# WHAT METHODS OF RESPONSE WILL MEDIUM AND SMALL SIZE LAW ENFORCEMENT AGENCIES USE FOR HIGH RISK INCIDENTS BY THE YEAR 2004?

TECHNICAL REPORT

**BY**

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## SECTION I - INTRODUCTION

This introduction will present a brief history of law enforcement's methods of responding to high risk tactical incidents. There will be a discussion of some of the needs and justification for law enforcement deployment of tactical and negotiations teams and a description of the elements of the state of a state of the art team used today to resolve high risk incidents. The fact that the number of personnel, the amount of training, and the sophistication of equipment used to resolve these incidents has increased will be discussed. Indications of the apparent continued need for tactical and negotiations capabilities in law enforcement combined with the trend toward involving more personnel, equipment and training will be discussed. Increased violent crime in small rural jurisdictions and the affect that trend may have on their need for tactical capabilities will be discussed. The impact, over the next ten years, of these trends on small to medium sized agencies that can ill afford sophisticated tactical and negotiations teams today will be the focus of this research paper.

The researcher has been actively involved with Special Weapons and Tactics Teams (SWAT) and Hostage Negotiations Teams (HNT) from 1978 to 1995. The researcher has assisted the San Francisco Division of the Federal Bureau of Investigation Training Unit as an instructor in their basic and advanced SWAT schools since 1985 and also trained the start up Warrant Entry and Tactical Team (WETT) for the San Francisco Division of the United States Customs.

Literature regarding SWAT, HNT and the management of high risk incidents has been collected and studied by the researcher since 1978. In addition to literature already available to the researcher, an extensive

literature scan was conducted as part of the research for this study. Part of the literature scan included a search of every magazine and case study published by the National Tactical Officers Association since its inception and a visit to the California Commission on Peace Officers Standards and Training (POST) library in Sacramento.

The POST library contains approximately 40 law enforcement related periodicals. The library director, Susan Haake, supplied the researcher with a list of every article written in these magazines that was related to SWAT, HNT and high risk incident management for a three-year time period. During the researcher's review of all of this material, it was discovered that there is abundant published information regarding today's tactics, today's equipment and today's issues, but there has been almost no focus on the future of high risk incident management.

Due to the dearth of research and published articles that pertain to the future of this issue, the researcher relied heavily on experts in the field and the futures research processes described herein to prepare this study.

## Background and Issue Identification

### SWAT/HNT - What is it and why have it?

On August 1, 1966 Charles Whitman climbed a tower at the University Of Texas, Austin. He killed 15 people and wounded 31 others before the incident was over.[1] This event was referred to in many articles as a turning point that encouraged law enforcement to evaluate its ability to deal with unusual high risk incidents. Since then, Special Weapons and Tactics (SWAT) teams combined with hostage negotiations personnel have become law enforcement's method for responding to unusual and high risk

[1] Roberts, James R.: "SWAT Special Weapons and Tactics Teams In Policing," Law and Order, May 1988, pp. 66

incidents. The basic purpose of these teams is to "gain maximum control of a situation while employing minimal force."[2]

Federal Bureau of Investigation Special Agent Charles (Chuck) Latting wrote the FBI's original SWAT Manual which included an unpublished paper titled "What is SWAT ??." The following statements from that paper further identify the rationale behind such special law enforcement services:

> The use of small, highly trained and skilled groups to perform the most dangerous tasks of societies' confrontations with those wanting to live outside the laws set down by that society is as old as the laws themselves. To effectively isolate or neutralize any individual or groups of individuals bent on destruction of life or property, requires high levels of technical skill and strong leadership at the small unit level.[3]

> Small unit integrity and leadership is the answer in dangerous unusual situations. One of the most important and far reaching arms of law enforcement can easily exist with a certain degree of commitment on the part of an administration and a very high degree of commitment on the part of the involved officers. The small unit team concept is certainly a valid concept in the tactics of the 70's and will probably save more lives than any emergency unit existing in a county or city.[4]

Since S. A. Latting wrote the first SWAT Manual in 1970 and began training law enforcement SWAT teams in Northern California, justifications for the SWAT concept have come from many sources. Leonard and More, in *Police Organization and Management,* stated that "even in the most efficiently organized and managed police departments, occasions constantly arise requiring special operational planning and execution."[5] Similarly, in an article published in the FBI Law Enforcement Bulletin in September 1977, Boyd noted:

> Justification for [tactical] teams is found in the daily encounters that occur in this

[2] Roberts, James R.: "SWAT Special Weapons and Tactics Teams In Policing," Law and Order, May 1988, pp. 62

[3] Latting, Charles: SWAT Manual FBI-San Francisco, Circa 1970, p.1

[4] Latting, Charles: SWAT Manual FBI-San Francisco, Circa 1970, p.2

[5] Boyd, Gerald W.: "Special Weapons and Tactics Teams: A Systems Approach," FBI Law Enforcement Bulletin, Vol. 46, No 9, September 1977, pp. 21-26

country between law enforcement personnel and suspects fleeing from crime, mentally disturbed individuals, and those involved in domestic and neighborhood disputes. 'Routine' incidents such as these account for far more gun battles and police officer injuries and deaths than the more newsworthy conflicts between police and militant groups."[6]

In analyzing the need for a tactical team, there are many factors which should be considered. In the early days of SWAT, the types of missions were limited primarily to sniper situations and barricaded subjects with hostages. As alarm systems and other technology has improved, law enforcements ability to arrive at the scene of a crime while it is in progress has improved. These improvements have increased the number of barricaded subject with hostage incidents. The number and versatility of missions assigned to SWAT has also increased. The section titled "SWAT TEAM CONCEPT AND MISSIONS" subsection 10 of the current F.B.I. SWAT training manual says "Common missions assigned to SWAT teams are as follows:"[7]

A. Protective details - executive/witnesses/show money/evidence.
B. High risk surveillance - fixed or mobile.
C. Undercover officer back-up on high risk operations.
D. Barricaded suspect operations.
E. Barricaded suspect with hostages operations. (sometimes the result of domestic violence situations)
F. Anti-sniper operations.
G. High risk search/arrest warrant raids and arrests.
H. Aircraft hijackings. (FBI only)
I. High risk kidnapping/extortion operations. (more likely at the federal level than the municipal level)
J. Airborne insertions/extractions.
K. Emergency rescue.
L. Mobile operations.
M. High risk vehicle stops.
N. Open area searches.
O. Crowd control.
P. Mass arrest.

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[6] Boyd, Gerald W.: "Special Weapons and Tactics Teams: A Systems Approach," FBI Law Enforcement Bulletin, Vol. 46, No 9, September 1977, pp. 21-26

[7] Tisa, Benedictine T.: San Francisco Swat Team Training Program Manual, Federal Bureau of Investigation, San Francisco, April 1987

Tactical teams are generally called on to manage situations considered to be high risk. Whether they involve search warrants, barricaded suspects or arrest of high risk suspects, the potential for violence, injury and loss of life are always factors considered when deciding to deploy highly trained tactical teams. There is a nexus between levels of violent crime and the need for tactical teams. Recent crime statistics certainly indicate that violence and violent crime will continue to be prevalent in our society.

> Violence now rivals academics as the top concern of U.S. public schools, with shootings, stabbings and other serious assaults increasing in number and spreading from urban districts to suburbs and small towns, the National League of Cities reported Tuesday.
>
> More than 80 percent of 700 communities surveyed by the league said violence is a serious problem in classrooms, hallways and playgrounds, and almost 40 percent reported that the problem had increased noticeably over the past five years.
>
> The survey was released just two weeks after the Centers for Disease Control and Prevention in Atlanta reported that the homicide rate among young men 15 to 19 tripled between 1985 and 1991, surpassing the rates for men older than 25. That increase was attributed to recruitment of teens into drug markets and the gangs that run them and a more frequent use of guns - instead of fists - to settle disputes.[8]

In addition to the increased violence associated with youth and schools, the annual National Crime Victimization Survey by the Bureau of Justice Statistics found that violent crime rose 5.6 percent in 1993 to 10.9 million. Those crimes included 9.1 million assaults, 1.3 million robberies and 485,000 sexual attacks.[9]

Violent crime will continue to be prevalent in our society and it is now spreading to smaller communities that have traditionally been insulated from "big city" violence. In a USA Today/CNN/Gallup poll

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[8] Washington: "Violence increasingly worries U.S. schools", San Jose Mercury News, November 2, 1994

[9] Washington (AP): "Violent crime jumps 5.6%", San Jose Mercury News, October 31, 1994

published in January 1994, crime was listed as the nation's top concern and was the highest its ever been since Gallup began asking the question in the 1930's. The following comments were taken from an article about the crime poll.

> From quiet farm towns to pricey suburban cul-de-sacs to inner-city war zones, fear is mobilizing people in an angry backlash against crime. Brutal violence by young people, the scourge of gun violence and crimes's intrusion into neighborhoods where doors were not long ago left unlocked are fueling outrage.
>
> The rage and frustration boiling over are fueled by an unsettling sense that there's no place to hide. Says Greensboro, N.C., Police Chief Sylvester Daughtry: "One cannot feel safe anywhere."
>
> Between 1982 and 1992, violent crimes per 100,000 population rose in both rural areas and small cities. GOP pollster Glen Bolger calls it "the suburbanization" of crime.[10]

Examples of violent crime's spread from large cities to small communities in California are abundant. The following information identifies some of those examples:

> In Sebastopol, a city located in Sonoma County, law enforcement officials have identified members of a criminal street gang responsible for a wide variety of crimes including burglary, robbery, assault with a deadly weapon, battery, vehicle theft, vandalism, and harassment.
>
> Officials in Ceres, a community located in Stanislaus County, indicate a local high school is experiencing serious gang problems. The officials state approximately 100 of the school's 1,758 students claim to be affiliated with a street gang. Suspected gang members have been removed from campus for assault, possession of weapons, and making threats.
>
> In Placer County, sheriff's deputies seized a cache of stolen weapons and apprehended key members of a gang that was based in north Auburn and committing serial burglaries.
>
> In October 1992, the cities of Galt and Lodi experienced drive-by shootings. The two incidents were directly connected to one another and investigations have revealed they were gang related.[11]

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[10] Keen, Judy: "Besieged by Crime: One cannot feel safe anyplace," USA Today, January 25, 1994 (Cover Story)

[11] "Gangs in rural California", California Department of Justice Intelligence Operations Bulletin, volume2, January 1993, pp 2.

Yolo County is a rural county in central California containing the small towns of Davis, Dixon and Woodland to name a few. Recently in Woodland, a 16-year-old grandson fatally stabbed his grandmother and her housekeeper[12], a Davis elementary youth was robbed at knife point walking home from school, three Davis youths pushed another youth into the path of an oncoming train, causing his death[13], and a 17 year-old Dixon youth was shot to death over a girl.[14]

In Yolo county during the winter of 1992/93, an unprecedented 90% of all minors detained in Juvenile Hall were charged with murder or attempted murder. On August 4, 1993, nine of 17 minors or 53% of the juveniles being housed in Juvenile Hall were there for extremely violent offenses; and, 11 of 17 minors committed crimes with a firearm.[15] "In other words, this type of violence is beginning , like a fungus, to spread from big cities to smaller cities, and finally to those towns that are centered in even the most rural areas."[16]

As this trend continues, small agencies with few personnel and limited resources, that have functioned without tactical teams, or have occassionally called their Sheriff's Departments for assistance will find their need increasing. These agencies are not equipped to deal with high

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[12] Woodland Daily Democrat, March 3, 1993

[13] Davis Enterprise Newspaper, April 20, 1992, pp 1.

[14] San Francisco Chronicle Newspaper, "Youth Ritual Gone Bad - Cruising in Manteca", September 28, 1992

[15] Alderman, Dean C., Chief Probation Officer for the County of Yolo, 5 pg. Memorandum to local Law Enforcement agencies, August 13-15, 1993.

[16] Gonzales, Jerry A.: "What Impact Will Random Youth Violence Have on Medium Law Enforcement Agencies by the Year 2003", Journal Article, California Commission on POST. January 1994, pp. 2-3.

risk incidents and lack the resources to develop the necessary personnel and equipment alone.

The researcher has been a member of a department of 100 sworn officers that had an established SWAT program and later a member of a department of 85 sworn officers that started a new program that the researcher managed. The following assertions are based on the researcher's experience and on discussions held with the members of an expert panel who assisted with a process known as a nominal group technique which is included later in this study.

The availability of a SWAT team during high risk incidents is only part of the advantage gained by having one. The number of times that a team is called is only one gauge of its need and its effectiveness. Many of the benefits of SWAT are abstract and difficult to measure, but may be as important as those which are quantifiable.

Knowledge, training and experience gained through SWAT programs tend to increase competence and confidence of the sworn personnel assigned throughout the small to medium size police department. Training, competence and confidence can have a positive effect on morale. Morale can have a significant long term effect in the attraction and retention of quality personnel. High morale in a police department can effect the degree of loyalty to the department and the city, the use of sick leave, the number and effect of injuries, public satisfaction with services provided and productivity.

The most significant benefit to the department and the city may result from the training received by the SWAT members. Every effort is made to select the best candidates as team members. Selection processes usually include physical testing, psychological testing and candidate interviews. The

team members are frequently the role models and the trainers for the rest of the department. As SWAT members they develop a great deal of expertise in the response to and resolution of the most critical situations handled by the police. That training and expertise positively influences their day-to-day methodology.

The team members in small to medium sized departments usually have job assignments that spread them throughout the divisions and shifts of their departments. They become an influence on others and a resource in the handling of day-to-day police problems. They set high standards for themselves while setting a higher standard for all department personnel through their example and through the training that they provide.

The injuries they might prevent due to the use of safer tactics, the situations they may be able to deescalate because of their knowledge of negotiations techniques, the routine scenarios that will be better handled because of the training that they have received or given and the resulting improved public opinion of the police should be a significant consideration in analyzing a department's need for and benefits of having a SWAT team.

TODAY'S TACTICAL TEAMS

Today's state of the art tactical teams have already increased in size to the point that small and medium size agencies cannot match their numbers or their capabilities. The fact that small to medium size agencies have already fallen behind, coupled with the continuation of this trend as evidenced below, establish in part, the need for this study.

When S. A. Latting wrote the original FBI SWAT Manual, the start up SWAT teams had little equipment and were staffed by a team leader and four team members. The only real expense was in terms of training time.

Since 1970, the size of the core SWAT unit has doubled, as evidenced in the following excerpt from the current FBI SWAT Training Manual.

"SWAT TEAM ORGANIZATION AND STAFFING LEVELS":

| POSITION | NUMBER |
|---|---|
| TEAM LEADER | 1 |
| ASSISTANT TEAM LEADER | 1 |
| TEAM MEMBERS | 6-8 |

Basic core tactical group considered necessary for most operations and within reasonable span of control for team leader is 6-8 deployed members. Additional personnel are assigned, equipped and trained due to attrition, travel, investigative matters, grand jury and court appearances, injuries, vacations, etc., all of which cut into capability of deploying core tactical group. [17]

In 1970, one or possibly two 5-person SWAT teams were used to manage high risk incidents. Often, a 5-person team, with a few patrol officers on the perimeter of an incident, were the only resources deployed. State of the art deployment at a barricaded subject or hostage situation today is more sophisticated and involves many more highly trained personnel. The personnel involved in today's incidents are described in the five basic elements below:

**Command and Control** - This includes command level personnel who manage the overall operation and command level personnel who are responsible for the planning and subsequent actions of the tactical (SWAT) and negotiations (HNT) personnel. Support personnel such as police officers on the outer perimeter of the incident, dispatchers, records keepers, and press liaison are generally attached to this element.

**Hostage Negotiations Team (HNT)** - At least one team of negotiations trained officers who communicate with suspects at crisis sites. Although all SWAT/high risk incidents do not involve hostages, the negotiator element

[17] Tisa, Benedictine T.: San Francisco SWAT Team Training Program Manual, Federal Bureau of Investigation, San Francisco, April 1987

has become an integral part of nearly all tactical operations including search warrant service. The recent trend has been to include them in all operations, in at least a stand by mode, so they are readily available if needed.

**SWAT** - Includes at least one team of tactically trained personnel to contain the incident (usually by surrounding it with personnel) and at least one team of tactically trained personnel to perform assaults or rescues if needed.

**Sniper Teams** - Generally 2-4 two person teams capable of medium to long range high power rifle fire and submachine gun cover fire.

**Tactical Medical Personnel** - A recent addition to the tactical teams. These are emergency medical technicians, paramedics and sometimes medical doctors who are trained as SWAT team members and deployed with the SWAT teams so they can provide immediate emergency medical treatment during operations.

Deploying these five basic elements with enough personnel to perform all of the functions necessary to meet state of the art standards can easily require 60 or more highly trained people. If the situation is not resolved in a timely fashion, those people become fatigued and must be relieved by additional personnel.

The trend to train and deploy more people at high risk incidents seems to be continuing. The Federal Bureau of Investigations is leading the way by increasing the availability of resources to manage these incidents today.

On February 28, 1993, some 80 ATF agents stormed a compound near Waco, Texas where cult leader David Koresh was suspected to have had a cache of illegal firearms. Four of those agents were killed and the two federal

agents who led the raid were later fired for use of poor judgment and lying to investigators.[18]

The tactics used by the ATF were immediately compared with the standards set by the FBI for handling such incidents. Several newspapers made statements similar to this one. "The FBI's hostage rescue team, called to the scene only after Sunday's shootout, might have approached the situation differently, U.S. officials say. The FBI relies on assault as a last resort."[19] This article continued to list several options that the FBI might have employed.

In spite of having 60 full time hostage rescue team members and support from many other law enforcement agencies, the FBI did eventually resort to an assault. "An ensuing 51-day stand-off culminated in the death of Koresh and at least 78 of his followers in an inferno that engulfed the compound."[20]

Many reasons were given for the decision to make that assault. The costs of the on-going operation were tremendous. The FBI estimated its cost, excluding salaries, at $119,000 per day and the ATF estimated theirs at $500,000 per week.[21] One of the factors that was clearly involved in the decision was the fatigue of the FBI agents involved. "Attorney General Reno said Monday her decision to move on the compound also was influenced by the fatigue of the FBI's Hostage Rescue Team."[22]

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[18] "2 who led raid on Davidians lose their jobs", San Jose Mercury News, Washington column, November 1, 1994

[19] Meddis, Sam Vincent: "Failed raid's tactics being scrutinized", USA Today, March 4, 1993

[20] "2 who led raid on Davidians lose their jobs", San Jose Mercury News, Washington column, November 1, 1994

[21] Reuters: "Federal costs of standoff reach $5 million", San Jose Mercury News, March 26, 1993

[22] Zielenziger, Michael: "Answers to cult tragedy lie in ashes", San Jose Mercury News, April 21, 1994

The researcher interviewed FBI Agent Michael Nakamura on September 28, 1994. Agent Nakamura has been a member of the FBI for over 24 years. He has been involved with FBI SWAT during nearly all of that time and he is currently the training coordinator and the Tactical Commander of the FBI's San Francisco Division Team. He spent 5 years at the national headquarters in Quantico, Virginia working with the Special Operations and Research Unit and the Physical Training Unit. The information below was gained during that interview.

As part of the aftermath of the Waco, Texas incident, the FBI decided to increase the size and training of its regional office SWAT teams. They have formed 8 "enhanced teams" and are in the process of training them to a skill level that will allow them to assist the Hostage Rescue Team during lengthy operations. They will also handle operations themselves that might have involved the Hostage Rescue Team in the past.

The San Francisco Division SWAT Team has increased its membership from 20 to 30 agents. They have added special training that allows them to function in desert, tropical, wet and severe cold conditions. They have also increased their monthly training from 2 to 4 days per month. They have been provided with the equipment needed for the harshest environments. Each person on the team is equipped with third generation night vision goggles. The latest camera equipment, listening equipment and fiber optics have been added to their inventory.

Agent Nakamura trains local agency SWAT teams from all over California. He says that very few, if any, have the resources to match the training and equipment standards being set by the FBI.

In summary, today's tactical unit is larger and still growing. Today's equipment is much improved and increasingly expensive to purchase.[23] The violent crime that has made SWAT/HNT a necessity in large agencies is moving to small and rural communities. Today's small to medium sized agencies with SWAT/HNT programs also find themselves being judged against the standard set by large agencies, such as the Los Angeles Police Department, when they answer charges in law suits directed at them as the result of actions taken by their SWAT teams.[24]

For a local law enforcement agency of 8,000, the task of mustering 60 or more personnel to manage a high risk incident is feasible. For an agency of 50 it is impossible. For an agency of 150 it is difficult and even for an agency of 300, the numbers cannot be maintained for long.

DEFINING THE ISSUE

The task of mustering a large personnel pool to manage high risk incidents in today's environment raises the question of how is the small to medium sized police agency to successfully manage its high risk incidents? The standards set by large agencies today is rarely met by the smaller agencies yet the trend is to hold smaller agencies to those standards. As technology and tactics change during the next ten years, how can the small to medium sized agencies hope to keep up?

Will the fear of relinquishing control of local authority prevent them from getting outside assistance? As violent crime increases, will SWAT/

[23] Pilant, Lois: "Equipping Your SWAT Team," The Police Chief, January 1992, pp.37-46

[24] Hillman, Michael Lt., Los Angeles Police Department Metro/SWAT, Lecture "SWAT Team Liability" FBI Tactical Leadership Seminar, Pleasonton Calif. Jan. 1992

HNT in small to medium sized agencies be pushed more and more to handle situations for which they are inadequately staffed, equipped and trained? Will SWAT/HNT in small agencies become so obsolete that their functions are taken over by professional, military, state, or large agency teams? Can some form of regionalism, consolidation or resource sharing provide small to medium size agencies with state of the art services and still maintain the local control desired by most? Will non-lethal weapons, soldier integrated protective suits, robotics or some other technology provide the answers to these questions or will technology make the entire SWAT/ HNT concept an extinct function of law enforcement's past?

These questions were posed to a group of law enforcement managers in Command College Class XIX. Members of this group included Captain Carlos Bolanos of the Salinas Police Department (Now Chief of Police, Redwood City), Lieutenant Sid Heal of the Los Angeles Sheriff's Department, Lieutenant Dennis Holmes of the Milpitas Police Department, Captain Ron Hunt of the Fremont Police Department, and Lieutenant Randy Sonnenberg of the Foster City Police Department.

This group represents agencies large, medium and small. Some have large SWAT/HNT contingents, some small, and some none at all. Some of the group are currently in command level SWAT/HNT positions, some have past experience as members of SWAT/HNT, and some have never been directly involved with SWAT/HNT.

This group assisted in the development of a future issue question and a futures wheel (illustration one) of potential impacts on that issue. This process involved listing some of the primary impacts associated with the

issue and then repeating the process for secondary and, in some cases, tertiary impacts. As an example, the group listed funding (budget) as having a primary impact on the issue. One of the secondary impacts, related to funding, was attaining equipment. Initial one-time purchases were listed as a tertiary impact along with equipment replacement schedules and costs.

During that meeting, the group helped select a primary issue and associated sub-issues for further research and consideration. The issue and sub-issues were later further defined with the guidance of Dave Hall and Coral Ohl who were members of the researcher's independent study project review panel.

ISSUE STATEMENT

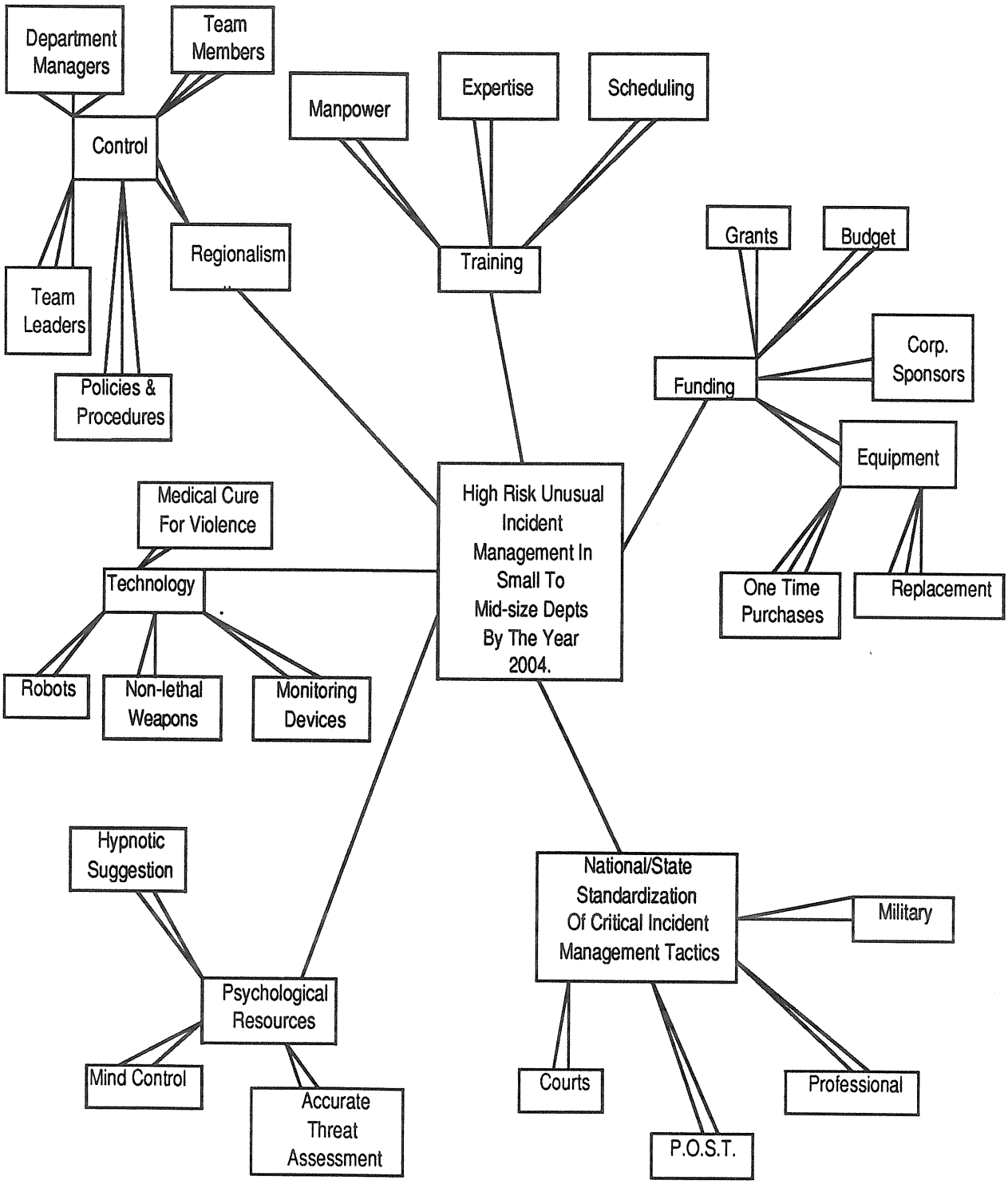
Issue:

**What methods of response will medium and small size law enforcement agencies use for high risk incidents by the year 2004?**

Sub Issues:

- How will local control of incidents be maintained?
- How will law enforcement use regionalization or consolidation?
- Will contracting or another form of collective effort be used to deploy high risk management?
- How will technology affect high risk incident tactics?

