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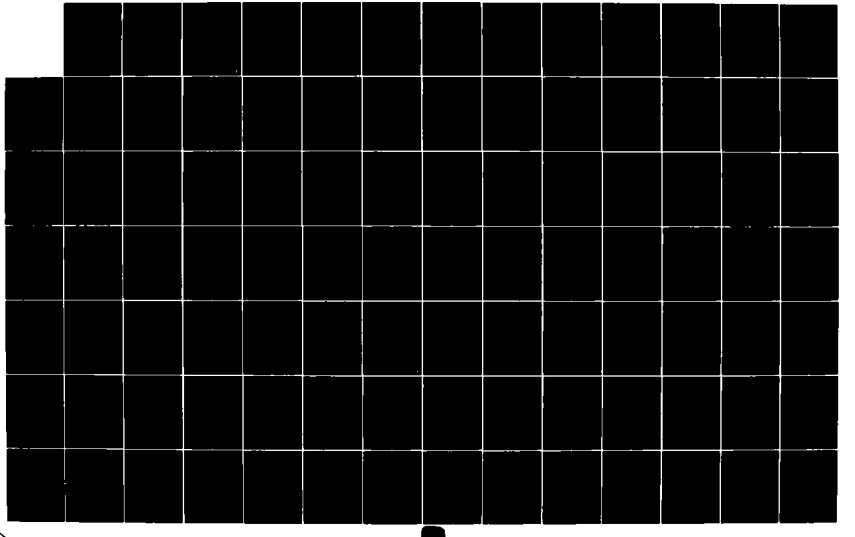

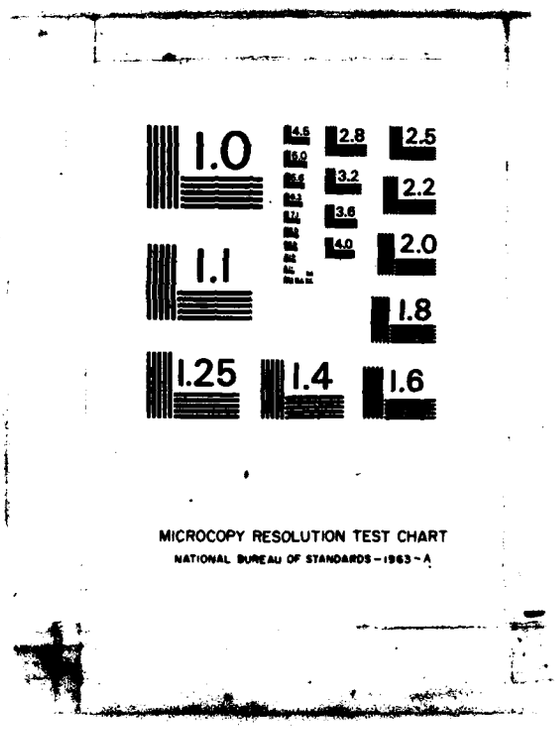
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PRACTICAL GUIDE FOR EMERGENCY CRIME PREVENTION AND PENAL SYSTEM ALTERNATIVES IN CRISIS RELOCATION PLANNING

FINAL REPORT

September 1982

Contract: EMW-C-0682

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RYLAND RESEARCH, INC.
Santa Barbara, California

PRACTICAL GUIDE

FOR

EMERGENCY CRIME PREVENTION

AND

PENAL SYSTEM ALTERNATIVES

IN

CRISIS RELOCATION PLANNING

FINAL REPORT

21 SEPTEMBER 1982

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FEDERAL EMERGENCY MANAGEMENT AGENCY

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

A crisis relocation, as well as other types of civilian evacuation, presents an environment for increased criminal activity. Alternative methods of preventing crime can reduce the opportunity for criminal activity, increase the likelihood of apprehending a criminal, and increase or conserve law enforcement resources. Similarly, alternatives to the usual disposition of prisoners in risk areas can reduce demand on facilities and law enforcement personnel workload. This Guide, prepared for use by law enforcement and crisis relocation planning personnel, describes crime prevention techniques and prisoner disposition alternatives potentially useful in crisis relocation periods.

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DETACHABLE SUMMARY

Relocation of citizens in an international crisis situation is considered to be a key component of the national civil defense program. Crisis relocation is the controlled, orderly evacuation of a community that is a possible target for attack by a foreign power. The concept of crisis relocation is based upon the theory that a threat of foreign attack (particularly a nuclear attack) could be reduced if citizens in target (risk) areas were dispersed throughout smaller, non-target (host) communities. Relocation of most of the population of a risk area could serve as a deterrent to further escalation of the crisis situation, as well as protect lives if an attack actually occurs. Civilian evacuation may also be initiated by the threat or occurrence of natural and man-caused disasters; such as hurricanes and hazardous materials spills.

Prevention of crime during a crisis relocation period is as important as it is difficult. Alteration or removal of the normal crime prevention activities and resources may require implementation of innovative and unconventional techniques. In a similar vein, disposition of prisoners who are incarcerated in the risk area may require alternatives so as not to place strain on the citizens and facilities in host areas.

This Guide describes alternative techniques for crime prevention and prisoner disposition that may be used by individual jurisdictions in planning for crisis relocation. Since each jurisdiction has its own unique circumstances, no recommendations for or against particular techniques are made; each jurisdiction can use this Guide to assess its own situation and select techniques in a rational manner.

ABSTRACT

A crisis relocation, as well as other types of civilian evacuation, presents an environment for increased criminal activity. Alternative methods of preventing crime can reduce the opportunity for criminal activity, increase the likelihood of apprehending a criminal, and increase or conserve law enforcement resources. Similarly, alternatives to the usual disposition of prisoners in risk areas can reduce demand on facilities and law enforcement personnel workload. This Guide, prepared for use by law enforcement and crisis relocation planning personnel, describes crime prevention techniques and prisoner disposition alternatives potentially useful in crisis relocation periods.

INTRODUCTION

What is Crisis Relocation?

Crisis relocation is the controlled, orderly evacuation of a community which is considered a possible target for foreign attack. Under this program, citizens in target (risk) areas would be dispersed throughout smaller, non-target (host) communities upon occurrence of an extremely severe international situation.

The concept of crisis relocation is based upon the theory that a threat of foreign attack (particularly nuclear) can be reduced if citizens are no longer in target areas. Thus, the relocation of the majority of the population in a risk area could serve as a deterrent to further escalation of the crisis situation, and could protect lives if an attack actually occurs.

Studies conducted by the Federal Emergency Management Agency, including surveys of residents in potential host areas, have shown that crisis relocation is a viable concept. In addition to addressing the overall feasibility of the concept, research has been conducted in specific functional areas, such as: transportation, communications, housing and finance.

Research into the roles of public safety agencies in a crisis relocation operation has also been conducted. This effort has resulted in the identification of major or unique crisis relocation functions in law enforcement, fire protection, and rescue medical services. For each such function, corresponding procedures, resources, and management and coordination requirements have been established. This information is documented in reports which are available from the Federal Emergency Management Agency.

Much of the public safety crisis relocation research is also applicable to civilian evacuation; therefore, this Guide, and other

documents pertaining to the roles of public safety agencies in crisis relocation, can be of value in planning for general civilian evacuations.

Why Was This Guide Prepared?

Crisis relocation, or other evacuation, creates an environment in which crime can flourish. Prevention of crime in risk and host areas, and en route to and from these areas, can strain law enforcement resources. Similarly, the impact of relocating prisoners to host areas can also strain incarceration facilities. Conventional methods of crime prevention and prisoner disposition can, and should, be augmented by innovative and unconventional techniques to maximize resources and reduce workload.

This Guide describes various techniques for crime prevention and prisoner disposition, and presents a simple methodology which can be used by individual jurisdictions to select methods best suited to their unique set of circumstances.

Who Should Use This Guide?

This Guide is intended to be used by crisis relocation and law enforcement personnel responsible for planning and implementing law enforcement aspects of crisis relocation activities; in risk and host areas, and at municipal, county, state, and federal levels.

How Would The Guide Be Used?

This Guide can be used in two ways:

1 - to stimulate thinking in innovative ways, augmenting conventional crime prevention and prisoner disposition methods, and

2 - by following the steps in the Guide, to identify and prioritize potential crime activity; and identify suitable crime prevention methods.

It is important to understand the process before deciding upon techniques; therefore, it is suggested that the user read the Guide thoroughly before attempting to use it in crisis relocation planning. Because each jurisdiction has a unique set of circumstances, this Guide does not address the remainder of the planning process - planning for resource acquisition and implementation of law enforcement and prisoner disposition during a crisis relocation period.

What Do These Crisis Relocation Terms Mean?

This Guide includes a few terms associated with crisis relocation which may not be familiar to public safety officials. These terms are identified and defined in the following paragraphs:

- Risk Area - A community which is (at least potentially) threatened by an extremely hazardous situation (e.g., natural disaster, internal threat, severe international crisis). From the standpoint of war-initiated situations, these communities will generally be:

  - metropolitan areas with central cities having a population of 50,000 or greater, and

  - areas containing certain important military installations.

- Host Area - A community to which residents of a risk area are relocated for the duration of the crisis situation.

- Crisis Relocation Operation - The entire process of planning and executing the relocation of the citizens of a given community, including information and instruction, relocation, host area support, and return to the risk area or resettlement to other areas.

- Evacuation - The process of physically relocating risk area residents to/from the host areas. (The risk to host area evacuation is expected to be carried out over a 72-hour period.)

- Public Safety Agencies - Those governmental agencies which are responsible for law enforcement, fire protection, and rescue-medical services.

- Preparatory Phase - The planning phase prior to a relocation operation which includes: "normal" readiness during peacetime, increased readiness during international tensions and crises, and mobilization of emergency services upon advice from the State that a crisis relocation is imminent.

- Evacuation Phase - The phase (subsequent to the Preparatory Phase) which begins with an order to relocate the residents of the risk area, including maintenance and support of essential risk area production and service activities; protection, support and care of the relocated population in the host areas; and the orderly resumption of risk area occupancy and activity (upon an order to return).

- Attack Phase - This phase includes those activities which are required only if an attack warning or an actual nuclear attack occurs.

- Return Phase - This phase includes those activities which are required if no attack occurs, and relocated citizens are expected to return to the risk area.

- Resettlement - Those activities or events in the post-attack period that include movement of citizens from the original host areas to other available host areas.

- Critical Workers - Critical workers are those individuals who are required to maintain the production of essential goods and services in the risk area. For example:

  - food processing plant employees
  - public utilities employees
  - public safety personnel.

CRISIS RELOCATION AND EVACUATION SCENARIO

Introduction

A brief description of a crisis relocation operation in the hypothetical risk community of Valleyridge is included to assist in an understanding of the concept and the general roles of public safety agencies. The scenario describes in narrative form the conditions which lead to a crisis relocation, as well as major activities of the operation.

This scenario is based upon information contained in previous crisis relocation research reports.

Background

An extremely severe international crisis exists which could involve the U.S. in a nuclear war. The President has announced a decision to relocate citizens of all risk areas.(1) Valleyridge is a city located near a primary military installation, and is thus in a risk area. Because Valleyridge is a risk area, crisis relocation plans have been developed by all the involved public and private organizations in the City and in its host areas. These plans specify the functions and responsibilities of the various agencies and individuals responsible for the relocation and subsequent return of citizens to their homes; or, in the event of actual attack, the possible resettlement of citizens in other areas.

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(1) Forty-five of the United States do not presently have legislation permitting the state to order citizen relocation. The five states that can order relocation are: Colorado, Florida, Louisiana, Mississippi, and Texas.

The Valleyridge plan calls for the relocation of approximately 80 per cent of the population of the risk area. The plan calls for relocation movement to take place over a three-day period, with an expected stay in the host area of two weeks. It is expected that a certain portion of the relocation will be spontaneous -- that is, individuals will relocate upon their own initiative to their own private destinations, such as the home of a relative or a vacation home.

Critical industries and services within the Valleyridge risk area will be maintained throughout the relocation period. Critical workers will commute from predesignated host areas to their jobs and are the only people, other than the public safety personnel, expected to be in the risk area after relocation. The City will not be searched for individuals who choose not to leave; however, if such individuals come to the attention of the authorities, they will be transported to a host area.

The crisis relocation plan requires that an adequate level of fire and police protection be maintained in both the risk and host areas. Since the Valleyridge risk area and the surrounding host areas are in different political jurisdictions, the activities of the corresponding public safety agencies must be coordinated throughout the relocation period. For the duration of the relocation, personnel and citizens staying in the risk area remain under the jurisdiction of Valleyridge, while public safety personnel and citizens assigned to the host area come under the jurisdiction of the host area. Although an actual attack has not yet occurred, the National Guard will not be available to assist because it has been called to active military duty.

Evacuation

Citizens of Valleyridge will be relocated to host areas in the vicinity of the City. These host jurisdictions have a permanent population of no more than 20,000 and will be located approximately 50 to 100 miles from the center of Valleyridge. The host areas will accept relocated citizens on a 2-to-1 ratio; that is, a given area will accept two new

individuals for each permanent resident. Relocation plans designate the specific location, capacity, and access routes for each host area. Evacuation routes are two-way paved roads, which are to remain open in both directions, and equipped with traffic displays. Evacuation will be primarily by private auto, supplemented by mass transport vehicles. Each auto will carry four persons. There are designated assembly points along the evacuation routes where under-occupied private autos and other vehicles may pick up additional persons needing transportation. Plans have been made for en route fueling and minor automobile servicing. These services will be accomplished by increasing the delivery rate for fuel and supplies to pre-designated service stations along the route. Repair parts and service items will, however, be restricted to those normally stocked by service stations.

Individuals will be given specific routes for travel to host areas. Upon arrival, they will check in at a reception center. If there is available space, the reception center will provide specific housing assignments; if the area is full, individuals will be directed to continue along the pre-designated route to the next host area. Travel will continue until available host area housing is located. Risk area citizens with specific personal destinations will be allowed to go to such locations.

Valleyridge citizens relocating to a host area may take with them certain necessary items, such as clothing, food, required medications, small valuables, and recreational equipment. Possession of weapons, alcoholic beverages,* and recreational or addictive drugs will be discouraged. Personal searches will not be conducted; however, if contraband items come to the attention of the authorities, citizens may be searched, and, under appropriate circumstances, the contraband seized.

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*Alcoholic beverages for personal use will be permitted--excessive amounts will be confiscated.

Neither food nor water will be specifically provided for pets, since first priority will be the safety and well-being of citizens. Household pets should be left at home with adequate water and food supplies.

Critical Workers

Critical workers needed to keep essential industries and services operating in Valleyridge have been identified within the crisis relocation plan, and will be given a suitable identification card. Lists of critical workers (names, home addresses, phone numbers, etc.) have been maintained by employers and, upon the decision to relocate, will be given to the appropriate authorities.

Critical workers have been assigned to special host area housing within 50 miles of their jobs in Valleyridge; they will be able to commute daily to their jobs. Essential industries and services will be operated in 12-hour shifts, requiring only two commuting cycles per day. Commuting will be by mass transit (e.g., bus or train), rather than private automobile.

Information Dissemination

Through the mass media, including radio, television, and newspaper, all citizens of Valleyridge have been notified that a relocation is planned. Specific written relocation information will be provided directly to citizens. Instructions and route designations will be supplemented via radio and TV. Written information will be distributed in two ways:

- Evacuation information, including specific instructions and route designations, will be printed in newspapers.
- Relocation instructions will also be distributed door-to-door by relocation operation workers.

Detailed relocation instructions have been organized according to geographic area; that is, all citizens within a given area have a unique route designation. Instructions specify a particular host area to

which persons must go. Members of organizations (e.g., professional, social, religious) may relocate, as a group, to pre-designated host areas.

Relocation instructions state that citizens should use automobiles (if in good working order). Citizens are encouraged to invite neighbors and friends to travel with them, so that every vehicle will carry the maximum number of passengers. Relocation instructions specify items that can be taken to the host area and, also, specific items that are not permitted.

Individuals who do not have their own private means of transportation will be instructed to attempt to obtain a ride with a neighbor or friend. Specific instructions for using public transportation will also be provided; i.e., assembly locations and departure times.

Host Area Housing

Host area residents will be encouraged to accept risk area citizens into their homes, but will not be forced to do so. Individuals who are not invited into private homes will be housed in public facilities, such as schools, churches, motels, bowling alleys, etc. It is expected that some individuals will arrive with their own housing in the form of campers or trailers.

Host area residents and their "guests" from Valleyridge will need fallout shelters. Relocated citizens will be requested to help upgrade existing shelters and to construct expedient shelters where necessary.

Return to Risk Area

Under no circumstances will relocated citizens who are not designated as critical workers be allowed to return to Valleyridge prior to the official announcement of a decision to return to the risk area.

When officials have declared that it is safe to return to the risk area, plans which have already been prepared for this purpose will be implemented. At this time, detailed return instructions will be provided to the citizens of the Valleyridge risk area who are relocated in each host area.

PART 1

EMERGENCY CRIME PREVENTION

1-1 INTRODUCTION

This portion of the Guide examines the prevention of crime during a crisis relocation period. The process of planning used in this Guide can also be used by individual jurisdictions for planning emergency crime prevention: first, expected criminal activity is identified; second, goals, objectives, and priorities for crime prevention are set; and, third, crime prevention techniques are examined for applicability and feasibility. The next three steps - actual selection, planning, and implementation of emergency crime prevention techniques and activities - remain for accomplishment by each jurisdiction. Because these latter activities are highly dependent upon the unique characteristics of each jurisdiction, they are not included in this Guide.

1-2 CRIMINAL ACTIVITY

Introduction

Planning for crime prevention during crisis relocation necessitates some idea of the criminal activity likely to occur in the risk and host areas during each of the crisis relocation phases. Although a particular crime could occur in both the host and risk areas in each of the phases, certain crimes are probably more likely to occur in an area during particular phases; but no data exist (to our knowledge) on the probability or frequency of criminal activity by area and phase. However, in order to lay the groundwork for setting priorities for crime prevention activities, a judgmental ranking of criminal activities possible in each area and in each phase should be accomplished.

Methodology

Each of the criminal offense classes in the Uniform Crime Reports[1] should be reviewed for possible commitment in each of the areas and phases. A subjective ranking of occurrence likelihood - because of the crisis - is then assigned: an "M" for an activity more likely to occur, and an "L" for an activity less likely to occur. Results of one such ranking are shown in Table 1-1.

Discussion

Most criminal activity that is going to increase is expected to do so in the relocation and return phases because these are the most unsettled times, involving movement of people and valuables, and with normal public safety functions disrupted. Such times would be viewed by both the professional and amateur criminal as times during which individuals, households, and businesses are vulnerable and detection and apprehension are less likely than during normal times.

It could be expected that of the violent crimes, those such as murder, manslaughter, and rape would be no more likely to occur during a crisis relocation period than during normal times, but that robbery and assault would be more likely to occur during the unsettled phases of relocation and return. Robbery can be thought to be more likely because of the transportation of valuables by private individuals; assault because it is often associated with robbery and because of tensions arising from competition to find a host area.

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(1) As defined in the "Sourcebook of Criminal Justice Statistics - 1980", U.S. Department of Justice, 1981.

