement a limited video monitoring technology program.

Under this strategy, the organization concentrates efforts on cultivating increased use of video monitoring technology by private individuals and businesses and to a lesser degree on select law enforcement applications. The general public is already using video monitoring technology to prevent crime and augment its security. Law enforcement could benefit greatly

from this by preparing officers to be technically adept in the recovery of images of criminal activity captured by private video. Few officers currently have the technical know-how to recover video evidence or the awareness of its existence. Creating a video evidence recovery unit to work with officers and the public on the recovery of evidence could be of great benefit. This unit would be responsible for assisting and training officers on video evidence recovery and for working with the public in selection, placement and use of video monitoring equipment.

At the same time the organization could continue to expand the use of video monitoring technologies meeting low resistance, such as red light enforcement cameras and in-car cameras. This alternative offers a way of initiating a video monitoring program that is not very ambitious without getting left totally behind.

Strategy Three – Implement an assertive video technology program of fixed location cameras, red light enforcement cameras, and in-car video cameras.

This strategy proposes the combined use of video monitoring technology systems currently in use by a number of police agencies in the United States. It presents a number of challenges in that the strategy is ambitious. The combined use of the different systems requires extensive buy-in, significant funds, and a lot of preparation. Lack of funds or lack of public support alone would make this not a viable option.

This strategy however, is flexible enough to allow for incremental expansion of the program. The program could start with red light enforcement cameras, follow with in-car cameras, and finally move to fixed location cameras to monitor areas of the city. Having red light cameras at some intersections of the city already should make it easier to continue with that application. The common sight on television of police vehicles with in-car cameras should also

make it easier to take that next step. The big challenge will be with the installation of fixed location cameras to monitor public areas.

Resistance by civil libertarians and privacy advocates to monitoring areas of the city beyond red light intersections could be high. It may also be difficult to justify the placement of cameras to monitor areas of the city due to low crime rates and low density. This application of video monitoring technology is already in place in a number of U.S. cities and more cities are preparing to follow. There are also indications that business groups and some neighborhoods would support and welcome such an application.

Once the red light cameras and in-car cameras are in place, partnerships with business groups and neighborhoods could be formed to initiate the third phase of the program. Fixed location cameras would only be installed in areas having full business group and neighborhood support.

A broad base of community support is needed for this plan and elected city officials must be convinced that it is a cost-effective and reasonable way to police the city and keep the community safe and more secure. Because this strategy allows for the program to be implemented in incremental steps, it should make it easier to gain support and reduce opposition. This is a major undertaking that requires timing and unique windows of opportunity.

Implementation Plan

Successful implementation of a video monitoring technology program requires a carefully crafted implementation plan. All those affected by the program need to be given an opportunity to be heard and the agency needs to be responsive to their issues and concerns.

To implement a video monitoring technology program successfully for patrol operations, it will be necessary to open lines of communication with as many stakeholders possible early in

the process to determine levels of acceptance. Unanticipated individuals or groups who unexpectedly emerge and derail the program are known as snail darters. The name comes from a little fish that forced a major dam project to be put on hold when it was discovered the dam would impact its habitat. Snail darters need to be identified early in the game or they could jeopardize the program just as it gets ready to be implemented.

Law enforcement agencies considering implementation of video monitoring technology for purposes of law enforcement and public safety must balance the benefits of video monitoring of the public with individual rights against unwarranted intrusions. If an agency decides to pursue implementation of a video monitoring technology program the following steps should be taken:

Determine what legal restrictions are in place.

- Since video systems can collect personal information about individuals, agencies must determine if they have legal authority.
- Seek legal advice from District Attorneys, City Attorneys, and department Legal Counsel.
- Identify situations, problems, and areas that can best be served with video technology.
- Video monitoring systems should only be considered after other measures of detection or deterrence have been determined to be ineffective.
- Law enforcement video monitoring systems should be justified on specific information indicating a need for enhancing public safety concerns.

Consult with the community, including local businesses, specific groups, and other stakeholders.

- Assess their perceived need for the proposed video monitoring system and level of acceptance.

- Assess the effects the proposed video monitoring systems might have on personal privacy concerns and how they might be mitigated.