FUTURES WHEEL (Illustration One)



## SECTION II - FORECASTING THE FUTURE

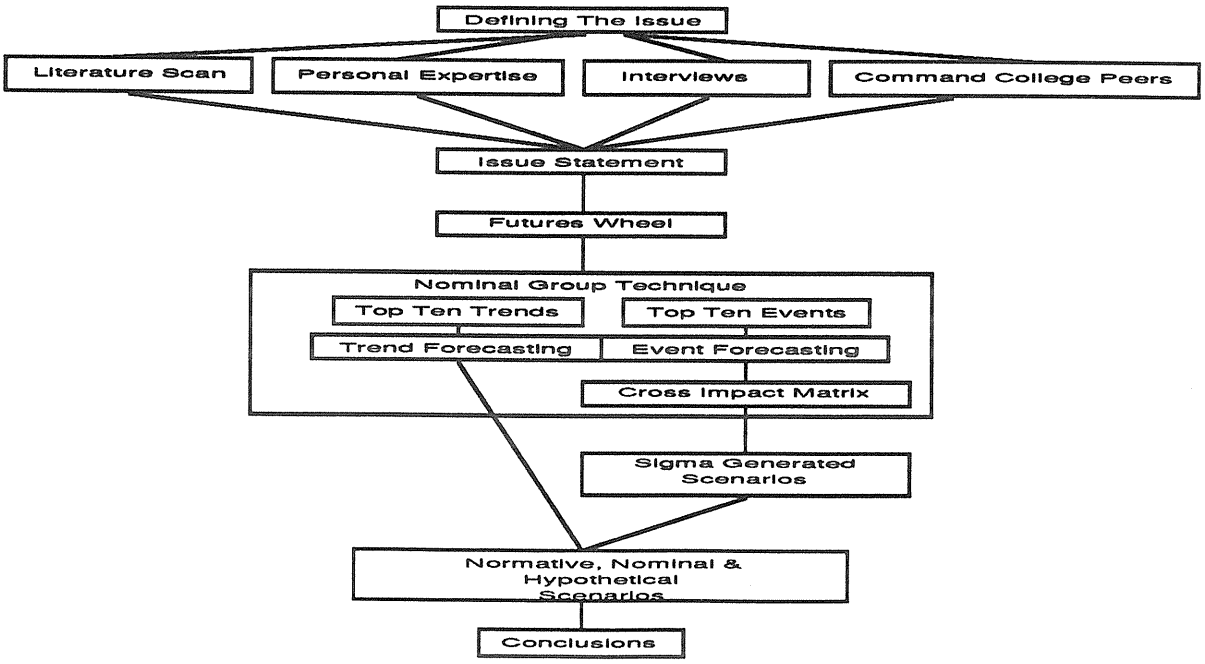
### RESEARCH DESIGN

Identifying and defining the issue is the first part of several steps the researcher embarked upon to develop this paper. The process involved bringing a panel of experts together to discuss the issue and "brainstorm" trends and events that might impact it. This process is referred to as a Nominal Group Technique (NGT).

The top ten trends were identified by the panel. The trends were discussed and forecast for their impact five years ago, five years from now and ten years from now compared to today. Events were forecast as regards to the probability that they would occur, the number of years before they would first possibly occur and their positive and/or negative impact. The events were evaluated in terms of their impact on each other.

This information was used to generate 40 computerized scenarios. The researcher used all of the information gathered to write three fictional possible futures of the issue. This process is illustrated in flow chart below. (Illustration Two)

Futures Research Flow Chart



NOMINAL GROUP TECHNIQUE (NGT)

An NGT is a small-group technique designed to achieve acceptable consensus on the answer to a single, usually two-part, question by a process that alternates private work and open discussion.[25] The purpose of this NGT was to 1) identify possible trends and events that might affect the issue and sub- issues during the next ten years 2) narrow those trends and events down to the ten most important and 3) evaluate the final ten events for their probability by the end of the ten year period as well as their positive and negative impact on the future of the issue if they were to happen.

A combination of interviews, literature search, personal experience and the nominal group technique were used to select an initial list of 37 events and 42 trends. The members of the Nominal Group Technique are listed in appendix A.

Members of the NGT contributed some ideas for trends and events in writing before the NGT was held. Those were posted on flip charts when they arrived. The NGT process started with a silent generation of ideas as each member wrote a list of trends and events to add to those already posted. When those were added to the flip charts, a round robin process was held to assure that all ideas were posted. An hour was spent in brief discussion and clarification of meaning of each trend and event.

The first vote (silent by ballot) was held to begin narrowing the list. When the lists were tabulated after this vote, it was clear that the group had focused on trends and events that fit into four very broad categories. These were 1) funding 2) liability 3) regionalism and 4) technology.

The group participated in a discussion of these four categories. They discussed how one could effect the others positively and negatively, how occurrences in one

[25] Renfro, William: "What is the Nominal Group Technique", Command College Workshop 5, Futures Forecasting and Analysis, Part 3, Pg.31

category might force some occurrences in other categories, how changes could cause or prevent things from happening, how technology could change tactics entirely and finally a discussion about where SWAT/HNT is most likely to be in the year 2004. In general, the panel forecast that regionalism or consolidation with improved and new technology would have the largest impact over the ten year period. Beyond ten years the group believed that technology may change tactics remarkably. Many of the thoughts and ideas generated in this discussion will be found in the three scenarios developed later in this document.

This discussion generated some real energy in the group as it refocused on identifying the ten most important possible trends and events. Several trends were so similar that the group felt that they could be combined and discussed as one trend. Several rounds of voting were held to reduce the trends and events to ten. Discussion and clarification of the remaining trends and events occurred between each voting process.

Some of the trends and events share common themes. Less than lethal weapons and robotics, as examples, are listed in both areas. In spite of being similar topics, they are differentiated by the fact that trends are "a series of events by which change is measured over time"[26] and events are "a discrete, one-time occurrence that can have an impact on the issue."[27] The top ten trends and events were as follows.

TOP TEN TRENDS

1. Level of less than lethal weapons.

The group agreed on the definition used in War and Anti-War by Alvin and Heidi Toffler to describe this category of weapons. "They define as "non-lethal" those

[26] Renfro, William: "Forecasting Trends", Command College Workshop 5, Futures Forecasting and Analysis, Part 3, pg. 44

[27] Renfro, William: "Forecasting Events", Command College Workshop 5, Futures Forecasting and Analysis, Part 3, pg. 19

technologies "which can anticipate, detect, preclude, or negate the use of lethal means, thereby minimizing the killing of people."[28]

Flash sound diversionary devices, Oleoresin Capsicum sprays, shotgun and 37 mm bean bag projectiles that are in use today were discussed as recent changes in the level of this trend.

2. Impact of military technology on law enforcement/SWAT.

This discussion centered around the military push for high tech communications equipment, computer networks and weapons along with recent cutbacks and their effects on the civilian high technology industry focused on military applications.

3. Level of SWAT/HNT state of the art expectations.

The introduction to this study discussed the fact that small agencies have already fallen behind larger agencies state of he art deployment at high risk incidents. this trend refers to ongoing changes in expectations within the profession and by the public. The group felt that these changes can be particularly profound for agencies with smaller numbers and resources.

4. Level of funds for SWAT/HNT.

Original discussions centered around training and technology for SWAT/HNT teams. Final discussions expanded funding to include overall budgets, grants, taxes etc. combined with priorities and competition for the same dollars. Focus is on levels of SWAT/HNT funds.

5. Impact of technology on training methodology.

A general discussion regarding difficulty in finding training sites with appropriate ranges, buildings, urban and open terrain and the travel time and expense associated with training led to discussion of computer related virtual reality, interactive, artificial intelligence and laser technology training aids.

6. Impact of robotics technology.

After brief discussion, the group focused on the area of this trend involving humans in the loop technology as opposed to autonomous robotics.

7. Level of regionalism.

Originally discussed as two trends. One involving regionalism in general (labs,

[28] Toffler, Alvin and Heidi 1993: War and Anti-War, Little, Brown & Company, 1st Edition, Pg. 127

training, task forces, administrative etc.) and one involving SWAT/HNT regionalism. Some in the group believe that the two trends, and their successes or failures, could have dramatic effect on each other.

Final consensus was to approach regionalism as a single trend with a focus on the original issue and sub-issues.

8. Impact of civil liability on high risk unusual operations.

Much interesting discussion here. Opinions varied from believing that the trend could force small to medium size agencies into the SWAT/HNT arena, because all agencies would eventually have to provide this service, to believing that it could force them out because they would consider the liability too high. Several opinions in between.

9. Public perception/tolerance of violent crime.

Several trends and events dealing with violent crime were distilled into this trend. The panel felt that public perception would have the most impact on the trend.

10. Impact of the Fire/Natural Disaster Critical Incident Command System.

There was discussion regarding this topic being a trend or an event. Eventually there was agreement that it was a trend because there has been and will continue to be changes and improvements in command systems for high risk and natural disaster incidents. There was a discussion regarding the command structure in SWAT/HNT incidents. This discussion centered around various philosophies of separation versus combining the Incident Command, Tactical Command and HNT Command into one group. There was no consensus by the group except that the command structure trend toward combining command units will have an effect on the issue.

TOP TEN EVENTS

1. Use of micro-cams implemented to make it possible for the command post to see and hear everything that the front line officers see and hear.

The panel foresaw this event as combining microwave broadcast technology with mini audio video technology similar to professional football's helmet cams. These cameras would be worn by tactical personnel and would broadcast back to the command post allowing command personnel to see and hear activity in real time. Audio communication would be two way.

A prerequisite for making this an event is that the equipment is readily available,

reliable and affordable. The same prerequisite exists for all events dealing with technology and use of new equipment.

2. Development and implementation of hand-held equipment that locates people in buildings by reading their body heat.

Similar to that used by fire departments, at natural disasters, to find victims under rubble today, but with increased reliability . For this to be an event, the prerequisites above must be met and reliability must be at or near 100%. The number of people at an incident and their locations will no longer be a guessing game.

3. Development of virtual reality glasses for SWAT.

S WAT can rehearse and train with computer generated versions of buildings before they serve search warrants or perform rescues.

4. Robots uniformly utilized to handle high risk room entries and room clearings.

Humans in the loop with visual and audible control of the robots. A variety of lethal and non lethal weapons would be available for deployment via remote control.

5. Development of listening devices that make it possible to hear all occupants at high risk incident sites.

In addition to the usual prerequisites to make this an event, the panel also stated that this technology would have to be easy and safe to deploy. The discussion centered around microphone technology that could be attached to crisis sites from a distance and/or point aim radar technology that would not require attachment to the site.

6. Deployment of non lethal incapacitating weapons.

The group again referred to the definition used in War and Anti-War by Alvin and Heidi Toffler to describe this category of weapons. "To make their list, a technology must be "fiscally responsible, life conserving, and environmentally friendly." It must not have as its primary purpose "the taking of human life."[29]

Two of the panel members have closely followed the development of non lethal and less lethal weapons. Discussion included the use of sound wave generators that cause disorientation, nausea and loss of bowel control. The effects terminate when the generator is turned off and no permanent after effects are known.

[29] Toffler, Alvin and Heidi 1993: War and Anti-War, Little, Brown & Company, 1st Edition, Pg. 127

Experimentation has been done with "calmative agents" that make people drowsy, laser rifles that temporarily flash-blind people, Teflon-type anti traction sprays that make it impossible to walk or use machinery and polymer adhesives that glue people and equipment into place.

7. Deployment of video devices.

This was similar to the use of listening devices at crisis sites in that the video devices had to be easy and safe to deploy and allow tactical personnel to watch the activities inside.

8. Failure of a small agency SWAT team.

A hostage rescue attempt results in the death of some SWAT members and hostages. The suspects escape.

9. Failure of a Sheriff's Department SWAT/HNT team.

Sheriff's Department SWAT/Negotiators team are assisting a small agency with a hostage situation. A rescue is attempted against the wishes of the local Chief of Police. Hostages die.

10. Small agency SWAT team held liable.

Similar to the two events listed immediately above. The two events above focused on potential political fall out and public outcry. This event evolves around financial liability involved in failure to perform and to meet established standards.

TREND FORECASTING

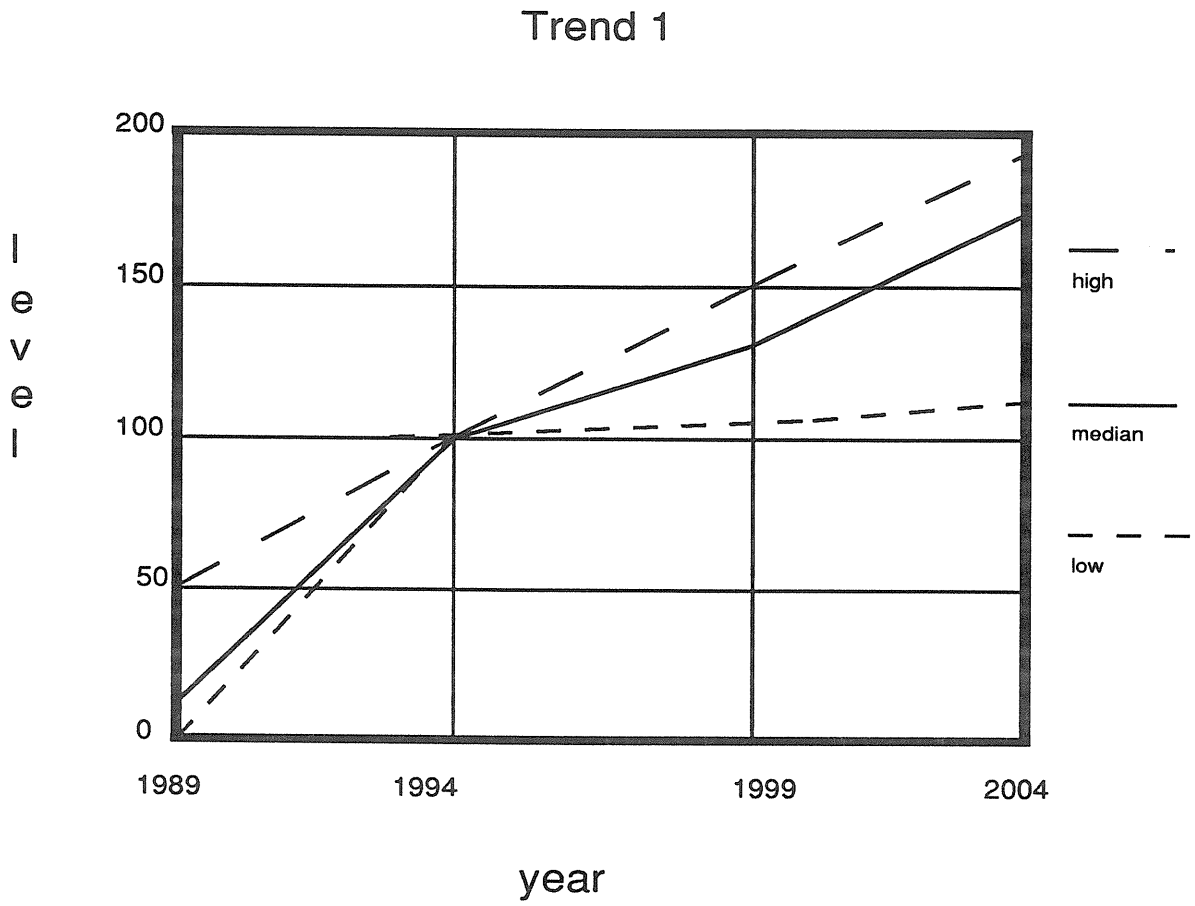
After the ten trends and events were selected, a Modified Delphi process was used for the purpose of forecasting. This process was completed by the panel members who participated in the NGT process. The forecasting panel made a forecast of the trends over time, using the selection criteria to help judge the influence of the trend. The trends were assigned numerical values rating their influence over a period of time. (Five years ago five years from now and ten years from now.) The results are shown in the following trend evaluation form (Chart One).

(Chart One)

| TREND STATEMENT | Level of Trend (1994 = 100) | | | |
|---|---|---|---|---|
| | 1989 | 1994 | 1999 | 2004 |
| 1. Less than lethal weapons. | 10 | 100 | 135 | 170 |
| 2. Impact of military technology on law enforcement/SWAT. | 15 | 100 | 120 | 180 |
| 3. Level of SWAT/HNT state of the art expectations. | 90 | 100 | 145 | 200 |
| 4. Level of funds. | 150 | 100 | 75 | 175 |
| 5. Impact of technology on training methodology. | 95 | 100 | 125 | 170 |
| 6. Impact of robotics technology. | 0 | 100 | 110 | 150 |
| 7. Level of regionalism. | 70 | 100 | 150 | 200 |
| 8. Impact of civil liability on high risk unusual operations. | 95 | 100 | 135 | 175 |
| 9. Public perception/tolerance of violent crime. | 65 | 100 | 140 | 180 |
| 10. Impact of the Fire/Natural Disaster Critical Incident Command Sys. | 70 | 100 | 150 | 200 |

N = 8

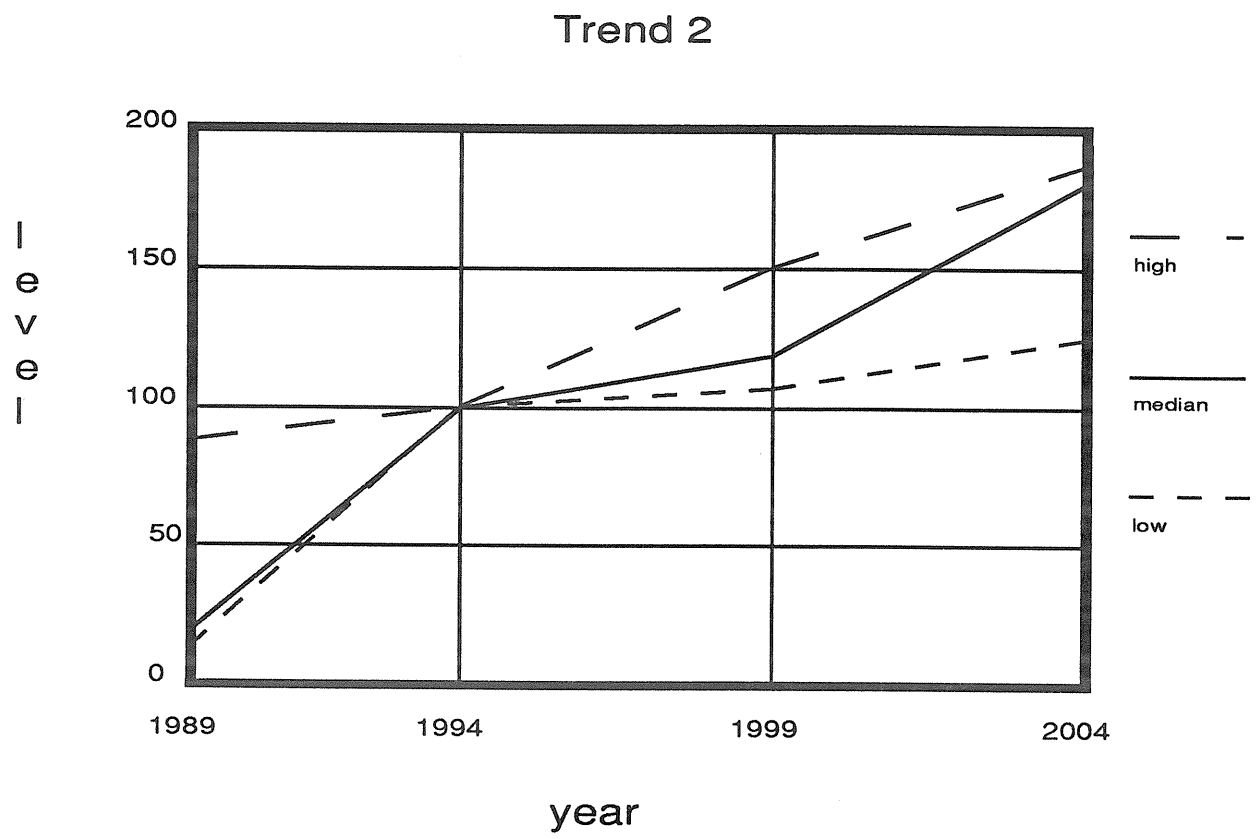
The Upper and Lower Mean Deviations from the Median are graphed on the following pages. Each graph is followed by a short narrative describing the panel's response to the forecasting process for that trend.




**Less than lethal weapons.**

The panel focused this trend around reliable incapacitating weapons, such as sound generators and lasers rather than the flash sound diversionary devices, chemical agents, bean bag projectiles and electrical discharge weapons of today. Diversity in the group forecasts in the year 2004 went from a low of 110 to a high of 195 vs. use and availability of 100 today. The median in year 2004 was 170.

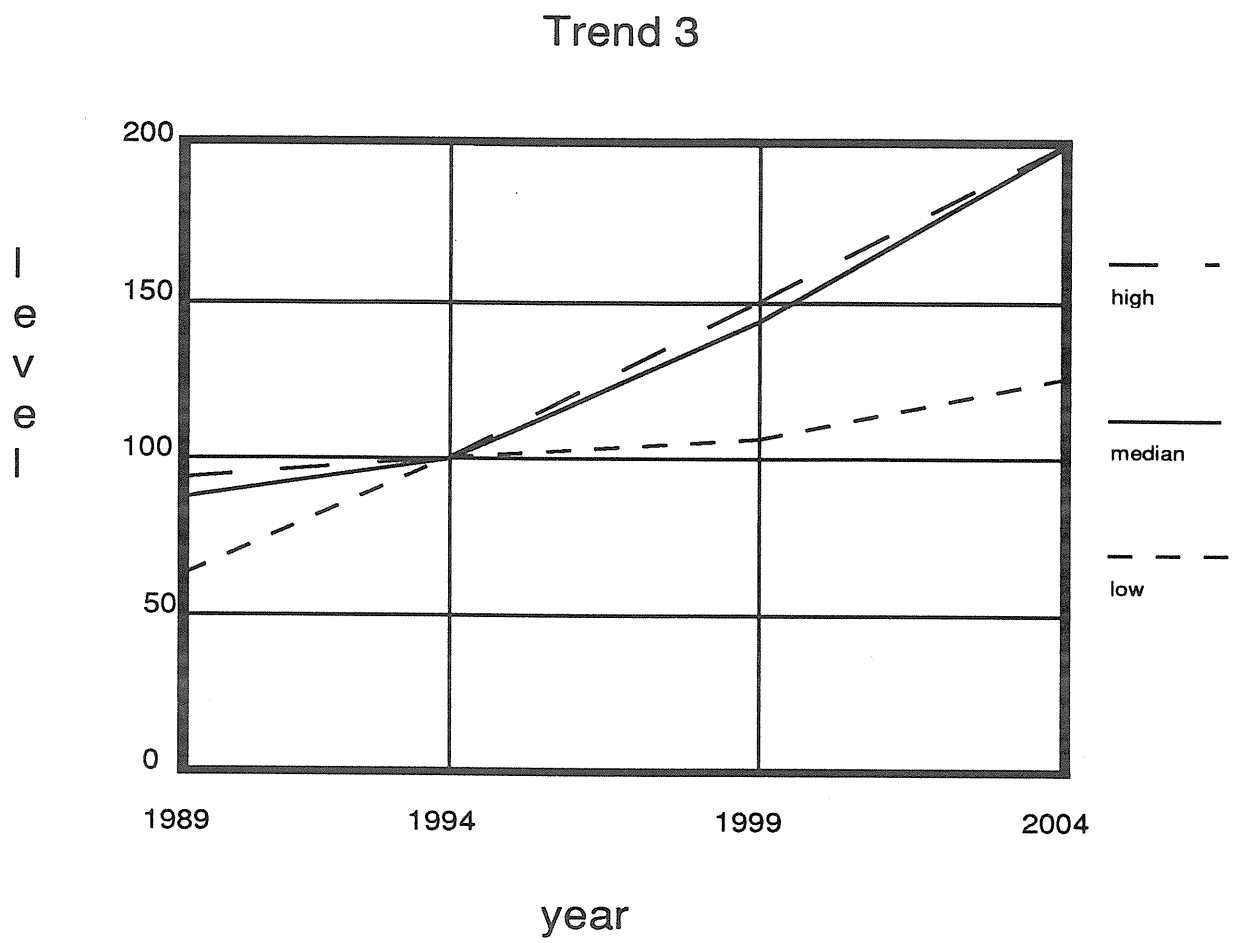
In general the group felt there was a dramatic impact in less-than-lethal weapons today vs. five years ago and that this trend will continue to have high interest by law enforcement, the military and the public. Much discussion regarding the possibility of less-than-lethal weapons making SWAT tactics obsolete vs. slight modification of existing tactics with much less tolerance for lengthy operations.




<u>Impact of military technology on law enforcement/SWAT.</u>

There was more diversity over the last five years than the next ten among the panel. Some felt that the use of military assault rifles, gas masks, chemical agents and the adaption of grenade simulators to flash sound diversionary devices showed a heavy past reliance on military technology. Others did not think that these were part of a strictly military technology or that they were developed for civilian use separate from the military.