TABLE 1-1

List of Crimes - by Crisis Phase - for Risk and Host Areas

Criminal Activity	1 - Preparatory Risk	1 - Preparatory Host	2 - Relocation Risk	2 - Relocation Host	3 - Attack Risk	3 - Attack Host	4 - Return Risk	4 - Return Host	5 - Resettlement Risk	5 - Resettlement Host
Crimes against persons:										
Murder/nonnegligent manslaughter	L	L	L	L	L	L	L	L	L	L
Manslaughter - negligent	L	L	L	L	L	L	L	L	L	L
Rape	L	L	L	L	L	L	L	L	L	L
Robbery	L	L	M	M	L	L	M	M	L	L
Assault										
- aggravated	L	L	M	M	L	L	M	M	L	L
- simple	L	L	M	M	L	L	M	M	L	L
Theft										
- larceny with contact	L	L	M	M	L	L	M	M	L	L
- larceny without contact	L	L	M	M	L	L	M	M	L	L
Sex offenses	L	L	L	L	L	L	L	L	L	L
Offenses against family and children	L	L	L	L	L	L	L	L	L	L
Crimes against property:										
Burglary										
- forcible entry	L	L	M	M	L	L	M	M	L	L
- unlawful entry	L	L	M	M	L	L	M	M	L	L
Theft										
- household	L	L	M	M	L	L	M	M	L	L
- business	L	L	M	M	L	L	M	M	L	L
- motor vehicle	M	M	M	M	L	L	M	M	L	L
Stolen property - buying, receiving, possessing	M	M	M	M	L	L	M	M	L	L
Fraud	M	M	M	M	L	L	M	M	M	M
Embezzlement	M	M	M	M	L	L	M	M	M	M
Forgery/counterfeiting	M	M	M	M	L	L	M	M	M	M
Arson	L	L	M	M	L	L	M	M	L	L
Vandalism	M	M	M	M	L	L	M	M	M	M

TABLE 1-1 (CONT'D.)

List of Crimes - by Crisis Phase - for Risk and Host Areas

Criminal Activity	1 - Preparatory		2 - Relocation		3 - Attack		4 - Return		5 - Resettlement	
	Risk	Host	Risk	Host	Risk	Host	Risk	Host	Risk	Host
Other Crimes:										
Weapons, carrying, possessing, etc.	M	M	M	M	M	M	M	M	M	M
Drug abuse	M	M	M	M	L	L	M	M	M	M
Liquor laws	M	M	M	M	L	L	M	M	M	M
Drunkenness	M	M	M	M	L	L	M	M	M	M
Driving under the influence	M	M	M	M	L	L	M	M	M	M
Gambling	L	L	L	L	L	L	L	L	L	L
Prostitution and commercialized vice	L	L	L	M	L	L	L	L	L	L
Disorderly conduct	M	M	M	M	L	L	M	M	M	M
Vagrancy	L	L	L	M	L	L	M	L	M	L
Curfew and loitering laws	L	L	M	M	L	L	M	M	M	M

Crimes against property can be expected to increase during the relocation and return phases, because of the perceived increased opportunity for perpetration without apprehension. So-called "white collar" crimes--fraud, embezzlement, forgery, and arson--may rise because of the possible opportunity to cash in during unsettled times.

Other crimes are likely to increase also, especially the carrying of weapons. This latter is likely to increase for two reasons--one, more people will want to protect themselves and their property by the use of weapons; and, two, intensified search for weapons will raise the frequency of the crime. "Victimless" crimes, such as drug and liquor abuse (and those deriving from these), and violation of curfew and loitering, will also likely increase because of the tensions inherent in a crisis relocation period.

These findings will be used to aid in the establishment of crime prevention priorities and techniques - future steps in the process.

1-3 CRIME PREVENTION GOALS, OBJECTIVES, AND PRIORITIES

Introduction

In order to provide a basis for evaluation and selection of crime prevention methods, a set of goals, objectives, and priorities for crime prevention during crisis relocation should be developed by each jurisdiction. The goals and objectives (or perhaps more properly, subgoals) define in broad terms what needs to be accomplished and are, therefore, phase-and-area dependent; that is, there are different goals and objectives for the risk and host areas, and for each phase. The priorities are simply a rank-ordering of the criminal activities (developed in the previous step) in each area and phase; thus giving an indication of where, and upon what, crime prevention resources should be expended.

Methodology

The goals and objectives are developed by stating "needs and wants" related to preservation of life and property. The goals represent general ends, whereas the objectives or subgoals represent specific aspects of each goal. Thirteen goals and related objectives are listed in Exhibit 1-1; these may, or may not, be applicable to particular jurisdictions. Each jurisdiction should develop its own. It will be noted that a goal statement may also be an objective; for example, "protect people" is a goal, and it is also an objective of other goals. This should cause no confusion; this merely means that objective has the same sub-objectives as the goals objectives. [Recursion such as this is common - for example, to become wealthy may be a goal, and to become wealthy may also be part (an objective) of becoming happy.]

Goals and objectives vary depending on which phase and what area of the crisis relocation is considered. The phase and area dependency of each goal are shown in Table 1-2.

Development of the priorities requires several steps. First, a matrix is prepared, in which the crimes to be prevented in order to achieve each goal and objective are identified. (See Table 1-3A). By totaling (scoring) the number of goals and objectives each criminal activity could affect, a frequency table is obtained; which, in turn, yields a rank-ordering by frequency (see Table 1-3B). This ranking is then weighted by two factors -- severity and difficulty. The severity factor is a judgmental ranking of the criminal activity according to the threat to life and property (see Table 1-3C for the severity ranking). The difficulty factor represents an assessment of the ease of mitigating a criminal activity during a crisis relocation - exclusive of resources, such as funds and personnel. This factor is, in turn, comprised of two elements: attitude of the populace concerning the crime and detection of the criminal activity. Attitudes of people may not be the same as during normal times; for example, "appropriation" (theft) of personal items, such as blankets or

Exhibit 1-1

Goals and Objectives

Goal	Objective
1. Protect People	1-1 Prevent death
	1-2 Prevent physical injury
	1-3 Prevent mental injury
2. Protect Property	2-1 Prevent destruction
	2-2 Prevent illegal deprivation
	2-3 Prevent misuse
3. Evacuate Populace	3-1 Protect people
	3-2 Protect property
	3-3 Protect transportation
4. Transport People, Supplies, Equipment	4-1 Protect people
	4-2 Protect facilities
	4-3 Protect vehicles
	4-4 Protect transported supplies, equipment
	4-5 Protect support supplies, equipment
5. House and Feed Populace in Host Area	5-1 Protect food sources
	5-2 Protect housing
	5-3 Protect production/ manufacturing facilities
	5-4 Protect transportation
6. House and Feed Institutionalized Persons in Risk Area	6-1 Protect food sources
	6-2 Protect institutions
	6-3 Protect transportation
7. Operate Critical Services and Industries	7-1 Protect critical workers
	7-2 Protect facilities
	7-3 Protect transportation
8. Feed Critical Workers in Risk Area	8-1 Protect food sources
	8-2 Protect transportation
9. Protect Critical Workers from Blast and Fallout in Risk Area	9-1 Protect permanent shelters

Exhibit 1-1 (CONT'D.)

Goals and Objectives

10.	Protect Populace from Fallout in Host Area	10-1	Protect permanent shelters
		10-2	Protect expedient shelters
11.	Return Populace to Old Homes	11-1	Protect people
		11-2	Protect property
		11-3	Protect transportation
12.	Relocate Populace to New Homes	12-1	Protect people
		12-2	Protect property
13.	Prevent Access to Destroyed Risk Area		

TABLE 1-2

Crime Prevention Goals
By
Phase and Area

Goal	1-Preparation		2-Relocation		3-Attack		4-Return		5-Resettlement	
	Risk	Host	Risk	Host	Risk	Host	Risk	Host	Risk	Host
1 - Protect People	X	X	X	X	X	X	X	X	X	X
2 - Protect Property	X	X	X	X	X	X	X	X	X	X
3 - Evacuate Populace			X							
4 - Transport People, Supplies, Equipment	X	X	X	X	X	X	X	X	X	X
5 - House and Feed Populace in Host Area				X		X		X		
6 - House and Feed Institutionalized Persons in Risk Area			X		X		X			
7 - Operate Critical Services and Industries			X	X	X	X	X	X		
8 - Feed Critical Workers in Risk Area			X		X		X			
9 - Protect Critical Workers From Blast and Fallout in Risk Area			X							
10 - Protect Populace From Fallout in Host Area						X				
11 - Return Populace to Old Homes							X	X		
12 - Relocate Populace to New houses							X			
13 - Prevent Access to Destroyed Risk Area										X

TABLE 1-3A

Frequency - Crimes by Objectives

	1- Protect People	1-1 Prevent Physical Injury	1-2 Prevent Mental Injury	2- Protect Property	2-1 Prevent Destruction	2-2 Prevent Illegal deprivation	2-3 Prevent Misuse	3- Evacuate Populace	3-1 Protect People	3-2 Protect Property	3-3 Protect Transportation	4- Transport People, Supplies, Equipment	4-1 Protect People	4-2 Protect Facilities	4-3 Protect Vehicles	4-4 Protect Transported Supplies, Equipment	4-5 Protect Support Supplies, Equipment	5- House and Feed Populace in Host Area	5-1 Protect Food Sources	5-2 Protect Housing	5-3 Protect Production/Manufacturing Facilities	5-4 Protect Transportation	6- House and Feed Institutionalized Persons in Risk Area	6-1 Protect Food Sources	6-2 Protect Institutions	6-3 Protect Transportation
Crimes Against Persons:																										
murder/non-negligent manslaughter		X							X				X													
negligent manslaughter		X							X				X													
rape		X	X						X				X													
robbery		X	X						X				X													
assault																										
- aggravated		X	X						X				X													
- simple		X	X						X				X													
theft																										
- larceny with contact			X						X				X													
- larceny without contact		X	X						X				X													
sex offenses		X	X						X																	
offenses against family and children		X	X						X																	
Crimes Against Property:																										
burglary						X				X	X			X	X	X	X	X	X	X	X	X	X	X	X	X
- forcible entry						X				X	X			X	X	X	X	X	X	X	X	X	X	X	X	X
- unlawful entry																				X						
theft						X				X							X	X			X		X			X
- household						X				X																
- business						X				X	X				X							X				
- motor vehicle																										
stolen property						X				X	X				X	X	X	X	X	X	X	X	X	X	X	X
- buying, receiving, possessing						X				X																
fraud						X	X			X																
embezzlement						X	X			X																
forgery/counterfeiting					X					X	X			X	X	X	X	X	X	X	X	X	X			
arson					X					X	X			X	X	X	X	X	X	X	X	X	X			
vandalism																										
Other Crimes:																										
weapons - carrying, possessing, etc.		X	X		X	X	X		X	X	X		X	X	X	X	X		X	X	X	X				
drug abuse		X	X						X				X													
liquor laws		X	X						X				X													
drunkenness		X	X		X		X		X	X	X		X		X							X				X
driving under the influence						X																				
gambling																										
prostitution and commercialized vice		X				X																				
disorderly conduct		X	X																							
vagrancy		X					X			X	X	X	X	X	X	X	X		X	X	X	X				
curfew and loitering laws		X	X				X																			

TABLE 1-3A (CONT'D.)

Frequency - Crimes by Objectives

	7	7-1	7-2	7-3	8	8-1	8-2	9	9-1	10	10-1	10-2	11	11-1	11-2	11-3	12	12-1	12-2	13	Score
Crimes Against Property:																					
burglary																					
- forcible entry			X	X		X	X								X	X			X		21
- unlawful entry			X	X		X	X								X	X			X		21
theft																					
- household															X				X		5
- business															X				X		8
- motor vehicle				X			X								X	X			X	X	12
stolen property																					
- buying, receiving, possessing			X	X		X	X								X	X			X		19
fraud															X				X		4
embezzlement															X				X		5
forgery/counterfeiting															X				X		5
arson			X	X		X	X								X	X			X		18
vandalism			X	X		X	X								X	X			X		18
Other Crimes:																					
weapons																					
- carrying, possessing, etc.		X	X	X		X	X		X		X	X		X	X	X			X	X	30
drug abuse														X							5
liquor laws														X							5
drunkenness														X							5
driving under the influence				X			X							X	X	X			X		17
gambling																					1
prostitution and commercialized vice																					2
disorderly conduct																					2
vagrancy																					2
curfew and loitering laws		X	X	X					X		X	X		X	X	X			X		25
Crimes Against Persons:																					
murder/non-negligent manslaughter		X												X				X			6
negligent manslaughter		X												X				X			6
rape														X				X			5
robbery		X												X				X			7
assault																					
- aggravated		X												X				X			7
- simple		X												X				X			7
theft																					
- larceny with contact		X												X				X			6
- larceny without contact		X												X				X			6
sex offenses														X				X			5
offenses against family and children														X				X			5

TABLE 1-3B
FREQUENCY RANK- BY CRIME

	Rank (1 - Lowest)
Crimes against persons	
murder/non-negligent manslaughter	5
negligent manslaughter	5
rape	3
robbery	6
assault	
- aggravated	6
- simple	6
theft	
- larceny with contact	5
- larceny without contact	3
sex offenses	3
offenses against family and children	
Crimes against property	
burglary	12
- forcible entry	12
- unlawful entry	
theft	3
- household	7
- business	8
- motor vehicle	
stolen property	
- buying, receiving, possessing	11
	4
fraud	3
embezzlement	3
forgery/counterfeiting	10
arson	10
vandalism	
Other crimes	
weapons	14
- carrying, possessing, etc.	3
drug abuse	3
liquor laws	3
drunkenness	9
driving under the influence	1
gambling	
prostitution and commercialized vice	2
	2
disorderly conduct	2
vagrancy	13
curfew and loitering laws	

TABLE 1-3C

Severity - By Crime

	1 - Least Severe	2	3	4	5	6	7	8	9	10 - Most Severe
Crimes Against Persons:										
murder/non-negligent manslaughter										X
negligent manslaughter										X
rape										X
robbery										X
assault										
- aggravated										X
- simple										X
theft										
- larceny with contact									X	
- larceny without contact									X	
sex offenses									X	
offenses against family and children									X	
Crimes Against Property:										
burglary										
- forcible entry								X		
- unlawful entry								X		
theft										
- household							X			
- business							X			
- motor vehicle							X			
stolen property										
- buying, receiving, possessing						X				
fraud						X				
embezzlement						X				
forgery/counterfeiting						X				
arson										X
vandalism					X					

TABLE 1-3C (CONT'D.)

Severity - By Crime

	1 - Least Severe	2	3	4	5	6	7	8	9	10 - Most Severe
Other Crimes:										
weapons - carrying, possessing, etc.					X					
drug abuse	X									
liquor laws	X									
drunkenness	X									
driving under the influence								X		
gambling	X									
prostitution and commercialized vice	X									
disorderly conduct	X									
vagrancy	X									
curfew and loitering laws	X									

beds for the common good, may be acceptable. The attitude factor is judgmentally determined. The detection factor is a judgmental ranking of the difficulty of determining that a particular crime occurred. The difficulty factor and its elements are shown in Table 1-3D.

To obtain the priority score for each crime, the frequency ranking is multiplied by the severity factor, the attitude factor, and the detection factor. The crimes are then ranked according to the score, yielding an overall priority listing. The elements of the priority determination and the resulting priorities are shown in Table 1-4.

Since a particular crime is judged to be more or less likely to occur in the different phases of crisis relocation and in the host or risk area, an overall priority can give only an overall picture. To obtain an insight into the priorities by phase and area, the expected criminal activities are used. If a criminal activity is more likely to occur in a phase or area, its overall score (in Table 1-4) is (arbitrarily) doubled and entered as that crime's score for that phase and area; the crimes are then ranked again. This process results in Table 1-5, which may be considered the priorities for crime prevention in the risk and host areas for each phase.

Discussion

Based on this analysis, 13 crime prevention goals in the crisis relocation period have been identified. Priorities for crime prevention vary by phase and area; but the highest priorities are related to protection of property, because property-related criminal activity appears to have the highest frequency of occurrence. Again, these goals, objectives, and priorities may not be directly applicable to a particular jurisdiction. By using the method described, or another suitable method, a jurisdiction may develop its own set.

TABLE 1-3D

Difficulty of Mitigation, By Crime

	Attitude										Detection									
	- Most Acceptable									- Least Acceptable	- Most Detectable									- Least Detectable
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
Crimes against persons																				
murder/non-negligent manslaughter										X	X									
negligent manslaughter										X	X									
rape										X	X									
robbery										X	X									
assault																				
- aggravated										X	X									
- simple										X	X									
theft																				
- larceny with contact									X				X							
- larceny without contact									X				X							
sex offenses							X					X								
offenses against family and children									X			X								
Crimes Against Property:																				
burglary																				
- forcible entry								X			X									
- unlawful entry								X			X									
theft																				
- household						X						X								
- business					X						X									
- motor vehicle						X					X									
stolen property																				
- buying, receiving, possessing	X																			
fraud			X																	X
embezzlement			X																X	
forgery/counterfeiting			X															X		
arson	X																X			
vandalism	X										X									X

TABLE 1-30 (CONT'D.)

Difficulty of Mitigation, By Crime

	Attitude										Detection									
	- Most Acceptable									- Least Acceptable	- Most Detectable									- Least Detectable
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10
Other Crimes:																				
weapons - carrying, possessing, etc.				X																
drug abuse	X																			X
liquor laws	X																X			
drunkenness	X																		X	
driving under the influence					X								X							
gambling	X													X						
prostitution and commercialized vice	X																		X	
disorderly conduct	X															X				
vagrancy	X											X								
curfew and loitering laws	X												X							
														X						

TABLE 1-4
Crime Prevention Priorities - Overall

Criminal Activity	Frequency	Severity	Mitigation		Priority	
			Attitude	Detection	Score	Rank
Crimes Against Persons:						
murder/non-negligent manslaughter	5	10	10	1	500	9
negligent manslaughter	5	10	10	1	500	9
rape	3	10	10	1	300	14
robbery	6	10	10	1	600	8
assault	6	10	10	1	600	8
theft - larceny	5	9	9	3	1,215	4
sex offenses	3	9	7	2	378	12
offenses against family/children	3	9	9	2	486	10
Crimes Against Property:						
burglary	12	8	8	1	768	6
theft - household	3	7	6	2	252	15
theft - business	7	7	5	1	245	16
theft - motor vehicle	8	7	6	1	336	13
stolen property	11	6	2	10	1,320	3
fraud	4	6	3	9	648	7
embezzlement	3	6	3	8	432	11
forgery/counterfeiting	3	6	3	7	378	12
arson	10	10	1	10	1,000	5
vandalism	10	5	2	1	100	17
Other Crimes:						
weapons	14	5	4	10	2,800	1
drug abuse	3	1	1	7	21	21
liquor laws	3	1	1	9	27	19
drunkenness	3	1	1	3	9	22
driving under the influence	9	8	5	4	1,440	2
gambling	1	1	1	9	9	22
prostitution/commercialized vice	2	1	1	6	12	21
disorderly conduct	2	1	1	2	4	24
vagrancy	2	1	1	3	6	23
curfew and loitering laws	13	1	1	4	52	18

TABLE 1-5
Crime Prevention Priorities
By
Phase and Area

Criminal Activity	1- Preparatory		2- Relocation		3- Attack		4- Return		5- Resettlement	
	Risk	Host	Risk	Host	Risk	Host	Risk	Host	Risk	Host
Crimes Against Persons:										
murder/non-negligent manslaughter	12	12	13	13	9	9	13	13	11	11
negligent manslaughter	12	12	13	13	9	9	13	13	11	11
rape	15	15	16	16	13	13	16	16	14	14
robbery	11	11	8	8	8	8	8	8	10	10
assault	11	11	8	8	8	8	8	8	10	10
theft- larceny	5	5	4	4	4	4	4	4	5	5
sex offenses	14	14	15	15	11	11	15	15	12	12
offenses against family/children	13	13	15	15	11	11	15	15	12	12
Crimes Against Property:										
burglary	8	8	6	6	6	6	6	6	8	8
theft - household	16	16	12	12	14	14	12	12	15	15
theft - business	17	17	14	14	15	15	14	14	16	16
theft - motor vehicle	10	10	11	11	12	12	11	11	13	13
stolen property	3	3	3	3	3	3	3	3	3	3
fraud	4	4	7	7	7	7	7	7	4	4
embezzlement	7	7	9	9	10	10	9	9	7	7
forgery/counterfeiting	9	9	10	10	11	11	10	10	9	9
arson	6	6	5	5	5	5	5	5	6	6
vandalism	18	18	17	17	16	16	17	17	17	17
Other Crimes:										
weapons	1	1	1	1	1	1	1	1	1	1
drug abuse	21	21	20	20	19	19	20	20	20	20
liquor laws	19	19	19	19	18	18	19	19	19	19
drunkenness	22	22	21	21	21	21	21	21	21	21
driving under the influence	2	2	2	2	2	2	2	2	2	2
gambling	24	24	23	23	21	21	23	23	23	23
prostitution/commercialized vice	23	23	22	20	20	20	22	22	22	22
disorderly conduct	25	25	24	24	23	23	24	24	24	24
vagrancy	26	26	25	22	22	22	22	25	22	25
curfew and loitering laws	20	20	18	18	17	17	18	18	18	18

1-4 CRIME PREVENTION TECHNIQUES

Introduction

Candidate crime prevention techniques are described and assessed below. The techniques include conventional and unconventional methods which may or may not be useful to a particular jurisdiction. A particular jurisdiction may perform its own analysis, using the methodology described below, to select techniques most suitable for its unique situation.