Develop a Crime Prevention or Community Safety Plan that includes video monitoring technology systems.

- Set objectives for the program and develop evaluation mechanisms.
- The plan should ensure that the design and operation of the video monitoring systems minimize privacy intrusion to what is essential and necessary to achieve lawful objectives.

Present Crime Prevention or Community Safety Plan to elected city officials and city staff.

- Assess the level of support and acceptance.
- Determine if plan needs to be modified or should be abandoned.
- Obtain approval to proceed with the plan.

Develop and implement policies and procedures.

- The rationale and objectives for the video monitoring systems.
- Authorized use of the equipment.
- Departmental obligations regarding notification, use, disclosure, retention, security, access and disposal of records in accordance to the law.
- Roles and responsibilities.

Obtain the necessary funding.

- Grant monies may be pursued to assist in the financing of the program.

Form a committee or task group of department personnel to evaluate and select the necessary equipment.

- Get input from all units that may be affected by the program.

- Determine technical requirements of the system.

Develop and implement a community information program.

- Keep the public informed as to:

Program initiation dates.

Areas to be monitored with fixed location cameras.

Expected outcome.

Role of key players.

How to lodge complaints about the program.

Program evaluation results.

- Modes of keeping public informed.

Notice or article in local newspapers.

Department newsletters.

Mail notices.

Department web site.

Announcements on local radio and television.

Prominently displayed signs at entrance to the city and in the perimeter of areas monitored by video cameras.

Insure proper installation of equipment.

- Confirm equipment meets specifications and is in compliance with operational requirements and legal restrictions.

Develop monitoring and auditing mechanisms for the program.

- Evaluate effectiveness of program.
- Disseminate results to relevant parties.

- Ensure policies and procedures are being adhered to.
- Modify procedures and correct deficiencies as needed.

The above guidelines do not apply to surveillance in case-specific investigations that are permissible based on case law or under authority of a search warrant. They are also not meant to be complete or all-inclusive. They are a rough set of guidelines designed to give agencies a starting point when looking to implement a video monitoring technology program. Agencies are likely to find that additional steps will need to be taken as implementation plan strategies develop.

This chapter provided a structure for preparing to implement change with the application of video monitoring technology. The structured approach helped to look at the organization's strengths, weaknesses, opportunities, and threats and to identify stakeholders who may impact the issue. Alternative solutions were considered and guidelines for implementation of a video monitoring technology program were developed. The decision to use video monitoring technology will have to be made by each organization based on the need and level of acceptance by members of their community. There is no one perfect formula to suit all agencies, only common variables every agency needs to consider.

The use of video monitoring technology by law enforcement is controversial and will require a well-crafted strategic plan for implementation to succeed. In the next chapter we will discuss transition management and will formulate a transitional management plan for preparing the organization toward a desired future.

CHAPTER IV

TRANSITION MANAGEMENT

Introduction

Organizations seeking change must have a plan for managing the transition into the future. This chapter will look at transition management. Critical issues relative to preparing the organization toward advancement to a desired future will be discussed. Transitioning the organization to using video monitoring technology in field operations is a long-term process that requires commitment by those who support the proposed change. It is unlikely that all stakeholders will support law enforcement use of video monitoring technology. Some may adamantly oppose it. Those hoping to make the change happen need to set the stage for success. Todd D. Jick recommended the following ten commandments for implementing change:

1. Analyze the organization and its need to change. Managers should understand an organization's operations, how it functions in its environment, what its strengths and weaknesses are, and how it will be affected by proposed changes in order to craft an effective implementation plan.
2. Create a shared vision and common direction. One of the first steps in engineering change is to unite an organization behind a central vision. This vision should reflect the philosophy and values of the organization and should help it to articulate what it hopes to become. A successful vision serves to guide behavior, and to aid an organization in achieving its goals.
3. Separate from the past. Disengaging from the past is critical to awakening to a new reality. It is difficult for an organization to embrace a new vision of the

future until it has isolated the structures and routines that no longer work, and vowed to move beyond them.