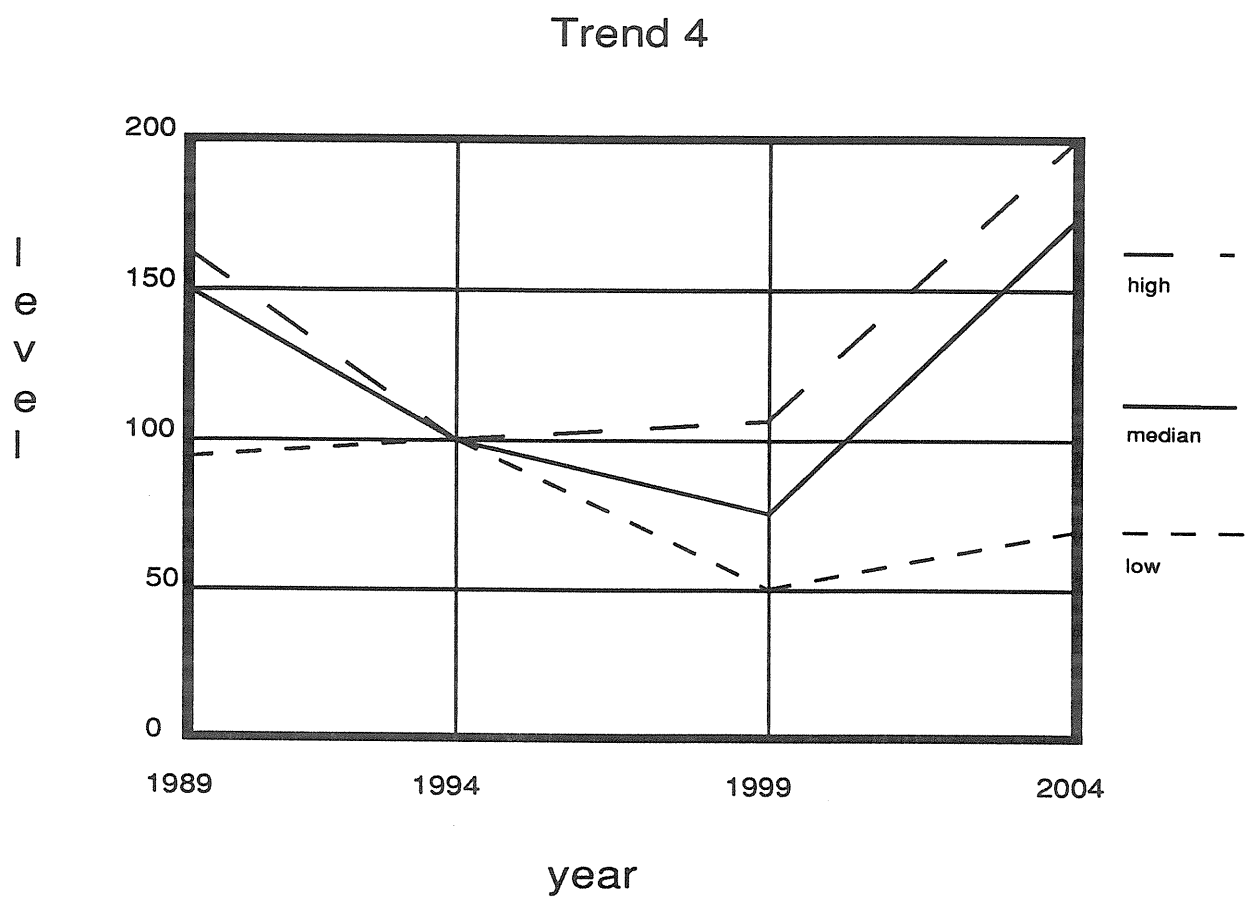
There was a consensus that interest in military technology, for law enforcement use, would increase during the next ten years. The panel also believed that military cutbacks will force defense industry companies to look to law enforcement for new customers. The panel forecasts went from a Low of 130 to a high of 195 in 2004. The median fell at 180. The panel felt that the biggest increase would occur after 1999.




**Level of SWAT/HNT state of the art expectations.**

Some interesting group dynamics involved in discussion of this trend. The outcome was probably affected by the fact that all but one member of the panel came from small-to-medium-size agencies. There were strong feelings, and maybe a little resentment, that small agencies feel pressure to meet the standards set by large agencies. Large agencies with mobile command centers, multiple SWAT and negotiations teams, psychological and medical personnel attached to the teams and the ability to buy the latest equipment make it difficult for small agencies "to keep up."

The panel saw this as an upward trend with almost total agreement that it would reach a level of 200 by the year 2004.

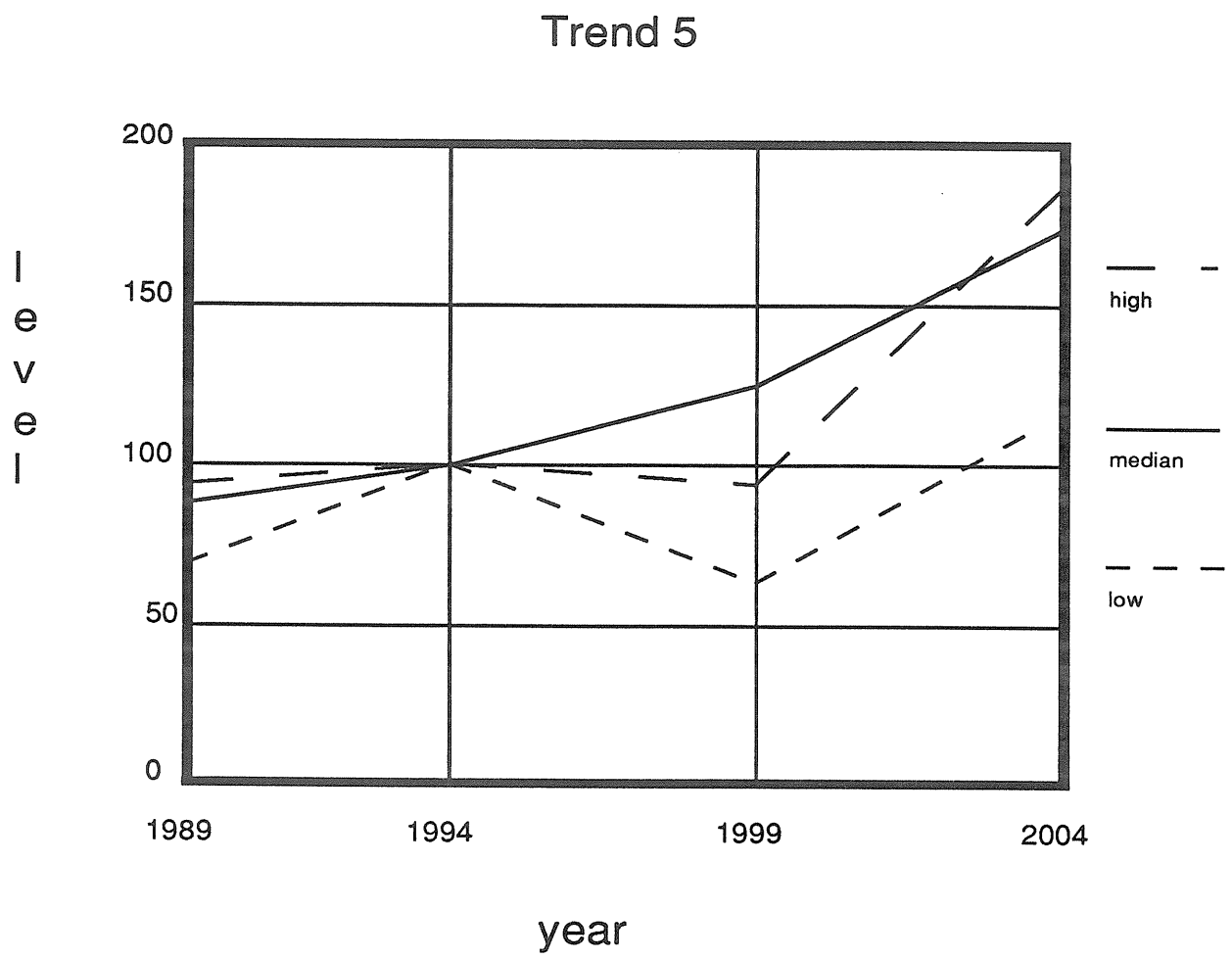



Level of funds.

There was general agreement that less money is spent today on SWAT/HNT programs in small to medium sized departments than five years ago. One member disagreed and feels that there is slightly more money today. Most felt that it would continue to drop for the next five years and then go up dramatically. Most felt that it would go higher, in real dollars, than it was in 1989.

Recent public perception and political upset with violent crime and repeat offenders made this panel feel that the funds would rise as soon as the economy was more stable. The Polly Klaas kidnapping was fresh in everyone's minds and came up several times during the NGT & Delphi process.

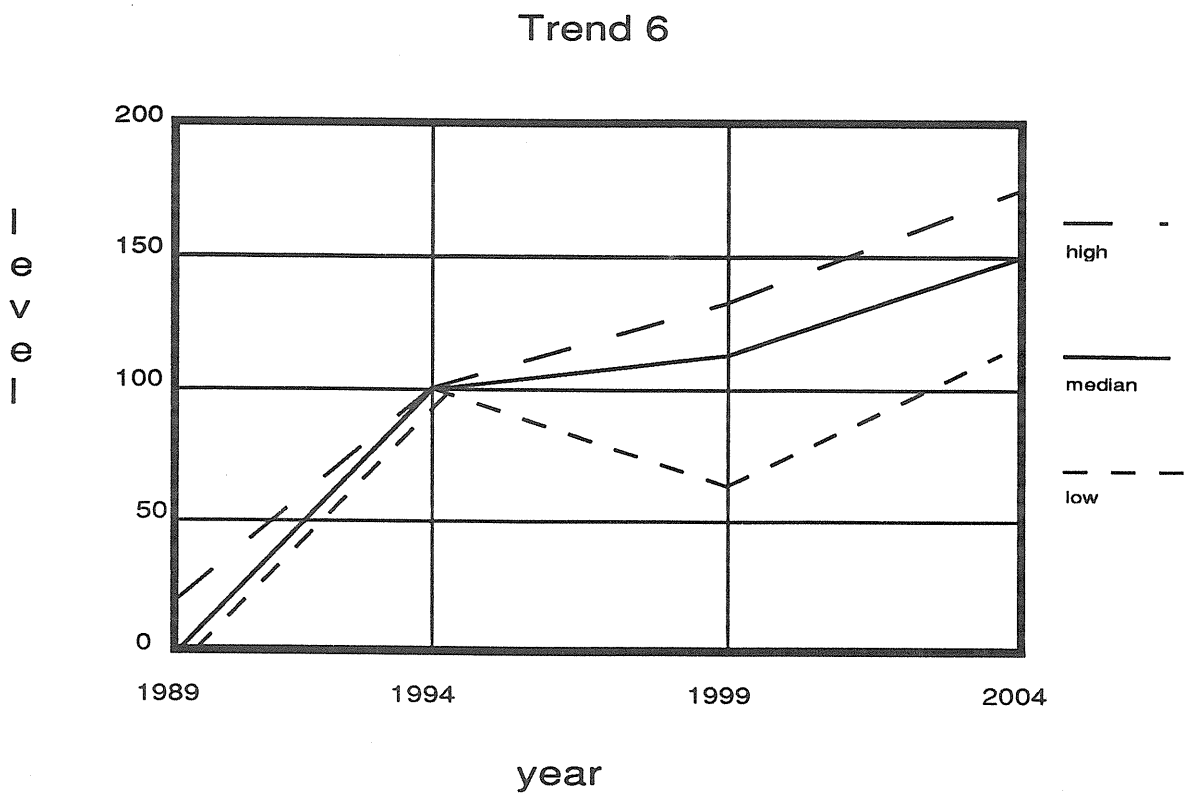
By 2004, the panel members forecast a high level of 200 a low of 70 and a median level of 175.




**Impact of technology on training methodology.**

The numbers here were not as disparate as the discussion. General agreement that there has been an increasing impact over the last five years with some disagreement about the next five. Some felt that budget would inhibit advances in this area while some argued that less dollars will force a change to more high-tech training. POST's satellite training was cited as an example.

General agreement that the last five years of the study will see an upturn. Most of the group felt that technology being introduced today will start becoming more viable in five years. In 2004, high was at 180, the low at 120 and the median at 170.



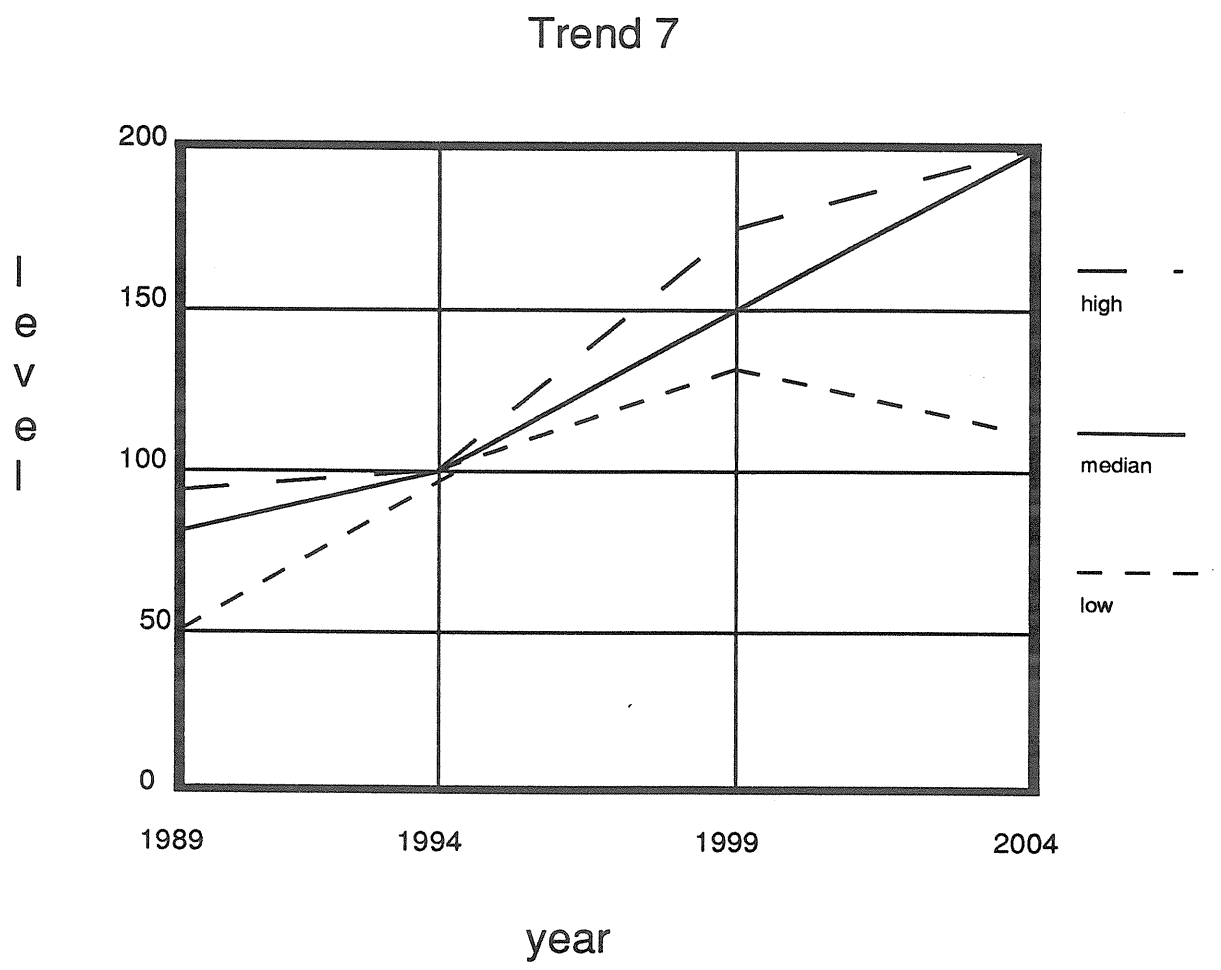

**Impact of robotics technology**

The panel believes that there was little to no impact five years ago, particularly as it applies to smaller agencies. Impact today is mostly in terms of growing awareness of robotics. Literature scan revealed a recent use of a robot to disable an armed, barricaded murder suspect by using a high pressure water cannon.[30]

There was some division about where robotics is going and its impact on S WAT/HNT. Some felt that budget problems would reduce the impact during the next five years. Most felt that there would be an increased impact, but mostly in the second five years. By 2004, high at 180, low at 120 and median at 150.

As with the less than lethal weapons trend, there was discussion regarding S WAT tactics becoming obsolete vs. slight modification of existing tactics with much less tolerance for lengthy operations.

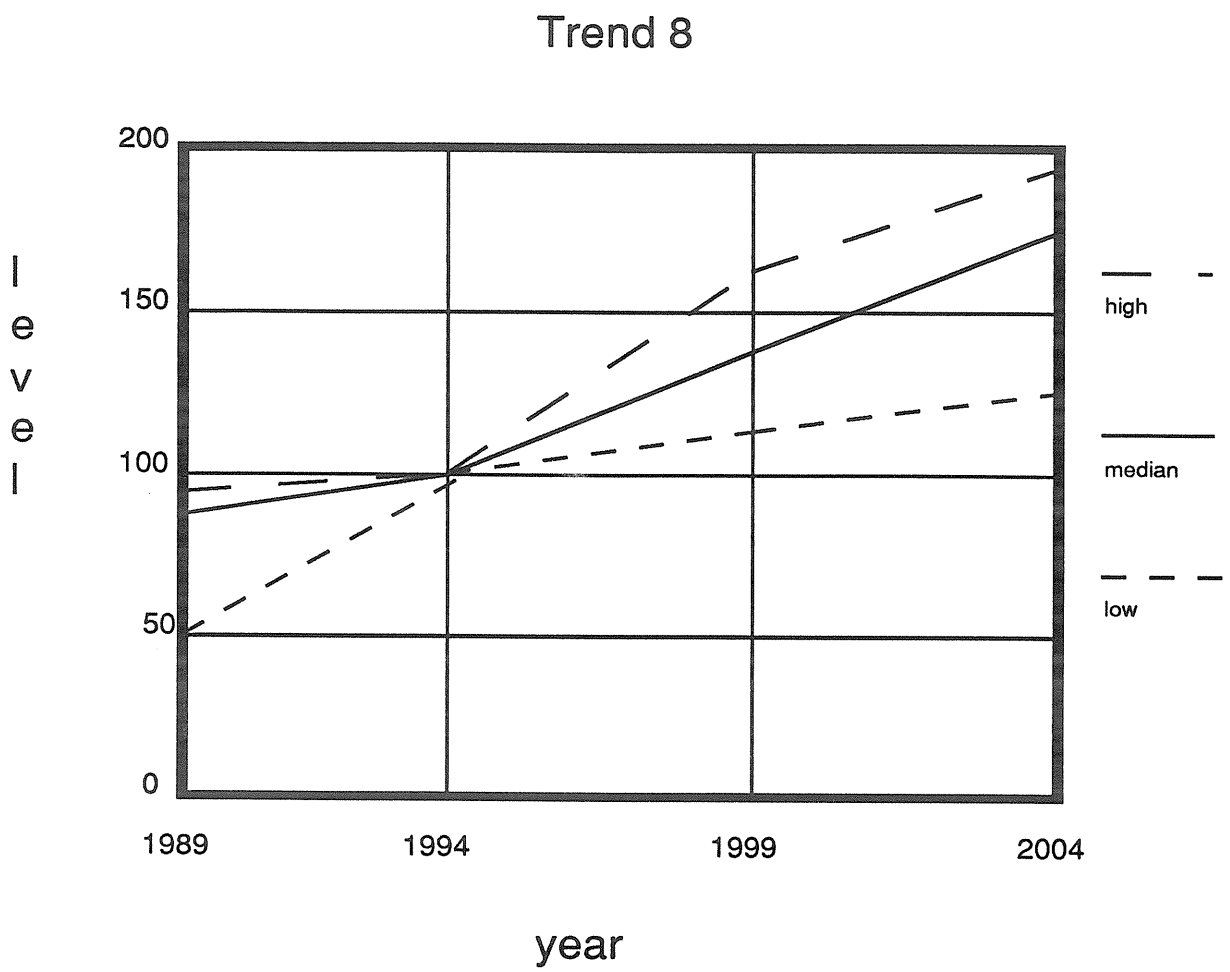
[30] Greenbelt, Md. (AP): "Police use robot to flush out gunman", San Jose Mercury News, September 4, 1993




**Level of regionalism.**

All members of the panel agreed that there has been increased regionalism during the last five years. Most felt strongly that regionalism will continue to increase. General feeling was that the SWAT/HNT concept will still be viable in 2004, but that the only way for small to medium sized agencies to stay in the business will be through some sort of consolidation.

The single exception believed that regionalism will only be popular while budgets are being cut and will decline during the last five year period. (The low deviation in the graph above.) In 2004 the high forecast is 200, the low is 120 and the median was 200.

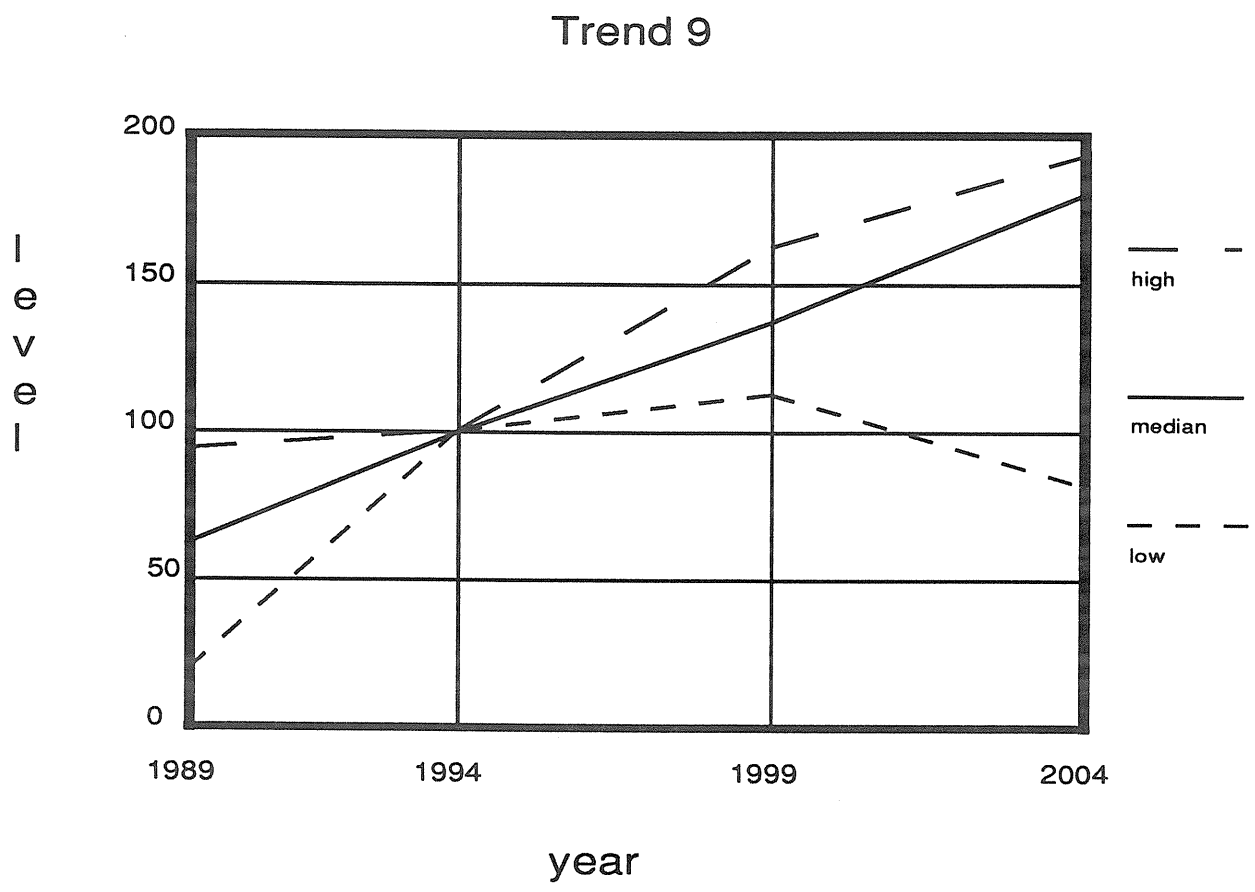



**Impact of civil liability on high risk unusual operations.**

The panel discussed two significant civil suit losses by tactical teams from Southern California in the last five years, but they did not feel that those decisions had a large impact state wide.

The opinion was that civil liability associated with high risk SWAT/HNT operations would continue to rise (mean at 135 in 1999 and 175 in 2004). Panel members mentioned that smaller agencies difficulty in maintaining state of the art proficiency would make them more liable. They may also be less able to pay than large agencies.

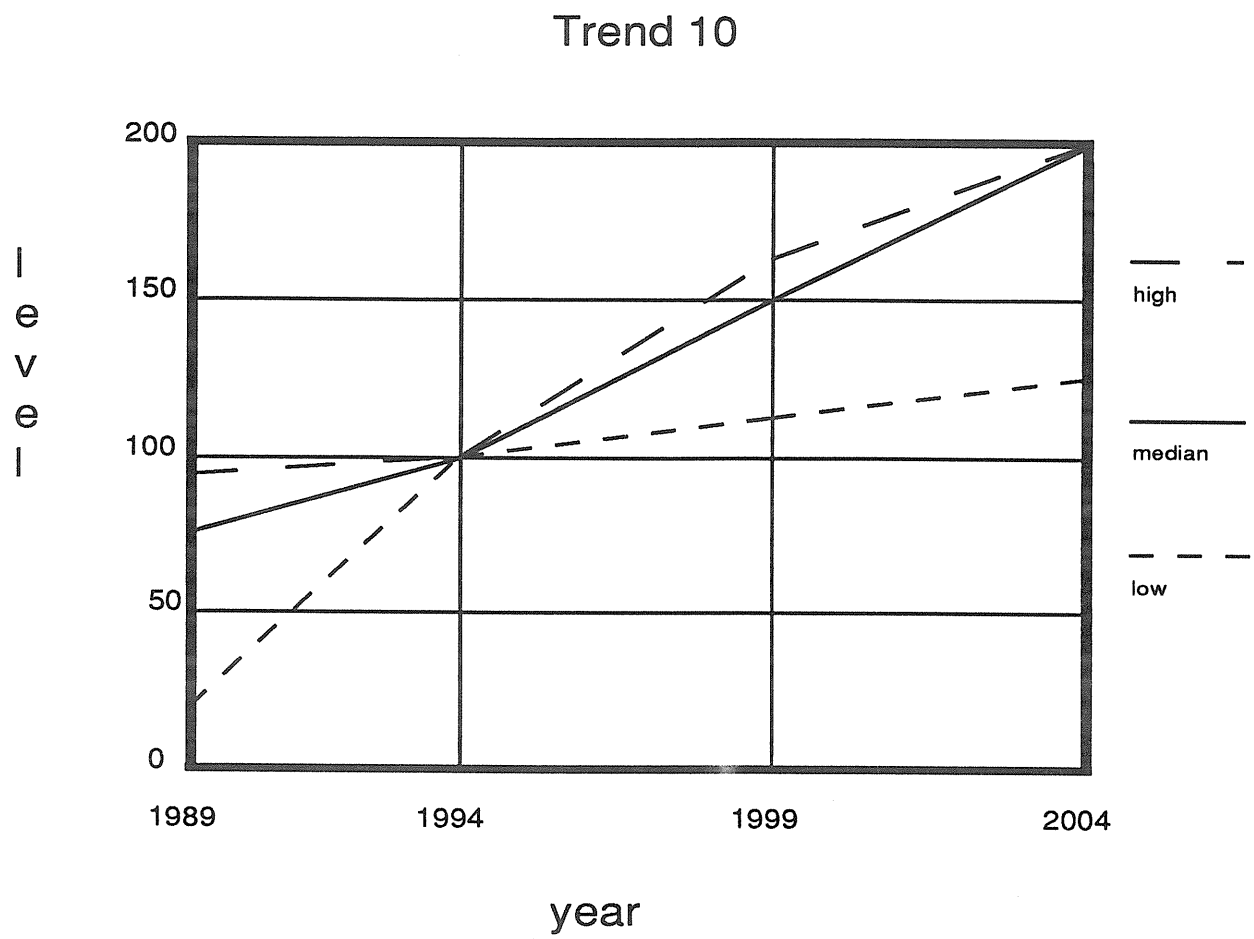
Low forecast in 2004 at 125. High at 190 and median at 175.