Methodology

Candidate crime prevention techniques are first described and analyzed in some detail; including principle of operation, applications, feasibility, and resources. Applicability of each technique is then determined, using judgment for each crisis relocation phase (preparatory, relocation, attack, return, resettlement), each area (risk, host), and the criminal activities expected during a crisis relocation period.

Overview of Techniques

Most of the crime techniques are oriented toward protection of people and materials located in fixed sites, such as storage areas, business establishments, and residences. Protection of people and property en route (such as against hijacking, robbery, etc.) can use some of these techniques, especially the patrol and self-defense techniques. Techniques can be categorized as follows:

- Identification

  Increasing the likelihood of identifying the perpetrator of a crime can, in itself, be a crime prevention measure. Identification of a person involves observation, recording, reporting, and investigation. Observation and recording, (which together can be termed surveillance) can be

accomplished by mechanical means, such as film and video camera systems; and by humans, such as neighborhood watch teams. Reporting, or notification, can also be accomplished by mechanical means, such as alarm systems; and by humans. Investigation is usually, and properly, conducted by law enforcement professionals; in fact, in a crisis period, investigation accomplished by others--vigilantes--may be quite disruptive.

- Opportunity Reduction

Reduction of the opportunity to commit crime can be applied to both the potential perpetrator and the potential victim. As applied to the potential perpetrator, techniques for reducing opportunity include: removal of the perpetrator, removal of the object of the crime, and removal or reduction in the desire to commit a crime. For example, removal of all people (except critical workers) from the risk area will reduce (possibly eliminate) the number of potential perpetrators and potential victims of crimes against persons; storage of valuables in a protected place in the host area and in the risk area will remove most of the objects of crimes against property; provision of the essentials of life, and education of the public in the necessity of cooperation, will reduce the desire (need) to commit crime for survival.

As applied to the potential victim, techniques for reducing opportunity include removal of the victim, and removal of the object of the crime. For example, removal of all people (except critical workers) from the risk area will reduce the opportunity for crimes against persons in the risk area, but will increase the opportunity en route to, and in, the host areas. Opportunity reduction en route can be achieved, for example, through guards on public transportation vehicles and patrols and checkpoints on highways. Provision of

adequate shelter, food, and education to obtain and maintain public cooperation can reduce crimes against persons in the host areas.

- Target Hardening

Physical security of persons and property is perhaps the most direct and least expensive approach (over the long run) to crime prevention. It can be used in normal times, as well as in crisis periods; thus, costs are not attributable to crisis crime prevention, alone.

Target hardening can be defined as any physical measures taken to limit, delay, or deny access to persons or property. Techniques include, for example, locks, barriers, alarms, guards, patrols, and personal safety preparedness.

Physical security of property may be undertaken by individuals or families on their own; by groups of people, such as a neighborhood; and/or by the entire community. For example, each individual or family could install a vault in which to place valuables; a neighborhood could place valuable property in one building protected by a guard, and coded locks to which the guard and an individual have partial combinations; and an entire city could place its valuables in bank vaults protected by repellents, such as tear gas or high voltage electricity.

Physical security can be provided through perimeter, point, or area protection.

Perimeter Protection

Perimeter protection may well be the most practical, as well as one of the most expensive, types to install. Sensors are used to detect the action or presence of an intruder at all

vulnerable building access points such as doors, windows, skylights, etc. This type of system provides early detection of an attempted or successful intrusion and increases the likelihood of apprehension. Although perimeter protection is sometimes used as the only type of protection, it is often supplemented by point or area protection.

The major disadvantage to the use of a perimeter protection system, alone, is that it offers no protection against persons who remain hidden inside the premises until after closing. Under these circumstances, the intruder is able to burglarize or vandalize a seemingly protected establishment, signaling his presence only when he leaves the building. Thus, the chances of apprehending the intruder are greatly reduced.

Point Protection

As the name implies, point protection is used to detect the action or presence of an intruder at only a single location. This type of protection, also referred to as spot or object protection, may be employed alone in certain limited situations, but is most often used as a part of a larger system. Point protection can provide additional security for certain obvious targets, such as safes, files, vaults, or other items of high value. Point protection is a backup system to insure the detection of an attempt to steal specific items should an intruder gain access to premises without being detected.

Area Protection

Area protection, whether alone or in conjunction with a perimeter system, is used to detect the presence of an intruder anywhere within a selected area. This type of

protection is also referred to as space or volume protection because the sensors respond to intruders anywhere within their field of view. With some types of sensors, the detection zone is such that there is no entry point that can be used by the intruder without his being detected. The major consideration when using area protection, alone, is the choice of the proper area to be protected and the protection pattern of the sensor to be used. Area protection usually serves as a backup to perimeter protection systems by detecting the presence of the "stay-behind" burglar or the intruder who gains entry without triggering the perimeter alarm.

The extra expense involved in using area protection, in addition to perimeter protection, can be justified if the value of the property to be protected is high enough, if the premises to be protected are highly vulnerable to perimeter entry, or if the threat includes the probability of attack from hidden intruders.

Personal security can be achieved by techniques and equipment to thwart attack, such as physical self-defense methods and tear gas.

Description of Techniques

Each of the crime prevention techniques is described in some detail below.

A. Identification

1. Surveillance Systems

Fixed surveillance systems generally use three types of equipment: still cameras, motion picture cameras, and video tape recorders (television cameras). In the discussion below, still and

motion picture cameras are grouped into the category of film cameras; videotape recorders are discussed separately. A comparison of camera systems is shown in Table 1-6.

1.1 Film Cameras

STILL PHOTOGRAPHY. A good photograph of a crime being committed can be of great value; for this reason, still photography is the standard method of surveillance for anti-crime applications.

A large selection of equipment types and film sizes, from 8mm to 70mm, is available for still surveillance photography. Most can be set to operate on either a continuous or demand basis, and some have the capability of changing the rate at which photographs are taken when signaled to do so.

MOTION-PICTURE PHOTOGRAPHY. Motion pictures capture more information than still photographs because more pictures are taken. However, any single frame of motion-picture film will normally make a poorer print than a still photograph because of subject motion. Surveillance motion-picture cameras with higher shutter speeds can eliminate this problem; however, higher shutter speeds require higher light levels.

Operating costs are greater for motion pictures than for still cameras of the same film size since more pictures are taken, and initial equipment costs can be higher. Most experts in surveillance photography recommend still photography; however, a still camera which normally operates at a slow rate, but which can be speeded up on demand, may be a good alternative.

TABLE 1-6

Comparison Of Surveillance Camera Systems

	Still Demand Cameras			Still Sequence Cameras			Motion Picture Cameras (Demand)	TV Cameras	TV Camera And Video Tape
	8mm	16mm	35mm	8mm	16mm	35mm			
Evidence Quality	Fair	Good	High	Fair	Good	High	Variable	None	Poor
Manning Required	Yes	Yes	Yes	No	No	No	No	Yes	No
Continuous Coverage	No	No	No	Partial	Partial	Partial	Yes	Yes	Yes
Immediate Results	No	No	No	No	No	No	No	Yes	Yes
Light Variation Tolerance	Low	Low	Low	Low	Low	Low	Low	High	High
Light Level Required (FC)	50-75	50-75	50-75	50-75	50-75	50-75	50-75	20	20
Against Burglary	Poor	Poor	Poor	Fair	Good	High	High	None	Good
Against Robbery	Fair	Good	High	Fair	Good	High	Variable	None	Poor
Equipment First Cost	Very Low	Low	Medium	Low	Medium	Medium	Medium	High	Very High
Supplies Cost	Very Low	Very Low	Very Low	Very Low	Low	Medium	Medium	None	Low
Manpower Cost	None	None	None	None	None	None	None	High	None

Quality of motion-picture camera output will vary by film size, just as with still cameras.
EVIDENCE QUALITY comparisons are based on prints from single frames.
LIGHT LEVEL REQUIRED is based on ASA 250 film exposed at 1/125 second, F2.8
FC: footcandles.
Effectiveness AGAINST BURGLARY comparisons assumes use of available accessories, including scanners on motion-picture and TV cameras.
All demand camera systems are assumed to be properly activated by some means, whether by sensors or alarm tie-in.

CONTINUOUS OR DEMAND OPERATION. Still cameras may be classified as operating either continuously or on demand, but the distinction is not a firm one. Many systems combine elements of both modes.

Cameras which operate continuously are known as sequence cameras. Once started, they continue to operate automatically, taking pictures at predetermined intervals until the film is expended.

Demand cameras, on the other hand, remain inactive until they are actuated by some means. Depending on the application, the camera may then function continuously, or it may not.

The basic distinction, however, is frequently blurred. Some equipment can be actuated by a timing device. For example, a sequence camera can be rigged to operate only during hours where the basic application requires it - such as when the site is vacated. Cameras can be actuated by alarms, motion detectors, sonic detectors, wireless transmitters, switches mounted in strategic locations, etc. Some sequence cameras have the capability of increasing the rate at which they take pictures upon a demand signal.

Sequence cameras, operating continuously over a period of time, offer more complete coverage at added film cost. The camera may be set to take pictures at a wide variety of time intervals - for example, one every second, one every 30 seconds, or one every minute.

1.2 Videotape Recording

Television provides a highly flexible method of surveillance; it can be adapted to almost any requirement, manned or unmanned. The output may be taped and studied later, and this tape may be erased and re-used for a cost saving. Through use of remote-control

devices, recorders and still-photography adapters, television surveillance may be used to guard against pilferage, robbery, burglary, unauthorized entry . . . in short, nearly anything. Its output is immediately available, and, as such, there is no uncertainty about whether the exposure was correct or whether the equipment worked. This type of surveillance has one significant advantage to offer over photography: it can permit apprehending an intruder in the act.

There are many variables involved in planning a television surveillance system, particularly from a cost standpoint. The versatility of the system and its final effectiveness depends upon how much is put into it. Some of the variables are:

- If the output is not taped, equipment costs will be lowered, but the system will not provide any evidence.

- If one person is not specifically assigned to watch the monitor, manpower cost will not be a factor. Taking this cost short-cut offers the chance of missing a criminal act in progress.

- Manpower cost will vary tremendously, depending on how many guards are assigned to watch how many monitors.

One drawback to television surveillance which is unmanned and taped is that someone has to play the tape back and watch it. If there are eight hours worth of tape, the tape will have to be watched for eight hours.

Another major disadvantage to television surveillance is that the quality of still photographs taken off the monitor is not as good as that from still cameras. When a requirement of the surveillance system is to obtain evidence to support a prosecution, this drawback, alone, may be enough to rule out television.

2. Patrols

Roving patrols are used to observe and deter crime in an area. Patrolling is usually on a random schedule so that no patrol pattern can be detected. For small areas, patrolling could be on foot; larger areas would usually be covered by vehicle. Trained volunteers could be used.

3. Neighborhood Watch Teams

With the increase in burglaries, rapes, vandalism, and other such crimes, many neighborhoods have established watches to observe and report suspicious activity. Such schemes can also be used during a crisis relocation period. A neighborhood watch uses citizens who observe an assigned area at assigned times, and report any suspicious activity to police via radio or telephone. The simple fact that such a team is in operation can act as a deterrent.

4. Crime Tip

This technique is based on the anonymous or secret reporting of a crime. One example is WeTiP, an anonymous system. A citizen who observes a crime can report it to a central point, using an "800" number. Anonymity is preserved by using a code number - not even the receiving operator knows the identity of the tipster. A reward may be paid upon conviction.

5. Public Information and Education

Motivation of the public to aid in the identification of crime perpetrators can be aided through information and education programs. Such programs can be coupled to crisis relocation programs. Materials may be available from various sources, such as the WeTiP program, the Secret Witness program, the U.S. Department of Justice, the U.S. Department of Commerce, and others.

B. Opportunity Reduction

1. Citizen Relocation

The evacuation of citizens from the risk area will reduce the opportunity for crime in that area. The opportunity for crime en route to, and in, the host areas may increase, however.

2. Supply of Essential Resources

Much crime, especially in times of crisis, is related to lack of essentials for life, such as food, water, shelter, fuel, and medicines. If such essentials are, in fact, or perceived to be, unavailable, criminal activity may result. Provision of such essentials must be assured en route to, and in, the host areas during the relocation and attack phases; and en route to, and in, the risk area during the return and resettlement phases. Some of this responsibility can be placed on the citizens, but, for the most part, governmental agencies must prepare for and provide life essentials.

3. Storage of Valuables

Reduction of crime can be achieved by temporary storage of valuables. Citizens being relocated from the risk area may deposit their valuables in a central repository in the risk area if they desire; similarly, host area residents may deposit their valuables in a central repository in the host area. Many citizens being relocated may, however, be reluctant to leave valuables behind. Means should be devised to provide safe transport and storage of valuables in host areas.

4. Confiscation/Storage of Prohibited Materials

Certain materials may be prohibited during crisis relocation: weapons, non-prescription drugs, excessive alcohol, explosives, etc. Confiscation and storage of these would reduce the opportunity for unlawful activity to obtain and use such materials. Storage could be in either the risk or host areas. Placards could be posted to indicate the removal of the items.

5. Citizens Activities

Enforced idleness usually leads to mischief, or worse. Relocated citizens can be engaged in useful activities, such as teaching, child care, erection of expedient shelters, etc.; and in recreational activities. Such occupations can reduce the opportunity and desire for criminal activity.

6. Public Information and Education

Motivation of citizens to participate in the various programs to reduce the opportunity for crime can be aided through public information and education efforts. All public media, and private groups such as churches and neighborhood associations, can be employed to devise and disseminate the information.

C. Target Hardening

1. Surveillance Systems

1.1 Intrusion Sensors

Selecting the proper sensors for an intrusion alarm system is somewhat complicated. In most cases, it would be possible to use any of several different types of sensors for the same general type of protection. Table 1-7 lists the sensors that are commonly used for each of the basic types of protection: point, perimeter, and area.

The sensors of an alarm system are electronic or electromagnetic devices that act as a replacement for a human observer or as a supplement to human observation. For example, when an intruder opens a door, a switch sensor could be used to detect that it has been opened--an action that would be obvious if one were watching the door. In this instance, the method of detection is extremely simple -- a switch actuation. Modern technology, however, has developed

sensors that use complex detection mechanisms. Sophisticated sensors are designed to "see" and signal an alarm in response to a specific stimulus or source that is considered to result from the action or presence of an intruder (movement, body temperature, footsteps, etc.). Sensors, however, lack human judgment. When a sensor detects that which it is designed to detect, it will signal an alarm; thus, motion sensors will respond to animals as though they were human intruders.

TABLE 1-7

Applications Of Intrusion Alarm Sensors

Sensor	Point	Perimeter	Area
Dry Contact Switches	+	.	o
Magnetic Switches	$	.	o
Mercury Switches	+	.	o
Metallic Foil	+	.	+
Wire Screens	.	.	+
Trip Wire	o	.	o
Pressure Mats	.	.	+
Pressure Ribbons	.	.	+
Pressure Wafers	.	o	o
Acoustic Sensors	o	o	.
Ultrasonic Motion Sensors	o	o	.
Microwave Motion Sensors	o	+	.
Photoelectric Sensors:			
Passive	.	o	.
Active	o	.	o
Capacitance Sensors	.	+	+
Vibration Sensors	.	+	+
Infrared Motion Sensors	o	+	+

. Good Application
+ Limited Application
o Not Applicable

The principles of operation of common intrusion alarm sensors are discussed in the paragraphs that follow.

1.1.1 Switch Sensors

The switch sensor (also known as a "contact") is probably the most frequently used intrusion alarm sensor. Switches incorporate electrical contacts that make or break an electrical circuit in response to physical movement. They are used in perimeter protection systems to detect the opening of doors and windows.

The dry contact switch is a mechanical switch similar to a light switch; several different designs are used. A plunger switch is designed to be installed in a door or window jamb, and operates like the switch that turns on the interior lights when a car door is opened. Others have small levers that are displaced by the movement of the door or window to activate the contacts.

A trip switch is a mechanical switch designed so that the contacts close when a small plug is removed from the body of the switch. In one application the switch is positioned on a wall, perhaps in a corridor, slightly above the floor. A thin wire is attached to the switch plug and stretched to a fixed point on the opposite wall. If an intruder walks into the wire, the plug is pulled out and the alarm is sounded. Trip switches are also used on overhead doors.

Intrusion alarm systems often use magnetic switch sensors. Like any electrical switch, magnetic switches can be obtained with either normally open or normally closed contacts. Most intrusion alarm systems use the normally closed type of switch regardless of whether it is mechanically or magnetically actuated.

The magnetic switch consists of two components, each contained in a separate housing. The switch is a pair of contacts that will open or close when subjected to a magnetic field. A separate magnet is mounted near the switch to set the contacts to the normal position. The magnet is mounted on the movable member of the item that is being protected, such as a door or window sash. When it moves away from the switch, the contacts are actuated.

Since the switch contacts are held in their normal position by a magnetic field, it is possible to place a strong magnet near the switch and, thus, prevent the contacts from actuating when the switch magnet is moved away. For this reason, a second type of magnetic switch, the balanced magnetic switch, has been developed. This employs two magnets with fields that interact to produce a net field surrounding the switch contacts. The balance of this net field is so critical that if it is disturbed by placing a non-system magnet near the switch, the contacts will be actuated to signal an alarm.

Mercury switches, which are also called "tilt switches," are used, for example, to detect the movement of a transom. The mercury switch consists of contacts within a sealed unit containing a small pool of mercury. When the switch is tilted, or pivoted in a vertical plane, the mercury rolls between or away from the contacts to either complete or open an electrical circuit.

1.1.2. Metallic Foil

Metallic foil, one of the simplest intrusion alarm sensors, is commonly attached to glass to detect breakage. When the glass is broken, the foil also breaks and an alarm is signaled. Metallic foil can be easily damaged by routine housekeeping activities such as cleaning; therefore, it is

normally covered with a thin coat of shellac or varnish after it has been attached with adhesive to the glass surface.

1.1.3 Wire Screens

Wire screens or grids are sometimes used in intrusion alarm systems. This is a closely-spaced pattern of thin electrical wires, usually forming a grid pattern 10 to 15 centimeters (4 to 6 inches) square. Such a grid can be used to detect forced entry through walls, ceilings, doors, etc. The wire can also be incorporated into the mesh of a normal window screen. When a wire is broken, an alarm is sounded, just as with metallic foil on a window.

When a wire screen or grid is used, it is most often covered with wallpaper, building material, or some other material, both to conceal it and to protect it from being broken by normal housekeeping.

1.1.4 Pressure Mats

Pressure mat switches are basically mechanical switches. In intrusion alarms, the pressure mat is most frequently used as a backup system; for example, to detect an intruder stepping on the floor below a window through which entry has been gained without actuating the perimeter system. Pressure mat switches are also used as "traps" because they can be hidden under the carpet in front of a likely target such as a valuable appliance, on stairs, and in corridors which one would expect an intruder to use.

