

Part I

A SYSTEMS APPROACH to COURTHOUSE SECURITY

COURTHOUSE REORGANIZATION & RENOVATION PROGRAM



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The Courthouse Reorganization and Renovation Program assumes full responsibility for the views and findings contained in this series of monographs. The series does not necessarily represent the views of participating organizations, including those which follow: The Law Enforcement Assistance Administration and the National Institute of Law Enforcement and Criminal Justice, U.S. Department of Justice; The Rockefeller Brothers Fund; The Municipal Services Administration of the City of New York; The Port of New York Authority; The Appellate Divisions, First and Second Judicial Departments, and the New York County courts.

U.S. DEPARTMENT OF JUSTICE
Law Enforcement Assistance Administration
National Institute of Law Enforcement and Criminal Justice

A SYSTEMS APPROACH TO COURTHOUSE SECURITY

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PROGRAM BACKGROUND

The Courthouse Reorganization and Renovation Program, sponsored by the Appellate Divisions, First and Second Judicial Departments, State of New York, was conceived early in 1970 to develop alternative solutions for critical space and manpower requirements through the year 2000 for structures within and related to the urban court complex of New York City's Foley Square. The Program, serving beyond Foley Square as a demonstration project with nationwide implications, has resulted in imaginative, low-cost, space use concepts designed to improve the efficiency of court administration. It is hoped, that continuing facility improvements based on these concepts will bring the administration of justice closer to its ideal.

The Program was funded to the end of March, 1972, by the U.S. Department of Justice through the Law Enforcement Assistance Administration (LEAA). Additional project support has been provided by the Rockefeller Brothers Fund and by the Municipal Services Administration of the City of New York. The Appellate Divisions and the various courts under their jurisdiction provided necessary grantee contributions. The Port of New York Authority has contributed substantially to manpower planning studies. A supplementary LEAA grant made to the project in April, 1971, has funded a courthouse security study. Under terms of the original grant, the program staff is preparing a handbook on courthouse planning, reorganization and renovation for national distribution to administrators, architects and planners at the conclusion of the project. The handbook, containing information gathered from more than thirty states, will report findings of both the space management and security studies.

Dr. Michael Wong, Director of the Courthouse Reorganization and Renovation Program, is known widely for his contributions to courthouse and law-enforcement facilities planning, design and renovation.

Dr. Wong was Associate Director of the Court Facilities Study at the University of Michigan, 1968-1970. Undertaken to establish minimum standards for court facilities, this study was sponsored by the American Bar Association and the American Institute of Architects.

A registered architect from Australia, Dr. Wong holds a Ph.D. in Architectural Science and degrees in Architecture and Urban Planning.

This series of monographs has been prepared primarily for court administrators involved in facility design and renovation projects. It is felt, however, that architects, engineers and others expecting to embark on such an undertaking will benefit from much of the information contained in the series. Included in the monograph are the following topics:

- Space Management Concepts and Applications
- Space Management Methodology
- Space Standards and Guidelines
- Manpower Projection and Planning
- A Systems Approach to Courthouse Security
- Space Management and Courthouse Security
- A Comprehensive Information Communication System
- Program Administration and Cost Planning

General editor for the series is Peter Inserra of the program staff.

Comment and criticism on the content and format of the monographs is welcome and will assist the program staff in data updating before preparing the final draft of the handbook. Letters should be directed to Dr. Michael Wong, Director, Courthouse Reorganization and Renovation Program, Suite 922, 111 Centre Street, New York, New York 10013.

SECURITY IN A COURTHOUSE is an intangible quality most easily defined by its breaches: where security is lacking, deficiencies in the courthouse are obvious, but where security is good, specific factors can be attributed only with difficulty. Thus the measure of poor security becomes the number and seriousness of incidents -- but the measure of "perfect" security is impossible by those means.

Despite the imperfections of this definition, a courthouse can be designed, operated and administered for the security function just as it can for any other function, and guides to good security can be devised. Based on simple principles observed in courthouses currently in use, these guides can serve as readily to analyze security effectiveness within existing buildings as to aid in designing for security in new structures.*

* See companion monograph in this series describing the design of security systems for new structures, "Space Management and Courthouse Security."