**Public perception/tolerance of violent crime.**

The timing of President Clinton's grants to increase the number of law enforcement officers, the Polly Klaas kidnapping, recent newspaper accounts of the public's fear of random violent acts and Governor Wilson's push for the three strikes legislation were all discussed by the panel and definitely impacted their evaluation of this trend.

All agreed that the trend is up from 1989 with differing views of how much. Most felt that the trend would continue up to a median of 180 by 2004. Some discussion of the trend potentially being at or near a high point today accounts for the low deviation which drops off to below today's influence (80 vs. 100) by the year 2004.




**Impact of the Fire/Natural Disaster Critical Incident Command System.**

The panel was unanimous regarding this trend. Their opinion was that almost no one has really solved the communication problems that occur at high risk unusual incidents. SWAT and HNT do not work as well together as they should. There is too much separation between the different command level personnel as well as a perception that they sometimes seem to work at cross purposes.

The panel's opinion was that this problem is worse for smaller agencies that handle fewer incidents. The Fire/Natural Disaster Command system puts all the decision makers in the same room. The panel agreed that some form of this system would be beneficial to all and probably a necessity for a consolidated or regional program to succeed.

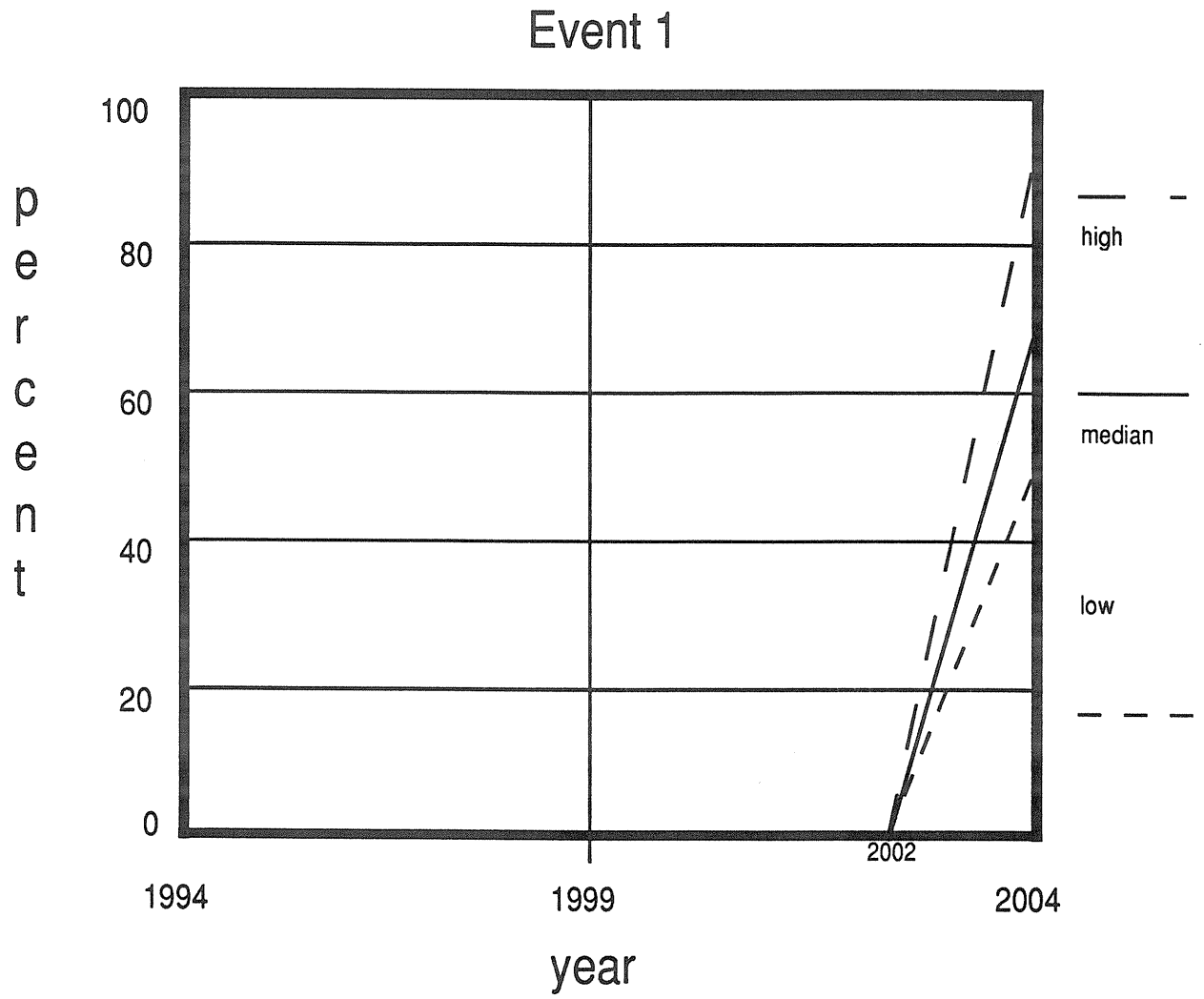
## EVENT FORECASTING

After the top ten trends and events were selected, a Modified Delphi process was used for the purpose of forecasting. This process required the forecasting panel (formerly the NGT panel) to forecast the future of the events by deciding what year the probability of the event occurring first exceeds zero. The panel then forecast each event by the probability of occurrence (0 to 100%) at five and at ten years. The positive and/or negative impact of each event was rated on a 0-10 scale as depicted in the chart below. (Chart Two)

| EVENT STATEMENT | Years until probability first exceeds zero | PROBABILITY | | Impact on the issue if the event occurred | |
|---|---|---|---|---|---|
| | | Year 1999 | Year 2004 | Positive (0-10) | Negative (0-10) |
| 1. Use of micro-cams implemented to make it possible for the command post to see and hear everything that the front line officers see and hear. | 8 | 0 | 70 | 7 | 0 |
| 2. Development and implementation of hand held equipment that locates people in buildings by reading their body heat. | 7 | 0 | 45 | 7 | 0 |
| 3. Development of virtual reality glasses for SWAT. | 10 | 0 | 12 | 10 | 0 |
| 4. Robots uniformly utilized to handle high risk room entries and room clearings | 10 | 0 | 15 | 10 | 0 |
| 5. Development of listening devices that make it possible to hear all occupants of high risk incident sites. | 5 | 30 | 57 | 8 | 0 |
| 6. Deployment on non lethal incapacitating weapons. | 4 | 15 | 58 | 10 | 0 |
| 7. Deployment of video devices. | 9 | 0 | 12 | 9 | 0 |
| 8. Failure of small agency SWAT/HNT team. | 1 | 50 | 64 | 7 | 7 |
| 9. Failure of Sheriff's Dept. SWAT/HNT team. | 2 | 15 | 15 | 2 | 6 |
| 10. Small agency SWAT held liable. | 4 | 30 | 45 | 5 | 5 |

N=8

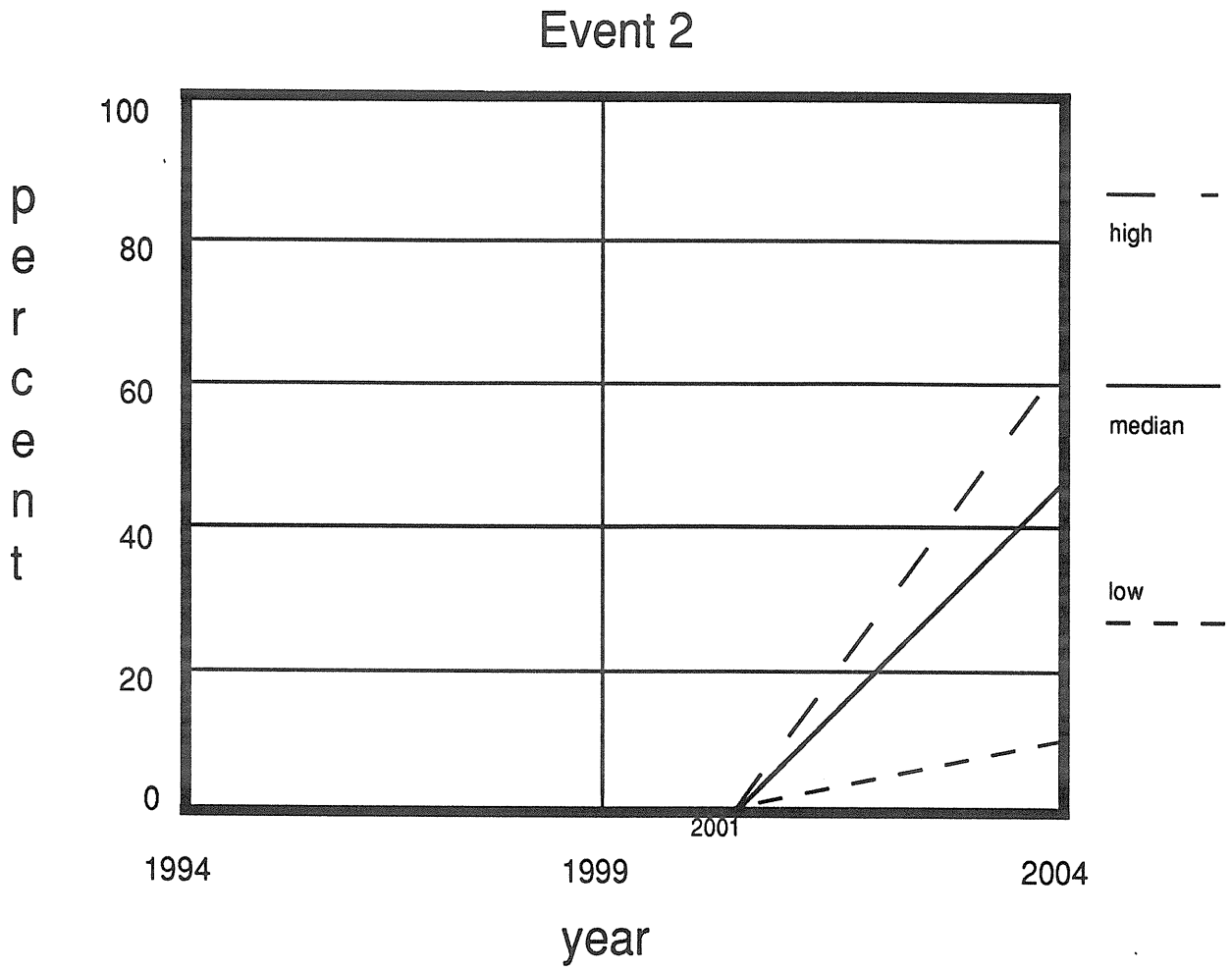
The Upper and Lower Mean Deviations from the Median are graphed on the following pages. Each graph for the event in question is followed by a short narrative describing the panel's response to the forecasting process for that event.




**Use of micro-cams implemented to make it possible for the command post to see and hear everything that the front line officers see and hear.**

The panel indicated great confidence that this event would occur, but that the equipment would not be affordable or available enough until late in the forecasting period. The panel perceived use of equipment similar to the helmet cams used in professional football today, but much smaller and with the ability to broadcast both video and audio directly to a remote location.

The panel believes that this will be positive (7) for the management of high risk unusual incidents with no negative impact.

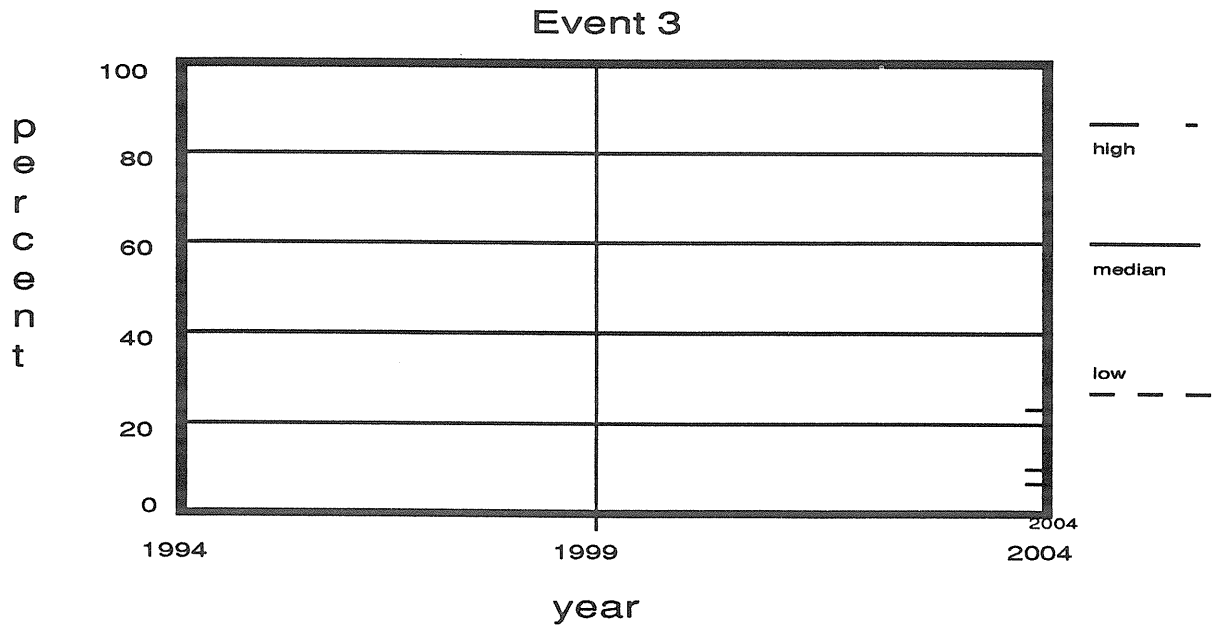



**Development and implementation of hand held equipment that locates people in buildings by reading their body heat.**

This technology was forecast to be similar to an existing device used by fire departments today to help them locate people buried in rubble. Some discussion of a new technology termed "probing radar" that locates people inside of buildings was also discussed.

This event starts to exceed zero probability in 2001 with a median probability of 45%.

The panel believes that this will be positive (7) for the management of high risk unusual incidents with no negative impact.



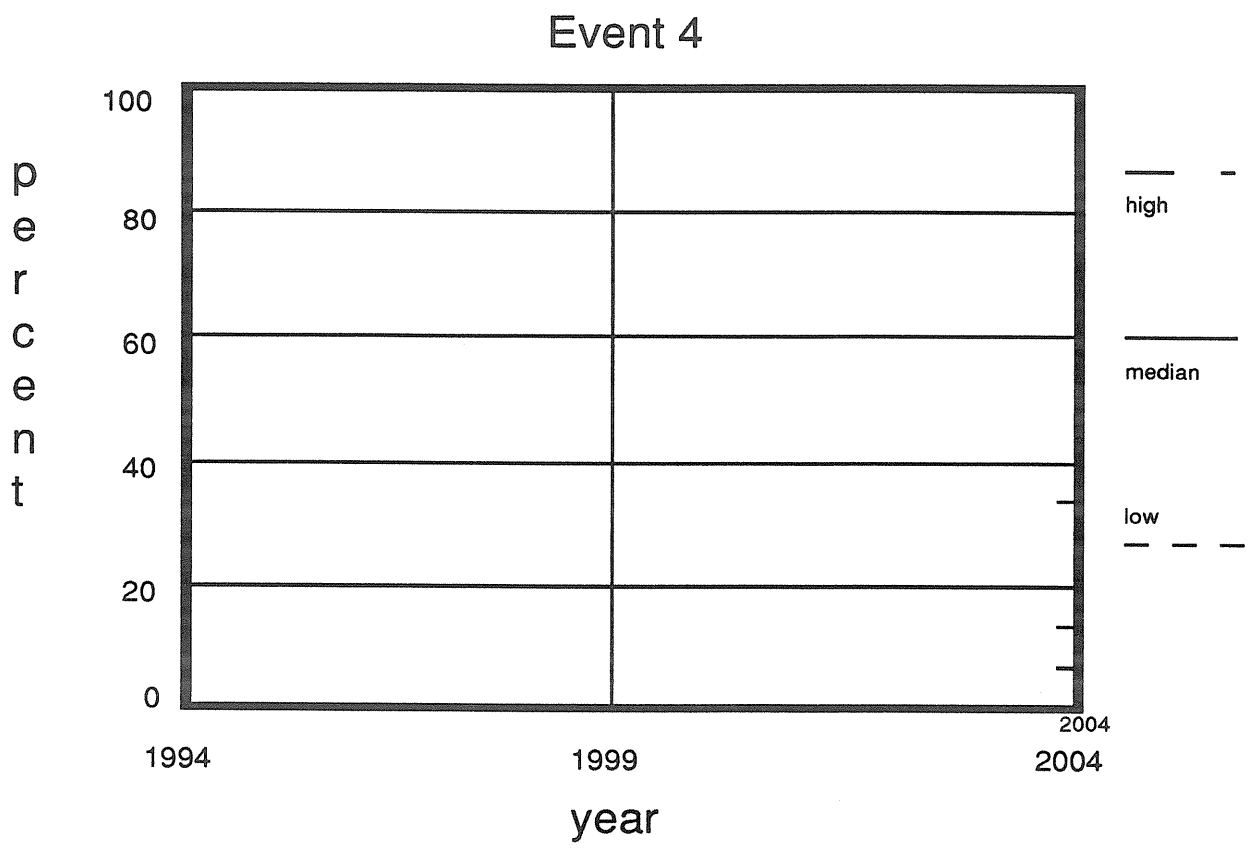

Development of virtual reality glasses for SWAT.

The panel discussed this technology in terms of having the ability to put an entire team through their paces and then throw in variables through the use of artificial intelligence. Number of suspects or hostages could be changed and their reactions could be varied by the computer.

The panel forecast that some form of this technology is coming, but will probably not be available for law enforcements use until the last year of the forecast period.

Positive effects were seen in terms of training cost savings, increased frequency of training, better quality training and the ability to do virtually real rehearsals prior to any assault or rescue attempts. Seen as a positive (10) with no negative impact.

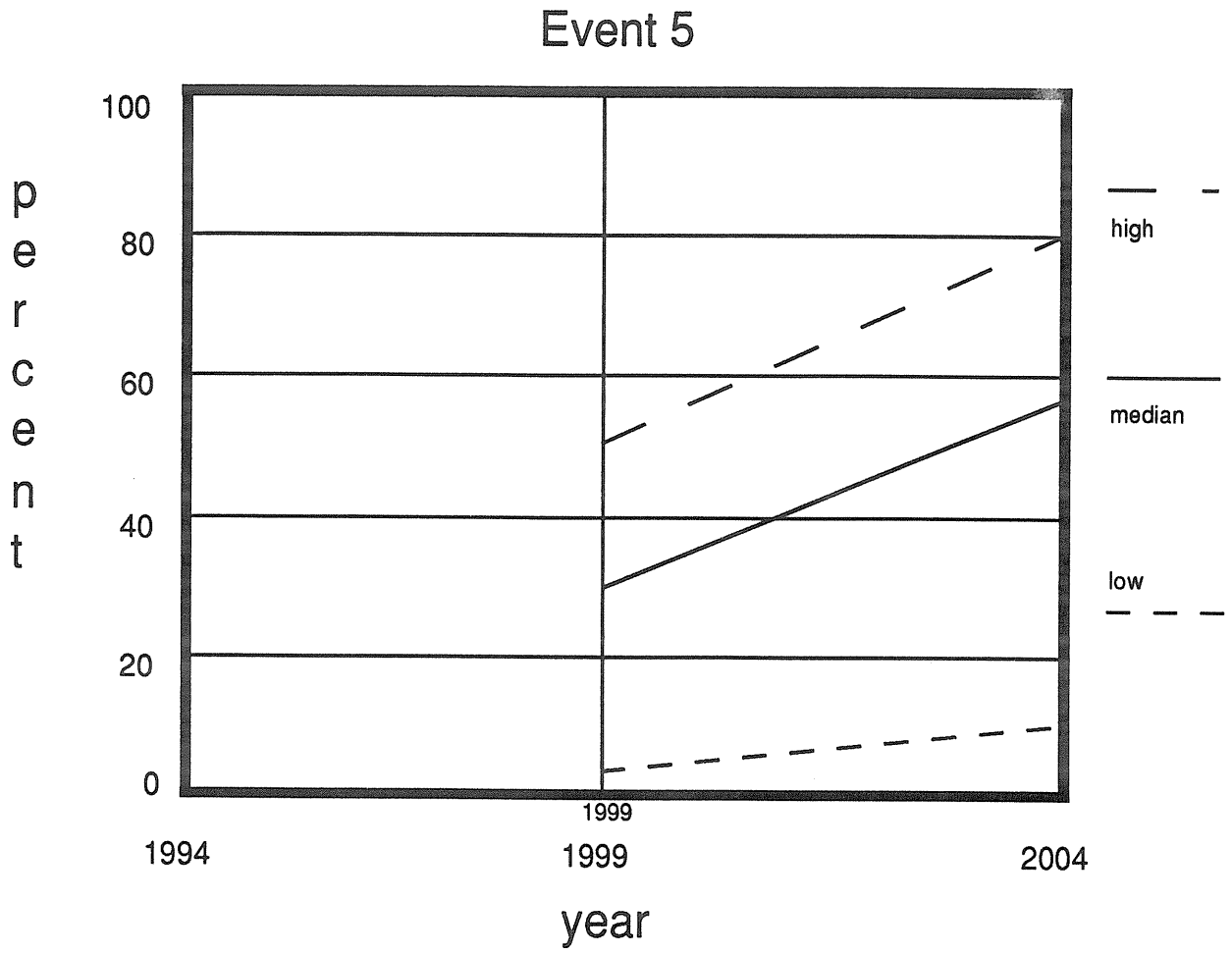
There was lengthy discussion among panel members about deleting this event and using another one. This discussion was based on the forecast probability exceeding zero so late in the forecast period. Similar discussions were held regarding event 4 and event 7. The ultimate decision was to leave them in because the panel felt that their effects on the issue would be so dramatic.




**Robots uniformly utilized to handle high risk room entries and room clearings.**

Agreement here that this event will not occur until the end of the forecast period, or even later, but there was great interest and excitement about the topic. There has been limited use of robots in high risk incidents already including a recent event where a robot was used to disable a barricaded subject.

Panel felt that robotics for SWAT/HNT, in the forecast period, would be limited to "human in the loop" robotics with no autonomous capabilities. Video, audio, lethal weapons and less than lethal weapons will be included with the technology. Military research into the "Soldier Integrated Protective Suit" (SIPS) which involves night vision, heads-up display, weapons capabilities and a strength-enhancing protective exoskeleton was included as part of robotics technology and is included in the scenarios portion of this paper. Positive impact of 10 with no negative.

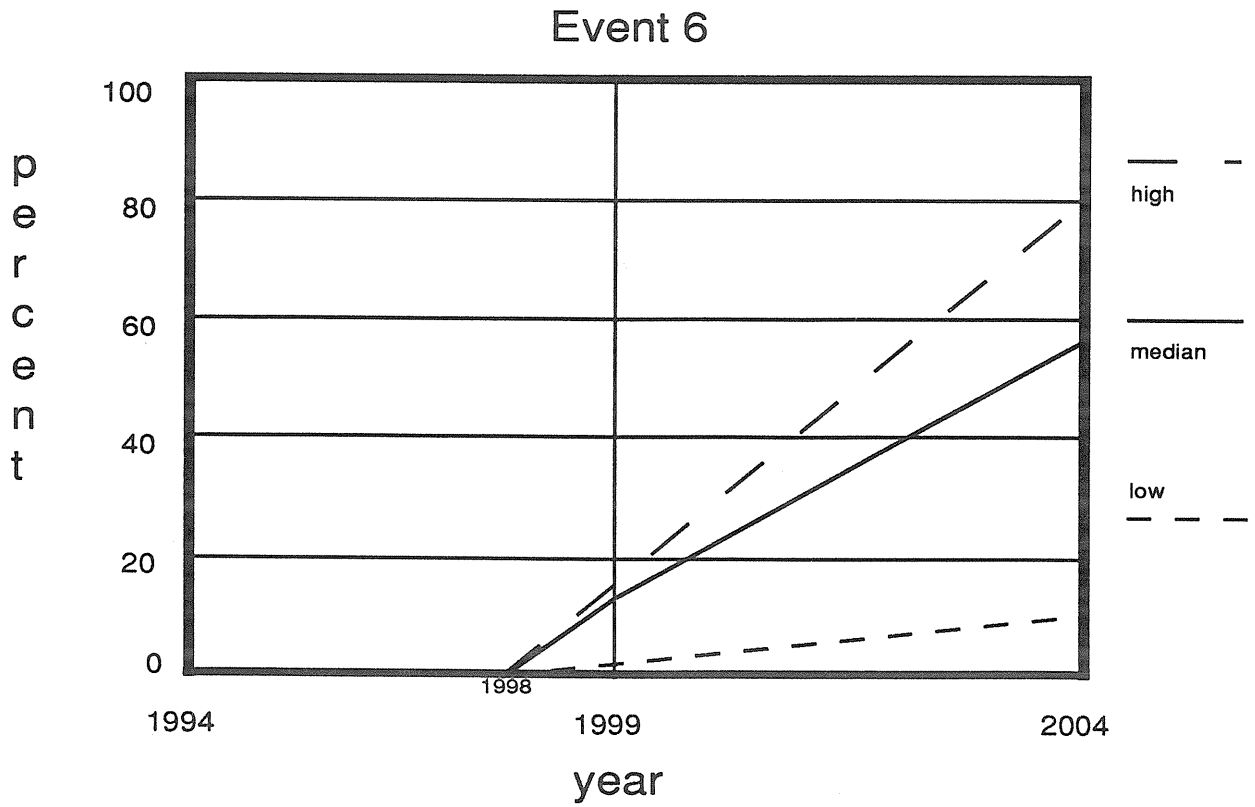



**Development of listening devices that make it possible to hear all occupants of high risk incident sites.**

The panel agreed that between parabolic listeners, spike mikes and probing radar, this technology is close to being reality. The probability this technology being viable starts to exceed zero in 1999. The highest probability on median is 57%.