4. Create a sense of urgency. Convincing an organization that change is necessary isn't that difficult when a company is teetering on the brink of bankruptcy, or foundering in the marketplace. But when the need for action is not generally understood, a change leader should generate a sense of urgency without appearing to be fabricating an emergency, or crying wolf. This sense of urgency is essential to rallying an organization behind change.
5. Strong leadership. An organization should not undertake something as challenging as large-scale change without a leader to guide, drive, and inspire it. This change advocate plays a critical role in creating a company vision, motivating company employees to embrace that vision, and crafting an organizational structure that consistently rewards those who strive toward the realization of the vision.
6. Line up political sponsorship. Leadership, alone, cannot bring about large-scale change. In order to succeed, a change effort must have broad-based support throughout an organization. This support should include not only the managers, or change implementers, but also the recipients of change, whose acceptance of any program is necessary for its success.
7. Craft an implementation plan. While a vision may guide and inspire during the change process, and organizations also needs more nuts and bolts advice on what to do, and when and how to do it. This change plan maps out the effort,

specifying everything from where the first meetings should be held, to the date by which the company hopes to achieve its change goals.

8. Develop enabling structures. Altering the status quo and creating new mechanisms for implementing change can be a critical precursor to any organizational transformation. These mechanisms may be part of the existing corporate structure, or may be established as a freestanding organization. Enabling structures designed to facilitate and spotlight change range from the practical—such as setting up pilot tests, off-site workshops, training programs, and new reward systems—to the symbolic—such as rearranging the organization’s physical space.
9. Be honest, communicate with and involve people. When possible, change leaders should communicate openly, and seek out the involvement and trust of people throughout their organizations. Full involvement, communication, and disclosure are not called for in every change situation, but these approaches can be potent tools for overcoming resistance, and giving employees a personal stake in the outcome of a transformation.
10. Reinforce and institutionalize the change. Throughout the pursuit of change, managers and leaders should make it a top priority to prove their commitment to the transformation process, reward risk-taking, and incorporate new behaviors into the day-to-day operations of the organization. By reinforcing the new culture, they affirm its importance and hasten its acceptance.⁶⁶

Desired change can only happen when groups or individuals actually make the change happen. To achieve a desired change, there are key individuals or groups whose active commitment is necessary to provide the energy for the change to occur. These individuals or groups are referred to as the Critical Mass.

Critical Mass

The Critical Mass for desired change may be determined by reviewing the stakeholders previously identified in the strategic planning process. Critical Mass individuals are those key stakeholders whose active support is essential to making the change happen. All stakeholders have a vested interest in the proposed change, but only those who can impact the outcome of the change make up the Critical Mass. Identifying stakeholders simplifies the change process but identifying individuals who form the Critical Mass is essential. Each organization and each issue under consideration will require unique critical mass components. Careful consideration is needed to ensure key individuals or groups are not left out of the process. The following groups and individuals are critical for successful transition to the use of video monitoring technology in police field operations in a mid-sized law enforcement agency:

- Elected Officials
- Community Members
- Police Executive Management
- Peace Officers Association
- Local Business Associations
- Media
- Civil Rights and Privacy Groups

Critical Mass Commitment

Table 4.1, below, shows the current commitment positions and the desired commitment positions of those critical mass individuals regarding the implementation of a video monitoring technology program in police field operations.

In the table, an X represents the current commitment position and an O the desired commitment position of the individual or group. The arrow indicates the desired path of commitment we want to achieve. Recognizing that not all groups or individuals will have the same level of commitment to the proposed change helps to determine what level of commitment is needed from them to make the change possible.

<u>CRITICAL MASS COMMITMENT CHART FOR LAW ENFORCEMENT USE OF VIDEO MONITORING TECHNOLOGY</u>				
Critical Mass Members	Block Change	Let Change Happen	Help Change Happen	Make Change Happen
Elected Officials	X→		O	
Community Members		X→		O
Police Executive Management			X→	O
Peace Officers Association		X→	O	
Local Business Associations		X→		O
Media	X→		O	
Civil Rights and Privacy Groups	X→	O		
X = Current Position		O = Desired Position		

Table 4.1

An analysis of the Critical Mass helps planners by providing them with a picture of the current and desired commitment positions of key groups and individuals during the transition process. Key players in the process can be categorized in three ways:

1. Change Strategists: Those who lay the foundation, manage the boundaries, and craft the vision.
2. Change Implementers: Those who develop and enact the steps, manage the coordination, and make it happen.
3. Change Recipients: Those who adapt, or fail to adapt to change.