This monograph draws heavily on interim results of a continuing study of security in the nation's courthouses, an aspect of the Courthouse Reorganization and Renovation Program conducted from August 1970 through March 1972 in New York City. Within the scope of the study are criminal, civil, surrogate's and family courts encompassing functions found in nearly every court in metropolitan jurisdictions and some in non-urban areas. The courts studied form an empirical base for a security analysis, the initial findings of which are presented in this monograph. From these findings, principles and practices of courthouse security design have been abstracted for use as guidelines.

Concerned specifically with measures of an architectural, technological and operational nature designed to increase courthouse security, this monograph treats the security function as a system. What is examined here are interactions between security measures, the effects of these measures on other courthouse processes and their propriety. Drawn from a broad cross-section, the guidelines which follow should be free of constraints peculiar to any one court system. Indeed, they should be applicable to many other kinds of facilities.

Clearly, the specific functions leading to courthouse security derive from the goal of better judicial administration. A guide to security should provide administrators with useful information to improve facilities and operations. Drawn from a broad range of applications, these guidelines can be evaluated in accordance with local conditions in arriving at an optimum system.

WHAT IS COURTHOUSE SECURITY?

In the courthouse, security encompasses deterrence, detection, and limitation of damage. Effective security design aims essentially to deter potential threats to the safety of persons and facilities

within the courthouse. The more effective the deterrence, the lower the incidence of security problems. Where deterrence fails -- and it will, at least when persons are intent on causing trouble -- it remains for security design to detect threats rapidly and to signal the attention of those who can take appropriate action. If a bomb were smuggled into a courthouse, the earlier it can be detected, the more safely the incident can be handled. Finally, security design seeks to limit damage that may be caused by action following a threat. A building with a bomb emplaced, evacuated rapidly, safely and orderly without prisoner escape exemplifies damage limitation.

One is tempted to envision the fully secure court building as a kind of fortress, bristling with armed guards and all but inaccessible to the public. But such a theme is inappropriate to the courthouse -- inappropriate to it as the place where justice is dispensed freely and openly, inappropriate to it as a repository of public records -- and most certainly, inappropriate in relation to the presumption of innocence embodied in our criminal law. A rational basis for comparison of security measures lies within the context of the system of judicial administration.

A strong threat to courthouse security is inherent, in the broadest sense, among those who harbor disregard or contempt for the law and its instruments. Threats of this kind, whether rising from groups or individuals, may take the form of a well-organized, planned action or a more spontaneous personal reaction. A threat may contemplate action related to a purpose within a courthouse (i.e., an escape; an intimidation of judge, prisoner, or jury; revenge), or it may embody broader social or political implications (i.e., a bomb threat against "the establishment"). A threat may be directed at a specific courthouse situation (an obstreperous witness, a bullying attorney), or at a simple criminal goal (theft of personal property or office equipment). Whatever the purpose of such threats, counter-acting security measures, unless integrated with a courthouse-wide

effort to engender respect for the processes of justice, almost certainly will be self-defeating.

Most security measures discussed here assume the right of certain persons to enter and have use of certain areas of the courthouse at certain times (and the denial of that right to others). Implicit, therefore, in this examination of courthouse security is the assumption that the courts have the right and sole authority to determine, implement and enforce their own security measures.

Aspects of security discussed in this monograph relate directly to functions of criminal and civil courthouses, as follows:

- Security of participants in courthouse processes (judge, jury, attorneys, parties, prisoners, witnesses, court staff) from threat by other participants or the public.
- Security of the public in courthouse processes from threat by participants or other members of the public.
- Security of public areas of courthouses from abuse by any persons.
- Security of non-public areas of the courthouse from entry by unauthorized persons.
- Security of courthouse records against loss, theft, and damage while in short- or long-term storage or transit.
- Security of all persons and facilities during emergencies.

SECURITY PROBLEMS IN VARIOUS COURTS

The kinds of proceedings taking place within a courthouse are the major determinant of the kinds of security problems that can be expected. The common division into courts of limited, general, and appellate jurisdictions is only partially appropriate;¹ a more

1. American Bar Association, "Model State Judicial Article," (1962).

useful classification is criminal, civil, and family courts. In the main, these courts differ in specific functions of units and departments within units, administrative procedures, kinds of human problems handled, relationships between parties, space use and impact of penalty. It is to be expected, then, that each of these courts will have some unique security problems. In defining them, it is necessary to analyze the operation and functions of each court.