The disparity shown in the graph resulted from disagreement about the practicality of deploying the equipment and the availability due to cost.

Rated as a positive impact of 8 with no negative.

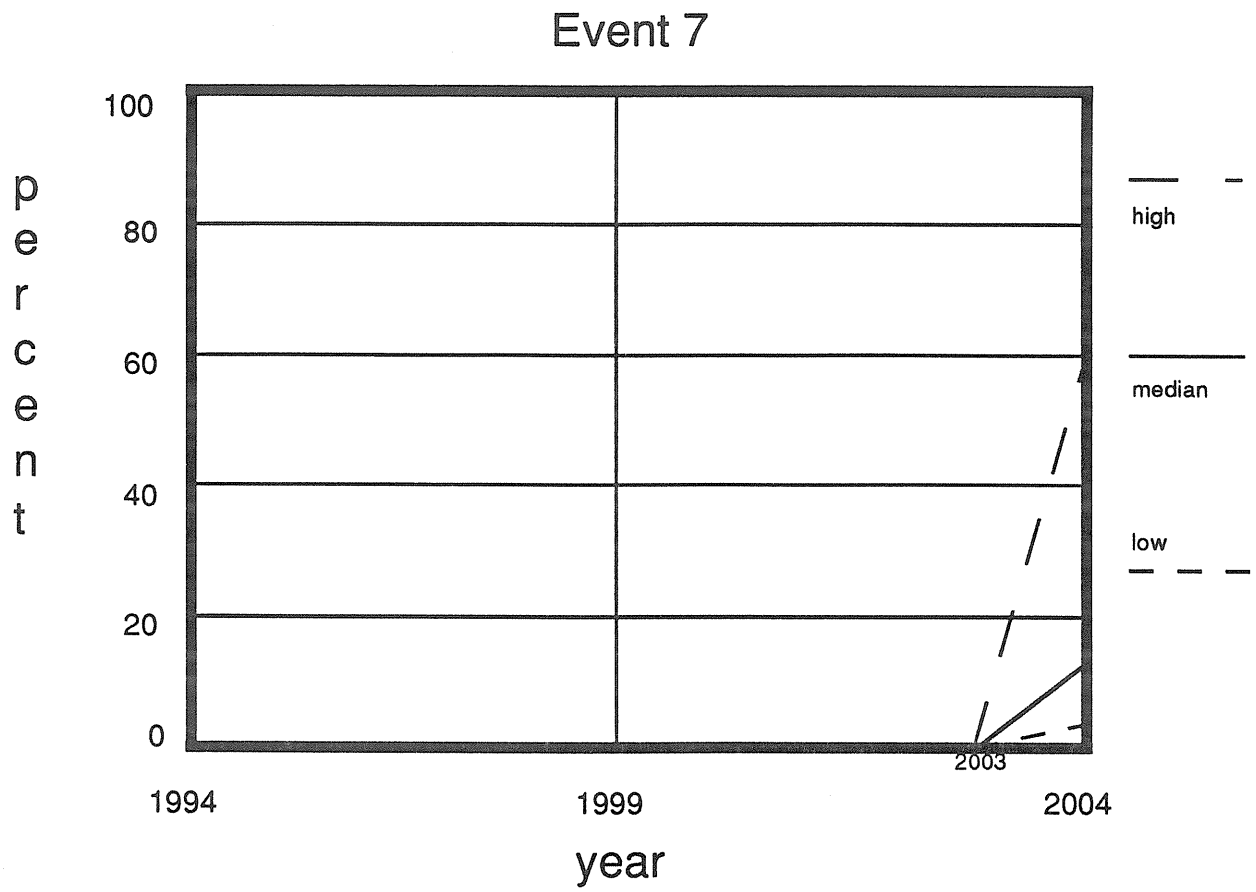



**Deployment of non lethal incapacitating weapons.**

The panel was optimistic regarding this event occurring in the first five years (1998) of the forecast and for the technology to become increasingly sophisticated. Improvements in recent years in terms of chemical agents, electrical weapons, bean bag and rubber projectiles and California's introduction of Oleoresin Capsicum were sited as encouraging.

Research being conducted today regarding new methods to deploy Oleoresin Capsicum was discussed. Sound generators that make people ill, with no apparent after effects have been experimented with in France and lasers hold potential for future use as a non-lethal weapon.

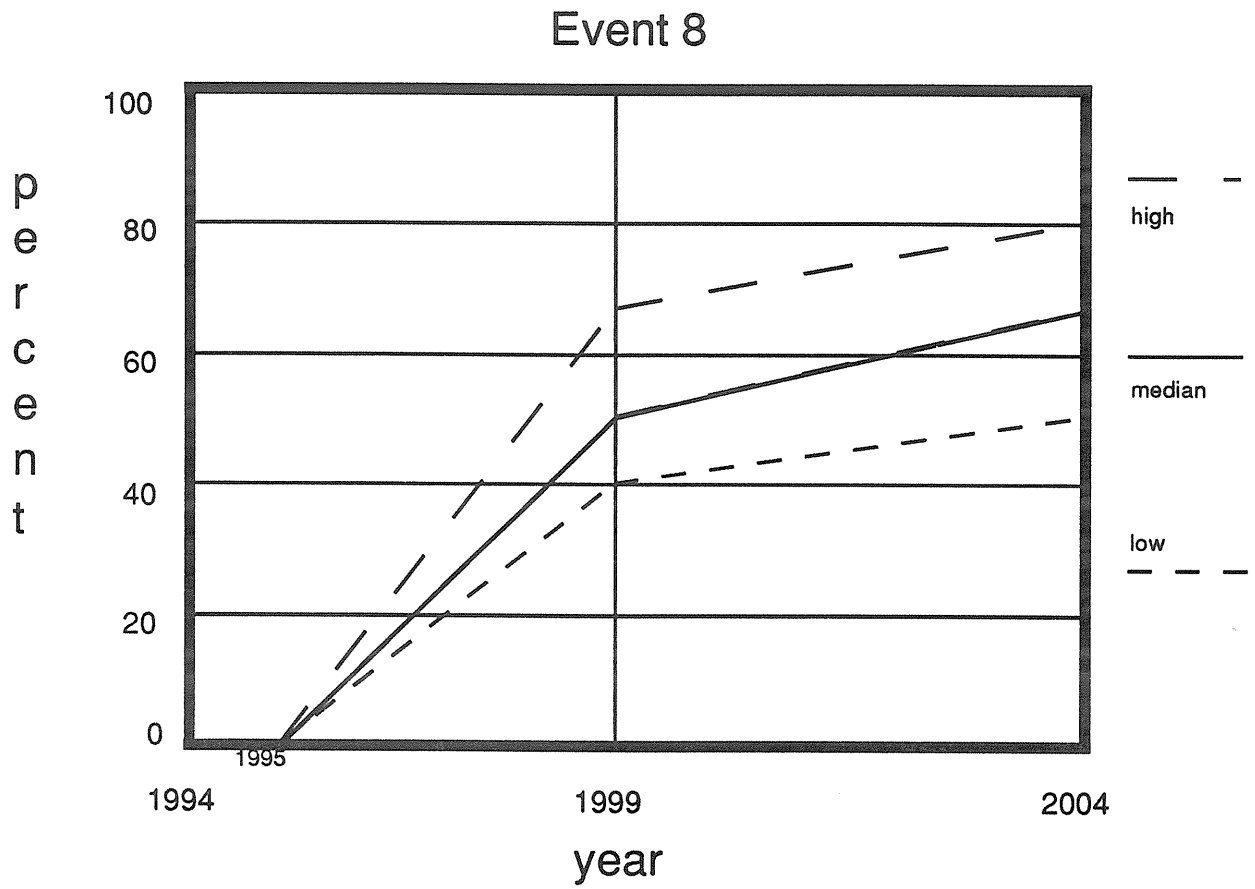
There was some disparity in the group over how much these weapons will change tactics and most believe that deadly weapons will be necessary throughout the forecast as back-ups to the less than lethal weapons.




**Deployment of video devices.**

The panel agreed that this technology would come late (probability first exceeds zero in 2003) in the forecast period. Ideas about how the technology might work varied from fiber optics as part of standard construction and retrofitting, to improvements on a mini-cam or micro-cam spike installation. There was some discussion regarding the technology being similar to that used in event I and being a year later before the probability first exceeded zero.

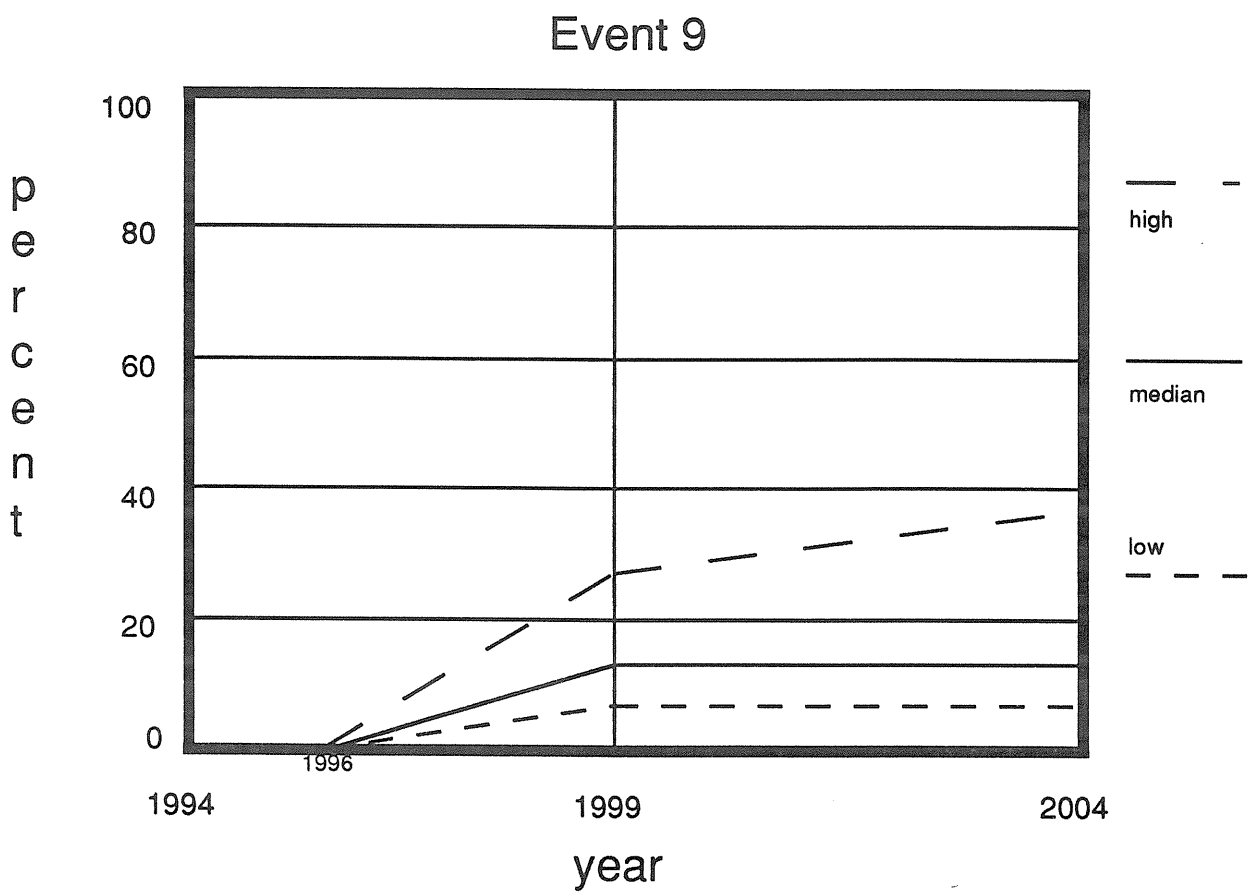
Seen as a positive 9 impact. The perceived far ranging impact on the tactics used in unusual high risk incidents kept this event in the top ten in spite of the late probability in the forecasting period.




**Failure of a small agency SWAT team.**

The panel believes that small agency SWAT/HNT teams attempt missions that they are too small for and not trained well enough to handle. The jealous guarding of local control and unwillingness to ask for help exacerbate the problem. This particular event as described by the panelists involves deaths of hostages and SWAT members and possibly the escape of the suspects due to an inadequate perimeter.

Some argued that events close to this have already occurred with little impact. There was agreement, however, that previous events have not been this serious and that when this one happens, it will have both positive and negative long term effects.

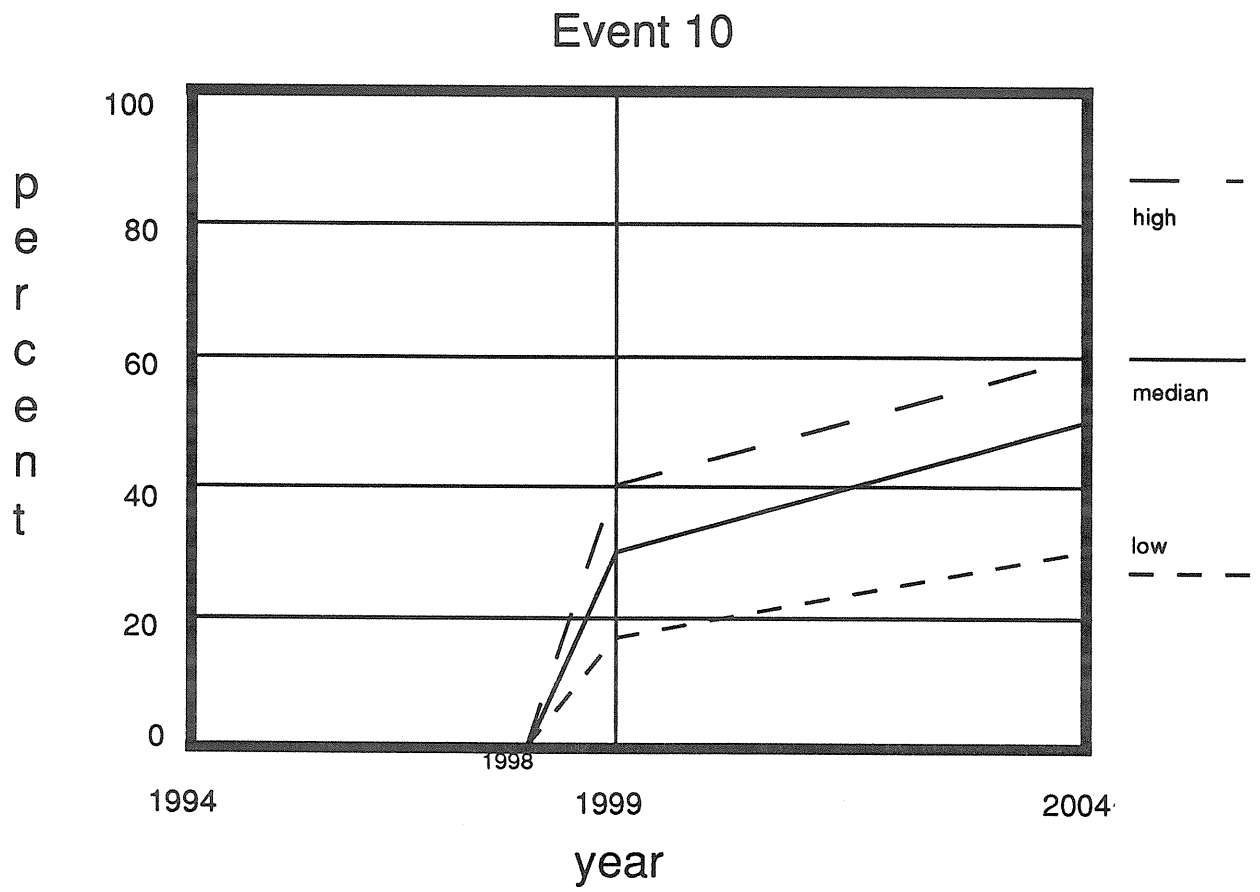



**Failure of a Sheriff's Dept. SWAT/HNT team.**

Similar to event 8 in that this failure involves death of hostages and SWAT members. The panel placed this event in the top ten because many small to medium sized police departments today rely on Sheriff's department SWAT teams that are small and not well-trained themselves.

Additionally, those agencies that do rely on their Sheriff's departments seldom do any command level training or preparation for high risk unusual incidents in their cities. Many Sheriff's departments expect to have absolute control of a situation if they are called into a municipal jurisdiction to handle it.

Not as much confidence that this event will occur as in event 8, but this one similarly forecast to have both positive and negative impact.




<u>Small agency SWAT team held liable.</u>

This event envisioned as one in which the court or grand jury hears expert testimony as to the state of the art in SWAT tactics and equipment, hears testimony from the small jurisdiction involved, examines training records and past performance and finds the team involved to be woefully inadequate.

The court finds for the plaintiff in the case and discusses what it considers to be minimum standards for deploying a SWAT team. The small jurisdiction is urged to meet the standard or find another way to procure SWAT help when it is needed. Could be the result of an event such as event 8.

The panel forecast this event to have both positive and negative long term impacts.

## EVENT CROSS IMPACT MATRIX

This process allows the researcher to forecast how the events may impact each other. The researcher was assisted in this process by fellow Command College Class XIX member Lieutenant Randy Sonnenberg (Foster City P.D.). The possible impact of each event on the others was discussed and there was consensus on a figure that would represent that impact. These figures were entered and run through a computerized cross impact analysis program to obtain a final probability on each event as shown below. (Chart Three)

| | Initial Prob | Event one | Event two | Event three | Event four | Event five | Event six | Event seven | Event eight | Event nine | Event ten | Final Probabilty |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Event one | 70 | X | 5 | 0 | 5 | 5 | 5 | 10 | 0 | 0 | 5 | E 1 - 82 |
| Event two | 45 | 5 | X | 5 | 5 | 20 | 5 | 30 | 5 | 5 | 5 | E 2 - 74 |
| Event three | 12 | 0 | 5 | X | 5 | 5 | 5 | 5 | 0 | 0 | 5 | E 3 - 24 |
| Event four | 15 | 0 | 0 | 0 | X | 10 | 20 | 0 | 0 | 0 | 0 | E 4 - 32 |
| Event five | 57 | 20 | 0 | 0 | 5 | X | 0 | 40 | 0 | 0 | 0 | E 5 - 77 |
| Event six | 58 | 0 | 0 | 0 | 10 | 0 | X | 10 | 5 | 5 | 0 | E 6 - 65 |
| Event seven | 12 | 20 | 5 | 0 | 5 | 20 | 0 | X | 0 | 0 | 0 | E 7 - 40 |
| Event eight | 64 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | X | 0 | 10 | E 8 - 69 |
| Event nine | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | X | 0 | E 9 - 20 |
| Event 10 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 20 | X | E 10 - 61 |

### EVENT LEGEND

E1 - Use of micro-cams implemented to make it possible for the command post to see and hear everything that the front line officers see and hear.

E2 - Development and implementation of hand held equipment that locates people in buildings by reading their body heat.

E3 - Development of virtual reality glasses for SWAT.

E4 - Robots uniformly utilized to handle high risk room entries and room clearings.

E5 - Development of listening devices that make it possible to hear all occupants of high risk incident sites.

E6 - Deployment of non lethal incapacitating weapons.

E7 - Deployment of video devices.

E8 - Failure of a small agency SWAT team.

E9 - Failure of a Sheriff's Dept. SWAT/HNT team.

E10 - Small agency SWAT team held liable.

The cross impact of several of the events was noteworthy. Event one, dealing with audio video equipment went from a probability of 70 to a probability of 82 because of the influence of other technological events. Event 7 which also dealt with video devices had the biggest impact. This may be due to the technologies being similar and because of the synergistic effect of a command post that can now see and hear everything SWAT members can see and hear coupled with being able to see inside the incident site itself.

Event seven's initial probability was 12. It went to a final probability of 40. Again, similar technology and synergy caused by the events may be the reason for the dramatic increase. Events seven, one and five combine to give a scenario in which a command post can now see and hear everything SWAT members can see and hear coupled with being able to see and hear inside the incident site itself.

Event four's final probability remained relatively low, but it was more than double its initial probability. Event six, dealing with non-lethal weapons had the most significant impact and may have been effected by the theory that if non lethal weapons are available, they will be best deployed by a mechanical device.

Similarly, event two combined with event five and seven give a scenario in which SWAT/HNT can see and hear inside the incident site while hand-held equipment gives team members the locations of people inside the site.

Logically, event ten, dealing with a small police department being held liable was impacted significantly by events eight and nine involving poor performance, in which lives were lost, in a high risk unusual incident.

SIGMA GENERATED SCENARIOS

Sigma is a computer program designed to create scenarios from a list of events with probabilities and other information such as positive and negative impact. All ten events were entered into Sigma along with their positive and negative values

and the year the panel forecast that they would first occur. Forty scenarios were run and divided into four general categories by the researcher.

- Three of the scenarios showed events happening that all evolved around failed missions and liability.
- Eleven of the scenarios have an early event of failed mission or liability followed by advancement of technologies that were forecast to have positive impacts.
- Seven of the scenarios had only events occurring that were forecast to have a positive impact.
- Twenty scenarios were originally set aside by the researcher as being a meaningless conglomeration. Further analysis showed that the events were a mixture of those forecast to be positive and negative. In sixteen of the scenarios however, at least one positive event occurred at the end of the scenario. In the remaining four the scenarios ended with at least one event forecast to have a negative impact.

This blend of good and bad, success and failure may well be the most accurate forecast of the possible futures for this issue. It makes sense that technology and tactics involved in high risk unusual incident management will continue to improve. It also makes sense that mistakes will be made, human errors will occur and that technology will experience failures. It is hoped that when looking back at the history of high risk unusual incident management ten years from now, law enforcement will have learned from its successes and failures and will be closer to the time when all incidents can be handled successfully without loss of life.

SCENARIOS - Nominal, Normative and Hypothetical

Scenarios in futures research are an imaginary, but apparently non-fictional narratives that look back over forecasted events and trends as if they had actually occurred. Their purpose is to clarify the causes and consequences of major developments and thereby facilitate the identification and evaluation of relevant policies or actions by the user.

The researcher has chosen to write three scenarios depicting possible futures of

the issue. The first depicts a future in which little has changed (Nominal). The second depicts a future that the researcher believes is both possible and desirable (Normative). The third depicts a "best case" scenario (Hypothetical).

The researcher chose to write scenarios in a "slice in time" format. Each scenario describes management of the same incident by some of the same personnel. The outcomes vary as events in the computerized Sigma scenario iterations change and as the researcher adds the trends and other information learned during the research of the issue.

The agency involved in all three scenarios is an imaginary San Francisco Bay police department called Alta View. Alta View is a medium sized city of approximately 70,000 people. The police department is made up of 80 sworn personnel and 40 civilian personnel. There is an investigation, patrol and administrative services division in the department. Each division is headed by a police captain.

NOMINAL SCENARIO (Year 2004)

The nominal scenario is based on a Sigma scenario generation in which only events 8 and 10 occur.

Event 8: Failure of a small agency SWAT team.

Event 10: Small agency SWAT team held liable.

It was a sad day for Lieutenant Jim Smith. He had been involved in his department's tactical program for over twenty years in a variety of capacities. He had been the program coordinator and tactical commander since he was promoted to Lieutenant 7 years ago. He was respected by the lower ranks in his department and considered to be a real "cop's cop catch the bad guys and take them to jail" kind of manager. The command staff in his department assumed he knew what he was doing because he was the in-house "expert" in SWAT/HNT tactics. Things had

always worked out OK so far. The bottom line was that no one took the program very seriously because their town never had any serious problems. The SWAT/ HNT members did what he wanted because they assumed he knew what he was doing. The command staff were just not very interested.

He had known for years that he should make some changes in the program. Tactics were changing, negotiation philosophies were different, equipment had changed, and the fact was that an armed barricaded subject or hostage situation with could not be professionally managed with nine SWAT members and a couple of negotiators. A few search warrants here and there were no big deal. Even though more people and better training were needed to perform them expertly, the old standbys of "speed, aggression and surprise" had always worked out so far. They had a few problems now and then, but no one had been hurt and a little lost narcotics here and there was not a big deal.

Jim assumed that he could get by with the same old tactics and procedures for a couple more years until he retired. He enjoyed working with the SWAT/HNT group, but he just did not have the energy to make changes, deal with outside agencies and justify more money for the program. He knew that some small agencies had formed cooperative regional teams so that they would have enough people to handle major incidents when they occurred. He knew that they trained together and pooled their money so they could have the latest equipment. He also knew that working with that many people and being part of a consolidated regional effort would be a lot of work. He didn't want any other so called "experts" looking at what he had been doing, questioning him or disagreeing with him. He hadn't had to explain his decisions to anyone for years, and he liked it that way.

It was too late now, but Jim wished that he had taken the Sheriff's department up on their offer to have his team come to some of their training sessions. He

should have asked for their help with today's tragedy, but he thought that "his guys" would get lucky again and it would work out OK. Who would have thought that the hostage takers would actually shoot innocent people that had done them no harm?

The Sheriff and Jim's Chief did not get along and the two departments had been at odds for years. Jim didn't like the Sheriff's Department and he did not want to give them the satisfaction of coming to his rescue. He knew that if they were called, they would take over and do whatever they thought was right no matter what he said.

Jim was the on duty watch commander when the call first came out on the radio. He didn't leave the coffee shop to respond because he was sure that when the other officers arrived, it would turn out to be a simple shoplifter in custody. No one would actually take over an electronics store, with guns, in this quiet town.

That is exactly what Sergeant John Brown thought when he responded to the call. He pulled up in front of the front doors, just like he always had for 25 years, said hello to Jimmie at the newspaper stand and went to the front doors to take a look. When the glass shattered in his face, he turned around to see if someone behind him had thrown a rock. When he heard something buzz past his ear he realized that he was being shot at by someone inside the store. He ran to his car, ducked down behind it and that is where he stayed throughout the rest of the 12 hour ordeal.