Pressure mats are versatile sensors. Although normally designed to actuate in response to a weight of 7 kg (15 pounds), it is possible to obtain them with either higher or lower

sensitivity. They are available in a large variety of sizes, ranging from approximately 1 centimeter (less than 1/2 inch) to over a meter (several feet) in width, and in almost any length.

1.1.5 Acoustic Sensors

Sound sensors detect intrusion by detecting noise created during an attempt to break into a protected area. These devices consist of a microphone and an electronic processor. When the sound level increases beyond the limit normally encountered in the area, the unit signals an alarm. Sound sensors are most often used to protect vaults.

Sound sensors respond to continuous noise, such as that produced by drilling or sawing through a structure, but can also employ integration or pulse counting circuits. Pulse counting is used to detect noise from tools such as hammers, which do not produce a continuous sound. The integration feature examines the noise detected by the microphone over a short time interval, and an alarm is signaled if the total energy accumulated from all noise exceeds a preset level. Thus, the noise from a single large pulse, such as that from an explosion, will also cause the sound sensor to signal an alarm.

In some instances, a sound sensor may be used in an area that contains a source of audible noise, such as a compressor or a fan motor. Because such equipment only operates intermittently, it may be difficult to adjust the threshold sound level to allow proper response to intrusion noises. For such applications, sound sensing units are available that use a cancel-microphone, in addition to the one used to detect attack noises. The cancel-microphone is placed close to the source of intermittent sound, and the processing unit subtracts the cancel-microphone signal from that of the intrusion sound sensing microphone.

Certain sound sensor units enable a guard to listen directly to the sounds within the protected area by playing the microphone signal through a conventional radio speaker.

1.1.6 Ultrasonic Motion Detectors

Ultrasonic motion detectors operate by sensing the presence of an intruder through the effect of motion upon a field of ultrasonic energy (high frequency sound), within a volume of space. Most ultrasonic motion sensors generate signals in the range between 19 and 40 kilohertz, which is above the frequencies audible to humans. Movement within the field of ultrasonic energy causes the frequency of the reflected signal to change.

Ultrasonic motion detectors use a transmitting element to generate the ultrasonic energy, a receiving element to monitor the frequency of the signal, and an electronic processing circuit that compares the transmitted and received signals. A variety of signal processing techniques are used.

Monostatic ultrasonic motion detectors enclose the transmitting and receiving elements in a single unit, and are used to protect a volume of perhaps 6 by 9 meters (20 by 30 feet) in a room with a ceiling up to about 3.5 meters (12 feet). These units are normally mounted on a wall or at a ceiling corner. Bistatic ultrasonic motion detectors employ separate transmitting and receiving elements. Often, both elements are located remotely from the processor, and the system can be designed to use multiple receiving elements with a single transmitting element. A typical installation would include a single transmitting element mounted in the ceiling near the center of the room, with two or more receiving elements, also mounted in the ceiling, around the transmitting element. In some cases, bistatic units are designed to allow the use of both multiple transmitting and receiving elements.

Ultrasonic energy can be completely contained within a room, for it will not penetrate most structural materials; and it is, like any sound energy, absorbed by carpet, draperies, and acoustical tile. Obstructions within a room will reflect the ultrasonic energy, and will distort the shape pattern of the transmitted energy. In addition, large objects, such as tables or cabinets, can block the ultrasonic signal and create blank spots. The detector will not respond to motion within such areas.

1.1.7 Microwave Motion Detectors

Microwave motion detectors are used to sense the presence of an intruder within a volume of space or an area. Detection ranges of several hundred feet are not uncommon for microwave motion detectors, and are frequently used in outdoor installations. These devices transmit a high frequency electric field that is monitored by a receiving antenna. The frequency of the electric field changes when reflected from a moving object, and an electronic processor circuit compares the transmitted frequency with that which is received, signaling an alarm when a change in frequency is detected.

The microwave field can be generated in all directions, just as light from a bare light bulb is radiated in all directions, or it can be transmitted in a controlled pattern similar to the focused light beam from a flashlight.

Bistatic microwave motion detectors utilize separate transmitting and receiving antennas mounted at opposite ends of the space or area to be protected. Monostatic units have the transmitting and receiving antennas mounted in the same unit, sometimes using a single antenna to both transmit and receive the microwave signal. The detection range of a microwave motion sensor is dependent upon the electrical power of the transmitted field, the shape of the field, and the operating frequency. The most commonly used frequencies are between 915 and 10,525 megahertz.

Microwave energy will penetrate and pass through nearly all building construction material, but is reflected from metal. The amount of penetration increases as the microwave frequency decreases. Since the field from a microwave motion sensor will penetrate non-metallic walls, proper application is important. If the field is not contained within the desired area or space, the microwave motion detector can respond to motion in adjoining rooms, or to motion outside the building. On the other hand, metal surfaces or structural steel within walls and floors will reflect the microwave energy and can distort the shape of the field so that the detector will respond to motion in areas not desired to be included within the field.

Equipment specifications will normally include sketches of the microwave field shape for each antenna, but the actual field of an individual unit will vary somewhat from that indicated. Each antenna will have its own unique transmission characteristics.

Although various processing circuitry is used in microwave motion detectors, practically all systems accomplish detection on the basis of frequency shift. The basic logic of the alarm circuit can use different criteria to interpret what signal will be judged to constitute an alarm. There will be differences in the amount of frequency change or the value of the integration time constant (the minimum period of time that the frequency change must be present) before an alarm is signaled. Some equipment is designed so that a specific sequence of signal events must occur before it will signal an alarm.

1.1.8 Infrared Motion Detectors

Infrared motion detectors are passive sensors, because they do not transmit a signal for an intruder to disturb. Rather, a source of moving infrared radiation is detected against the normal radiation environment of the room. These detectors are designed to sense the radiation from a human body moving through the optical field of view.

Infrared motion detectors are normally sensitive enough to sense the moving radiation from a human at distances of 9 meters (30 feet) or more. Temperature changes of the room or stationary items within the room do not cause the infrared motion detector to sound an alarm. Since these devices rely upon the differences in radiation between the room and an intruder, use in a room that is maintained at a temperature approaching that of a human body limits the effectiveness of the device.

Infrared motion detectors use an optical system to project an image of the area within their field of view onto a radiation sensor. Some of these detectors employ a very narrow field of view and are useful for point protection, to monitor a long narrow corridor, or to provide line protection. Those designed to provide a wide field of view utilize either continuous area coverage or multiple zone coverage. In the first type, the detector will sense a moving source of radiation anywhere within the image that is formed on the radiation sensor. In the case of the zone type detector, the radiation sensing element consists of many individual sensors, each located at a specific point within the radiation image so as to sense moving radiation from a small area or volume within the total field of view. When using a zone type detector, alignment is critical. Wide angle infrared motion detectors normally have a field of view in excess of 90 degrees, and when mounted in a ceiling corner can provide good coverage of a 9 x 9 meter (30 x 30 foot) room. Infrared motion detectors with wider fields of view are available for use as wall-mounted installations.

1.1.9 Photoelectric Sensors

Photoelectric sensors may be active or passive, and may use either visible or infrared light. Visible light is usually unsuitable for intrusion alarm systems, because the light can be detected and avoided. Passive infrared photoelectric sensors are essentially the same as the infrared motion sensors described above.

Active infrared photoelectric sensors use a narrow beam of invisible infrared light directed across a corridor, along a wall, or across a path that one would expect an intruder to travel. A receiver monitors the beam and signals an alarm if the beam is interrupted.

Infrared photoelectric sensors use infrared laser sources or white light sources and infrared filters. Many sensors utilize high energy sources that are capable of transmitting a beam over distances of more than 100 meters (more than 300 feet) and are most commonly used in outdoor systems.

Frequently, the sensor's transmitter or light source and receiver are separate units; many, however, mount the source and receiver in the same housing. These systems, called retro-reflection systems, require the use of a mirror to return the beam to the receiver. Mirrors can be used to direct the protective beam around the entire perimeter of an area or along almost any desired optical path.

Because the receiver is so designed that it will not signal an alarm as long as it is exposed to infrared radiation, it would be a simple matter to shine infrared radiation from a flashlight or other light source into the receiver optics and thereby defeat the system. Most infrared photoelectric sensors prevent such action by modulating the light source. The light beam is transmitted as a series of pulses, rather than as continuous radiation. The electronic circuit of the receiver is designed to signal an alarm if the received radiation is not properly modulated.

1.1.10 Capacitance Sensors

Capacitance sensors monitor the capacitance (capacity for the storage of electrical energy) between specific metal objects and the electrical ground of the earth. Any metal object that is

electrically insulated from the electrical ground of the earth will have a capacitance associated with it. The capacitance sensor is connected to the metal object, such as a filing cabinet or a safe. The electrical field surrounding the protected object is disturbed when an intruder enters the field, causing the overall capacitance to change. The sensor signals an alarm in response to the change in capacitance.

The electronic processing circuitry of the sensor can be adjusted to respond both to the total capacitance change and the rate of change of the capacitance of the protected object. These devices can be used to protect one or more objects, depending upon the design of the sensing circuit.

Capacitance sensors can also be used with grid wires or screens to protect an area, such as a wall or a window.

1.1.11 Vibration Sensors

Vibration sensors are used to detect the presence of an intruder by monitoring the vibrations produced when attack tools are used to penetrate the structure members (such as walls or floors) of a building.

The simplest of the vibration sensors is a mechanical switch designed so that the contacts vibrate with the surface on which they are mounted. When the vibration level exceeds a preset level, the contacts signal an alarm.

Contact microphone vibration sensors are used for the same purpose. The microphone vibration sensor is an electromechanical device that produces an electrical signal proportional to its physical displacement. These devices operate on a principle similar to that of a phonograph pickup and are used with a processor such as that used in a sound sensor. In fact, some sound sensing devices are designed to accept signals from both sound sensing microphones and contact vibration microphones.

1.1.12 Visual

Targets may be placed under surveillance by a variety of visual methods, all of which have been previously discussed in one form or another. These methods include: television; infrared detectors; and visual observation via peepholes, roving patrols, and guards. All of these require manned stations for real-time action.

1.2 Alarms

In order for an intrusion sensor to be of value, it must be connected to an alarm. There are many such alarms: television monitors, annunciator panels with lights and aural devices (horns, whistles, bells), and radio devices (voice, beeper). Alarm stations must be manned, or placed in a location where personnel can respond to a visual or aural signal. Sensors can be connected to alarms via hard lines or by radio.

2. Property Identification

Marking property with a distinctive mark or number, such as a name, driver's license, or social security number, would make disposal or overt use of such property difficult. Removal of the mark would be obvious, and would have the same result; except that the property owner could not be identified by the distinctive mark.

3. Barrier Systems

Target hardening can be achieved by denying access to the target. Systems which do this are called barriers, and are described below.

3.1 Sound

Sound systems are used as audible alarms in current security systems. The disabling effects of sound have been investigated as both a riot control technique and a forced entry deterrent. Commercially-available audible alarms are currently in use at ranges from 110 db to 145 db.

Sound will warn the intruder that his presence has been detected. Speech interference or masking of communications will occur between 100-120 db at frequencies comparable to the human voice (600-4800 HZ). This is considered sufficient to preclude effective verbal communications between two individuals separated by six inches. Intense sound greater than 120 db may result in disturbing physiological effects including disequilibrium (loss of balance), dizziness, nausea, and involuntary eye movement.

Certain types of sound conditions could cause partial disorientation; in general, however, the extent of the effect can neither be predicted nor controlled.

3.1.1 "Acoustic Barrier" Intrusion Deterrence System

Approximately 1 kilowatt of time-varying current delivered to a properly-matched transducer assembly will project a 128 db sound "barrier" over a limited azimuth on a radius of over 60 feet. A multi-element transducer is used for shaping and forming the pattern of energy to maintain a 128 db barrier through an azimuth of 180^{0} with sufficiently high front-to-back ratio so that personnel outside of the forward hemisphere suffer no discomfort. Equipment includes a transducer assembly, solid state amplifier, power driver, trill siren with audio input, converter with battery power supply, and remote controls with microphone, on and off trill siren switch and volume control.

One hundred twenty (120) db is considered the pain threshold for human beings. "Trill" modulation at high levels may effect cerebral activity in the beta frequency range causing disorientation, in addition to the distraction of intense sound. The 128 db figure was arbitrarily chosen as the nominal acoustic pain threshold for non-damaging short-term exposure to a complex frequency structure. It is believed that the sound may negate industrial ear protection through bone conduction. The system was originally developed for long distance public address from vehicles and aircraft.

3.1.2 "Earsplitter" Audible Alarm

The "Earsplitter" is a high intensity siren capable of producing up to 113 db at 10 feet. The siren is composed of a compact speaker, an electronic siren driver, ancillary wiring, switches, and batteries. The audible alarm, which provides psychological deterrence only (distracting noise), is commercially available and used in a variety of industrial security applications.

3.1.3 "Silent Watchman Alarm" Audible Alarm

This is an audible alarm combined with a passive infrared detector which utilizes a high-peaked warbling siren producing 122 db at 10 feet. The audible alarm will provide psychological deterrence only (distracting noise).

This system is commercially available, and is in use in a variety of industrial security applications.

3.2 Light

Certain lighting techniques have been examined for potential use, capitalizing on human response to glare, brilliant flash, and stroboscopic or flicker effects:

- Disability Veiling Brightness (DVB) techniques have been developed to obscure targets by directing glare into the eyes of an adversary.

- Flash luminaries are known to cause temporary flash blindness with recovery times ranging from a few seconds to over two minutes.

- When a human subject looks at light flickering at a frequency of about 9-12 HZ, the alpha component of the brain waves is increased; the effect is known as photic driving. The subjective experience that accompanies photic driving is usually unpleasant and may include dizziness, nausea, nervousness, and strong urges to escape the situation. Photic driving will trigger an attack in epileptics.

Evidence suggests a wide range of effects from these light sources which can neither be predicted nor controlled. Distraction, rather than incapacitation, would be the most common result.

3.2.1 "Super Strobe" Security and Safety Light

The Super Strobe is a high-intensity strobe light capable of producing up to 4,000,000 candlepower at a distance of four inches from the center of the light source. The flash rate is adjustable, providing 70 to 110 flashes per minute. The light is composed of a Xenon flash tube with optics, toroidal dome lens, power supply, and

auxiliary wiring switches and batteries. In order to temporarily blind a potential adversary, the most effective mode would be very short duration, repetitive (1 second interval), high-intensity bursts of light in a low ambient light environment.

Effects will vary between individuals and are very subjective. Protective equipment, such as goggles with high density filters, would mitigate the effects.

3.3 Electricity

Non-lethal electrical shock has been used in a variety of weapons developed for law enforcement use. The spectrum of physiological effects produced by variations of voltage, current, power and frequency range from the tingle of a mild electric shock of low amperage to painful shocks and burns of high voltage systems. The alternating current "No Let Go" (NLG) Threshold has been established through experiments at 15.9 ma for men and 10.5 ma for women. This represents the 50% tolerance level in each case. Impulse shock hazards from high voltage, high direct current, and short duration episodes range from headache, burns, and paralysis, to mental dysfunction. A maximum nonfibrillating current of 67 ma and a minimum fibrillating current of 107 ma have also been established through tests on animals.

3.3.1 "TASER" Electrical Weapon

The TASER is a battery-operated device the size of a large flashlight, which contains a cartridge-like insert that, when activated by a small charge of powder, propels two small darts. Each dart is connected by an 18 foot wire to the transformer power source with the TASER. The darts imbed themselves in either the skin or clothing of a

subject and provide a path for an electric shock from the power source. The darts will penetrate human skin to a maximum depth of 5/16 of an inch.

The target becomes completely immobilized and incapacitated and may suffer eye injury. The TASER output current is about twice the No-Let-Go (NLG) current level and appears to be close to the level that can cause ventricular fibrillation and death; but the heart does not respond to the higher frequencies used in the TASER.

Although considered non-lethal for most individuals, the TASER has been classed as a firearm and is sold by licensed firearms dealers only.

3.3.2 Fence Charger System

The Fence Charger System utilizes commercially-available fence charging devices connected to an electrified grid barrier. The system consists of the charger, a 100,000 ohm high voltage resistor, the grid, and floor plate or screen. The intruder receives a non-lethal shock if contact is made with gridwires and floor plate, or horizontal wires.

The system may be compromised by electrical shorting. There is a possibility that the shock could be lethal to some subjects under some conditions.

3.4 Dispensable Materials

Materials dispensed upon the discovery of attempted forced entry are used to delay or deny access.

3.4.1 Rigid Polyurethane Foam

Two components--polymeric isocyanate and a prepolymer--are stored separately, and, when activated, are mixed to form a quick-hardening solid foam to fill voids. The rigid foam solidifies in a few minutes, at a density of a few pounds per cubic foot. Expansion ratios of 1:30 have been achieved. Uses include blocking passageways or encapsulating valuable items. Rigid foam is sufficiently tough to create considerable delay to an intruder attempting forced entry.

Potential hazards include chemical toxicity, the possibility of entombment in the foam, and exposure to high temperatures. The foam can be dispensed at a slow enough rate to allow escape.

Removal of the foam may be accomplished by chain saw, shovel, and sand blasting. Rigid foam is unusually persistent.

3.4.2 Sticky Thermoplastic Foam

This material is a liquid, produced by dissolving a thermoplastic hydrocarbon resin in a liquid fluorocarbon solvent stored under pressure. Chlorinated paraffin is added as a fire retardant and a silicone surfactant is added to enhance deployed stability. When the liquid vaporizes, bubbles are formed in the resin solution, creating a low-density sticky foam. Expansion ratios of 1:40 are normal. Temperature strongly influences sticky properties.

One concept involves the use of a sticky foam stored under pressure in modular barriers along the walls. Detection of penetration would cause the foam to pour out through a hole, entangling the intruder, and fouling tools.

Hazards include getting resin in one's eyes and exposure to chlorinated solvents.

3.4.3 Slippery Materials

Originally developed as a tool for area denial during civil disturbances, this material is a high molecular weight water soluble polymer which is dispensed as a dry powder, and, when water is introduced, becomes extremely slippery. The material can be used on any smooth surface. It is commercially available as "Instant Banana Peel" and "Superslip."

Hazards include risk of injury from falling. Materials are unusually persistent. (In an outdoor environment, the material became active whenever the surface was wet, over a six-month period.)

3.4.4 Ballistically-Actuated Water Cannon (BWC)

The BWC is a cartridge-actuated water pumping device originally designed for truck installation, which could be used in civil disturbance operations. It can be fired by a single operator and is magazine-fed to provide both single shot and semi-automatic firing capability. The BWC can project a shot of 1.5 gallons of water through a 1.375 inch diameter nozzle at a muzzle velocity of 161 fps.

The BWC is capable of knocking down an intruder with water impact at ranges of up to 70 feet.

Tests conducted on swine resulted in undesirable physiological effects at close ranges (6.5 and 15 feet).

3.4.5 Portable Pumping System (PPS)

The PPS is a skid-mounted pumping system deployed on a truck. It requires two operators, and can be actuated in a continuous stream of water or pulsed firing mode. The deluge gun is mounted over the engine and pumps to provide complete 360 degree rotation, as well as vertical travel. The unit is self-contained, but requires gasoline and a battery for the internal combustion engine which drives the centrifugal pump. The water tank has an 800 gallon capacity. Water pulses of 2.9 or 1.6 gallons can be projected with an average velocity of 164 feet per second.

The PPS is capable of knocking down an intruder with water impact, at ranges up to 70 feet.

3.5 Obscurants

Obscurants can be used to create a visual impairment. Visual field blanking will disorient an intruder and make visually-demanding tasks difficult.

3.5.1 Chemical Smoke Generator

The reaction of liquid titanium tetrachloride with a solution of ammonium hydroxide forms fine particulates of titanium dioxide and ammonium chloride, creating a dense white cloud called Cold Smoke. The self-contained generating equipment uses nitrogen pressure to spray the two liquids through atomizing nozzles into the air where they mix and react. Expansion ratios from $1:10^3$ to $1:10^4$ have been observed. The visual blanking effect is extremely disorienting and will make any task requiring vision extremely difficult.