CRIMINAL COURTS

Although procedures may differ in detail around the country, metropolitan criminal courts can be described as follows:

COURTS OF FIRST APPEARANCE

The courtroom where an arrested or summoned person first appears for a hearing, presentment or arraignment is one of great activity. Complainants, police officers, sheriffs or court officers, relatives and friends of defendants, prosecuting attorneys, defense attorneys, prison guards, spectators, and some defendants all may be in the courtroom at one time. Many arrive when court opens, as directed, and wait for as long as it takes to have called the case in which they are involved. The sheer number of persons present in or near one courtroom represents a security problem.

Defendants who are brought into court after having been taken into custody usually are held in police and court detention facilities, or in jail. Others are appearing in answer to summonses. In either situation, the defendant, when his case is called, is escorted to the bench to confront his accuser and to have determined his immediate future -- to be held or released. If he is held, bail is usually set, or he may plead to the original charge or to a lesser one, and possibly receive sentence.

Many of those called into court are confused about where and when to appear and how to behave in and near the courtroom. In a

first appearance court, cases follow one another rapidly, formal legal phrases are spoken in rapid monotone to satisfy requirements of protecting the accused, and court officers give frequent loud orders to be seated and to be quiet. In metropolitan areas, where not everyone speaks or understands English readily, or at all, interpreters and multi-lingual signs may be needed. When defense attorneys are present, hurried whispered conferences are held with clients and with the prosecution. Representatives of legal aid and social service agencies move through the court calling out names of various persons. Clerks walk in and out of the courtroom. Arresting officers enter and leave the courtroom, moving between it and the detention pen or other parts of the courthouse. Bailiffs call loudly for defendants and officers to get ready, and bail bondsmen come in to be sworn. But at the center of all this activity, there is being conducted only one hearing involving only a small number of those present.

At the first appearance, a common difficulty is a defendant's emotional state, particularly in relation to others in court. Remanded prisoners may wish to say goodbye to family, turn over valuables for safekeeping, instruct associates on last-minute personal matters, or give what money they have to wives or others. But the defendant is being rushed back into custody and must clear the bench area for the next case on a busy calendar. It is only a rare courtroom that has facilities and personnel adequate for these "last-chance" meetings. In many courtrooms, it is not unusual for a disturbance to follow the denial or abruptness of such meetings.

One increasingly prevalent condition arises in the arraignment of one or more similarly charged defendants who are the subject of intense social or political interest. Large groups of supporters usually attend the proceedings, often with the aim of influencing or disrupting the court. Common tactics in or near the courtroom are shouting, singing, hissing, booing, standing and commenting loudly. Whether these tactics help defendants, they undoubtedly

disrupt the orderly flow of cases and influence proceedings. Court appearances are delayed for defendants calendared later and subsequent hearings become even more hurried.

Tension can build up in the presence of real or assumed dangers inherent in any large group, especially one that is unruly. Perilous to safety of participants and to administration of justice, tension can be reduced by employing a sufficient number of court officers trained for crowd control, equipped with appropriate (non-lethal) weapons and communications, and deployed around the courtroom. But assigning officers to other duties and courts affects the court processes they leave.

Cases not disposed of at first appearance proceed to hearings and, for an estimated 5%, to trial. Hearings are held in grand jury spaces and in courtrooms.

CRIMINAL TRIAL COURTS

Compared to an arraignment court, a criminal trial court is calmer, even for felony cases. Most often nearly empty of spectators with only one case being heard, the courtroom takes on a reasoned judicial atmosphere.

This characterization does not dismiss the fact that attorneys may argue forcefully and dramatically or that witnesses may vilify a defendant's motives, character, and habits. As the trial proceeds, a defendant may become desperate and seek to escape, or harm a witness or co-defendant. Or he may attempt to have someone act in his behalf to free him or take revenge upon the judge or prosecuting attorney. A defendant may act on impulse or engage in premeditated behavior calculated to prejudice the court in his favor.² Witnesses may act out their hostilities to an attorney. A spectator may direct some uncontrollable outburst against a trial participant. Almost by definition, a criminal trial pits individuals against each other and

2. D. Walsh, "Gorilla Cowed His Keepers," Life, Vol. 70, No. 3, pp. 42-48, June 25, 1971, New York, N.Y.

society and evokes deep emotions of fear and hate. An effective criminal trial court must be designed to cope with these conditions.