Jim left the coffee shop and set up a "Tactical Command Post" in his squad car behind a building in the shopping center. He called for the SWAT/HNT team to respond and coordinated setting up a perimeter around the incident site. He had help from several outside agencies that had responded to his mutual aid request. The California Highway Patrol had sent 10 cars, the three neighboring cities had all

sent help and even the Sheriff had sent a couple of patrol cars. Jim wasn't sure exactly how many people he had and they were all on different radio frequencies so he couldn't talk to all of them, but he knew he had the place surrounded.

Only seven of the nine SWAT members were available to respond to the call out, but both of his negotiators were there. Jim knew that he should have a tactical team around the inner perimeter of this incident, but he needed his team to be ready to perform a rescue. The conglomeration of officers from different agencies would just have to do for a perimeter. His two person Sniper/Spotter team was set up in front of the building. That only left a five person rescue team, but his sniper and spotter were needed where they were if the suspects tried to escape. There were only three suspects anyway.

Jim knew that Sergeant Brown was in a bad spot behind his car. He was in a cross fire with the perimeter officers and would be vulnerable to attack by the suspects if they ran out the door. He should have an armored vehicle and another S WAT team to rescue John, but the only armored vehicle that he knew of was in the next county and he did not know anyone from that department. These guys would give up when they got tired anyway. Everything would be just fine.

Eight hours later, Jim was tired. His SWAT team was tired. The two negotiators were exhausted. The sniper's eyes were blurry from staring into the telescopic sights. People had to go to the bathroom. Everyone was hungry. The media had overrun the place. The bad guys had to be tired too. It was a shame that there was so much food and beverage in that store. His negotiators were telling him that they weren't getting anywhere with these guys and that they might actually shoot the hostages. Jim didn't believe that. His negotiators were just tired.

Ten hours into the incident, the five person SWAT team had found a way to gain covert entrance into the back of the store. They were hiding in a storage room

waiting for the word to assault. Jim was near the end of his shift when this mess started so he hadn't slept in 20 odd hours. He wanted to get this thing over with and go home.

One of the suspects had been dragging a hostage to the front door, opening the door and taunting the officers for several hours. His negotiators had already told him that they thought the suspects would shoot the hostages, so Jim was justified in using deadly force against them. It was a long way from the back of that store, where the team was staged, to the front, but if his sniper could shoot the suspect at the front door..... surprise, aggression, speed, it had always worked before.

Jim knew that all the big agencies set up multiple Sniper/Spotter teams and that they always had more than one sniper take simultaneous shots in a situation like this. If something went wrong with one of the shots, the second would find its mark. If glass had to be penetrated, the second shot went through unobstructed. Some agencies even had a third sniper on the same target. That sniper did not fire unless the first two rounds failed.

Jim knew all of this, but he only had one sniper and this was an easy 60 yard shot. If this thing went on much longer he would have to call the Sheriff for replacements and he did not want to do that. This would work. Jim got on his radio and gave the go ahead to his SWAT team. The next time the suspect opened the door, the sniper would shoot him and the assault team would neutralize the other two suspects.

Jim forgot that most of the officers stationed on the perimeter, for over ten hours, could not hear his radio frequency. Most of them had dead radio batteries and could not even talk to each other. Jim would live day and night with what happened, when that suspect came to the door, for the rest of his life.

He had his left arm around the shoulder and chest of his hostage and the gun in his right hand was pointed at the hostage's head. The door opened slowly just like all the previous times, but this time, just as the suspect moved his head into the clear, the hostage jerked the door shut. The sniper could not see the door in the limited view of his scope and he sent the round down range too late.

The bullet hit the metal door frame and shattered the glass in the door. The suspect was stunned by a small bullet fragment and flying glass, but only momentarily. It sounded much like Vietnam to Jim. Everybody was shooting. The first suspect could be seen, through the plate glass windows, running up and down the aisle in front of the hostages shooting them. The suspects had been listening to the police radio with a scanner so they knew about the SWAT team in the storage room. The other two suspects were shooting through the walls of the storage room. Two of the SWAT officers had been wounded and they were all trapped behind cover in the room.

Officers on the perimeter that had been out of the communications loop were taken by surprise by the sudden gunfire. Many of them just started shooting. Sergeant Brown was shot in the leg by one of the perimeter officers and two of the hostages were hit by police bullets.

All three of the suspects made a dash out the front door and made it into the perimeter of officers. When the suspects entered the police perimeter, the only way the officers could shoot at them was by shooting in the direction of other officers. Two more officers were wounded by police bullets, two of the suspects were killed and one of them actually managed to escape.

Jim knew that the rest of his career would be spent answering questions about how this incident had been managed. There would be law suits brought by the hostages and their families, by the police officers and their families and even by the

suspects and their families. "Experts" from the big agencies and from the National Tactical Officers Association would be brought in to critique the event and testify in court. It would be an endless nightmare that would haunt him, and many others, long past the day he retired.

Jim thought that he might even be able of defend, in court, the tactics used in this operation. After all, he was with a small department. He had lots of help from outside agencies and he had done the best he could with what he had. Regardless of the outcomes in the courts however, Jim would always know that he had not done all that he could have to prepare his department and his SWAT/HNT team for events like this one. He had failed his agency, his people and the public that he was supposed to protect.

NORMATIVE SCENARIO (Year 2004)

The normative scenario is based on a Sigma scenario generation in which events 1,2 and 5 occur.

Event 1: Use of micro-cams implemented to make it possible for the command post to see and hear everything that the front line officers see and hear.

Event 2: Development of virtual reality glasses for SWAT.

Event 5: Development of listening devices that make it possible to hear all occupants of high risk incident sites.

It had taken years of hard work and overcoming frustration by a lot of people. There were many, top notch, hard working people involved in the program. In spite of all the work, much of what it took to get the program where it was today had been fun too. Today the work, the training, the money and the politicking had really paid off for everyone involved.

Lt. Jim Smith had been in law enforcement for about 20 years. He spent the first ten or so years with a neighboring department that he left when a promotion to Lieutenant became available for him at his current department. He had been on the

tactical team in his first department for eight years. He had started as the equipment man, eventually became the lead assault man and was the team supervisor when he left.

His new department did not have a SWAT team. He had had a lot of fun with his old SWAT team, but it was time to move on to other things. His new department had a negotiators team and had tried, unsuccessfully, to start a SWAT team. The City Council did not see the need for one and did not want to spend the money. SWAT would become a fond memory for Jim and that was fine as far as he was concerned. Besides, he was called regularly by the FBI to help them put on their 48 hour basic SWAT school, so he would be able to "keep his fingers" in the field.

About a year after Jim had started his new job, a young fireball from the City Manager's office started showing an interest in SWAT. She approached Jim about going back to the City Council again with a SWAT proposal. Jim had thanked her and told her he was not interested. He had been involved in a good SWAT program and had a good reputation in the field of SWAT tactics. SWAT cost a lot of money and time to do right and he did not think that the city would be willing to expend the money and time to create the kind of program Jim would be willing to manage.

She wouldn't let him off the hook that easily. She asked him to write a proposal for her to look at. They passed that proposal back and forth for two months and they wound up with a package that would involve over ten percent of the department's sworn personnel (ten counting Jim) and would cost the city $60,000 the first year and $25,000 each year after that.

Nobody inside the department believed the proposal had a prayer. It took countless meetings with the Council's Public Safety Committee and the Chief of Police to get the proposal to the City Council. Eventually, Jim made the final

presentation to the City Council himself and, to everyones' surprise, they approved it without making a single change.

It took another two years to get the team up and running to Jim's standards. Selection of personnel, purchase of equipment, training an all new team and fending off the department "naysayers" had been a lot of work. The end result however, was an excellent state-of-the-art team.

In retrospect, that first two years had been the least of the work in getting where the team was today. Jim knew that nine SWAT team members and four Hostage Negotiation Team members were not enough to run an effective operation. They couldn't effectively do much more than serve search warrants or serve as an assault/rescue team. They would have to rely on other officers without specialized training to hold their perimeters and they would have no back up for relief in long operations.

Now that Jim had a stable core group, it was time to move on to the next phase of his plan. He had been very open with all of the decision makers when he had started this process. He had even mentioned in his original proposal to the City Council that one team could not effectively run an operation and that some kind of a regional/consolidated approach would be necessary to make the program successful.

He talked to his core group. They were a cohesive, confident team and they all had enough tactical knowledge to know that they could not successfully handle a big operation alone. They supported, in theory, trying to regionalize the team and agreed that it made sense to approach the cities on their borders first.

Jim knew that no matter what happened at the management level, no regional effort would succeed without the support of the front line officers. His next stop was a visit to a SWAT team meeting at the department he had left three years ago. Most

of the team members were there when Jim was on the team. They were glad to see him and thought some kind of a regional approach would be a great idea. Recent budget cuts in their department had made it necessary to reduce the size of their team and they had heard rumors that more cuts were coming.

Jim started working out the details with their Captain for combining the S WAT/HNT teams from the two cities. The next city on Jim's list had about 25 officers and seldom, if ever, needed the services of a SWAT team. They had a small Hostage Negotiation Team that they kept because it didn't cost much and it was good training for the officers.

Jim had decided to approach them by trying to get a small commitment of two officers. He would sell them on the good training that the officers would get that they could bring back to the department, the resource that would be available to them if they ever did have an incident and the possible morale benefits. Jim did not have high hopes that he would be successful.

This problem solved itself. In the city in question, an enraged ex-husband had broken down his ex-wife's door and taken her and their children hostage. Their Chief knew that Jim had started a new SWAT team so he called Jim's Chief and asked for help. Even though the regional agreement had not yet been worked out with Jim's old department, they agreed to come and help also. The incident came to a successful conclusion with no injuries. The city that was going to be a hard sell was now asking to join the team.

Jim wrote general orders and an operations manual for the program. It was read and rewritten and read again and again until all three Chiefs of Police received authorization from their City Managers and City Councils for the program. The documents were signed and the program was in place. Two other cities joined the program for a total of five cities.

The program had 55 SWAT personnel and 34 negotiations personnel, not counting SWAT/HNT Commanders (trend 7). They trained together four times a year for a week each time. Logistics were incredible, but people in the program were dedicated and they all did their part. Jim had gone from doing almost everything himself to doing almost nothing. He stood back and managed energetic people, who had become experts in their own right in the field. Each department's command staff controlled incidents that occurred in their city. Everyone had developed a sense of trust in each other, communications problems were worked out and everyone knew how to do their job. Equipment purchases were made by committee with everyone sharing the load and the equipment in their inventory was state-of-the-art. As a positive side effect, relationships were remarkably more cordial in the day to day dealings that the departments had with each other.

There had been many successful operations by the team over the years, but probably none as dramatic as today. It had not been perfect. Human error apparently will always be with us, but it could have been so much worse.

When the call came out advising that three armed men had just taken over a local electronics store Sgt. Jim Brown figured that the dispatcher was "just screwin up again." When he responded to the call, he pulled up in front of the front glass doors, just like he always had for 25 years. He said hello to Jimmie at the newspaper stand and strolled to the front doors to have a look. When the glass shattered in his face, he turned around to see if someone behind him had thrown a rock. When he heard something buzz past his ear he realized that he was being shot at by someone inside the store. He ran to his car and got down behind it. He was trapped there for over an hour.

Jim arrived at the scene in the team's converted motor home, which he used as a Tactical Command Post. It was staffed by recent additions to the regional SWAT/

HNT concept, five specially trained dispatchers. They ran all of his communications for him, kept his command post logs and helped him make sure that the Tactical Command Post was the center of all information regarding the operation.

SWAT had set up an inner perimeter around the store, and the shopping center had been evacuated. Four sniper/spotter teams were in place. One SWAT team was working on a rescue plan in case it became necessary to rescue the hostages and another was working on a plan to extract Sgt. Brown who was still stuck behind his car at the front doors of the store. The negotiators were set up in the bank next door. Three of them spoke the suspects' language. The negotiations dialogue was being monitored in the Tactical Command Post by the negotiations supervisor, so Jim was getting constant updates.

The overall commander or Incident Commander was Captain Bob Watson. Bob didn't know much about SWAT/HNT tactics, but he knew how to run an Incident Command Post. He had been able to use officers from all five departments to seal off the outer perimeter. The press was staged where they could get the information they needed without being in the way. Bob had lists of everyone involved in his part of the operation, he knew exactly where they were, what radio channels they were on, when they would need breaks and when they would need to eat.

Forty five minutes into the incident, the hostage rescue team had found a way to get into the back of the building covertly. The team assigned to the extraction of Sgt. Brown was ready to go and it was time for the first pre-scheduled hourly meeting of all involved command staff (trend 10).

Jim updated everyone on the progress of his people so far. The negotiations supervisor gave a rundown on the negotiations at this early stage. It was decided to let the hostage rescue team enter the rear of the store and stage in a rear storage

room. The negotiators would let Jim know if they could talk the suspects into allowing Sgt. Brown's extraction.

Twelve hours into this incident, things were going fairly well. Many of the S WAT members that responded originally had been replaced by members that had been put on standby at the beginning of the incident. Everyone had eaten and had breaks. Jim had turned the Tactical Command over to his peer from one of the other cities and napped for a few hours himself.

The negotiators had talked the suspects into allowing Sgt. Brown to be extracted. He had been extracted, by using the regional armored vehicle without incident. The negotiators had used some of the latest hypnotic and sound wave technology combined with their normal tactics and had convinced the suspects to release some of the hostages (trend 1).

The hostage rescue team had picked up five people moving toward them with their hand held body heat locaters. These people turned out to be store customers who had been hiding from the suspects. They were evacuated without the suspects finding out about them.

Four of the ten spike mikes that the tactical team had fired into the attic crawl space, above the hostages, were working and Jim did not like what they were hearing through them. One of the suspects had been dragging a hostage to the front door, opening the door and taunting the officers for several hours. The conversation inside the store by the suspects lately involved dragging the hostage to the front door and killing him where the cops could see. They thought that the negotiators were telling lies and that their demands were not being met fast enough. They would continue to kill one every hour until their demands were met. The negotiators believed that hostages would start to die if a tactical resolution was not achieved.

Jim had been authorized to initiate the hostage rescue at the last command staff meeting. He decided that the time had come. The team inside the store knew that no one was between them and the hostages, who were behind a wall at the front of the store. They could move forward with their hand held devices to tell them if anyone moved or came their direction.

They told Jim when they were as close as they could get without being detected and Jim gave his sniper spotter teams the go ahead to initiate the plan. The suspect came to the door with his left arm around the shoulder and chest of his hostage and the gun in his right hand pointed at the hostage's head. The door opened slowly just like all the previous times, and the two snipers with the best shot angles counted down for their simultaneous shot.

Jim could see what his snipers could see through their scopes on his monitors and could have pulled the triggers on both weapons simultaneously from his control panel. He was tempted to do it when he could see both scopes on target, but he didn't. He had told his snipers that the decision to make the shot would not be taken away from them. They would always be able to make last second adjustments or stop the shot if the circumstances changed.

When the snipers fired, it sounded almost like one weapon going off. They had performed the real thing as skillfully as they had practiced it. The door had started to close and one of the bullets hit the door frame shattering the glass. The second bullet, a nanosecond behind and coming from a different angle, was left with an unobstructed flight path. It instantly killed the suspect who fell to the floor leaving the hostage unharmed.

Jim watched through the team leader's helmet cam as the hostage rescue team made its move. They were on the other two suspects before they could get to their guns. One of them made it out the front door, putting himself between the inner

perimeter and the rescue team. The bean bags, launched from the 50 mm launchers by the inner perimeter team, actually knocked him back through the door way. He laid there unable to move until after a rescue team member handcuffed him.

Jim regretted the need to kill one of the hostage takers and looked forward to the day when non-lethal technology would make this kind of action unnecessary. Undoubtedly the family would sue, but Jim was not worried about that. It would take a week to review all the audio and video tapes of the incident. Each SWAT member would be critiqued on their performance after all the helmet cam tapes had been reviewed. They would find things that they could have done better and mistakes that they should not have made. They would never quit trying to do a better job. Jim was very proud of his people and the program they had put together. He was convinced that they had saved lives today and served the public well.

HYPOTHETICAL SCENARIO (Year 2004)

The hypothetical scenario is based on a Sigma scenario generation in which events 1,3, 5,6 and 7 occur.

Event 1: Use of micro-cams implemented to make it possible for the command post to see and hear everything that the front line officers see and hear.

Event 3: Development of virtual reality glasses for SWAT.

Event 5: Development of listening devices that make it possible to hear all occupants of high risk incident sites.

Event 6: Deployment of non lethal incapacitating weapons.

Event 7: Deployment of video devices.

Lt. Jim Smith had been involved in his department's SWAT/HNT program for over twenty years in a variety of capacities. In some ways, he hated to see this part of his career come to an end. SWAT/HNT, as he had known it and seen it evolve, had been the highlight of his career. The people who became involved in these

programs were, for him at least, the cream of the crop. They were dedicated, hard working and fun to work with. He would miss it.

On the other hand, it was good to know that he would never have to place people of that caliber in harm's way again. The time, energy and money that had been placed into SWAT/HNT programs could soon be expended elsewhere. There were plenty of places where the time, energy and money were needed.

He had been the program coordinator and tactical commander since he was promoted to Lieutenant 7 years ago. During that time, technology had made it easier and easier to perform the SWAT/HNT missions.

People in a hostage situation could be located, seen and heard from the Tactical Operation Center. SWAT teams could rehearse their rescue mission using virtual reality pods and artificial intelligence software could throw just about every possibility at you while you practiced.

The perfection of Soldier Integrated Protective Suits (SIPS) by the military had soon led to law enforcement adaptions for SWAT. The exoskeleton suits made the officers nearly bullet proof, enhanced their strength and speed and almost always made it possible to deploy non-lethal weapons or to simply overcome the suspects. It had been a great era for SWAT/HNT teams.

For the last six months though the SWAT/HNT team had only been deployed as a back up in case the just-released technologies failed. They had performed very well and Jim was not aware of any situation, at least in the USA, in the last six months in which SWAT/HNT people had actually had to do anything to resolve a situation.

Today was a prime example of how the new technologies were making SWAT/HNT obsolete. An electronics store had been taken over by three armed

suspects and hostages were being held inside the store. When the first officer arrived, he was able to see and hear what was going on inside the store with the equipment in his car. He could have ended the situation alone, but departments are required to deploy SWAT/HNT for the rest of the twelve month testing period.

It took over an hour to complete the evacuation of surrounding buildings and set up a good perimeter. It took less than a minute for the original responding officer to get his sound wave generator aimed at the building and turn it on making everyone inside too ill to move about. The SWAT team entered the building with the patrol officer as a precaution, but it was not necessary. The car's cameras showed everyone on the floor curled up and ill and that is exactly what they found when they went inside.

The patrol officer laser-stunned the suspects and picked up their weapons. He turned off the sound generator with his remote. The victims were mildly ill for about 20 minutes, but recuperated quickly. The suspects, who had been stunned, woke up in a holding cell about an hour later. They were questioned, but their statements weren't critical because there was enough evidence on the video tapes to convict them.

Jim isn't sure what his department will do with the money and person hours that it has been spending on SWAT/HNT, but he has hopes that it will be used to bolster the Community Oriented Policing and Problem Solving programs. Maybe if law enforcement can work on the root causes of criminal behavior, sound wave generators and laser stunners will become obsolete just like SWAT/HNT has.

POLICY CONSIDERATIONS

People who cause extreme danger to themselves or to others, thereby creating high risk unusual incidents, will likely be best handled by specialized teams trained to be effective in highly emotional and volatile situations throughout the forecast

period of this study. The manpower draw, the expense, the training time and the problems in managing these incidents will be a burden for all jurisdictions where they occur. The burden will be exacerbated for smaller agencies that do not have the resources to field the personnel and equipment necessary to professionally manage the incidents.

Local control could well be lost and procedures for handling these incidents could well be mandated by litigation and legislation if policies are not established that will allow small to medium size agencies to "keep up" with the state of the art in high risk unusual incident management.

Hypothetical scenario #1 describes the panel's forecast for many small to medium size agencies. Panel members believe that many agencies will continue with status quo responses to high risk incidents. Policies will not change, and small tactical teams will be called upon to perform more functions, more often, until tragedy strikes. Some panel members believe that tragedy alone will not bring about needed change. It will take the subsequent law suits and expense to the local agencies to bring about significant change.

Hypothetical scenario #3 describes a future that the panel believes will come about, but not within the ten-year period of this study.

Hypothetical scenario #2 described the future considered desirable and obtainable for this issue by the panels of experts involved in this study. Specific policy recommendations are made in the next chapters of this study. The strategic plan in section III will discuss policies that will revolve around an approach that pools personnel, equipment, training, and command staff to form a state of the art tactical capability for five small to medium size agencies. A policy of continued updating, evaluation and use of the latest reliable technology will keep this program geared toward the future beyond the ten year study period.

Major areas of the policies to be developed will include the following:

1.) Involved agencies must first agree that there is a combined need for SWAT/ HNT deployment and that the desire is to create a program that can function at today's state of the art standards.

2.) A mission statement must be agreed upon and a written agreement between the agencies must be developed. This agreement must be approved by those who have responsibility for the actions of the involved law enforcement agencies including, but not limited to, city managers, city attorneys, councils, police chiefs, etc.

3.) There must be a trained command staff in each agency in order to retain local control of incidents occurring in the respective jurisdictions. The various command staffs must have similar philosophies combined with an understanding of the capabilities of the SWAT/HNT group. Expectations should be consistent regardless of incident location.

4.) Team member selection and deselection processes, equipment purchases, equipment replacement schedules, training, call out procedures, after action reporting and a system for program evaluation must be part of the agreement.

5.) A regional approach with the latest technology is the desired and attainable future of the ten year study period. Part of the policy consideration however is to make this an evolving program that strives for the goals described in hypothetical scenario #3. Tools, tactics and technology that allow for peaceful, timely, resolutions to high risk incidents while using minimal numbers of personnel should be the law enforcement focus for the future.

## SECTION III - STRATEGIC PLAN

### PROCESS OVERVIEW

This section of the study involves selecting a strategy to reach a desired future. Several steps were taken to develop a strategic management plan. An imaginary San Francisco Bay police department called Alta View was selected as the site for implementation of the strategic plan and the transition management plan. Alta View is a medium sized city of approximately 70,000 people. The police department is made up of 80 sworn personnel and 40 civilian personnel. There is an investigation, patrol and administrative services division in the department. Each division is headed by a police captain.

A second imaginary agency known as Evergreen will play a key role in the strategy. This is also medium sized city of approximately 70,000 people. This city is wealthy and staffs 103 sworn officers and 60 civilian employees. It is the only city involved that has an existing SWAT/HNT program.

A mission statement was written to reflect the focus of Alta View with regard to the issue and sub-issues. A detailed situation analysis was written as a prerequisite to strategic planning. The first two phases of that analysis, called "WOTS-Up", involve the environmental factors that influence Alta View's ability to respond to the issue and sub-issues and is done in terms of "threats and opportunities." This is followed by internal analysis that discusses "strengths and weaknesses" of the organization as they pertain to the issue and sub-issues. A stakeholder analysis was completed and a panel met, in a Modified Policy Delphi process, to generate strategic policy alternatives. The panel completed an analysis of those alternatives and to made selections from them. A strategic plan was developed from a mix of two strategies selected by the panel.

The normative (second) scenario in Part II of this study described a high risk incident being managed by the Alta View Police Department. The incident was managed by a sophisticated regional team that had adequate resources, training, and command structure. The agencies involved had been able to take advantage of the latest technology because they had pooled their resources, and had just achieved an excellent outcome to a potentially disastrous incident. The plan presented in this section of the study is designed to achieve the results described in that scenario.

MISSION STATEMENT

Mission statements can define areas of operation, communicate inside and outside the organization, express values, serve as a foundation for strategies and decisions, guide behavior, build commitment, insure consistency or serve any combination of these purposes.

MISSION STATEMENT

The Alta View Police Department is committed to managing, through a coordinated, sophisticated team effort, incidents created by persons whose behavior causes extreme danger to themselves or others. Specialized tactics and state of the art equipment will be utilized commensurate with a reasonable use of force based on the circumstances present. In all cases, the protection of life will be our primary concern.

To accomplish this mission, the A,B,C,D & E Police Departments will form a regional Hostage Negotiations and Special Weapons and Tactics Team. A regional approach to the management of high risk unusual incidents allows each agency to manage the delivery of superior police services in a fiscally sound fashion.

ENVIRONMENTAL ANALYSIS

The researcher completed an analysis of the environment, external to the organization, in an attempt to identify opportunities that will support achievement

of the mission and threats that might prevent or reduce the likelihood of success. This was done in order to take advantage of opportunities and mitigate threats during the development of alternative strategies for managing the issue in the future.

OPPORTUNITIES

The citizens of California are in an uproar about crime in their state. The Polly Klaas kidnap murder case, the perception that random violence has spread to all areas of the state and that youth gangs, youth violence and drugs are out of control has encouraged a plethora of 'Three Strikes' bills to be introduced and passed into law. Citizens of the state passed Proposition 172 in the belief that the money raised would go public safety agencies. Some outrage, by the citizenry, is beginning to be expressed in those jurisdictions where this has not occurred. Many California law enforcement agencies have recently been able to find money to match federal money being offered in the form of President Clinton's grants which are designed to put more police officers on the streets.

The outrage over crime and the perception that it is rampant statewide is a perception mirrored by the citizens of Alta View. The police department has not yet seen any Proposition 172 money and members of the community are beginning to question why. In this environment, any law enforcement program which focuses part of its attention on repeat offenders, drug crimes, gang enforcement and other high risk criminal activity is likely to receive public support.

Fiscal cuts and the perception that violent crime is on the upswing would generally be considered threats, but they have also provided opportunities. The requirement to do more with less has encouraged reorganization and consolidation of resources, civilianization, the introduction of technology to increase efficiency and the beginnings of a more regional approach to crime fighting. In short, a

shortage of resources coupled with increased demands from the community have created an atmosphere where new ideas are welcome, experiments are encouraged and 'trial programs' proliferate.

In 1992, East Palo Alto was dubbed "murder capital of the United States" because it had a record 42 slayings, a rate of 175.4 per 100,000 population. Twenty six of those homicides were related to public, blatant, sidewalk and street corner drug dealing. East Palo Alto and its two bordering cities, Menlo Park and Palo Alto, joined forces to form the Regional Enforcement Detail (RED Team) to combat the crime in East Palo Alto.

The RED Team became the focal point of a regional effort to reduce crime in East Palo Alto and its surrounding area. This effort reduced all crime significantly and reduced homicides to six in 1993.

Additionally, there now exists a regional officer safety program sponsored by Alta View, Los Altos, Palo Alto and Stanford. This 40 hour class is presented 4 times per year and is attended by police officers from all over the state, including Menlo Park and East Palo Alto.