Equipment corrosion and safety hazards to personnel are minimized by the choice of titanium tetrachloride and ammonium hydroxide. Clean-up can be accomplished by power venting the area and using water spray from a fire hose to wash out the residue.

3.5.2 Cartridge Smoke Generator

The cartridge smoke generator is designed to dispense HCL and NH_4OH to produce ammonium chloride smoke. The generator will produce a dense white cloud within 5-10 seconds of initiation, obscuring a volume of approximately 8,000 cubic feet.

Disorientation by visual field blanking and some irritation from the smoke make tasks requiring vision difficult.

3.5.3 PVC Hydraulic Smoke Generator

The PolyVinyl Chloride Hydraulic Smoke Generator produces an ammonium chloride cloud, obscuring a volume of 12,000 cubic feet.

Disorientation from visual field blanking and irritation from the smoke will make tasks requiring vision difficult.

3.5.4 Hydrogen Chloride Gas/Ammonia Gas Smoke Generator

Uses HCL and NH_4OH to produce ammonium chloride gas, and is an extremely expensive unit.

Disorientation from visual field blanking will make tasks requiring vision difficult.

3.5.5 Stabilized Aqueous Foam Generator

High expansion aqueous foam is formed from a water and detergent solution. The expansion is achieved by coating a net or screen with this solution and then blowing air through the net or screen to produce bubbles. An expansion ratio of 1:600 at greater than 8,000 cubic feet per minute has been achieved.

Visual field blanking causes disorientation and makes tasks requiring vision difficult.

Clean-up consists of knocking down the foam with water spray and flushing out the residue. No hazards to people exist. Aqueous foam also provides a fire-fighting capability.

3.6 Chemical Agents

3.6.1 Riot Control Agents (CN, CS, CR, DM, and others)

Common riot control agents (tear gas) incapacitate intruders. Tear gas can be deployed in gaseous or liquid form from pressurized containers or from capsules or vials which are crushed.

Riot control agents (tear gas) incapacitate which, in very low concentrations, act primarily on the eyes, causing intense pain and lacrimation (tearing). The maximum effect is total incapacitation. At high concentrations, tear gas may be lethal, especially within enclosed areas.

CN (Chloracetophenone) is in common use by law enforcement agencies. CS (Ortho-Chlorobenzalmalonitrile) has been adopted by the U.S. Army as its standard tear gas.

In an indoor situation, the concentration-time products expected to incapacitate 84 per cent of those exposed (ICT 84) and the concentration-time products expected to be lethal to 1 per cent of those exposed (LCT 1) for Agent CS and CN are listed below:

	ICT 84 mg-min/cu.m.	LCT 1 mg-min/cu.m.
CS	22	3800
CN	182	600

Gas masks can be used to prevent exposure to tear gas.

3.6.2 Malodorous Compounds

Malodorous substances can be used as a barrier. The most promising compound consists of 20% phenyl mercaptan, 10% diethyl sulfide, 10% isovaleric acid, and 60% t-butyl mercaptan.

The effect is psychological, and consists of an obnoxious or nauseating odor to drive away the intruder. Effects are subjective in nature, and can be ignored.

3.6.3 Central Nervous System Depressants

3.6.3.1 Sernyl

Inhalation of an aerosol containing 1,000 mg-min/cu.m. of Sernyl may sedate an intruder, but the time to produce the effect is unknown. Maximum effect would be tranquility and sedation. The effect could vary widely among individuals.

3.6.3.2 Phenothiazine

Phenothiazine tranquilizers exhibit high neuroleptic potency and have been investigated as a possible incapacitant for limited operations. Phenothiazine in proper dosages will quickly incapacitate a subject. Onset could occur in less than three minutes.

3.7 Physical Barriers

Active and passive barriers can be used to delay or deny access to an area or building.

3.7.1 Rubble Piles

An explosive actuator is used to drop a hinged roof containing rubble into a passageway, which could effectively delay or deny intrusion.

3.7.2 Door Relocking Hardware

Door relocking hardware functions as a back up to normal door locking mechanisms. The system includes an internal locking system capable of independently bolting doors to jambs, header and threshold, using explosive bolt mechanism. The thruster assembly consists of a piston and cylinder arrangement containing a pyrotechnic pressure cartridge, which, when ignited, drives a piston outward with great force into matching holes in the door frame. The piston is locked into place once it is extended. Complete destruction of the door is necessary to gain access; thus, the system can only be used on doors which are sufficiently attack-resistant to delay the intruder.

3.7.3 Concertina Portcullis

Barbed tape is mounted on an angle iron frame and stored on the ceiling between access points and protected items. The portcullis is lowered, presenting 18-inch diameter coils extending from the floor to the ceiling, which must be penetrated to gain access.

Penetration of barbed tape requires considerable skill and equipment (manual bolt cutters and protective clothing), and is also a psychological deterrent.

The concertina portcullis deploys at an extremely slow rate, lessening hazards if accidentally activated.

3.7.4 Folding Barrier/Gate

An alternative portcullis concept uses expanded steel mesh on screens extended across avenues of approach.

3.7.5 Pyrotechnic Door Lamina (Pyrotechnic Pellets)

Pellets composed of potassium permanganate and silicon are loaded on the back of a door to completely cover the surface. Upon drilling the door, the pellets ignite. A hypergolic system of potassium permanganate-polyvinyl chloride pellets and a glycerin-alcohol solution produce heat, and expulsion of hot gas through the door. The pellets can also be utilized to initiate a pyrotechnic smoke device.

Burn rate and gas production can result in severe over pressure on the door, itself, causing it to open.

3.8 Combination Barriers

3.8.1 Stabilized Aqueous Foam Generator and Tear Gas (CS2)

Foam as a carrier for tear gas has potential application. Agent CS, when treated with water resistant coating, is called CS2. CS2 placed on the skin in foam produces an intense irritation. Effects would combine the visual field blanking of foam with the incapacitation effects of Agent CS. The most promising commercial foams exhibit expansion ratios of 1:500 to 1:700 with CS2 embodied. The foams remain stable for several hours. The CS2 is sprayed as a dry powder on the foam screen.

Agent CS2 is extremely persistent. Decontamination is accomplished with water spray from a fire hose. As the surfactants concentrated in the foam collapse, they react with the hydrophobic coating of Agent CS2, resulting in hydrolysis of the CS2, and providing effective decontamination.

3.8.2 Cold Smoke Generator and Portcullis

Visual field blanking by Cold Smoke generation combined with the visually demanding tasks presented by the portcullis barrier can be an extremely effective means of delay or denial.

3.8.3 Aqueous Foam and Portcullis

Similar to the Cold Smoke and portcullis described above.

3.8.4 Line Source Smoke and Tear Gas Rope

The use of smoke and tear gas in rope form may be used for area denial. The smoke rope is a thin plastic tube filled with a CS pyrotechnic composition and an inner fuse wire which burns the chemical filler to produce a white smoke. The white smoke consists of ammonium perchlorate, ammonium chloride, and zinc oxide. A pull wire fuse with 5-7 second delay is used to produce a 10' x 10' wall for 2 seconds (minimum) in calm wind. The rope is 3/8" in diameter and weighs 25 grams per foot. A standard commercial package is available in 250-foot lengths.

The effects on an intruder include visual field blanking and irritation.

Line Source Smoke and RCA Rope could start fires and have a tendency to self-ignite. One of the combustion products of the rope is zinc chloride which could cause injury to unprotected personnel after long-term exposure.

4. Personal Safety

Self-protection techniques can be employed to thwart assault, rape, and other crimes against a person. Such techniques include the use of tear gas, self-defense techniques such as any of the martial arts, screaming or blowing a whistle, and the use of legal weapons. Self-protection requires training, and should be used only as a last resort; it is better to try to avoid being in a position where such techniques may have to be used.

Applicability Analysis

The applicability of each method is determined for each crisis relocation phase (preparatory, relocation, attack, return, resettlement) and for each area (risk, host). Results of one such analysis are shown in Table 1-8.

TABLE 1-8

APPLICABILITY OF CRIME PREVENTION TECHNIQUES -
BY CRISIS PHASE - FOR RISK AND HOST AREAS

Technique	Description and Comment	1-Preparatory		2-Relocation		3-Attack		4-Return		5-Resettlement	
		Risk	Host	Risk	Host	Risk	Host	Risk	Host	Risk	Host
IDENTIFICATION											
. surveillance systems	. mechanical camera systems (film or video tape recorder) to view perimeter and/or interior access routes to storage areas	X	X	X	X	X	X	X	X	X	X
. patrols	. surveillance of storage areas and/or residential areas by roving patrols of citizens and/or law enforcement professionals	X	X	X	X		X	X	X	X	X
. neighborhood watch teams	. vigilance by residents for suspicious activity in the immediate neighborhood	X	X		X		X	X	X	X	X
. crime tip	. anonymous reporting of crime - could be similar to WeTIP program	X	X	X	X		X	X	X	X	X
. public information and education	. programs to inform and train citizens in activities to increase likelihood of identification of persons engaged in crime. All media - press, radio, TV - can be used, as well as neighborhood meetings, church groups, etc.	X	X	X	X		X	X	X	X	X

TABLE 1-8 (CONT'D.)

APPLICABILITY OF CRIME PREVENTION TECHNIQUES -
BY CRISIS PHASE - FOR RISK AND HOST AREAS

Technique	Description and Comment	1-Preparatory		2-Relocation		3-Attack		4-Return		5-Resettlement	
		Risk	Host	Risk	Host	Risk	Host	Risk	Host	Risk	Host
OPPORTUNITY REDUCTION											
. citizen relocation	. removal of persons other than critical workers from the risk area reduces number of potential victims and perpetrators			X							
. supply of essential resources	. adequate supply and distribution of life essentials (food, shelter, fuel, etc.) reduces need for crime in order to survive			X	X		X	X	X		
. storage of valuables	. collection and storage of valuables in one, or a very few, protected location(s)			X	X	X	X	X	X		
. confiscation and storage of prohibited materials	. prohibited items, such as drugs, explosives, etc., would be confiscated and stored in a (or a very few) protected location(s). Placards can be posted to indicate removal of items			X	X	X	X	X	X		
. citizen activities	. activities to keep citizens occupied will reduce opportunity. Civic services, such as building expedient shelters, child care, teaching, etc.; and participation in recreational activities, are examples				X		X				

TABLE 1-8 (CONT'D.)

APPLICABILITY OF CRIME PREVENTION TECHNIQUES -
BY CRISIS PHASE - FOR RISK AND HOST AREAS

Technique	Description and Comment	1-Preparatory		2-Relocation		3-Attack		4-Return		5-Resettlement	
		Risk	Host	Risk	Host	Risk	Host	Risk	Host	Risk	Host
. public information and education	. programs to elicit citizen cooperation in the use of essential resources (such as food, housing, fuel); storage of valuables; etc. Media, neighborhood groups, churches, can be used	X	X	X	X		X	X	X	X	X
TARGET HARDENING											
. surveillance systems	. intrusion sensors: - switches: dry contact, magnetic, mercury - metallic foil - wire screen - trip wire - pressure devices: mats, ribbons, wafers - acoustic - motion: ultrasonic, microwave, infrared - photoelectric: passive, active - capacitance - vibration - visual: TV, infrared, door peepholes, roving patrols, guards	X	X	X	X	X	X	X	X	X	X

TABLE 1-8 (CONT'D.)

APPLICABILITY OF CRIME PREVENTION TECHNIQUES -
BY CRISIS PHASE - FOR RISK AND HOST AREAS

Technique	Description and Comment	1-Preparatory		2-Relocation		3-Attack		4-Return		5-Resettlement	
		Risk	Host	Risk	Host	Risk	Host	Risk	Host	Risk	Host
. surveillance systems (cont'd.)	. alarms - visual: TV monitors, lights - audio: horns, bells, whistles, recorded voice - radio: voice, beeper	X	X	X	X	X	X	X	X	X	X
. property identification	. property marking: engraving valuable property with a traceable number to discourage theft or burglary, identify property, deter fencing of stolen property	X	X	X	X	X	X	X	X	X	X
. barrier systems	. sonic: high intensity sound to cause distraction, disorientation, pain	X	X	X	X	X	X	X	X	X	X
	. light: high intensity continuous or intermittent light to cause distraction, temporary blindness, disorientation	X	X	X	X	X	X	X	X	X	X
	. electrical: non-lethal electric shock to cause headache, burns, paralysis, mental dysfunction. Administered through fencing or grids, or through weapons (TASER)	X	X	X	X	X	X	X	X	X	X

TABLE 1-8 (CONT'D.)

APPLICABILITY OF CRIME PREVENTION TECHNIQUES -
BY CRISIS PHASE - FOR RISK AND HOST AREAS

Technique	Description and Comment	1-Preparatory		2-Relocation		3-Attack		4-Return		5-Resettlement	
		Risk	Host	Risk	Host	Risk	Host	Risk	Host	Risk	Host
. barrier systems (cont'd.)	. dispensable materials: materials are dispensed (deployed) to delay or deny access. Includes rigid polyurethane foam, sticky thermoplastic foam, slippery water soluble polymer ("Instant Banana Peel," "Superslip"), water projectors (ballistic water cannon, portable pumping system)	X	X	X	X	X	X	X	X	X	X
	. obscurants: dense obscurants to impair vision; cause disorientation, irritation. Includes "cold smoke" (NH_4CL, T_1O_2, NH_3), "smoke" (NH_4CL, NH_4OH, HCL), aqueous foam (water and detergent)	X	X	X	X	X	X	X	X	X	X
	. chemical agents:	X	X	X	X	X	X	X	X	X	X
	- riot control agents: local irritants (tear gas). In very low concentrations, act primarily on the eyes, causing pain and tears. At high concentrations, may be lethal. Includes agents CN, CS, CR, DM, and others										
	- malodorous compounds: obnoxious or nauseating odor to cause retreat										

TABLE 1-8 (CONT'D.)

APPLICABILITY OF CRIME PREVENTION TECHNIQUES -
BY CRISIS PHASE - FOR RISK AND HOST AREAS

Technique	Description and Comment	1-Preparatory		2-Relocation		3-Attack		4-Return		5-Resettlement	
		Risk	Host	Risk	Host	Risk	Host	Risk	Host	Risk	Host
. barrier systems (cont'd.)	- depressants: sedatives or tranquilizers to sedate or incapacitate										
	. physical barriers: to delay, or deny access, increase physical exertion, decrease performance	X	X	X	X	X	X	X	X	X	X
	- rubble piles in narrow passageways - locks on doors, windows - door relocking hardware as backup to usual door locks. Includes internal locking system to independently bolt door to jambs, header, threshold - concertina portcullis. Barbed tape on frame, lowered into passageway - folding barrier/gate in corridors. Made of expanded steel mesh on screens - pyrotechnic door lamina. Pellets of potassium permanganate and silicon mounted on back of door or wall. Heat from drilling, torching, or explosives causes ignition of pellets which expels hot gas or smoke through door										

TABLE 1-8 (CONT'D.)

APPLICABILITY OF CRIME PREVENTION TECHNIQUES -
BY CRISIS PHASE - FOR RISK AND HOST AREAS

Technique	Description and Comment	1-Preparatory		2-Relocation		3-Attack		4-Return		5-Resettlement	
		Risk	Host	Risk	Host	Risk	Host	Risk	Host	Risk	Host
. Barrier systems (cont'd.)	- fences of barbed wire, barbed tape, steel mesh, and combinations of these - bars behind windows, walls										
	. combination barriers: to achieve results that are more effective than the individual barriers alone	X	X	X	X	X	X	X	X	X	X
	- aqueous foam and riot control agent CS2. Combines blanking of visual field with irritation and incapacitation of agent CS2 (agent CS with water-resistant coating) - portcullis and obscurant. Combines physical barrier with visual field blanking (from "cold smoke," "smoke," or aqueous foam) - fencing and dogs. Sentry dogs trained to attack roving at large within fenced compound										
	. personal safety: use of self-protection techniques and equipment	X	X	X	X		X	X	X	X	X

Feasibility Analysis

Each technique is examined for feasibility of technical, operational, legal, political, and cost factors. The results of one such analysis is summarized in Table 1-9. No technique was rejected as a result of this particular analysis, because most of the techniques are already in use, or are well along in development. The feasibility analysis is used as a basis for selection by a particular jurisdiction.

As part of the feasibility analysis, a judgmental ranking is made of the applicability of the techniques to the potential criminal activities identified earlier. The results of one analysis are shown in Figure 1-1. In this figure, the techniques applicable to each crime are indicated by a number; that number indicates the relative ranking of the technique against the other applicable techniques for that crime - a "1" is best. Again, this ranking is intended as a guide - other techniques may prove, or have been proven, to be better in a particular jurisdiction.

1-5 Conclusions

Because each jurisdiction has a unique crime prevention situation, no recommendations can be made with regard to specific techniques. It is suggested, however, that a crime prevention element be incorporated in the crisis relocation plan prepared by a jurisdiction.

The crime prevention element can be developed using the following planning approach:

1 - Identify potential criminal activity during the various phases of a crisis relocation period.

2 - Set goals and objectives for prevention of crime.

3 - Prioritize the potential criminal activities; that is, determine which crimes should receive the most, and which the least, attention.

TABLE 1-9

Feasibility Analysis

Techniques	Technical	Operational	Legal	Political	Cost
Identification					
. Surveillance Systems					
- film camera	Fully developed	Requires changing and processing film; and viewing film after the fact. Requires good lighting. Can be triggered to save film. Can be masked.	No legal problems Pictures acceptable in court.	No political problems.	Low
- videotape recorder	Fully developed	Requires changing tape; and viewing in real - time or after the fact. Low light levels can be tolerated. Can be triggered to save tape. Can be erased by magnetic field. Can be masked.	No legal problems.	No political problems.	Low
. Patrols	Fully developed	Requires personnel trained in patrolling. Requires communications. Cannot be used in risk area during attack phase.	No legal probleems.	No political problems.	High, if paid personnel are used. Lower, if volunteers are used.
. Neighborhood Watch Teams	Fully developed	Requires volunteers, some training, and communications. Cannot be used in risk area during relocation and attack phases.	No legal problems.	No political problems.	Low
. Crime Tip	Fully developed	Requires central contact point, usually an "800" telephone number. Can be confidential; but works best when tipster remains anonymous. Cannot be used in risk area during attack phase.	No legal problems.	No political problems.	Low
. Public Information and Education	Fully developed	Requires program development. Cannot be used in risk area during attack phase.	No legal problems.	No political problems.	Moderate, unless media donate services.

TABLE 1-9 (CONT'D.)

Feasibility Analysis

Techniques	Technical	Operational	Legal	Political	Cost
Opportunity Reduction					
. Citizen Relocation	Requires advance planning and coordination in risk and host areas.	Requires communication and coordination among many agencies. Depends on quality of planning. Applicable only in risk area during attack phase. State legislation may be required. Only five states can order citizen evacuation (Texas, Colorado, Mississippi, Florida, Louisiana); all others cannot.	No legal problems	No political problems.	High
. Supply of Essential Resources	Requires advance planning and coordination. Requires citizen motivation.	Requires communication and coordination. Requires special stockpiling and distribution networks. May require law enforcement resources to protect supplies - may require periodic replenishment.	May require legislation to designate storrage areas and activate program.	No political problems.	High
. Storage of Valuables	Requires advance planning and coordination. Requires citizen cooperation. Requires dedication of special facilities.	Requires coordination of deposits and withdrawals. May require law enforcement resources to protect valuables. Requires record keeping.	May raise liability problems.	No political problems.	Moderate
. Confiscation/Storage of Prohibited Materials	Requires advance planning and coordination. Requires preparation of notices, placards, etc. Requires cooperation of merchants and citizens. Requires dedication of special facilities.	Requires delivery or collection of materials. May require search and seizure. Requires posting of notices, placards, etc. May require law enforcement resources to protect materials.	May require special legislatiton.	May produce opposition from special interest groups.	High
. Citizen Activities	Requires programmatic planning and coordination. Requires recruitment and training of leaders. Requires citizen motivation.	Requires coordination of activities. Requires solicitation of citizens. May require transportation.	No legal problems.	No political problems.	Low

TABLE I-9 (CONT'D.)