Hearings and trials of an individual defendant or a group in cases of strong sociological or political overtones may draw wide attention because of their notoriety, the sheer number of defendants and, typically, a large number of spectators. Press coverage, defense and prosecution tactics and the background issues often heighten emotional intensity. As the number of defendants increases, and with it the number of attorneys and court officers, space in courtrooms and ancillary spaces becomes strained, compounding the security factor. It is doubtful whether many courtrooms or courthouses have been designed for multi-defendant trials; improvised operations and space use are typical solutions for such proceedings. Security difficulties have occurred -- notoriously in California's Marin County Courthouse in August, 1970 -- while other multi-defendant trials have gone successfully to conclusion and jury verdicts have been rendered without incident. Unquestionably, special security measures are necessary, but debate is widespread about what form they should take -- a question addressed in a later section of this monograph.

Offices of probation, public defense attorneys and prosecuting attorneys involve some contact between defendants, courthouse staff, and the public. Prisoners and defendants on bail or parole sometimes are brought to probation offices for interviews or physical and mental examinations. Cash or checks for restitution payments may be accepted and held for deposit. Family or friends of defendants who come for interviews with probation officers require waiting and reception spaces. Many probation offices remain open at night for the benefit of working clients. Record rooms, where storage and issuance can be controlled, usually occupy extensive space (unless modern microfilming has been implemented).

The prevalent practice of public defense attorneys having to conduct initial interviews with defendants in courthouse detention

cells is considered unsatisfactory for procedural and security reasons. If defendants are bailed or paroled, then interviews may take place preferably in legal aid offices, or in corridors, lobbys, or wherever space can be found. On a typical day, many persons visit the offices of public defense attorneys in search of information or assistance. Staff interviewed in these legal agencies express strong opinions on the need for courthouse and courtroom interview spaces and protected office spaces to ward against those bent on crimes such as larceny.

Identification procedures, including lineups, routinely are conducted in prosecuting attorneys' office spaces, where witnesses and complainants may be present with defendants or suspects. Witness interviews also may take place in these spaces. Efforts may be made to limit public access because private information is on record there and because the nature of the work is sensitive to interference.

FAMILY COURTS

The kinds of persons in the family court and their reasons for being there are unique, as are the courtrooms and related spaces, and the processes taking place within them. The distinguishing characteristic here in comparison to a criminal court is the inclusion of juveniles in most cases, whether as victims (of neglect) or accused (of delinquency). Cases also involve disputes between family members and include matrimonial matters. The presence of young children, typically less than 16 years old,* throughout the courthouse mandates special court procedures, trial practices, courtroom design and detention and supervision operations.

The trend in family courts is toward conciliation, preservation of the family unit and treatment of underlying familial difficulties.

* In New York, boys to 16 and girls to 17 are treated as juveniles in Family Court, while older youths to age 19 are eligible for youthful offender treatment in the Criminal Courts.

As a consequence, operations are being consolidated and extensive use is being made of pre-trial probation and counseling by private social service agencies.

Juvenile matters and many others coming to trial in a family court normally are conducted without juries and in private before a judge. As a rule, neither party retains an attorney, but it is not unusual for both parties to be represented by public or assigned counsel. Courtrooms, in contrast to those typically used for criminal procedures, often are smaller and more informal in layout and finishes, with less separation between participants (including the judge).

At a time when many jurisdictions are experiencing a peak age of 15 years for major property crimes,³ the function of the family court and its special security problems are increasing in significance.

Juveniles in difficulty with the law, who also may be unstable, may be prone to violence and escape. Juvenile victims, rather than parties, need protection and insulation from general courthouse atmosphere. Support cases between cohabitants can open deep wells of bitter recrimination and frustration which, in turn, can lead to verbal and physical disputes in the courtroom and near it.

Detention facilities in a criminal courthouse include intake areas and feeder pens adjacent to the courts. For the treatment of juveniles, however, the detention setting is much more informal, probably without bars or other obvious trappings of imprisonment. Supervision may be by adult counsellors in everyday dress or probation officers, rather than uniformed guards. Family court activities do not require extensive adult detention facilities or the isolation of defendants; on the contrary, much activity takes place with all parties present in probation interview offices or standing together

3. "Task Force Report: Assessment of Crime, President's Commission on Law Enforcement and Criminal Justice," Washington, D.C. 1967, p.68 (referred to subsequently as "T.F.R.").

before a judge. Even in the case of a group of juveniles charged with homicide, their parents normally will be present in the same general part of the courtroom, unless the family court waives jurisdiction and the case is transferred to the criminal courts.

In addition to juvenile victims present in family courts, young children and infants of families in court frequently are brought to proceedings for lack of any other place to leave them. Therefore, some means of supervising and caring for children who are not parties to proceedings is needed.