Following is an analysis of the commitment necessary from the Critical Mass for the implementation of a video monitoring technology program in police field operations.

Elected Officials: Change Strategists

Elected Officials are responsible for: establishing policy, ensuring services are provided in an efficient and fiscally prudent manner, representing the wishes of citizens, long term planning, and setting policy. They face political ramifications for their actions, or inactions, and are elected on the basis of responsiveness to citizen needs and wants.

Community Members: Change Recipients and Change Implementers

Community members are the primary customers, and the employers, of law enforcement. As such, they expect quality service from law enforcement and have a right to demand that their needs be met. The wishes of the community need to be represented in all government and public employee actions. If public policy is going to have an impact on a group of citizens they have an expectation that they at least will be given an opportunity to be heard. In regards to law enforcement use of video monitoring technology, community members will be the recipients of

that change, but they may also be the change implementers if it is they who demand such application in police field operations.

Police Executive Management: Change Strategists and Change Implementers

Police executive managers are responsible for providing the law enforcement agency with a vision of the future and for defining the mission and values of the organization. Providing for the safety and security of the community is a primary role. Thus, they are in a position to set a new course for the organization and make it happen. In addition they are responsible for staffing, budgeting, and setting policy, so they are key to design and implementation of a video monitoring technology program for police field operations.

Peace Officers Association: Change Recipients

Peace officers are the individuals responsible for doing the work. Field operations are their function and making changes in this area is greatly dependent on their commitment to that change. While they may not oppose the change and may be willing to let the change happen, raising their level of commitment to help change happen significantly increases the possibility of success.

Local Business Associations: Change Recipients and Change Implementers

Local businesses have an interest in keeping their business secure and are important to city economies and the overall health of a community. There is a mutual benefit to both cities and businesses when a city is seen as a safe place in which to do business. Many businesses use video monitoring technology as part of their security operation and would not likely oppose law enforcement use in patrol field operations. Like community members, business associations have sufficient influence to not only help change happen but also to make change happen.

Media: Change recipients

The media can have great influence on public opinion and impact policy changes to support or oppose the use of video monitoring technology in police field operations. The issue is controversial enough that it could easily be swayed by the media's level of commitment. It will become necessary to raise commitment with the media to let change happen, or better yet, help change happen.

Civil Rights and Privacy Groups: Change Recipients

Civil rights and privacy groups can block, and in all likelihood may attempt to block, the implementation of video monitoring technology in police field operations. Consulting with them in the developmental stages of the program could be critical to gaining a level of commitment from them that will allow the change to happen.

Successfully persuading members of the critical mass constituency to move from their original position to the desired position may be critical to the success of the plan. The best way to accomplish this is by opening a dialog with stakeholders. Consultations should be conducted with critical mass representatives so they have an opportunity to be heard. Allowing them to voice their concerns gives the agency an opportunity to address them, perhaps to the benefit of all. Sharing information openly strengthens others to make informed decisions about their future, removes uncertainty, establishes trust, and can facilitate the transition.

Responsibility Charting

A responsibility chart provides the framework to identify responsibilities for the implementation phase of the strategic plan. Responsibility charting clarifies the roles and

responsibilities to reduce conflict during the transition period. Table 4.2 presents a responsibility chart for the transition to video monitoring technology in police field operations.

<u>RESPONSIBILITY CHART</u>							
DECISIONS	<u>PARTICIPANTS</u>						
	Elected Officials	Community Members	Police Exec. Mgmt.	Peace Ofc. Assoc	Local Bus. Assoc	Media	Civil Rights and Privacy Groups
Set Initial Planning Meeting	I	I	R/S	I	I	I	I
Select Project Manager	I	A	R	I	I	I	I
Select Transition Team	I	I	R	R	I	I	I
Establish Goals & Objectives	I	A	R	A	A	I	A
Develop Policy Guidelines	I	I	R	A	I	I	I
Set Implementation Date	I	I	R	I	I	I	I
Present Program to Employees	I	I	S	I	I	I	I
Set Evaluation Date	I	I	R	I	I	I	I
R = Responsibility (not necessarily authority) A = Approval (right to vote)				S = Support (put resources toward) I = Inform (to be consulted before action)			

Table 4.2

The effective management of change in an organization is complicated and requires commitment and effort. Desired change requires the development and selection of strategies, the identification and recruitment of stakeholders and the development of a structure to manage the transition. Management techniques such as the commitment chart and responsibility chart should ease the implementation and transition of the change.