Feasibility Analysis

Techniques	Technical	Operational	Legal	Political	Cost
Opportunity Reduction (Cont'd.)					
• Public Information and Education	Requires programmatic planning and coordination.	Requires coordination of programs.	No legal problems.	No political problems.	Moderate to high, depending on donations of services by media, citizen's groups, etc.
Target Hardening					
• Surveillance Systems					
- Intrusion sensors					
- switches: dry contact magnetic, mercury	Used for perimeter protection. Difficult to defeat. Low reliability.	Moderate false alarm susceptibility.	No legal problems.	No political problems.	High installation cost. Low operational cost.
- metallic foil	Used for perimeter protection. Easy to defeat. Easy to damage. Easy to repair.	High false alarm susceptibility.	No legal problems.	No political problems.	Low
- wire screens	Used for perimeter protection. Moderately difficult to defeat. Must be repaired after penetration. Low maintenance.	Moderate false alarm susceptibility.	No legal problems.	No political problems.	High installation cost. Low operational cost.
- trip wire	Used for perimeter protection. Easy to defeat, if detected.	Low false alarm susceptibility. Must be removed to permit normal access.	No legal problems.	No political problems.	Low
- pressure devices: mats, ribbons, wafers	Used for point protection. Easy to defeat, if detected. Low maintenance.	Low false alarm susceptibility. Must be deactivated to permit normal access. Subject to wear.	No legal problems.	No political problems.	Low
- acoustic	Used for area protection of enclosed spaces. Difficult to defeat. High sensitivity, but requires low noise background.	High false alarm susceptibility. Must be deactivated to permit normal access.	No legal problems.	No political problems.	Moderate
- motion: ultrasonic	Used for area protection of small enclosed spaces. Difficult to defeat.	High false alarm susceptibility. Must be deactivated to permit normal access.	No legal problems.	No political problems.	Moderate

TABLE 1-9 (CONT'D.)

Feasibility Analysis

Techniques	Technical	Operational	Legal	Political	Cost
Target Hardening (Cont'd)					
- motion: ultrasonic (Cont'd.)	Sensitive to air turbulence, loud noise, vibration. Line of sight, large objects cause shadows. Insensitive to extremely slow or fast motion.				
- motion: microwave	Used for protection of large enclosed areas. Difficult to defeat. Sensitive to extraneous radiation, objects outside protected area.	High false alarm susceptibility.	No legal problems.	No political problems.	High
- motion: infrared	Used for protection of large enclosed areas. Difficult to defeat. Sensitive to changes in temperature, sunlight.	High false alarm susceptibility for receive-only sensors; low for transmit/receive sensors.	No legal problems.	No political problems.	High
- photoelectric: active	Used for perimter protection, and for small area protection. Easy to moderately difficult to defeat. Sensitive to smoke and dust, and to misalignment.	High false alarm susceptibility.	No legal problems.	No political problems.	High
- photoelectric: passive	Used for point or small area protection. Difficult to defeat. Sensitive to smoke or dust, and to abrupt changes in light level.	Low false alarm susceptibility.	No legal problems.	No political problems.	High
- capacitance	Used for point, perimeter, and small area protection. Very difficult to defeat. Cannot be used on electrically grounded objects. May require special construction.	Low false alarm susceptibility.	No legal problems.	No political problems.	High
- vibration	Used for point, limited area protection. Very difficult to defeat. Detects only forceful attempts. Cannot be used in areas of high vibration.	High false alarm susceptibility.	No legal problems.	No political problems.	High

TABLE 1-9 (CONT'D.)

Feasibility Analysis

Techniques	Technical	Operational	Legal	Political	Cost
Target Hardening (Cont'd)					
- visual: TV, infrared, door peepholes, roving patrols, guards	Used for point perimeter, and large and small area protection. Requires manned coverage.	Low false alarm susceptibility.	No legal problems.	No political problems.	High
- alarms					
- visual: TV monitors, lights	Requires connecting lines.	Requires manned observation posts.	No legal problems.	No political problems.	Low to moderate
- radio: voice, beeper	State of the art.	Requires manned reception stations	No legal problems.	No political problems.	Low to moderate
- audio: horns, bells, whistles	Local alarm easy to defeat.	Requires manned annunciator stations; also can be local alarm.	No legal problems.	No political problems.	Low to moderate
. Property Identification	Requires citizen motivation.	Requires retrieval of property, notification of retrieval, identification of property.	No legal problems.	No political problems.	Low
. Barrier Systems					
- sonic/light	Used for enclosed area protection. Delays intrusion by degrading task performance through distraction, disorientation, temporary pain or blindness.	Requires high intensity sound and light generators.	May require legislation to permit use.	May produce opposition by special interest groups.	Moderate
- electrical	Used for point, perimeter, area protection. Delays or denies intrusion by electrical shock, causing headache, burns, temporary paralysis, mental dysfunction. TASER immobilizes, incapacitates, and may cause eye injury. May be lethal.	Requires electrified fences, floor grids, or weapons (TASER). Fences and grids can be defeated.	May require legislation to permit use.	May produce opposition by special interest groups.	Moderate

TABLE 1-9 (CONT'D.)

Feasibility Analysis

Techniques	Technical	Operational	Legal	Political	Cost
- dispensable materials					
- rigid polyurethane foam	Used to block passageways, or to encapsulate items. High expansion ratio. High density	Slow dispensing rate to allow escape of friendlies. May be removed by chipping, cutting, or sandblasting.	May require legislation.	No political problems.	Moderate
- rigid polyurethane foam (Cont'd.)	rigid foam. May be toxic; may result in unwanted entombment.	sandblasting.			
- sticky thermoplastic foam	Used to block passageways. High expansion ratio. Low density. May be toxic.	Sticky foam causes entanglement.	May require legislation.	No political problems.	Moderate
- slippery materials	Used for area denial. High molecular weight. Water soluble polymer. "Instant Banana Peel", "Superslip".	Slippery materials inhibit movement on smooth surface. Long lasting (six months).	No legal problems.	No political problems.	Low
- water projectors: water cannon, portable pumping system	Used for area protection. Generates water pulse: . 1.5 to 2.9 gallons . 160 fps velocity . 70 foot range Projector is mobile. Can cause physiological damage.	Impact of water pulse knocks intruder down. Requires trained manpower to operate.	No legal problems	No political problems.	Moderate
- obscurants	Used for area protection. High expansion chemical cloud.	Clouds obscure vision, cause disorientation, cause eye irritation.	No legal problems	No political problems.	Low

TABLE 1-9 (CONT'D.)

Feasibility Analysis

Techniques	Technical	Operational	Legal	Political	Cost
Target Hardening (Cont'd)					
- chemical agents					
- riot control agents: CN, CS, CR, DM, others	Used for area protection. Solid, micropulverized, liquid agents affect eyes and skin. Cause pain and tears. Can incapacitate. Can be lethal in high concentrations. Can be neutralized by gas masks.	Disseminated by expulsion, pyrotechnics, fog, liquid.	May require legislation.	No political problems.	Low
- malodorous compounds	Used for area protection. Obnoxious/nauseating odor. Effect is psychological; therefore, can be ignored.	Odor repels intruder	No legal problems	No political problems.	Low
- depressants	Used for area protection. Tranquilizers affect central nervous system. Action time and effects are highly variable. Effects range from sedation to incapacitation. Can be neutralized by gas masks.	Disseminated by aerosols.	May require legislation.	No political problems.	Low
- physical barriers					
- rubble piles	physical blockage of entry passageways.	Hinged ceiling dumps rubble when activated.	No legal problems	No political problems.	Low
- locks, relocking hardware	Locked doors/windows protect enclosed areas. Doors/windows must be attack resistant.	Door relocking mechanisms activated to deny entry	No legal problems	No political problems.	Low
- concertina portcullis/folding barrier or gate	Used for protection of entryways. Barbed tape mounted on frame. Physical barrier and psychological deterrent.	Frame lowered from ceiling, or extended from walls.	No legal problems	No political problems.	Low
- pyrotechnic door lamina (pyrotechnic pellets)	Used for protection of entryways. Hypergolic pellets of potassium permanganate polyvinyl chloride-glycerin-alcohol produce heat and gas. Can damage door, thus can be self-defeating.	Pellets placed on back of door. Activated by heat from torches or drilling.	May require legislation.	No political problems.	Low

TABLE 1-9 (CONT'D.)

Feasibility Analysis

Techniques	Technical	Operational	Legal	Political	Cost
Target Hardening (Cont'd)					
- fences	Barbed wire/tape, steel, mesh surrounding area to be protected.	Requires installation.	No legal problems	No political problems.	Low
- bars	Steel bars behind windows, walls.	Requires installation	No legal problems	No political problems.	Low
- combination barriers	Combinations of any of the physical barriers.	See individual barriers above.	See individual barriers above.	See individual barriers above.	Low to high.
- Personal Safety	Use of self protection techniques and equipment.	Employed by person if attacked.	May require legislation.	No political problems.	Low

FIGURE 1-1

Applicability Analysis

Crime Prevention Techniques / Criminal Activity	Weapons	Driving Under the Influence	Stolen Property	Theft - Larceny	Arson	Burglary	Fraud	Robbery	Assault	Murder/Non-Negligent Manslaughter	Manslaughter	Offenses Against Family/Children	Embezzlement	Forgery/Counterfeiting	Theft - Motor Vehicle	Rape	Theft - Household	Theft - Business	Vandalism	Curfew and Loitering Laws	Liquor Laws	Drug Abuse	Prostitution/Commercialized Vice	Gambling	Drunkenness	Vagrancy	Disorderly Conduct
IDENTIFICATION																											
Surveillance Systems			6	6	2	4									3		7	7	3	2	3	3	3	3	3	3	2
Patrols		2	7	7	4	7									6		8	8	4	3	4	4	4	4	4	4	3
Neighborhood Watch Teams	3	1	8	8	5	8									7		9	9	5	4	5	5	5	5	5	5	4
Crime Tip	2	3	9	9	6	9	1	4	2	4	1	3	1	1	8	2	10	10	6	4	5	5	5	5	5	5	4
Public Information and Education	4	6	10	11	7	10	2	5	3	5	2	4	2	2	9	3	12	12	7	5	6	6	6	6	6	6	5
OPPORTUNITY REDUCTION																											
Citizen Relocation																	3	3			1	1	1	1	1	1	
Supply of Essential Resources		4													1		1	1									
Storage of Valuables			1	1		1		1		2																	
Confiscation/Storage of Prohibited Materials	1		2	2		2		2		3			2				2	2									
Citizen Activities		5		10													11	11	1	1	2	2	2	2	2	2	1
Public Information and Education	4	6	10	11	7	10	2	5	3	5	2	4	2	2	9	3	12	12	7	5	6	6	6	6	6	6	5
TARGET HARDENING																											
Surveillance Systems			4	4	1	3									2		5	5	2								
Property Identification			3	3		6									5		4	4									
Barrier Systems			5	5	3	5									4		6	6									
Personal Safety									3	1	1		1			1											

4 - Identify effective crime prevention techniques.

5 - Identify resources needed to implement the techniques.

6 - Prepare a plan--the crime prevention element of the crisis relocation plan--to obtain the resources needed and to implement the crime prevention techniques.

Crime Prevention during crisis relocation is not just the responsibility of law enforcement professionals; as in normal times, prevention of crime is everybody's job. Any technique which reduces workload on public safety personnel will allow better use of resources during the crisis relocation period.

In summary, crisis relocation is chaotic at best - just the sort of environment in which criminal activity flourishes. Crime can be prevented by using techniques which involve citizens, volunteers, public safety professionals, and technology. Prevention of crime is an important part of crisis relocation activities; and, as such, should be an element of the crisis relocation plan for each jurisdiction. This part of the Guide has presented one approach to identifying crime prevention techniques suitable for your jurisdiction - it is up to you, now, to do the planning.

PART 2

PENAL SYSTEM ALTERNATIVES

2-1 INTRODUCTION

This portion of the Guide examines various alternatives for the disposition of prisoners during a crisis relocation period. The alternatives are suitable for municipal and county jails, and for state and federal prisons. Even in non-crisis times, jails and prisons are overcrowded--relocation of prisoners from risk areas will further burden host area facilities--hence the need to identify and plan for alternative dispositions.

2-2 PRISONER DISPOSITION CONSTRAINTS

Introduction

Disposition of prisoners incarcerated in a risk area will not be unrestricted; certain constraints will affect whether and where prisoners will continue to be institutionalized. Such constraints may be imposed by moral considerations, constitutional and legal requirements, prison and jail facility limitations, and characteristics of the prisoners, themselves. A number of possible restrictions which may apply to the disposition of prisoners during a crisis relocation period are described herein. Since some of the constraints identified herein may be modified or even ignored in an actual operation, all may not be applicable.

Discussion

For ease of identification and description, constraints on the penal system are grouped into three major categories: societal - those imposed by society through the Constitution, legislation, and/or moral persuasion; conditional - those imposed by the available accommodations and the physical environment; and individual - those imposed by characteristics of

the prisoner and/or the reason for incarceration. Within each of these categories, the constraints are identified, described, and examples cited. A listing of the constraints is shown in Table 2-1.

Societal

A civilized society guarantees humane treatment of its members through a set of moral rules. In American society, these rules are contained in the Constitution of the United States, which is the seminal source for all law. Federal and state law, and international law, to which the United States is a signatory, must not contravene the Constitution. With regard to treatment of prisoners, the Constitution contains guarantees in Article IV (Sections 1 and 2); and Amendments 5, 8, 9, 10, 13, and 14 (Section 1).

Since law affecting prisoners varies among the states, the Geneva Convention relative to the treatment of prisoners of war (Geneva Convention III, August 12, 1949) may be used as one model for legality in the treatment of prisoners. (Each jurisdiction should use the law applicable in its state.) This convention contains requirements which could apply to prisoner treatment during crisis relocation in Articles III, XIII, XIV, XV, XVI, XIX, XX, XXI, XXII, XXIII, XXV, XXVI, XXVII, XXIX, XXX, XXXI, XXXIV, XXXVIII, XLII, XLVI, XLVII, XLVIII, XLIX, L, LI, LII, LIII, LV, LXXI, LXXII, LXXV, LXXVI, LXXVII, and LXXXVII. An additional model - the "United Nations Standard Minimum Rules for the Treatment of Prisoners" may also be used. This standard contains requirements in rules 6 through 94.

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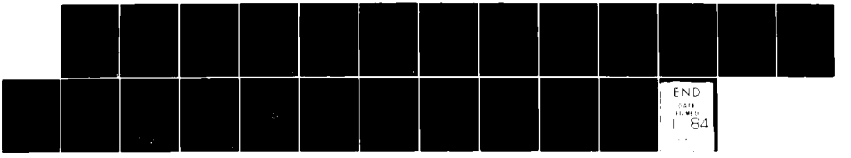

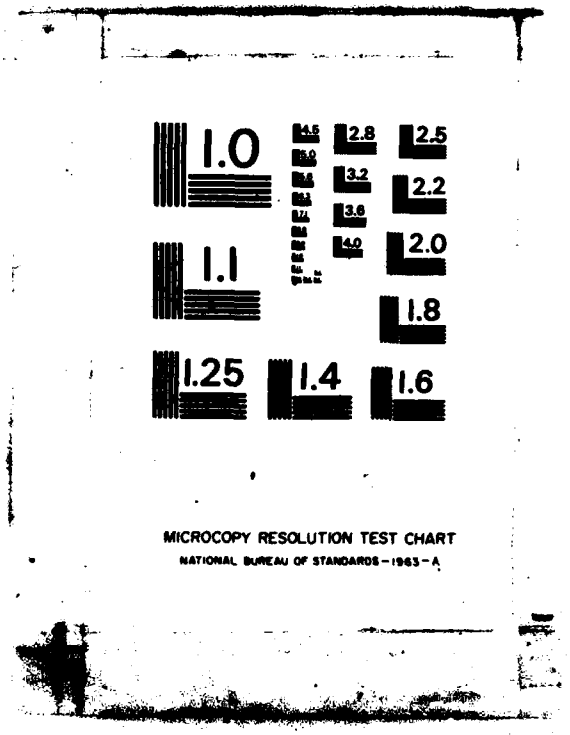
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TABLE 2-1
PENAL SYSTEM CONSTRAINTS

Societal

- Constitutional - rights and sanctions
- Legal - laws and regulations
- Moral - approval, disapproval

Conditional

- Facilities - type, capacity, suitability
- Environment - climate, weather

Individual

- Criminal - reason for incarceration, criminal record, time remaining until normal release
- Personal - age, health (physical, mental), behavior, useful skills, location of immediate family

Moral constraints are those which may be more restrictive than those imposed by law (without violating the law), or those which may interpret or amplify the law. Examples of such constraints are: number of prisoners in a cell (double- or triple-celling), visitation privileges, prisoner segregation, etc.

Conditional

Constraints arising from, and/or influencing, the conditions within the penal system can be grouped into two categories: those which are associated with the facilities, and those which are associated with the environment. Some of these are placed by the societal constraints described above. Examples of facilities contraints are: type - prison, jail, juvenile detention, minimum security; capacity - whether or not there is room for additional inmate population; and suitability - whether the type and capacity of a particular facility are suitable for the prisoners to be housed.

Environmental constraints include the weather and climate. Harsh conditions may make some available facilities unsuitable; this aspect is covered in the societal constraints, also.

Individual

Disposition of prisoners may vary depending on characteristics related to the prisoner. These characteristics may be grouped as criminal, and personal.

Criminal characteristics may include: reason for incarceration, prior criminal record, time remaining in sentence, etc.

Personal characteristics may include: age, physical and mental health, behavior while incarcerated (e.g., trusty status), skills useful to society during the crisis relocation period, and location of immediate family.

To give an example, certain prisoners may be employed, with minimum security or with outright release, in building expedient shelters in the host area; if they are, say, physically and mentally healthy, with no record of violence, and possess a useful skill such as carpentry or plumbing. On the other hand, a felon serving a second sentence for armed robbery would best be detained in a maximum security facility in a host area.

2-3 PRISONER DISPOSITION ALTERNATIVES

Introduction

A number of approaches which might be used for prisoner disposition in the risk and host areas are discussed herein. Also discussed are several prisoner characteristics which might be used to determine which disposition approach would be appropriate.

Alternative Dispositions

There are three major alternatives for prisoner disposition: retention in the risk area, relocation to the host area(s), and release into the general populace. Within each of these major alternatives, there are several sub-alternatives or choices.

- retention in risk area:
  If prisoners are to remain in the risk area, they may be retained in the facilities which they currently occupy or they may be congregated in fewer facilities.

- relocation to host area(s):
  If prisoners are to be relocated to host area(s), they may be housed in existing detention facilities and/or they may be housed in segregated temporary facilities.

- release:
  If prisoners are to be released, they may be released under parole, probation, or bail, depending upon their detention status at the time of release.

Whatever the disposition, prisoners can also be used as a resource to provide needed work in relocation activities.

Discussion

1 - Retention in the risk area:

This alternative is not acceptable on societal or conditional grounds. This action is inhumane to prisoners and is prohibited by the 1949 Geneva Convention (Article XXIII). The United Nations Standard Minimum Rules for the Treatment of Prisoners does not specifically address this situation, but does specify health accommodations for prisoners (Rule 10). Further, even if this alternative were acceptable on societal grounds, prison support personnel would be required in the risk area; no civilian could be expected to undertake such an exposure to blast and/or radiation.