The researcher believes that these programs are significant as opportunities in the environmental analysis because they set a stage in which significant cooperation and consolidation has already occurred among agencies in close proximity to each other. This cooperation and consolidation has extended beyond county lines in that agencies participating in the RED Team are from two adjoining counties.

After a strategy was selected by the Modified Policy Delphi process, the researcher selected five agencies to model a regional approach to unusual high risk management in. Of these five agencies, two depend on one County Sheriff's

Department for SWAT/HNT support and two depend on the other Sheriff's Department.

The fact that these Sheriff's Departments have been negatively impacted by recent budget cuts, their tactical teams do not train often and they allow very little local control when they respond to these cities also presents an opportunity. Another opportunity is afforded by the fact that the fifth agency has a relatively large and well-trained team. It does not use them often and would like to reduce the costs for running the program.

In summary, there are five cities in close proximity to each other who have developed an atmosphere of cooperation and regional approaches to crime fighting and training. Four of these agencies are not happy with the SWAT/HNT service they receive from their Sheriff's Departments. The fifth agency has a fairly large team, but feels that the amount of use they get may not justify the expense.

This could be an opportunity for four cities to increase their control of and the quality of high risk unusual incident management. It may also improve the training and skills of their personnel and further improve working relationships between the agencies. The fifth city may have the opportunity to save money and improve the quality of service that it already provides.

The Sheriff's Department SWAT team was recently called into Alta View to handle a suspect who had barricaded himself into a trailer with explosives and gasoline. After 28 hours of negotiations, the trailer was assaulted contrary to the wishes of police department staff. The suspect tried to set off his bombs while the S WAT Team tried to force the door. Only one of the bombs went off killing the suspect. If they had all gone off, as the suspect had planned, there would have been significant property damage and possibly more loss of life.

This incident is an opportunity to launch a convincing argument for more local

control of high risk incidents. It will be a strong tool to use in gaining City Council and City Staff support for a new program.

A new City Manager is anxious to heal old wounds created during the labor problems eight years ago. He is aware that POA members relate their inability to reinstitute a SWAT/HNT program to ill will among City Council Members and City Staff over the eight-year-old issues. He has recently expressed interest in revisiting the issue.

THREATS

The economy has forced cutbacks in city government. While services provided by the Sheriff's departments are viewed as inadequate, they are free. Although costs can be mitigated by consolidation, any startup program will have startup costs that will not be looked on with favor in today's economy. Even when the economy does improve, a conservative view of government spending will continue for some time.

The issue of local control will be especially significant to the agency that already has complete control of its high risk unusual incidents now. Local control will be a factor for the other agencies, but, since they rely on an outside agency now, this will be less of an issue for them. If consolidation is well thought out and functions of command and control are designated in advance, this issue should be manageable.

The reaction of those personnel involved in the only existing SWAT/HNT program to consolidation is also a potential threat. Since the management of that agency will be looking for cost savings and cut backs, the personnel in the program may be concerned about loss of positions, loss of control over training and equipment purchase, quality control of the personnel in a consolidated regional program and a myriad of other concerns.

Liability issues may be threats. The four agencies without a program, currently

have reduced liability. The Sheriff's department assumes most of the responsibility when they manage incidents for these agencies. When their own personnel become involved in a program they will experience increased liability. This liability will occur not only in their own jurisdictions, but also in any other jurisdictions where they deploy.

For the agency with an existing program, they would assume some liability for personnel from other agencies when they deploy in their city and would also become liable for actions their personnel might take in the four other jurisdictions.

The Alta View Community is composed of two thirds high density rental housing and experiences the highest crime rate of the five cities selected for possible consolidation. It has the highest potential need for high risk unusual incident management and, because of weaknesses discussed in the organizational analysis, may have difficulty supplying its fair share of resources to a consolidated program. The potential need to expend the greatest percentage of the consolidated resources in the community least able to contribute resources is a potential threat to success of the mission and selected strategy.

The Alta View Police Department had a small SWAT team which was disbanded eight years ago. This happened during a time of labor strife and heated disagreement over the 2% at 50 retirement system. POA members decided to quit all programs that were voluntary. Some members of the City Management Staff and the City Council who were in office at the time felt that members of the SWAT team handled their resignations especially unprofessionally. Many of the people involved are still in place in the City Council and throughout the city. Two prior attempts (the most recent two years ago) to reinstitute a SWAT program in Alta View have failed due to lack of support by the City Council.

## ORGANIZATION ANALYSIS

The researcher completed an analysis of the fictional organization of Alta View in an attempt to identify strengths that will aid in achievement of the mission and weaknesses that might prevent or reduce the likelihood of success. As in the environmental analysis, this was done in order to take advantage of strengths and to mitigate weaknesses during the development of alternative strategies for managing the issue in the future.

### STRENGTHS

A relatively young and energetic management staff is headed by a progressive Chief of Police, who has extensive experience in coordinating a SWAT/HNT program. While his experience is dated, he understands the uses of tactical teams and will understand the need for training and equipment to be state of the art.

The Chief of Police has a good relationship with the chiefs of the other four agencies picked, as part of the strategy selection process, to be involved in a consolidated high risk unusual management program. Philosophies, policies and procedures are similar in all of the agencies.

The mid-management team has extensive experience in the management of high risk unusual incidents. All three captains and two of four lieutenants came from outside the organization seven years ago. They all had SWAT/HNT programs at the agencies they came from. Three of the five managers who came from outside were extensively involved in the programs. One of the lieutenants, promoted from inside the organization, was the SWAT team leader when Alta View had a S WAT/HNT program.

When the Alta View SWAT/HNT program disbanded eight years ago as the result of labor unrest, their equipment was stored. Some of that equipment is still serviceable and some of it has good trade-in value. This will reduce start up costs.

WEAKNESSES

The Alta View Police Department has the lowest per capita ratio of officers per thousand population of 13 nearby cities of similar size and has the lowest ratio in its county. Its high calls for service and high ratio of criminal calls for service, compared to non-criminal calls for service, creates a weakness that causes two potential problems.

It will be difficult to dedicate the same ratio of personnel and resources to a consolidated program because losses of personnel to training and incident call-outs would exacerbate the staffing shortage that already exists. As mentioned in the environmental analysis, the Alta View Police Department has the greatest potential for high risk unusual incidents of the five cities selected for the consolidation strategy. The greatest need coupled with the fewest resources cause a definite weakness.

A total of $120,000 was cut from the current fiscal year's budget. This resulted in the loss of a lieutenant position and reduction in a $70,000 training budget by $20,000. Money for purchase of equipment and other start up costs of a new program will be difficult to find. It appears that money from proposition 172 will not be used to support public safety needs in Alta View.

STAKEHOLDER ANALYSIS

Stakeholders can be defined as individuals or groups who impact what you do, are impacted by what you do, or who care about what you do. Snaildarters are unanticipated stakeholders who can radically impact your strategy. The researcher involved Captains Jim Enslen, Tim Neal and Larry Plummer, who are Command College graduates from his agency to assist, in a brain storming session with the identification of stakeholders and their assumptions about the issue. The following

is a list of ten stakeholders that the group believes will be important to the issue and sub-issues along with some of the assumptions the group believes they hold.

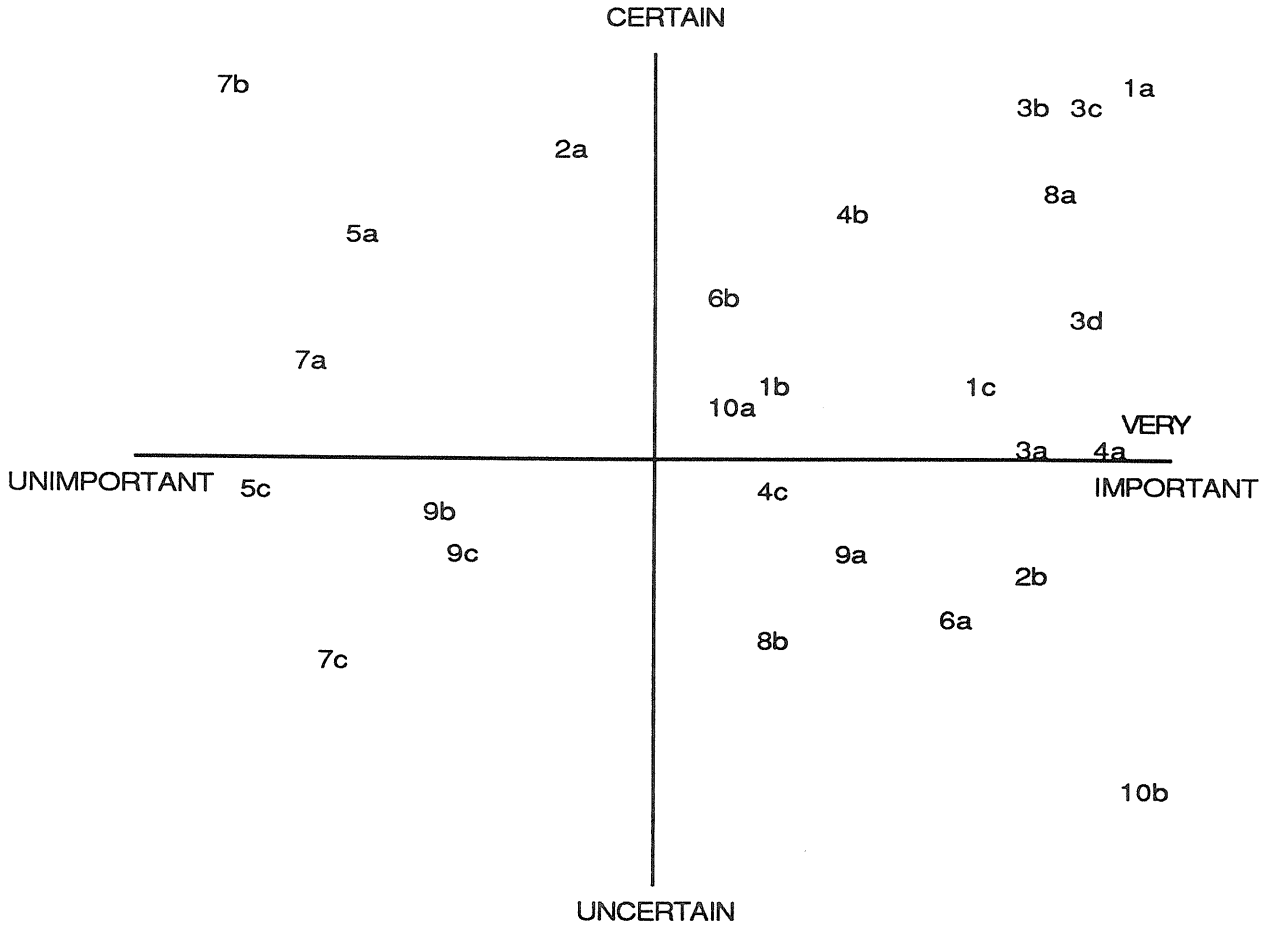
STAKEHOLDERS AND ASSUMPTIONS

| | | | |
|---|---|---|---|
| 1. | Chief of Police | 1a. | Wants local control of high risk unusual incidents in his city. |
| | | 1b. | Wants adequate human and technical resources to successfully manage high risk unusual incidents. |
| | | 1c. | Wants to keep costs at minimum and quality at maximum. |
| 2. | Police Officer's Association | 2a. | Support reinstitution of a SWAT/HNT program. Will see its reinstitution as a good will gesture by City Staff and City Council. |
| | | 2b. | Will not be willing to negotiate away other benefits to obtain a SWAT/HNT program. |
| 3. | City Manager | 3a. | Will support program as a good will gesture. |
| | | 3b. | Has reservations about the quality of service provided by Sheriff's Department. |
| | | 3c. | Wants local control. |
| | | 3d. | Does not want to spend extra money for a new program. |
| 4. | City Council | 4a. | Does not want to fund new programs. |
| | | 4b. | Does want high risk unusual incidents to be managed successfully. |
| | | 4c. | Is philosophically supportive of any program that members believe will help control violent crime and repeat offenders. |
| 5. | Police Mid-managers | 5a. | Want local control. |
| | | 5b. | Feel over-worked. Will not want to manage another program. |

| | | |
|---|---|---|
| | | 5c. Believe that the training involved will benefit the department as a whole. |
| 6. | Residents | 6a. Will support any program that might help control gangs, violence and repeat offenders. |
| | | 6b. Will not support more taxes. Expect greater efficiency. |
| 7. | Police Officers | 7a. Want a SWAT/HNT program and want the training that would go with one. |
| | | 7b. Will view team membership as a perk. |
| | | 7c. Assume that recommendation for a program will be denied. |
| 8. | Minority Community Groups | 8a. Will prefer that money be spent on formation of a Human Relations Committee or some form of community outreach or community policing program. |
| | | 8b. Will suspect that SWAT is a suppressive military style organization similar to those found in some of their native lands. |
| 9. | Communications Center (Dispatch) | 9a. Will not want increased work load. (Sheriff handles its own communications at incidents.) |
| | | 9b. Will want to be involved in early planning to mitigate communications problems. |
| | | 9c. Will demand training in unusual high risk communications management. |
| 10. | Sheriff's Departments (SNAILDARTER) | 10a. Will be resistive because program will further reduce justification for their own programs. |
| | | 10b. Now control mutual aid programs and will not like precedent of officers crossing county lines, for mutual aid purposes, before they are called. |

After the stakeholders and their assumptions were identified, the same group assisted in placing the stakeholder's assumptions on an assumption map. The following assumption map (Illustration Three) indicates the level of certainty the group felt about the assumptions and the likely importance of those assumptions to the issue and sub-issues.

ASSUMPTION MAPPING (Illustration Three)




STAKEHOLDER IDENTIFICATION

1. Chief of Police
2. Police Officer's Association
3. City Manager
4. City Council
5. Police Mid-Managers
6. Residents
7. Police Officers
8. Minority Community Groups
9. Communications Center
10. Sheriff's Departments

ALTERNATIVE STRATEGIES

A Modified Policy Delphi is designed to l) generate strategic alternative approaches to a policy issue, 2) analyze the feasibility and desirability of each alternative, and 3) reduce the number of alternatives to a manageable number for more strategic analysis. The researcher was assisted in this process by a group of seven Command College class mates. (Chief Carlos Bolanos - Redwood City P.D., Lt. Dennis Holmes - Milpitas P.D., Cpt. Ron Hunt - Fremont P.D., Cpt. Steve Krull - East Bay Regional Park District, Com. Edward Piceno - Santa Barbara Sheriff's Dept., Lt. Randy Sonnenberg - Foster City P.D., Lt. Mike Tracy - Ventura P.D.).

The eight strategies listed below were identified as alternatives by the panel. They were rated on the basis of feasibility, desirability short term, desirability long term, cost, quality of service, local control, stakeholder support and professional growth for members of the organization.

1. Agencies form regional SWAT/HNT programs.
2. Agencies contract with their Sheriff's Departments.
3. Military units trained in urban tactical operations provide tactical teams in each region.
4. Task force approach similar to narcotics teams supervised by Bureau of Narcotics Agents.
5. Do as well as possible with small SWAT/HNT program.
6. Manage incidents with existing personnel without special training.
7. Rely on technology (robots, chemical agents, etc.) to manage incidents.
8. Federal intervention. Federal law enforcement to provide service by region.

Of these eight, the two most popular and the one with the greatest rating diversity were selected for further analysis. The Modified Policy Delphi panel's

description and analysis of the those three strategies, in terms of advantages and disadvantages, follows.

STRATEGY ONE

Contract with the Sheriff's Department for SWAT/HNT services. The contract would include a fee to assist them in obtaining updated equipment and training. The contract would also increase the amount of local management control when they respond to the city.

Advantages

This is a feasible alternative in that Sheriff's Departments are entering into contracts to provide services routinely. Assuming the contract could be negotiated, this alternative would allow service to be provided quickly. Cost would be minimal compared to financing an autonomous program. Much of the civil liability would rest with the Sheriff's Department.

Problems associated with schedule adjustments, staffing problems for training and call-outs, finding training sites, and scheduling training would not effect the agency purchasing the service. Program management time would be minimal leaving the purchasing agency with the ability to focus on other community problems. Working out a contract with the Sheriff's Department and increasing day to-day contact, between the two agencies, might improve relations between the two agencies.

Disadvantages

The modified policy delphi panel felt that local control would continue to be a problem even with the contract. The Sheriff's Department has three teams. This is enough people to manage a barricaded person with hostages for about 8 hours. After that, tactical personnel become too tired to function well and need to be replaced. An agency that states "In all cases, the protection of life will be our

primary concern" in its Mission Statement may be willing but unable to negotiate for days. The Sheriff's Department opts for a tactical solution if negotiations fail during the 8 hour time frame. Tactical solutions are sometimes called for, but they are contrary to the Mission Statement when performed solely because personnel are becoming tired.

Staffing limitations could create problems for the Sheriff's Department if there were multiple incidents occurring in the county at the same time. They would not be able to manage two incidents at once.

The panel also felt that a contract with the Sheriff's Department would not meet all the needs of high risk unusual incident management for the police department. Specifically, SWAT/HNT teams are used to perform high risk search warrant entries. The panel felt that there would be disagreement between the two agencies regarding which search warrants qualified for a SWAT/HNT call out. The purchasing agency would probably have to train some of its personnel to perform search warrant entries that the Sheriff's Department was not willing to handle. This would put the city in the position of paying for partial service from the Sheriff's Department while also incurring the expense of training and equipping its own people to perform some tactical services.

The panel was concerned about the possibility of extended response time. Extended response time to high risk unusual incidents leaves the purchasing agency handling the incident during crucial early stages. This translates again to a need for training.

Consistency of program quality could fluctuate with changes of personnel, changes in priorities, and changes in Sheriff's Department financing over which the purchasing agency would have little control.

Having an outside agency perform a function is sometimes the best solution to

providing a service, but it does not allow for training and professional growth of the personnel in the purchasing agency. One of the viable arguments used to start S WAT/HNT programs has been that the tactical, safety and crisis intervention skills learned, improve police officers abilities. The skills learned are used in day to day operations and the training is shared with non-SWAT/HNT personnel. This increases skill levels and professionalism department-wide. This does not happen when an outside agency performs these functions.

STRATEGY TWO

A professional task force approach to high risk unusual incident management. This would involve a task force in which all agencies, in a given area, provide officers to form a team to provide services for the contributing agencies. The program would be modeled after the drug task force program supervised, in various counties, by the State of California Department of Justice, Bureau of Narcotics Enforcement. These programs are controlled locally by an advisory board made up of managers from each participating agency. The various task forces provide each other with mutual aid when needed.

Advantages

Could provide a state of the art program. Personnel would be full time participants focused entirely on the successful management of high risk unusual incidents. Training, research, equipment updates and call outs on a continual basis would establish each member of the team as an expert. A rotational policy would allow for some of that training and expertise to come back to the participating agencies.

High risk narcotics search warrant service would be part of the responsibility. As a result, there would be some asset seizure to offset costs of the program.

Because it is intended as a state wide program, mutual aid arrangements could

be put in place for large operations, lengthy operations and multiple operations. Technology and tactics would become consistent state wide. Liability for individual agencies would be reduced.

Disadvantages

Local control would be lost to some extent. Operational agreements would be reached during the task force formation. All agencies would have to agree to abide by operational agreements which would reduce their control over individual and unique incidents.

The response time disadvantages discussed in strategy one would probably exist. This would be exacerbated if multiple unplanned incidents occurred and agencies had to wait for a mutual aid response from out of the area.

Professional growth for members of the participating agencies would be limited because of the small percentage of officers who could participate in a full time task force.

The cost of a single full time police officer is more than enough to equip and train a small part time SWAT/HNT team. The loss of full time officers to such a program would be prohibitive for some departments. It would be difficult for a program that is used to manage problems that are unforeseen and unplanned to evenly distribute its services amongst the participating agencies.

STRATEGY THREE

Develop a regional SWAT/HNT program made up of part time participants who would work their normal full time assignments at their individual agencies. This regional effort would involve formation of one large team. The team would train together and be capable of breaking into smaller elements for operations not requiring the full contingent. Incident command would be the responsibility of the city where the team was being deployed.

Equipment standards would be mutually agreed upon. Individual equipment would be the responsibility of the officer's sponsoring agency. Team equipment costs would be shared by all agencies involved.

The panel selected five agencies located in close geographical proximity, with similar philosophies and policies regarding use of force, to model a regional program around. The agencies are located in two adjoining counties.

Advantages

In this instance, four of the five agencies do not have SWAT/HNT teams. They will gain the service at minimal cost, and be able to retain local control when an incident occurs in their cities. The fifth agency will be able to reduce the size of its existing team while increasing the number of trained responders available. They will reduce their costs.

Pooling money from five agencies will allow for the purchase of 'state of the art' technical team equipment that they could not afford alone.

The capability of having large numbers of SWAT and HNT personnel responding to an incident will reduce the staffing impact of high risk unusual incidents on the host jurisdiction.

High risk entry and tactics will be standardized for the five agencies and the team will be designed for multiple uses with great flexibility. The expertise gained in training and callouts will return to the participating agencies when their officers function in their normal full time duties.

The panel also believes that establishing this kind of a relationship with nearby agencies will have a positive effect on day-to-day interaction between the departments. Quality of policing in general may improve with the increased communication and team work amongst the involved agencies.

Liability will be pooled by the five agencies.

Disadvantages

The four agencies that currently have no high risk unusual incident management program will incur start up costs. Costs for training and equipment will be ongoing.

The staffing problem that existed in strategy one occurs here also. The combined agencies will be able to staff a slightly larger team than the Sheriff's Department. Lengthy operations (over 8-10 hours) and multiple operations would be beyond the capability of the regional team.

In the short term, the regional team would not be functional. Budgeting, buying equipment, selecting team members and providing training would probably take six months or more. The five agencies do not all share radio frequencies, so there would be communications problems to be solved.

Liability was listed as an advantage, but it could also be a disadvantage. The agencies would now have a liability for actions their officers would take outside their jurisdictions and a liability for actions of the officers from other agencies while they are in their jurisdiction.

SELECTED STRATEGY

The pros and cons of each strategy were discussed by the panel and an assessment of how the stakeholders would perceive each strategy was completed. The three strategies were ranked again using the same criteria.

Strategy three (the regional program) was selected as the preferred strategy. The panel felt however that blending parts of strategy one (Sheriff's Department contract) would remedy some of the disadvantages found in strategy three.

Strategy three provides enough personnel to manage most high-risk unusual incidents. It mitigates personnel expense while allowing the purchase of up-to-date equipment. Personnel hours dedicated to the program are less than they would be if

each agency tried to manage its own program. It allows for local control and should improve communications between all of the agencies involved.

The Sheriff's Departments from both counties could cover for the regional agencies while they are in the formative stages. Reciprocal mutual aid between the regional team and both Sheriff's Departments would solve the problems created by lengthy operations and multiple incidents. The collaboration should improve relations all around.

The panel believes that the combination of the two strategies meets most of the stakeholders needs. The Chief of Police and the mid-managers get the local control, adequate resources, training and minimal cost that they want. The police officer's association and the police officers were generally supportive already. The City Manager, City Council and the residents will still be concerned about start up and maintenance costs, but these are mitigated somewhat by shared spending and personnel. The Sheriffs will receive some direct benefit, which should gain their support. Communications personnel will still have concerns and will be included in the implementation plan. Minority community group concerns will be unchanged unless a special effort is made to educate them and make them feel involved.

IMPLEMENTATION PLAN

The five agencies will have to agree on policies and guidelines for the formation and use of their regional team. A liaison should be designated from each department, and one person should be given primary responsibility for working through the preliminary tasks. The transition management plan, in section IV of this study, designates a respected manager from the only agency with an existing tactical team program to take the leadership role in this process. This group, or one similar, needs to ensure continuous evaluation and updating after the program is

functioning. This program must be designed around a philosophy that allows it to continue to evolve as tactics and technology change or it will not be viable for the study period and beyond.

There should be written agreement regarding 1) the number of personnel to be committed by each agency, 2) the selection and deselection process for those personnel, 3) individual and team equipment needs, 4) what functions the team will perform, 5) call out procedures, 6) training requirements and 7) command and control during incidents.

These agreements should be documented in the form of a mutually agreed-upon mission statement, a general order and a manual outlining who is responsible for what functions during high risk unusual incidents. This information will need to be shared with all personnel from all five agencies so that the program is well understood by everyone.

After selection of personnel and purchase of equipment, training should be scheduled. The training should be designed to qualify team members to perform those tasks agreed upon during the original staff work. The training strategy should provide all five agencies with certification for those functions the regional team is qualified to perform and assure that they will not be called to perform a function that they have not qualified for.

Completing those tasks and having the team ready to perform all of the functions normally associated with SWAT/HNT will take an extended period of time, which is outlined in section IV of this study.

During this time, arrangements should be made with the Sheriff's Departments to provide services that the regional team is not prepared to provide. A bi-county tactical commanders association should be formed and regular meetings should be held. This group should discuss philosophy and concepts of managing high risk

unusual incidents. They should assist each other with training and make their tactics consistent.

When the regional team is in place and functional, a mutual aid agreement should be reached that would allow for the management of lengthy and or multiple incidents in both counties.

Technology will solve many of the tactical problems associated with high risk unusual incident management, as forecast in hyothetical scenarios 2 and 3. A technology sub-committee should be formed to continually explore the uses of new technology in high risk incidents. The agencies should pool their financial resources to make sure that their equipment is, and continues to be, state of the art.

## SECTION IV - TRANSITION MANAGEMENT

The purpose of transition management is to actualize the strategic plan from the present to the projected future. It is a plan for the management of change. This section of the study will identify those persons who will be critical in making the change happen. It will discuss what their roles might be and analyze their readiness, or what is needed to make them ready, to manage those roles.

IDENTIFICATION OF KEY PLAYERS ("Critical Mass" Individuals)

Identifying critical mass individuals is a key component to the process of transition management. Transition management is the process of getting from today's circumstance to what is perceived as the desired future. Critical mass individuals are the minimum number of individuals who can make the desired change occur through their support or conversely can prevent it from occurring through lack of support.

The researcher was assisted in a brain storming session by three Captains from his own agency and by the Tactical Commander from Evergreen, the agency mentioned with an existing tactical and negotiations program. The groups and individuals below were identified as the critical mass. A discussion of their current level of commitment to the strategy and the minimum commitment required to ensure success of the plan is included. Where appropriate, an approach that might be taken to move them to the required level of commitment is also included.