In the next, and final chapter, a summary of this project is provided as well as conclusions and recommendations.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

The research conducted for this project suggests that the use of video monitoring technology will continue to increase within the public sector and in law enforcement. Advances in video technology have made it possible for law enforcement agencies to monitor intersections, areas of the city, vehicle stops and other activities. New applications are emerging that may further increase police efficiency and may help law enforcement officers to better perform police operations.

Law enforcement agencies need to address video monitoring technology issues emerging as a result of private use and law enforcement use. Video technology is already having an impact on police field operations. Law enforcement agencies are facing pressure to provide better security in a fiscally prudent manner. Private citizens and businesses are installing their own equipment and collecting their own video evidence in increasing numbers. Preparing line officers to function in an environment increasingly filled with video cameras and taking advantage of this technology is not only prudent, it is becoming necessary. By 2007, it is anticipated that video cameras will be used in so many applications that not having one will be the exception. The biggest challenge law enforcement agencies face when deciding to implement this technology is finding a balance between increased police efficiency and community safety, and the protection of individual rights to privacy.

The decision to implement a video monitoring technology program must ultimately be made by individual agencies based on perceived need and community acceptance. Given the important role crime prevention plays in a law enforcement agency's community policing efforts, agencies need to seriously evaluate the role video monitoring technology will play in

their police operations. Video monitoring technology is here, is continuing its advance, and will continue to proliferate. Ignoring it is no longer an option. Finding appropriate applications and preparing law enforcement officers to deal with it, is the wise thing to do.

How will use of video monitoring technology impact field operations in a mid-sized law enforcement agency by 2007? Video monitoring technology will provide the means to fight crime in a more effective and inexpensive way. It will act as a force multiplier by making it possible to place multiple areas of a community under observation without having to post officers at those locations. It will allow for more efficient deployment of officers and better use of investigators' time by capturing video images of criminals in the act of committing crimes. It will act as a neutral witness able to record events at designated locations and to provide unbiased and irrefutable evidence. It will provide crime prevention benefits by deterring those not willing to take a chance of being recorded committing an illegal act. And it will make it possible to supervise law enforcement activities from remote locations.

The private use of video monitoring technology will also impact field operations by creating a demand for officers with the ability to locate, retrieve, and secure video evidence. The number of privately owned video monitoring systems in a community, will dictate the amount of trained personnel an agency will need to retrieve and store evidence captured by these systems. There is no magic formula for determining the needs of every jurisdiction. Some law enforcement agencies may find that providing their officers with minimal training will adequately fill this need. Others may find that creating special units of highly trained officers is a better option. And for others, the use of civilians may be their best option. In all cases, however, having personnel with some level of expertise in dealing with video evidence, captured by privately owned video monitoring systems, is a must. The need for such knowledge is

already apparent in most jurisdictions, and will become more so as video monitoring devices continue to proliferate. Increasingly, law enforcement officers will be expected to not only know how to use agency-owned equipment, but they will also need to know how to operate equipment that is owned by the public. While this may not appear to be a major problem, the many makes of video monitoring systems available on the market and currently in private use pose a significant challenge to agencies in the retrieval of video recorded evidence. While an agency may be selective in the type of video monitoring technology equipment it chooses to deploy, it has little or no choice when it comes to the type of equipment the public uses and deploys. Business owners and residents who use video monitoring systems to protect their property expect law enforcement to be able to retrieve any evidence of criminal activity their systems record, regardless of equipment type, make, or model.

If the current trend continues, the use of video monitoring technology by private citizens will generate increasing amounts of video evidence for law enforcement agencies. Agencies will not only need to have the ability to collect the evidence in the field but will also need to develop capabilities that will allow for efficient storage, tracking, and retrieval of such evidence.