2 - Relocation to host area(s):

This alternative is acceptable on societal and individual grounds. Relocation of prisoners is a commonplace event, although usually not in such large numbers; and should pose no major legal, operational, or political problems. Temporary overcrowding of host area facilities may occur, requiring double or triple-celling, or possible use of temporary facilities for detention, such as "mothballed" military barracks or even ships. In some cases, it may be necessary to house prisoners normally requiring segregation with the general prison population. Additional support personnel, such as guards, psychiatrists/psychologists, and clergy, may be required. These can be obtained from the risk area.

Certain prisoners may be used in relocation activities, such as construction of expedient shelter, maintenance and repair of public facilities used as shelters and expedient housing, food preparation and serving, and other public services. Selection of these prisoners will depend on the services required and the abilities of the individual prisoners (for example, carpenters can do carpentry, electricians can do electrical wiring and repair, etc.); and upon the offense(s) for which the prisoner is incarcerated (drug offenders should not be used in hospitals, for example). Use of prisoners for work within the host community will require support personnel and facilities to transport and oversee the prisoners while outside the prison facilities; however, use of prisoners for relocation activities may reduce the workload on other segments of the host area, such as in the trades and services.

Plans and procedures must be worked out for federal, state, and local prisoners, and integrated into the local crisis relocation plan. Usually, each jurisdiction is responsible for its prisoners (federal for federal, etc.); but in a crisis, responsibilities might be shifted to make maximum use of resources, such as transportation and support personnel. Policies and guidelines for prisoner relocation to host areas should include:

- transportation
- protection
- segregation
- adequacy of facilities
- criteria for prisoner utilization in work force
  - type of crime
  - behavior
  - skills
  - age
  - sex

3 - Release of Prisoners:

This is acceptable on individual and conditional grounds, but may not be acceptable on societal grounds.

Certain prisoners could be released on bail, probation, or parole, depending on the type of crime, length of prison term remaining, behavior while incarcerated (for example, trusties would be more likely to be eligible than non-trusties), and possibly the existence of close relatives in or near the host area. Such action would be based on individual case-by-case review.

Release of prisoners may be viewed as unacceptable by the citizens of the host community, without proper safeguards; for example, improved crime prevention efforts, such as those described in Part 1 of this Guide.

Release of prisoners into the general populace of the host area(s) must be carefully considered. Federal, state, and local authorities have control of and responsibility for their respective prisoners; but jurisdictional bounds will be crossed in relocation, especially city and county, but state boundaries may also be crossed. Parole and/or probation criteria and supervision will have to be worked out between jurisdictions. Release criteria must be set up a priori so that consistency will result; including:

- type of crime
- length of term remaining
- degree of rehabilitation
- behavior
- relatives in or near host area
- age
- health - physical, mental
- useful skills

Workload Reduction

Reduction of workload for law enforcement, judicial, and corrections personnel can be obtained through the use of the following techniques:

- Combined detention facilities - Although the nationwide ratio for number of prisoners to correctional personnel is approximately 1.68 to 1, this ratio varies among the states from 0.64 to 3.44[1]. A higher ratio; that is, fewer guards and support personnel, could probably be used for a short term, accompanied by procedural changes to reflect the increased risk.

- Release of prisoners - This will reduce workload on corrections personnel; but may, if not planned properly, increase law enforcement and judicial workload.

- Use of volunteers - Many law enforcement agencies have civilian auxiliaries which are used for traffic and crowd control and other services, and there are also citizen participation programs, such as neighborhood watches. These resources could be mobilized in the risk and host areas (except during the attack phase) to perform these and other functions. Training of volunteers must be conducted prior to a crisis, so that professionals will not be burdened with training during a crisis.

- Crime prevention techniques - Many of the crime prevention techniques identified in Part 1 of this Guide can result in workload reduction for law enforcement personnel, especially

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(1) Computed from data in "Sourcebook of Criminal Justice Statistics - 1980", U.S. Department of Justice, 1981. Data are for 1978.

the techniques which use mechanical means for surveillance and reporting reduction of opportunity for crime, and target hardening.

- Combined courts - Reduction of judiciary personnel can result in combining courts and use of "circuit riders" in the host area(s) and in the risk area (except in the attack phase).

Based on probable benefits, these techniques are judgmentally ranked as follows:

1 - crime prevention techniques
2 - volunteers
3 - combined detention facilities
4 - combined courts
5 - prisoner release.

2-4 CONCLUSIONS

The following conclusions are made regarding prisoner disposition during a crisis relocation period:

1 - No prisoners - local, state, or federal - should be retained in the risk area.

2 - Each jurisdiction should make plans for disposition of the prisoners for which it is responsible. These plans should include:

- host destination for each individual prisoner
- responsibilities of risk and host jurisdictions for prisoners

- transportation modes
- custodial protection during transportation
- assignment of corrections personnel
- utilization (if any) of prisoners during relocation period
- custodial protection during utilization (if any)
- use of volunteers
- criteria for release of individual prisoners

3 - Each jurisdiction should make plans to reduce the workload of law enforcement, judicial, and corrections personnel. Plans should include the following elements:

- use of crime prevention techniques to aid in law enforcement
- use of volunteers in law enforcement, corrections, and the judiciary
- combined detention facilities to reduce numbers of corrections facilities
- procedural changes, if necessaary, in combined detention facilities to accommodate higher prisoner/guard ratios
- combined courts
- prisoner release; including criteria for release, probation and parole procedures.

Such plans should be created prior to an emergency, and should be coordinated within a region so that plans within potential risk and host areas are compatible, and plans for federal, state and local jurisdictions are also compatible.

APPENDICES

A - The Constitution of The United States

B - Geneva Convention (III) August 12, 1949
Article XXIII

C - United Nations Standard Minimum Rules
For Treatment of Prisoners
Rule 10

APPENDIX A

THE CONSTITUTION OF THE UNITED STATES

We the People of the United States, in Order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defence, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution for the United States of America.

Article I

Section 1. All legislative Powers herein granted shall be vested in a Congress of the United States, which shall consist of a Senate and House of Representatives.

Section 2. The House of Representatives shall be composed of Members chosen every second Year by the People of the several States, and the Electors in each State shall have the Qualifications requisite for Electors of the most numerous Branch of the State Legislature.

No Person shall be a Representative who shall not have attained to the Age of twenty five Years, and been seven Years a Citizen of the United States, and who shall not, when elected, be an Inhabitant of that State in which he shall be chosen.

Representatives and direct Taxes shall be apportioned among the several States which may be included within this Union, according to their respective Numbers, which shall be determined by adding to the whole Number of free Persons, including those bound to Service for a Term of Years, and excluding Indians not taxed, three fifths of all other Persons. The actual Enumeration shall be made within three Years after the first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such Manner as they shall by Law direct. The Number of Representatives shall not exceed one for every thirty Thousand, but each State shall have at Least one Representative; and until such enumeration shall be made, the State of New Hampshire shall be entitled to chuse three, Massachusetts eight, Rhode-Island and Providence Plantations one, Connecticut five, New-York six, New Jersey four, Pennsylvania eight, Delaware one, Maryland six, Virginia ten, North Carolina five, South Carolina five, and Georgia three.

When vacancies happen in the Representation from any State, the Executive Authority thereof shall issue Writs of Election to fill such Vacancies.

The House of Representatives shall chuse their speaker and other Officers; and shall have the sole Power of Impeachment.

Section 3. The Senate of the United States shall be composed of two Senators from each State, chosen by the Legislature thereof, for six Years; and each Senator shall have one Vote.

Immediately after they shall be assembled in Consequence of the first Election, they shall be divided as equally as may be into three Classes. The Seats of the Senators of the first Class shall be vacated at the Expiration of the second Year, of the second Class at the Expiration of the fourth Year, and of the third Class at the Expiration of the sixth Year, so that one third may be chosen every second Year; and if Vacancies happen by Resignation, or otherwise, during the Recess of the Legislature of any State, the Executive thereof may make temporary Appointments until the next Meeting of the Legislature, which shall then fill such Vacancies.

No Person shall be a Senator who shall not have attained to the Age of thirty years, and been nine Years a Citizen of the United States, and who shall not, when elected, be an Inhabitant of that State for which he shall be chosen.

The Vice President of the United States shall be President of the Senate, but shall have no Vote, unless they be equally divided.

The Senate shall chuse their other Officers, and also a President pro tempore, in the Absence of the Vice President, or when he shall exercise the Office of President of the United States.

The Senate shall have the sole Power to try all Impeachments. When sitting for that Purpose, they shall be on Oath or Affirmation. When the President of the United States is tried, the Chief Justice shall preside: And no Person shall be convicted without the Concurrence of two thirds of the Members present.

Judgment in Cases of Impeachment shall not extend further than to removal from Office, and disqualification to hold and enjoy any Office of honor, Trust or Profit under the United States: but the Party convicted shall nevertheless be liable and subject to Indictment, Trial, Judgment and Punishment, *according to law*.

Section 4. The Times, Places and Manner of holding Elections for Senators and Representatives, shall be prescribed in each State by the Legislature thereof; but the Congress may at any time by Law make or alter such Regulations, except as to the Places of chusing Senators.

The Congress shall assemble at least once in every Year, and such Meeting shall be on the first Monday in December, unless they shall by Law appoint a different Day.

Section 5. Each House shall be the Judge of the Elections, Returns and Qualifications of its own Members, and a Majority of each shall constitute a Quorum to do Business; but a smaller Number may adjourn from day to day, and may be authorized to compel the Attendance of absent Members, in such Manner, and under such Penalties as each House may provide.

Each House may determine the Rules of its Proceedings, punish its Members for disorderly Behaviour, and, with the Concurrence of two thirds, expel a Member.

Each House shall keep a Journal of its Proceedings, and from time to time publish the same, excepting such Parts as may in their Judgment require Secrecy; and the Yeas and Nays of the Members of either House on any question shall, at the Desire of one fifth of those Present, be entered on the Journal.

Neither House, during the Session of Congress, shall, without the Consent of the other, adjourn for more than three days, nor to any other Place than that in which the two Houses shall be sitting.

Section 6. The Senators and Representatives shall receive a Compensation for their Services, to be ascertained by Law, and paid out of the Treasury of the United States. They shall in all Cases, except Treason, Felony and Breach of the Peace, be privileged from Arrest during their Attendance at the Session of their respective Houses, and in going to and returning from the same; and for any Speech or Debate in either House, they shall not be questioned in any other Place.

No Senator or Representative shall, during the Time for which he was elected, be appointed to any civil Office under the Authority of the United States, which shall have been created, or the Emoluments whereof shall have been encreased during such time; and no Person holding any Office

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under the United States, shall be a Member of either House during his Continuance in Office.

Section 7. All Bills for raising Revenue shall originate in the House of Representatives; but the Senate may propose or concur with Amendments as on other Bills.

Every Bill which shall have passed the House of Representatives and the Senate, shall, before it become a Law, be presented to the President of the United States; If he approve he shall sign it, but if not he shall return it, with his Objections to that House in which it shall have originated, who shall enter the Objections at large on their Journal, and proceed to reconsider it. If after such Reconsideration two thirds of that House shall agree to pass the Bill, it shall be sent, together with the Objections, to the other House, by which it shall likewise be reconsidered, and if approved by two thirds of that House, it shall become a Law. But in all such Cases the Votes of both Houses shall be determined by yeas and Nays, and the Names of the Persons voting for and against the Bill shall be entered on the Journal of each House respectively. If any Bill shall not be returned by the President within ten Days (Sundays excepted) after it shall have been presented to him, the Same shall be a Law, in like Manner as if he had signed it, unless the Congress by their Adjournment prevent its Return, in which Case it shall not be a Law.

Every Order, Resolution, or Vote to which the Concurrence of the Senate and House of Representatives may be necessary (except on a question of Adjournment) shall be presented to the President of the United States; and before the Same shall take Effect, shall be approved by him, or being disapproved by him, shall be repassed by two thirds of the Senate and House of Representatives, according to the Rules and Limitations prescribed in the Case of a Bill.

Section 8. The Congress shall have Power To lay and collect Taxes, Duties, Imposts and Excises, to pay the Debts and provide for the common Defence and general Welfare of the United States; but all Duties, Imposts and Excises shall be uniform throughout the United States;

To Borrow Money on the Credit of the United States;

To regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes;

To establish an uniform Rule of Naturalization, and uniform Laws on the subject of Bankruptcies throughout the United States;

To coin Money, regulate the Value thereof, and of foreign Coin, and fix the Standard of Weights and Measures;

To provide for the Punishment of counterfeiting the Securities and current Coin of the United States;

To establish Post Offices and post Roads;

To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries;

To constitute Tribunals inferior to the supreme Court;

To define and punish Piracies and Felonies committed on the high Seas, and Offences against the Law of Nations;

To declare War, grant Letters of Marque and Reprisal, and make Rules concerning Captures on Land and Water;

To raise and support Armies, but no Appropriation of Money to that Use shall be for a longer Term than two Years;

To provide and maintain a Navy;

To make Rules for the Government and Regulation of the land and naval Forces;

To provide for calling forth the Militia to execute the Laws of the Union, suppress Insurrections and repel Invasions;

To provide for organizing, arming, and disciplining, the Militia, and for governing such Part of them as may be employed in the Service of the United States, reserving to the States respectively, the Appointment of the Officers, and the Authority of training the Militia according to the discipline prescribed by Congress;

To exercise exclusive Legislation in all Cases whatsoever, over such District (not exceeding ten Miles square) as may, by Cession of particular States, and the Acceptance of Congress, become the Seat of the Government of the United States, and to exercise like Authority over all Places purchased by the Consent of the Legislature of the State in which the Same shall be, for the Erection of Forts, Magazines, Arsenals, dock-Yards, and other needful Buildings;—And

To make all Laws which shall be necessary and proper for carrying into Execution the foregoing Powers, and all other Powers vested by this Constitution in the Government of the United States, or in any Department or Officer thereof.

Section 9. The Migration or Importion of such Persons as any of the States now existing shall think proper to admit, shall not be prohibited by the Congress prior to the Year one thousand eight hundred and eight, but a Tax or duty may be imposed on such Importation, not exceeding ten dollars for each Person.

The Privilege of the Writ of Habeas Corpus shall not be suspended, unless when in Cases of Rebellion or Invasion the public Safety may require it.

No Bill of Attainder or ex post facto Law shall be passed.

No Capitation, or other direct, Tax shall be laid, unless in Proportion to the Census or Enumeration herein before directed to be taken.

No Tax or Duty shall be laid on Articles exported from any State.

No Preference shall be given by any Regulation of Commerce or Revenue to the Ports of one State over those of another: nor shall Vessels bound to, or from, one State, be obliged to enter, clear, or pay Duties in another.

No Money shall be drawn from the Treasury, but in Consequence of Appropriations made by Law; and a regular Statement and Account of the Receipts and Expenditures of all public Money shall be published from time to time.

No Title of Nobility shall be granted by the United States: And no Person holding any Office of Profit or Trust under them, shall, without the Consent of the Congress, accept of any present, Emolument, Office, or Title, of any kind whatever, from any King, Prince, or foreign State.

Section 10. No State shall enter into any Treaty, Alliance, or Confederation; grant Letters of Marque and Reprisal; coin Money; emit Bills of Credit; make any Thing but gold and silver Coin a Tender in Payment of Debts; pass any Bill of Attainder, ex post facto Law, or Law impairing the Obligation of Contracts, or grant any Title of Nobility.

No State shall, without the Consent of the Congress, lay any Imposts or Duties on Imports or Exports, except what may be absolutely necessary for executing it's inspection Laws: and the net Produce of all Duties and Imposts, laid by any State on Imports or Exports, shall be for the Use of the Treasury of the United States; and all such Laws shall be subject to the Revision and Controul of the Congress.

No State shall, without the Consent of Congress, lay any Duty of Tonnage, keep Troops, or Ships of War in time of Peace, enter into any Agreement or Compact with another State, or with a foreign Power, or engage in War, unless actually invaded, or in such imminent Danger as will not admit of delay.

Article II

Section 1. The executive Power shall be vested in a President of the United States of America. He shall hold his Office during the Term of four Years, and, together with the Vice President, chosen for the same term, be elected, as follows

Each State shall appoint, in such Manner as the Legislature thereof may direct, a Number of Electors, equal to the whole Number of Senators and Representatives to which the State may be entitled in the Congress: but no Senator or Representative, or Person holding an Office of Trust or Profit under the United States, shall be appointed an Elector.

The Electors shall meet in their respective States, and vote by Ballot for two Persons, of whom one at least shall not be an Inhabitant of the same State with themselves. And they shall make a List of all the Persons voted for, and of the Number of Votes for each; which List they shall sign and certify, and transmit sealed to the Seat of the Government of the United States, directed to the President of the Senate. The President of the Senate shall, in the Presence of the Senate and House of Representatives, open all the Certificates, and the Votes shall then be counted. The Person having the greatest Number of Votes shall be the President, if such Number be a Majority of the whole Number of Electors appointed; and if there be more than one who have such Majority, and have an equal Number of Votes, then the House of Representatives shall immediately chuse by Ballot one of them for President: and if no Person have a Majority, then from the five highest on the List the said House shall in like Manner chuse the President. But in chusing the President, the Votes shall be taken by States, the Representation from each State having one Vote; A quorum for this Purpose shall consist of a Member or Members from two thirds of the States, and a Majority of all the States shall be necessary to a Choice. In every Case, after the Choice of the President, the Person having the greatest Number of Votes of the Electors shall be the Vice President. But if there should remain two or more who have equal Votes, the Senate shall chuse from them by Ballot the Vice President.

The Constitution of the United States

The Congress may determine the Time of chusing the Electors, and the Day on which they shall give their Votes; which Day shall be the same throughout the United States.

No Person except a natural born Citizen, or a Citizen of the United States, at the time of the Adoption of this Constitution, shall be eligible to the Office of President; neither shall any Person be eligible to that Office who shall not have attained to the Age of thirty five Years, and been fourteen Years a Resident within the United States.

In Case of the Removal of the President from Office, or of his Death, Resignation, or Inability to discharge the Powers and Duties of the said Office, the Same shall devolve on the Vice President, and the Congress may by Law provide for the Case of Removal, Death, Resignation or Inability, both of the President and Vice President, declaring what Officer shall then act as President, and such Officer shall act accordingly, until the Disability be removed, or a President shall be elected.

The President shall, at stated Times, receive for his Services, a Compensation, which shall neither be encreased nor diminished during the Period for which he shall have been elected, and he shall not receive within that Period any other Emolument from the United States, or any of them.

Before he enter on the Execution of his Office, he shall take the following Oath or Affirmation:—"I do solemnly swear (or affirm) that I will faithfully execute the Office of President of the United States, and will to the best of my Ability, preserve, protect and defend the Constitution of the United States."

Section 2. The President shall be Commander in Chief of the Army and Navy of the United States, and of the Militia of the several States, when called into the actual Service of the United States; he may require the Opinion, in writing, of the principal Officer in each of the executive Departments, upon any Subject relating to the Duties of their respective Offices, and he shall have Power to grant Reprieves and Pardons for Offences against the United States, except in Cases of Impeachment.

He shall have Power, by and with the Advice and Consent of the Senate, to make Treaties, provided two thirds of the Senators present concur; and he shall nominate, and by and with the Advice and Consent of the Senate, shall appoint Ambassadors, other public Ministers and Consuls, Judges of the supreme Court, and all other Officers of the United States, whose Appointments are not herein otherwise provided for, and which shall be established by Law: but the Congress may by Law vest the Appointment of such inferior Officers, as they think proper, in the President alone, in the Courts of Law, or in the Heads of Departments.

The President shall have Power to fill up all Vacancies that may happen during the Recess of the Senate, by granting Commissions which shall expire at the End of their next Session.

Section 3. He shall from time to time give to the Congress Information of the State of the Union, and recommend to their Consideration such Measures as he shall judge necessary and expedient; he may, on extraordinary Occasions, convene both Houses, or either of them, and in Case of Disagreement between them, with Respect to the Time of Adjournment, he may adjourn them to such Time as he shall think proper; he shall receive Ambassadors and other public Ministers; he shall take Care that the Laws be faithfully executed, and shall Commission all the Officers of the United States.