A commitment chart identifies the current position and the desired position for each member of the critical mass. Four categories; Block Change, Let Happen, Help Happen and Make Happen, were used to assist the reader in following what movement objectives were desired for the particular group or individual to reach in achieving this plan. "X"indicates the current position and "O" indicates the desired position.

COMMITMENT CHART (Chart Four)

| Actors in Critical Mass | Block Change | Let Change Happen | Help Change Happen | Make Change Happen |
|---|---|---|---|---|
| Alta View Chief of Police | | X → | C | |
| Evergreen Chief of Police | | X → | C | |
| Evergreen Tactical Commander | | | X → | O |
| Evergreen HNT Coordinator | X → | C | | |
| Evergreen SWAT Team | | X → | C | |
| City Managers | | X → | C | |
| City Councils | | X → | C | |

Alta View Chief of Police

A progressive chief of police who has extensive experience in coordinating a SWAT/HNT program. While his experience is dated, he understands the uses of tactical/negotiations teams and will understand the need for training and equipment to be state of the art. His department does not have its own program and currently relies on the County Sheriff's Department. He is not comfortable with this arrangement.

This chief was selected as part of the critical mass because he has the best knowledge of tactics and negotiations of the five chiefs of police. He also has an excellent relationship with all of the other chiefs. He is the key person to gain the support of the chiefs of police from the other agencies.

He is currently in the Let Happen category, but needs to be moved into the Help Happen area. He is generally supportive of innovation and favors regionalism as a concept. A skeletal plan that answers basic questions regarding budget, training and local control of incidents should move him to the Help Happen category. The Evergreen Tactical commander will be the ideal person to answer questions for and gain the support of the involved Chiefs.

Evergreen Chief of Police

He is also a progressive Chief of Police. His department is well known for having tremendous resources and for providing excellent service to its community. This is the only department with an existing Special Weapons &Tactics Team (SWAT) and a Hostage Negotiations Team. This Chief has already been significantly involved in regional enforcement programs that have crossed county boundaries, and he is interested in reducing the expenses of his SWAT/HNT program. He is in the Let Happen category and needs move to the Help Happen category because of the work he must do with his City Manager and City Council. Since his existing program will be at the core of the change, he could block the change. The risk to the strategy is that members of his staff may try to move him to the Block Change category.

Evergreen Tactical Commander

A lieutenant with many years of experience with SWAT. He is well known and respected regionally for his leadership skills and his knowledge. He has been an instructor in the areas of officer survival and arrest & control for over 10 years. He is the logical person to become the project manager for this strategy. He has participated as a member of the Nominal Group Technique and the panel that helped select the critical mass for this Independent Study Project.

He is currently in the Help Happen category. He will be easily moved to the Make Happen category if the predicted support from the rest of the critical mass is confirmed.

Evergreen Hostage Negotiations Team Coordinator

A Captain and the most likely to be in the Block Change category in the critical mass. He has been a member of the Hostage Negotiations Team, in a variety of capacities, for many years as he has come up through the ranks. This unit was the

responsibility of lieutenants from 1972 to 1992. When he was promoted to captain in 1992, he refused to pass the Hostage Negotiations Team Coordinator position to a lieutenant.

This person has a reputation for being controlling and interfering in all areas of the department. He has always been anti-SWAT and has tried to pit the negotiators against the tactical people from the time he became a negotiator. He feels that tactical resolutions to high risk unusual incidents are never appropriate and that tactical teams are unnecessary. He believes that whoever happens to be on duty can handle perimeters around high risk unusual incidents while the negotiators resolve the problem.

He is never in favor of a change unless convinced it is his idea. He has the potential to convince the Evergreen Chief of Police to block the change. He is in the Block Change category and must be moved to the Let Happen area. This will be best accomplished by convincing him that regionalizing the negotiations portion of the strategy will broaden his sphere of influence and enhance his professional image. A belief that he will be able to influence the tactical side of the strategy would also enhance the chances of gaining his support. This will be best accomplished by the Evergreen Tactical Commander and some supporters from the Evergreen Hostage Negotiations Team.

This person is disliked by many at the supervisory and line levels. If he moved to the Help Happen category he might cause problems for the strategy. If he moved to the Make Happen category, the strategy would probably be doomed.

Evergreen SWAT Team Members

Some of the best officers in an agency that actively encourages risk taking, innovation and providing excellent service. They will have concerns about

retaining the quality of their existing program. They will be troubled by the possibility of reducing the size of their team in order to save money.

This group is placed in the critical mass because they have tremendous influence with the staff of their department and could convince them to block the plan. If the plan is given conceptual approval, they could prevent the transition from occurring successfully. With their support, they can influence staff to approve the plan and they will be instrumental in making the transition successful.

A meeting with this group, set up by the Evergreen Tactical Commander and other supporting managers, will be one of the first things that happens. The concept will be presented to them and they will be asked to help work out the details to their satisfaction. This group is in the Let Happen mode now, but will need to be in the Help Happen category. They must actively support the plan and be willing to act as the core group during the transition. They will be the role models, trainers and mentors for the outside agencies entering the regional program.

City Managers

A scaled down version of the strategy could occur with the participation of Evergreen and Alta View only. For that reason, there was some debate among the panel about whether to include only the two city managers from those cities as part of the critical mass. The final decision was to include them all. This decision was based on the fact that they all consult with each other on a routine basis. The panel felt that if one of them decided to block the strategy, that decision would have significant influence on the others.

This group will be concerned with issues of liability and finance. They have veto power and their support will be mandatory when it is time to approach the City Councils for final approval and financial resources. The panel felt that they are in

the Let Happen category, but must be moved to the Help Happen category before the City Councils are approached. The Chiefs of Police will provide the primary influence when it is time to gain the support of the City Managers.

City Councils

The plan requires increased financial commitment from four of the cities. It requires approval of Joint Powers Agreement from all five agencies. The City Councils have the authority to grant both. A scaled-down version of the strategy could proceed without the three smallest cities, but a blockage by one of the City Councils would have great influence on the others.

The City Councils have experience with regional programs on a smaller scale. The panel believes that they are in the Let Happen area now, but they must be moved to the Help Happen category to get the final approvals necessary.

Each of these Councils has a Public Safety Committee. Three Council Members are on each of the Public Safety Committees. Presentations to the Public Safety Committees by the City Managers and the Chiefs of Police from the respective cities, with assistance from the project manager, will be used to gain their support. Questions and concerns can be addressed early in the process at this level. The Public Safety Committees make recommendations to the Councils and approval or denial is usually in place before issues go to a vote.

MANAGEMENT STRUCTURE

A variety of management structures could potentially work the chosen strategy through its transition state. The researcher believes that combining two change-management structure options will be most likely to achieve success.

The Evergreen Tactical Commander is well known regionally for his technical skill, his leadership and his interpersonal skills. Much of the work required to take the plan through the transition state will require in-depth knowledge of budget

requirements, training needs, current methods of managing high risk unusual incidents and a future oriented outlook. He will make an ideal project manager.

Because this strategy involves multiple agencies with stakeholders and members of the critical mass in all of the agencies, there will also need to be a group of representatives of the constituencies formed. While the project manager can provide focus and expertise, input and approvals will have to come from all of the agencies. A management person from each of the other four agencies can assist the project manager and receive input and approvals from the respective agencies.

It is expected that the project manager and the representatives of the constituencies will work on this project, part time, in addition to their normal work assignments. Hence, "job enrichment" is also part of the management structure to be employed.

## TECHNOLOGIES AND METHODS TO SUPPORT IMPLEMENTATION

To be successful, the chosen strategy will involve people at several levels of government and organizational structure. Because it involves groups and individuals with divergent interests and concerns, it will require a variety of technologies to support its implementation.

### Commitment Planning/Commitment Chart

The development of a commitment plan in which critical mass players are identified, their commitment is evaluated and the support required from them is identified is an example of a technology or method used to support implementation of the strategy. Designing action steps to gain the needed support is also part of this process. Some of those action steps are described below.

### Problem Finding

This is a process in which critical mass players meet to discuss, identify and clarify the problem. This is a non-public non-binding discussion and brain storming

session that allows the group to work through concerns, anxiety and uncertainty. As mentioned in the discussion of the critical mass, Evergreen SWAT Team members will have concerns about retaining the quality of their existing program. They will be troubled by the possibility of reducing the size of their team in order to save money.

They are also a knowledgeable, innovative group that will recognize the benefits of having additional personnel, more equipment, new technology and other additional resources. Problem finding will be an excellent technique for them to use to clarify the issues and to encourage commitment.

Variations of this technology could be useful for all of the groups listed in the critical mass.

Educational Intervention

Educational activities help people understand a problem, the need for change and help induce the needed commitment. An educational exercise for those members of the critical mass who are not members of the law enforcement profession will help them understand the problems of managing high risk unusual incidents. A description of the process and the number of trained personnel needed to establishing inner and outer perimeter teams, movement teams, command posts, emergency medical posts and hostage negotiations teams is an impressive way to establish a need for a regional program.

The logistics of communications, press liaison, feeding personnel and replacing them when they are fatigued communicates the massive resources needed to manage a high risk unusual incident, especially if it lasts longer than eight hours. The tremendous resources required combined with the liability associated with these incidents will have impressive impact on the City Manager and City Council critical mass groups.

Confrontation/Goal Setting Meeting

At some point, the Evergreen Hostage Negotiations Team Coordinator must be moved from the Block Change to the Let Happen category. If the project manager, the representatives of the constituencies and the members of the Evergreen SWAT Team were united in a commitment to the concept of the strategy, a confrontation/goal setting meeting might be effective.

In these meetings, the total group meets and a general purpose and procedure is outlined. Mixed subgroups meet and prepare lists of desired changes. The total group reconvenes and broad categories of change are drafted. Action plans are framed, recommended priorities are set and plans for communicating are put in place. Decisions are made and follow up meetings are scheduled.

Placing the Evergreen Hostage Negotiations Team Coordinator in the position of being the only naysayer would be very uncomfortable for him. His desire to have some control over everything would likely put him in a position of supporting the strategy so that he can be involved in its implementation.

Responsibility Charting

Responsibility charting is a tool that will be used throughout the period of transition management in accomplishing the main strategy and the collateral strategies chosen by the Modified Policy Delphi group. This tool involves two or more people going through a process that combines individual and group work.

The final outcome is a list of actions, decisions or activities recorded on a chart. A list of "actors" who have a role concerning each action or decision is included on the form. The required behavior of each actor is decided upon and broken down into 1) R - Responsibility to see that decisions or actions occur, 2) A - Approval of actions or decisions with right to veto, 3) S - Support of actions or decision by

provision of resources, but with no right to veto 4) I - Informed of action or decisions, but with no right to veto and 5) - Irrelevant to this item.

When this process is complete, the group should have agreed on each item by consensus decision and only one R should exist for each activity. This results in an agreed-upon chart, an understanding of people's roles and, due to the discussion that occurs, an understanding of their attitude toward their roles.

This is a tool that can be used starting with the first meeting of the project manager and the representatives of the constituencies. It will be effective throughout the process of gaining the necessary approvals for the strategy and for doing the work of implementing the strategy.

TRANSITION MANAGEMENT (Outline of Major Events)

PHASE ONE *M=Month W=Week*

PLAN AND ORGANIZE

A. Initial approach/presentation to existing Evergreen SWAT members *M I ,W I*

1. Problem finding session to gain support for concept

B. Initial approach/presentation to Chiefs of Police *M I , W 2*

1. Discuss concept only
2. Receive approval for recommended management structure
3. Have Chiefs make commitment to appoint representatives of the constituencies

C. First meeting of project manager and representatives of the constituencies (management team) *M 2 , W I*

1. Team building and problem finding session
2. Define roles
3. Initial responsibility chart
4. Rough draft of scope of project (Numbers of personnel, costs, etc.)

D. Presentation of draft manual, mission statement and general order to management team *M 3 , W 2*

1. Number of personnel to be committed by each agency
2. Selection and deselection process of team members
3. Individual and team equipment needs
4. Outline of functions team will perform
5. Call out procedures
6. Training requirements (Start up and maintenance)
7. Command and control during incidents

E. Presentation of draft budget to management team (start up and maintenance) *M 3, W 3*

1. Team equipment
2. Individual equipment
3. Schools
4. Travel and per diem
5. Overtime
6. Back fill when team members are away

F. First rewrite of manual and budget to Chiefs for review *M 3 ,W 2*

G. Second meeting with Chiefs to discuss details *M 4 , W 2*

1. Rewrites and adjustments as necessary

H. First formal meeting with City Managers *M 6 , W 1*

1. Individually or as a group?
2. Primarily an educational intervention process
3. Rewrites and adjustments as necessary or
4. Support and authorization to meet with Council Public Safety Committees

I. Meet with each of the five Council Public Safety Committees *M 7 & 8*

1. Five separate meetings
2. Primarily educational intervention process
3. Rewrites and adjustments as necessary or
4. Support and authorization to present to City Councils for approval and budget

J. Presentations to City Councils *M 9 & 10*

1. Five separate presentations
2. Rewrites and adjustments as necessary or
3. Authorization to begin implementation

PHASE TWO

IMPLEMENTATION

A. Make adjustments as/if needed in make up of management team *M II , W I*

1. Establish a new responsibility chart

B. Meet with members of existing Evergreen team *M II, W 3*

1. Update
2. Gain support and assistance
3. Responsibility charting

C. Selection of personnel *M 12 - 15*

1. Physical agility testing
2. Psychological testing
3. Interview
4. Select command level, supervisory and team member personnel

D. First meeting of new personnel *M 16 , W I*

1. Team building exercise
2. Responsibility chart for work to make team functional

E. Purchase budgeted equipment *M 12 - 18*

F. Arrange initial training session(s) *M 16 - 24*

G. Monitor and test for readiness of team to perform job tasks *M 16 - 24*

1. Firearms qualification
2. Tactical qualification
3. Command structure qualification

PHASE THREE

FORMALIZE

A. Formalize new structure *M 24 - 26*

1. Public announcements of program readiness
2. Organizational announcements of program readiness

3. Organizational educational intervention
4. Mock incident trial run in each city

B. Fine tuning organization and interface relationships *Ongoing*

C. Establish technology/equipment committee to continuously evaluate technology and it potential uses for SWAT/HNT *Ongoing*

D. Establish training committee to continuously evaluate new tactics for use by SWAT/HNT *Ongoing*

PHASE FOUR

EVALUATE

A. Evaluation of the transition *M 26 - 32*

B. Monitor new organization *Ongoing*

1. Make adjustments as necessary

Similar outlines could be written for the collateral strategies involving 1) support from both Sheriff's Departments during the transition period and formal mutual aid agreements when the regional team is functional, 2) formation of the bi-county tactical commanders association and 3) formation of the technology task force.

TRANSITION MANAGEMENT SUMMARY

All five of the agencies involved in the regional tactical team program, as well as the communities they serve, stand to benefit from successful completion of the transition management plan. The possibility of success will be greatly increased if the above strategies, management recomendations, and technologies are followed. With the dwindling resources available to public entities, it is essential that organizations pool their financial resources and their employee expertise. This particular plan was designed around five geographically close agencies, but it could be adapted to accommodate larger or smaller areas if properly administered.

The key to successful change and transition is consistent lines of communication. Effective communication reduces anxiety and uncertainty, and impacts change during the transition period. Poor communication techniques delay the progress of transition and may halt needed change all together.

## SECTION V - CONCLUSION

This study suggests that most small to medium size agencies have already failed to keep up with larger agencies in applying resources to the resolution of high risk incidents. It certainly indicates the need for most small to medium size law enforcement agencies to evaluate what the desired future will be in managing high risk incidents. Each agency's needs are somewhat unique. Crime levels, geography, growth, funding and a myriad of other factors will effect how each agency reacts to this issue in the future. Some considerations and conclusions can be drawn from this study that should be considered by all law enforcement agencies and particularly those with limited resources.

Some conclusions reached with regards to the sub-issues are as follows:

**How will local control of incidents be maintained?**

The two most likely ways appear to be 1) maintaining the status quo and continuing to handle high risk incidents exclusively at the local level with local resources or 2) organizing a regional approach and involving management personnel from each participating jurisdiction.

The risks of managing these incidents with the limited resources available to smaller agencies is clear and was addressed in hypothetical scenario # 1 of this study. This is especially true in light of the increasing resources being applied to these situations by law enforcement agencies with large resource pools such as Los Angeles and the Federal Bureau of Investigation.

**How will law enforcement use regionalization or consolidation?**

Hypothetical scenario # 2, the strategic plan and the transition management sections of this study focus on a plan for regionalization. This plan involves five jurisdictions in two counties. The advantages in terms of staffing, resources, cost sharing, improved communication and the increased ability to keep up with the

"state of the art" are clear. The difficulties involved in sharing resources, establishing command structure, scheduling, liability and the political environment are also clear. For small to medium-sized law enforcement agencies to provide excellent service to their communities, at times of crisis, they must work through the hurdles and pool their resources.

**Will contracting or another form of collective effort be used to deploy high risk management?**

The panel used in the Nominal Group Technique felt strongly that contracting will only be used by those agencies who have no resources to apply to this issue and/or little need for high risk management. Protection of life is at the core of the law enforcement purpose. Few, if any law enforcement agencies favor abdicating that responsibility to another organization during high risk incidents. The consensus was that agencies will try to get by with their own limited resources or will regionalize to be more effective.

**How will technology affect high risk incident tactics?**

Microwave projectiles, flash blinding bombs, chemical laser rifles, sticky or electrified nets, and super slippery fluids exist in prototype forms today.[31] Robots, listening devices, audio devices, probing radar devices and a myriad of other high technology devices are on the horizon.

The day the researcher was writing this conclusion, the Fall 1994 issue of the Tactical Edge arrived. It featured an article about Mesa, Arizona's new $50,000 robot. The robot has "X-ray capabilities, a dual mounted water cannon, three separate angle mounted viewing cameras, a VCR tape recording system, a public address system, a front end gripper that has a grip strength range from 20 pounds of pressure to crushing capacity, front arm extensions that will enable the robot to reach the second

[31] Langreth, Robert: "Soft Kill: The Picture of Warfare," Popular Science. Vol. 245, No 4, pg. 69

story of a structure, the robot can drag up to 600 pounds, a mounted shotgun with laser sighting system, front and rear mounted spotlights, a television monitor, a replaceable 8-hour power source."[32]

This study indicates that technology can have a dramatic impact on high risk management. Much of that impact will occur near the end of the 10-year study period or even later. All indications are that technology will greatly alter today's tactics and possibly make them obsolete, as indicated in hypothetical scenario # 3.

The research information was targeted to the issue: **"What methods will medium and small size law enforcement agencies use for high risk incidents by the year 2004?**

The ability to manage high risk incidents is important to the vast majority, if not all, of California law enforcement agencies. These incidents tax agency resources and carry tremendous liability with them. Being prepared in advance, to the extent possible, to manage these incidents while harnessing all available resources is the key to success.

This study gives the reader a basic, generic plan for a regional tactical program that pools resources to supply adequate numbers of trained personnel, provides modern equipment, allows for local control of incidents, and evolves as equipment and tactics improve. This should be considered a living plan that must continue to change throughout the study period and beyond. This plan can be modified to meet the needs of most medium and small size law enforcement agencies.

[32] Shields, Tom: "Robotic Technology Joins the Mesa (AZ) P.D.'s Tactical Team," The Tactical Edge. Vol. 12, No 4, pg. 65

## APPENDIX A

## NGT PANEL

1. Ben Tisa. An FBI Agent who is internationally recognized as an expert in high risk incident management. He has been involved in high risk management since the early 1970's. He has been a team leader of the San Francisco Division FBI S WAT team and has been their Coordinator/Incident Manager. He is the originator of the FBI Method of Defensive Tactics/Arrest and Control and has taught Advanced Officer SWAT, Unusual/High Risk Incident Management for Commanders, Defensive Tactics Instructors Course, Explosive Entry, Tactical Leadership Seminar, Flash Sound Diversionary Devices Instructors School, Chemical Agents Instructors School, Firearms Instructors School, and a SWAT Sniper School throughout the free world.

He has recently returned to the San Francisco FBI Training Unit after being on loan, as a trainer and adviser, for five years to the United States Marine Corp Special Operations Group. During this time, he worked with various Special Operations Groups of several branches of the military in establishing training programs. These programs were designed to train instructors to teach military tactics adapted to be effective in an urban environment with selective targets.

2. Kathy McKenna. A captain with a Santa Clara County Police Agency of 100 sworn. She has been involved in hostage negotiations as a negotiator, trainer and manager since 1981.

3. Bob Brennan. A lieutenant with a Santa Clara County Police Agency of 100 sworn. He has been involved in the SWAT program since 1981. He has been a S WAT Team member, supervisor and instructor and is now the Tactical Commander for his department.

4. Tom Destefano. A sergeant with a Santa Clara County Police Agency of 100 sworn. He has been involved in the SWAT program since 1980. He has been a S WAT team member, supervisor and tactical commander. His current title is that of Tactical Advisor. He is responsible for training, equipment purchase, supervising the Tactical Operations Center at incidents and for technology research for his agency.

5. Steve Conte. A sergeant with a Santa Clara County Police Agency of 85 sworn. He is responsible for the start up of his departments Hostage Negotiation Team in 1988 and is the coordinator of their program.

6. Dennis Burns. A sergeant with a Santa Clara County Police Agency of 100 sworn. He has been involved in the SWAT program since 1983 and is currently one of two team leaders.

7. Jean Bonander. A city manager of a small city in Marin County. She has been in city government since 1977. She has been the Director of Utilities and a civilian support services manager in the police department of one city, an Assistant to the City Manager in another city, and a Town Manager in a third jurisdiction before moving to her current City Manager position. The first city she worked in had a S WAT/HNT team. She helped start one in the second city and there are none in the cities she has managed.

## APPENDIX B

## INITIAL TRENDS AND EVENTS

Events (An event is a one time occurrence that can have an impact on the issue.)

1. Small agency 7 person SWAT team attempts hostage rescue. Three SWAT members die, all hostages killed and suspects escape.

2. Sheriff's Dept. SWAT/Negotiators team assists small agency with hostage situation. Chief of Police refuses to let Sheriff's SWAT team act. Hostages die.

3. Sheriff's Dept. SWAT/Negotiators team assists small agency with hostage situation. Sheriff's Dept. acts without authorization of local Chief of Police. Hostages die.

4. Small police department held liable for actions of poorly equipped/trained SWAT team.

5. Small police department attempts to handle hostage incident without trained tactical team or negotiations personnel. Hostages die.

6. Technology makes it possible for the command post to see and hear everything that front line officers see and hear.

7. Livermore lab designs hand held equipment that locates people in buildings by their body heat. Number of people and their locations are no longer a guessing game.

8. Silicon Graphics can run SWAT teams through computer generated versions of buildings before they serve search warrants or perform rescues. SWAT teams put on virtual reality glasses and practice their tactics before performing their missions.

9. Loral allows access to their satellite system and surveillance of subjects and properties is done by satellites down linked to remote locations.

10. Robots handle high risk room entries and room clearings.

11. Listening devices make it possible to hear all occupants of high risk incident sites.

12. Fiber optic or microwave technology makes it possible to unobtrusively place video devices so that you can see into all areas of an unusual incident.

13. Effective, affordable non lethal weapons that incapacitate are developed.

14. Commercial buildings are required to fiber optically wire each room for television, making it possible to plug into the building from outside and see what is going on in each room.

15. Artificial intelligence software accurately predicts behavior of suspects and recommends tactics most likely to succeed.

16. Medical cure for violent behavior introduced.

17. Hypnotic suggestion by hostage negotiators defuses hostage/barricade incidents.

18. Cost recovery program mandated for all unusual incidents that require S WAT/negotiators call outs.

19. Drug cartels bring the drug war to the U.S.A.

20. Full body, with full range of motion, protective/ballistic suits developed.

21. State of California mandates minimum standards for equipment, training, personnel selection and tactics to be used in hostage and barricaded subject incidents.

22. Mexico/USA border closed. Law enforcement tasked with aggressive incarceration and deportation program.

23. Terrorists attack World Cup Soccer event at Stanford University/Palo Alto.

24. Command level tactical training mandated.
25. Command level HNT training mandated.

26. Cross training for tactical and negotiations personnel required state wide. State Police form full time SWAT/HNT teams and respond to all barricaded and hostage situations.

27. Legislature mandates regional SWAT teams.

28. Civilian review of all use of force mandated.

29. Legislature mandates regional HNT.

30. Deployment of SWAT teams mandated in some circumstances.

31. Deployment of Hostage Negotiations Teams mandated in some circumstances.

32. Computer Aided Dispatch systems programmed to analyze need to SWAT/HNT and perform automatic call out.

33. State of California requires P.O.S.T. certification for all SWAT/HNT programs.

34. Effective gun control laws in place.

35. Mandatory death sentence invoked for any crime committed with a firearm.

36. A "Robo-cop" suit is made available to law enforcement.

Trends ( A trend is a series of events that are related and occur over time.)

1. Level of violence in the work place.

2. Public perception of violent crime.

3. Public perception of random violent crime.

4. Less than lethal weapons.

5. Impact of live media coverage of critical incidents.

6. Terrorist bombings in the U. S. A.

7. Impact of military technology on law enforcement/SWAT.

8. Level of SWAT state of the art expectations.

9. Level of HNT state of the art expectations.

10. Level of funds for training.

11. Level of funds for technology.

12. Impact of technology on training methodology.

13. Impact of robotics technology.

14. Satellite surveillance and geo mapping/positioning technology.

15. Community Oriented Policing.

16. Level of emphasis on training of Command personnel for critical incidents.

17. Territorial and drug gang warfare.

18. Impact of civil liability on incident management.

19. Impact of civil liability on use of force options.

20. Impact of civil liability on use of force training.

21. Training costs.

22. Equipment costs.

23. Deployment costs.

24. Public perception of SWAT teams.

25. Public perception of police use of force.

26. Federal involvement/assistance in local problems.

27. Level of regionalism in general.

28. Level of regionalism in SWAT/HNT.

29. Level of POST commitment to local law enforcement training.

30. Level of POST commitment to SWAT/HNT training.

31. Level of FBI commitment to local law enforcement training.

32. Level of FBI commitment to local law enforcement SWAT/HNT training.

33. Impact of the National Tactical Officers Association.
International Association of Chiefs of Police tactical training commitment.

34. Efficiency of deadly weapons/firearms.

35. Level of availability of deadly weapons/firearms.

36. Separation of SWAT and HNT units.

37. Combining SWAT and HNT units.

38. Impact of the Fire/Natural Disaster Critical Incident Command System.

39. Level of gun control in nation.

40. Civilian overview of law enforcement.

41. Impact of the Fire/Natural Disaster Critical Incident Command System.

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