Recommendations

Agencies have a number of options available to them for implementing a video monitoring technology program. Each agency should determine their needs and how to best meet those needs, based on available resources. Due to advances in video monitoring technology and the increasing numbers of systems in private use, it is recommended that law enforcement agencies develop a plan for the application of video monitoring technology and for managing video evidence captured by public video monitoring systems. Such a plan can help agencies to

prepare and implement a video monitoring technology program that is commensurate with the needs of the community. The plan can help assess possibilities, anticipate impacts, and minimize stress. Each agency needs a customized plan that takes into consideration community needs, legal restrictions, social implications and available resources. It should be kept in mind that successful implementation of a particular plan in one community does not guarantee success of the same plan in another. Tailoring a plan to fit an individual community can improve the probability of success. No plan is foolproof, but not planning is foolish. Law enforcement agencies need to take steps to ensure success and provide communities with the services they require. In today's world, the collection of video evidence is a necessity. To develop the capability to properly collect this evidence, a well thought out plan is a must.

Video monitoring technology alone will not solve society's problems. It does, however, create opportunities for enhancing law enforcement services. There is need for further study on the effectiveness of video monitoring technology in crime prevention, and also on the impact of the use of video monitoring technology by law enforcement on police/community relations. While no program is without risk, in today's world the implementation of a video monitoring technology program also presents opportunities and offers hope.

APPENDIX A

LIST OF TRENDS

1. Level of desensitization.
2. Number of cameras in public areas.
3. Level of partnerships between law enforcement and high tech.
4. Number of businesses and homes with video monitoring systems.
5. Level of crime.
6. The level of concern about security in the community.
7. Number of racial profiling complaints.
8. Number of successful arrests due to video monitoring.
9. Number of failures in spite of video monitoring.
10. Number of high profile crimes.
11. Level of teen crime.
12. Level of availability of military technology.
13. Level of miniaturization.
14. Level of incentives for private use of video monitoring systems.
15. Level of advances in wireless technology.
16. Number of arrests for minor violations.
17. Level of public support.
18. Number of abuses by law enforcement.
19. Level of public acceptance of video monitoring.
20. Number of cameras monitored by police.
21. Level of positive press.

22. Number of lawsuits against police.
23. Level of use as a training tool for police officers.
24. Level of funding.
25. Number of agencies using video monitoring systems.
26. Level of crime deterrence due to video monitoring systems.
27. Level of concern by civil rights groups.
28. Level of advances in video monitoring technology.
29. Level of legal restrictions on use of other security measures (guard dogs).
30. Level of demand for video monitoring.
31. Number of officers available.
32. Level of public involvement.
33. Level of dependence on technology by cops.
34. Level of efficiency of systems.
35. Level of impact to police/community relationships.
36. Level of system availability.
37. Level of integration with other technologies.
38. The number of criminals using video monitoring systems for criminal acts.
39. Level of accountability for video monitoring.

APPENDIX B

LIST OF EVENTS

1. Local child abduction.
2. Deadly dog attack in public area owned by the city.
3. Major earthquake.
4. Local bio-terrorist attack.
5. Police officer hits pedestrian on crosswalk with police vehicle.
6. Bombing of local Islamic temple.
7. Traffic collision at intersection involving multiple deaths.
8. Racial incident involving local police officer.
9. City faces bankruptcy.
10. Serial criminal targets the city.
11. Technology breakthrough makes video monitoring cameras affordable for everyone.
12. Ethnic riot.
13. Red light enforcement cameras found to cause accidents.
14. Military surveillance technology made available to local law enforcement.
15. Columbine-type incident.
16. Terrorist attack in Fremont.
17. Command staff retires.
18. Major chemical attack.
19. Local public official is assassinated.
20. High profile abuse case at local childcare center or senior living center.

21. Bill passes ordering video monitoring of registered sex offenders.
22. Major injury accident on city-owned property.
23. Police department funding is severely cut.
24. Police department accused of racial profiling.
25. Business owners in central district demand video monitoring by police.
26. Law enforcement services are regionalized.
27. Local gangs declare war on police.
28. Courts ban police use of video monitoring systems.

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