Section 4. The President, Vice President and all civil Officers of the United States, shall be removed from Office on Impeachment for, and Conviction of, Treason, Bribery, or other High Crimes and Misdemeanors.

Article III

Section 1. The judicial Power of the United States, shall be vested in one supreme Court, and in such inferior Courts as the Congress may from time to time ordain and establish. The Judges, both of the supreme and inferior Courts, shall hold their Offices during good Behaviour, and shall, at stated Times, receive for their Services, a Compensation, which shall not be diminished during their Continuance in Office.

Section 2. The judicial Power shall extend to all Cases, in Law and Equity, arising under this Constitution, the Laws of the United States, and Treaties made, or which shall be made, under their Authority;—to all Cases affecting Ambassadors, other public Ministers and Consuls;—to all Cases of admiralty and maritime Jurisdiction;—to Controversies to which the United States shall be a Party;—to Controversies between two or more States; between a State and Citizens of another State;—between Citizens of different States; —between Citizens of the same State claiming Lands under Grants of different States, and between a State, or the Citizens thereof, and foreign States, Citizens or Subjects.

In all Cases affecting Ambassadors, other public Ministers and Consuls, and those in which a State shall be Party, the supreme Court shall have original Jurisdiction. In all the other Cases before mentioned, the supreme Court shall have appellate Jurisdiction, both as to Law and Fact, with such Exceptions, and under such Regulations as the Congress shall make.

The Trial of all Crimes, except in Cases of Impeachment, shall be by Jury; and such Trial shall be held in the State where the said Crimes shall have been committed; but when not committed within any State, the Trial shall be at such Place or Places as the Congress may by Law have directed.

Section 3. Treason against the United States, shall consist only in levying War against them, or in adhering to their Enemies, giving them Aid and Comfort. No Person shall be convicted of Treason unless on the Testimony of two Witnesses to the same overt Act, or on Confession in open Court.

The Congress shall have Power to declare the Punishment of Treason, but no Attainder of Treason shall work Corruption of Blood, or Forfeiture except during the Life of the Person attainted.

Article IV

Section 1. Full Faith and Credit shall be given in each State to the public Acts, Records, and judicial Proceedings of every other State. And the Congress may by general Laws prescribe the Manner in which such Acts, Records and Proceedings shall be proved, and the Effect thereof.

Section 2. The Citizens of each State shall be entitled to all Privileges and Immunities of Citizens in the several States.

A Person charged in any State with Treason, Felony, or other Crime, who shall flee from Justice, and be found in another State, shall on Demand of the executive Authority of the State from which he fled, be delivered up, to be removed to the State having Jurisdiction of the Crime.

No Person held to Service or Labour in one State, under the Laws thereof, escaping into another, shall, in Consequence of any Law or Regulation therein, be discharged from such Service or Labour, but shall be delivered up on Claim of the Party to whom such Service or Labour may be due.

Section 3. New States may be admitted by the Congress into this Union; but no new State shall be formed or erected within the Jurisdiction of any other State; nor any State be formed by the Junction of two or more States, or Parts of States, without the Consent of the Legislatures of the States concerned as well as of the Congress.

The Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States; and nothing in this Constitution shall be so construed as to Prejudice any Claims of the United States, or of any particular State.

Section 4. The United States shall guarantee to every State in this Union a Republican Form of Government, and shall protect each of them against Invasion; and on Application of the Legislature, or of the Executive (when the Legislature cannot be convened) against domestic Violence.

Article V

The Congress, whenever two thirds of both Houses shall deem it necessary, shall propose Amendments to this Constitution, or, on the Application of the Legislatures of two thirds of the several States, shall call a Convention for proposing Amendments, which, in either Case, shall be valid to all Intents and Purposes, as Part of this Constitution, when ratified by the Legislatures of three fourths of the several States, or by Conventions in three fourths thereof, as the one or the other Mode of Ratification may be proposed by the Congress; Provided that no Amendment which may be made prior to the Year One thousand eight hundred and eight shall in any Manner affect the first and fourth Clauses in the Ninth Section of the first Article; and that no State, without its Consent, shall be deprived of its equal Suffrage in the Senate.

Article VI

All Debts contracted and Engagements entered into, before the Adoption of this Constitution, shall be as valid

The Constitution of the United States

against the United States under this Constitution, as under the Confederation.

This Constitution, and the Laws of the United States which shall be made in Pursuance thereof; and all Treaties made, or which shall be made, under the Authority of the United States, shall be the supreme Law of the Land; and the Judges in every State shall be bound thereby, any Thing in the Constitution or Laws of any State to the Contrary notwithstanding.

The Senators and Representatives before mentioned, and the Members of the several State Legislatures, and all executive and judicial Officers, both of the United States and of the several States, shall be bound by Oath or Affirmation, to support this Constitution; but no religious Test shall ever be required as a Qualification to any Office or public Trust under the United States.

Article VII

The Ratification of the Conventions of nine States, shall be sufficient for the Establishment of this Constitution between the States so ratifying the Same.

DONE in Convention by the Unanimous Consent of the States present the Seventeenth Day of September in the Year of our Lord one thousand seven hundred and Eighty seven and of the Independence of the United States of America the Twelfth In WITNESS whereof We have hereunto subscribed our Names,

G°. WASHINGTON—Presidt
and deputy from Virginia

AMENDMENTS

(The first 10 Amendments were ratified December 15, 1791, and form what is known as the "Bill of Rights")

Amendment 1

Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

Amendment 2

A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed.

Amendment 3

No Soldier shall, in time of peace be quartered in any house, without the consent of the Owner, nor in time of war, but in a manner to be prescribed by law.

Amendment 4

The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

Amendment 5

No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentment or indictment of a Grand Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offence to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

Amendment 6

In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the Assistance of Counsel for his defence.

Amendment 7

In Suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved, and no fact tried by a jury, shall be otherwise re-examined in any Court of the United States, than according to the rules of the common law.

Amendment 8

Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

Amendment 9

The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.

Amendment 10

The powers not delegated to the United States by the Constitution, nor prohibited by it to the States, are reserved to the States respectively, or to the people.

Amendment 11

(Ratified February 7, 1795)

The Judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States by Citizens of another State, or by Citizens or Subjects of any Foreign State.

Amendment 12

(Ratified July 27, 1804)

The Electors shall meet in their respective states and vote by ballot for President and Vice-President, one of whom, at least, shall not be an inhabitant of the same state with themselves; they shall name in their ballots the person voted for as President, and in distinct ballots the person voted for as Vice-President, and they shall make distinct lists of all persons voted for as President, and of all persons voted for as Vice-President, and of the number of votes for each, which lists they shall sign and certify, and transmit sealed to the seat of the government of the United States, directed to the President of the Senate;—The President of the Senate shall, in the presence of the Senate and House of Representatives, open all the certificates and the votes shall then be counted;—The person having the greatest number of votes for President, shall be the President, if such number be a majority of the whole number of Electors appointed; and if no person have such majority, then from the persons having the highest numbers not exceeding three on the list of those voted for as President, the House of Representatives shall choose immediately, by ballot, the President. But in choosing the President, the votes shall be taken by states, the representation from each state having one vote; a quorum for this purpose shall consist of a member or members from two-thirds of the states, and a majority of all the states shall be necessary to a choice. And if the House of Representatives shall not choose a President whenever the right of choice shall devolve upon them, before the fourth day of March next following, then the Vice-President shall act as President, as in the case of the death or other constitutional disability of the President.—The person having the greatest number of votes as Vice-President, shall be the Vice-President, if such number be a majority of the whole number of Electors appointed, and if no person have a majority, then from the two highest numbers on the list, the Senate shall choose the Vice-President; a quorum for the purpose shall consist of two-thirds of the whole number of Senators, and a majority of the whole number shall be necessary to a choice. But no person constitutionally ineligible to the office of President shall be eligible to that of Vice-President of the United States.

The Constitution of the United States

Amendment 13

(Ratified December 6, 1865)

Section 1. Neither slavery nor involuntary servitude, except as a punishment for crime whereof the party shall have been duly convicted, shall exist within the United States, or any place subject to their jurisdiction.

Section 2. Congress shall have power to enforce this article by appropriate legislation.

Amendment 14

(Ratified July 9, 1868)

Section 1. All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

Section 2. Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed. But when the right to vote at any election for the choice of electors for President and Vice President of the United States, Representatives in Congress, the Executive and Judicial officers of a State, or the members of the Legislature thereof, is denied to any of the male inhabitants of such State, being twenty-one years of age, and citizens of the United States, or in any way abridged, except for participation in rebellion, or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty-one years of age in such State.

Section 3. No person shall be a Senator or Representative in Congress, or elector of President and Vice President, or hold any office, civil or military, under the United States, or under any State, who, having previously taken an oath, as a member of Congress, or as an officer of the United States, or as a member of any State legislature, or as an executive or judicial officer of any State, to support the Constitution of the United States, shall have engaged in insurrection or rebellion against the same, or given aid or comfort to the enemies thereof. But Congress may by a vote of two-thirds of each House, remove such disability.

Section 4. The validity of the public debt of the United States, authorized by law, including debts incurred for payment of pensions and bounties for services in suppressing insurrection or rebellion, shall not be questioned. But neither the United States nor any State shall assume or pay any debt or obligation incurred in aid of insurrection or rebellion against the United States, or any claim for the loss or emancipation of any slave; but all such debts, obligations and claims shall be held illegal and void.

Section 5. The Congress shall have power to enforce, by appropriate legislation, the provisions of this article.

Amendment 15

(Ratified February 3, 1870)

Section 1. The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of race, color, or previous condition of servitude.

Section 2. The Congress shall have power to enforce this article by appropriate legislation.

Amendment 16

(Ratified February 3, 1913)

The Congress shall have power to lay and collect taxes on incomes, from whatever source derived, without apportionment among the several States, and without regard to any census or enumeration.

Amendment 17

(Ratified April 8, 1913)

The Senate of the United States shall be composed of two Senators from each State, elected by the people thereof for six years; and each Senator shall have one vote. The electors in each State shall have the qualifications requisite for electors of the most numerous branch of the State legislatures.

When vacancies happen in the representation of any State in the Senate, the executive authority of such State shall issue writs of election to fill such vacancies: *Provided*, That the legislature of any State may empower the executive thereof to make temporary appointments until the people fill the vacancies by election as the legislature may direct.

This amendment shall not be so construed as to affect the election or term of any Senator chosen before it becomes valid as part of the Constitution.

Amendment 18

(Ratified January 16, 1919)

Section 1. After one year from the ratification of this article the manufacture, sale, or transportation of intoxicating liquors within, the importation thereof into, or the exportation thereof from the United States and all territory subject to the jurisdiction thereof for beverage purposes is hereby prohibited.

Section 2. The Congress and the several States shall have concurrent power to enforce this article by appropriate legislation.

Section 3. This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the legislatures of the several States, as provided in the Constitution, within seven years from the date of the submission hereof to the States by the Congress.

Amendment 19

(Ratified August 18, 1920)

The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of sex.

Congress shall have power to enforce this article by appropriate legislation.

Amendment 20

(Ratified January 23, 1933)

Section 1. The terms of the President and Vice President shall end at noon on the 20th day of January, and the terms of Senators and Representatives at noon on the 3d day of January, of the years in which such terms would have ended if this article had not been ratified; and the terms of their successors shall then begin.

Section 2. The Congress shall assemble at least once in every year, and such meeting shall begin at noon on the 3d day of January, unless they shall by law appoint a different day.

Section 3. If, at the time fixed for the beginning of the term of the President, the President elect shall have died, the Vice President elect shall become President. If a President shall not have been chosen before the time fixed for the beginning of his term, or if the President elect shall have failed to qualify, then the Vice President elect shall act as President until a President shall have qualified; and the Congress may by law provide for the case wherein neither a President elect nor a Vice President elect shall have qualified, declaring who shall then act as President, or the manner in which one who is to act shall be selected, and such person shall act accordingly until a President or Vice President shall have qualified.

Section 4. The Congress may by law provide for the case of the death of any of the persons from whom the House of Representatives may choose a President whenever the right of choice shall have devolved upon them, and for the case of the death of any of the persons from whom the Senate may choose a Vice President whenever the right of choice shall have devolved upon them.

Section 5. Sections 1 and 2 shall take effect on the 15th day of October following the ratification of this article.

Section 6. This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the legislatures of three-fourths of the several States within seven years from the date of its submission.

Amendment 21

(Ratified December 5, 1933)

Section 1. The eighteenth article of amendment to the Constitution of the United States is hereby repealed.

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Section 2. The transportation or importation into any State, Territory, or possession of the United States for delivery or use therein of intoxicating liquors, in violation of the laws thereof, is hereby prohibited.

Section 3. This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by conventions in the several States, as provided in the Constitution, within seven years from the date of the submission hereof to the States by the Congress.

Amendment 22

(Ratified February 27, 1951)

Section 1. No person shall be elected to the office of the President more than twice, and no person who has held the office of President, or acted as President, for more than two years of a term to which some other person was elected President shall be elected to the office of the President more than once. But this Article shall not apply to any person holding the office of President when this Article was proposed by the Congress, and shall not prevent any person who may be holding the office of President, or acting as President, during the term within which this Article becomes operative from holding the office of President or acting as President during the remainder of such term.

Section 2. This article shall be inoperative unless it shall have been ratified as an amendment to the Constitution by the legislatures of three-fourths of the several States within seven years from the date of its submission to the States by the Congress.

Amendment 23

(Ratified March 29, 1961)

Section 1. The District constituting the seat of Government of the United States shall appoint in such manner as the Congress may direct:

A number of electors of President and Vice President equal to the whole number of Senators and Representatives in Congress to which the District would be entitled if it were a State, but in no event more than the least populous State; they shall be in addition to those appointed by the States, but they shall be considered, for the purposes of the election of President and Vice President, to be electors appointed by a State; and they shall meet in the District and perform such duties as provided by the twelfth article of amendment.

Section 2. The Congress shall have power to enforce this article by appropriate legislation.

Amendment 24

(Ratified January 23, 1964)

Section 1. The right of citizens of the United States to vote in any primary or other election for President or Vice President, for electors for President or Vice President, or for Senator or Representative in Congress, shall not be denied or abridged by the United States or any State by reason of failure to pay any poll tax or other tax.

Section 2. The Congress shall have power to enforce this article by appropriate legislation.

Amendment 25

(Ratified February 10, 1967)

Section 1. In case of the removal of the President from office or his death or resignation, the Vice President shall become President.

Section 2. Whenever there is a vacancy in the office of the Vice President, the President shall nominate a Vice President who shall take the office upon confirmation by a majority vote of both houses of Congress.

Section 3. Whenever the President transmits to the President pro tempore of the Senate and the Speaker of the House of Representatives his written declaration that he is unable to discharge the powers and duties of his office, and until he transmits to them a written declaration to the contrary, such powers and duties shall be discharged by the Vice President as Acting President.

Section 4. Whenever the Vice President and a majority of either the principal officers of the executive departments or of such other body as Congress may by law provide, transmit to the President pro tempore of the Senate and the Speaker of the House of Representatives their written declaration that the President is unable to discharge the powers and duties of his office, the Vice President shall immediately assume the powers and duties of the office as Acting President.

Thereafter, when the President transmits to the President pro tempore of the Senate and the Speaker of the House of Representatives his written declaration that no inability exists, he shall resume the powers and duties of his office unless the Vice President and a majority of either the principal officers of the executive department or of such other body as Congress may by law provide, transmit within four days to the President pro tempore of the Senate and the Speaker of the House of Representatives their written declaration that the President is unable to discharge the powers and duties of his office. Thereupon Congress shall decide the issue, assembling within 48 hours for that purpose if not in session. If the Congress, within 21 days after receipt of the latter written declaration, or, if Congress is not in session, within 21 days after Congress is required to assemble, determines by two-thirds vote of both houses that the President is unable to discharge the powers and duties of his office, the Vice President shall continue to discharge the same as Acting President; otherwise, the President shall resume the powers and duties of his office.

Amendment 26

(Ratified June 30, 1971)

Section 1. The right of citizens of the United States, who are eighteen years of age or older, to vote shall not be denied or abridged by the United States or by any State on account of age.

Section 2. The Congress shall have power to enforce this article by appropriate legislation.

APPENDIX B

Geneva Convention (III)
August 12, 1949

Article XXIII

No prisoner of war may at any time be sent to, or detained in areas where he may be exposed to the fire of the combat zone, nor may his presence be used to render certain points or areas immune from military operations.

Prisoners of war shall have shelters against air bombardment and other hazards of war, to the same extent as the local civilian population. With the exception of those engaged in the protection of their quarters against the aforesaid hazards, they may enter such shelters as soon as possible after the giving of the alarm. Any other protective measure taken in favour of the population shall also apply to them.

Detaining Powers shall give the Powers concerned, through the intermediary of the Protecting Powers, all useful information regarding the geographical locations of prisoner of war camps.

Whenever military considerations permit, prisoner of war camps shall be indicated in the day-time by the letters PW or PG, placed so as to be clearly visible from the air. The Powers concerned may, however, agree upon any other system of marking. Only prisoner of war camps shall be marked as such.

APPENDIX C

United Nations Standard Minimum Rules For The Treatment of Prisoners

Rule 10:

10. All accommodation provided for the use of prisoners and in particular all sleeping accommodation shall meet all requirements of health, due regard being paid to climatic conditions and particularly to cubic content of air, minimum floor space, lighting, heating and ventilation.

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A crisis relocation, as well as other types of civilian evacuation, presents an environment for increased criminal activity. Alternative methods of preventing crime can reduce the opportunity for criminal activity, increase the likelihood of apprehending a criminal, and increase or conserve law enforcement resources. Similarly, alternatives to the usual disposition of prisoners in risk areas can reduce demand on facilities and law enforcement workload. This Guide, prepared for use by law enforcement and crisis relocation planning personnel, describes crime prevention techniques and prisoner disposition alternatives potentially useful in crisis relocation periods.

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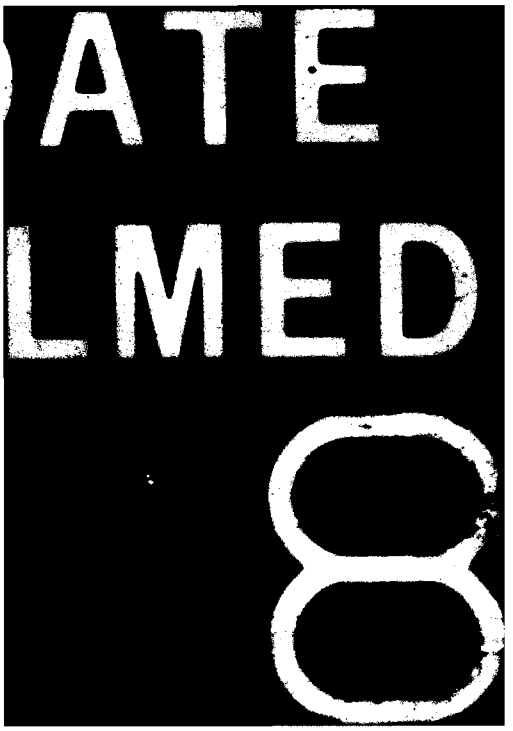
Practical Guide for Emergency Crime Prevention and Penal System Alternatives in Crisis Relocation Planning (unclassified), Ryland Research, Inc., September 1982, 108 p., Contract #EMW-C-0682, Work Unit 2314H

A crisis relocation, as well as other types of civilian evacuation, presents an environment for increased criminal activity. Alternative methods of preventing crime can reduce the opportunity for criminal activity, increase the likelihood of apprehending a criminal, and increase or conserve law enforcement resources. Similarly, alternatives to the usual disposition of prisoners in risk areas can reduce demand on facilities and law enforcement workload. This Guide, prepared for use by law enforcement and crisis relocation planning personnel, describes crime prevention techniques and prisoner disposition alternatives potentially useful in crisis relocation periods.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