Family courts collect and disburse support payments and other funds. Checks, money orders, and cash are received by mail and in person for safekeeping until deposited (usually daily) and checks generally are prepared for payment recipients. New York City's Family Court, for example, annually processes in and out about one million checks. Procedural as well as spatial security clearly is required for the handling of large amounts of money.

CIVIL COURTS

Functions common to the civil courts include appellate matters, probate, small claims, landlord-and-tenant actions, civil disputes between individuals and businesses, matrimonial (civil or family) matters, and claims against government agencies. A great deal of record-keeping is typical of all civil court operations.

Civil court matters can be handled by referees, heard by judges or panels of judges, or tried before jury panels of various sizes. In most civil courts, the receipt, storage, and creation of records is fundamental and provision is made for public accessibility to records. Cash or checks are accepted for filing fees, which in large municipal or county courts, may be done at several locations in the courthouse for later consolidation and deposit. Adoptions frequently are handled in some part of the civil court (and sometimes in family courts), usually in private proceedings. It is safe to say that security needs in the civil courts can be considered according

to operational units common to all the courts, rather than in terms of the nature of cases handled.

In civil as opposed to criminal matters, a major distinction in physical security and, to a degree, in operational procedure is apparent because persons are not detained (guards, prisoners and weapons are not common to the civil courts). In fact, security problems in a large civil court building are not unlike those of a large modern office building -- with a few notable exceptions.

Civil matters can involve intense emotions for some parties, as in the following cases:

- Where an eviction order is handed down in a contested landlord-tenant dispute, a defendant facing the breakup of home and family can be easily overcome by emotion.
- Where one party is represented by counsel but the other is not, tactics and legal maneuvering can lead to intense reaction on both sides.
- Where disputes of principle are at issue, even more than damage settlement claims, parties can become excited beyond reasonable control.

Decorum in the civil courtroom is as necessary to the proper administration of justice as in any other court. When parties cannot control their own behavior, then court officers may be required to quell emotions.

Civil, family, and criminal courts share many similar security problems, but implicit in the function and operation of each kind of are specific differences of emphasis and degree.

The primary security considerations in all courts include:

- Safe storage of records
- Privacy of certain records and proceedings
- Easy access to public records
- Protection of judges and other court personnel from unnecessary exposure to risk
- Maintenance of personal safety for all persons in the courthouse

- Isolation and protection of deliberating juries
- Safety of witnesses
- Safe occupancy of buildings

Spaces requiring security analysis include courtrooms, offices with public access, record rooms, private offices and chamber spaces, public corridors and public waiting rooms.

The balance of this monograph places emphasis on a method of analyzing specific security problems of the several kinds of courts, as well as those problems courts experience in common. The basis of this analysis forms the concept of a security system.

A SECURITY SYSTEMS CONCEPT

Courthouse security is achieved by combining specific measures into a comprehensive system. Because most security measures overlap one another as alternate choices, they can be implemented with some freedom. The following categories illustrate this range of choice:

- Renovating existing facilities as an alternative to new construction
- Increasing staff and modifying their duties as operational alternatives to architectural modifications
- Implementing technical systems and devices as alternatives to staff increases

The eventual choice will be subject to constraints such as initial operating costs, propriety, legality, effectiveness of response, adaptability to change, administrative control and timeliness.

It is the goal of this monograph to describe for the administrator a typical range of choices for security systems. To accomplish this goal, this discussion examines the background of the courthouse security problem, explores measures to implement security, explains a methodology of security systems analysis, and presents in a useful format some security "do's" and "don't's."

Security should be an important determinant of courthouse design and operation. Although different types of courts and court functions have corresponding security needs, the methodology of security system design for all can be similar. By selecting architectural, operational and technological procedures appropriate to the function and security needs of all spaces within a courthouse, the desired level of security can be shaped. Constraints upon this model will include factors of:

- Legality and propriety
- Capability of current technology
- Availability of trained manpower
- Feasibility of architectural methods
- Comprehensive costs of construction and operation

GROUND RULES FOR SECURITY SYSTEMS

To examine how space planning, technology and operations affect security, it is well to state first some general relationships and their applications:

1. The purpose of a security system is to provide desired levels of security, as previously defined, for people, functions and facilities.
2. Threats to the security of a courthouse can be directed against persons (disruptive behavior in the courtroom), at spaces (a bomb in a closet or washroom), or at facilities (theft of dictating machines).
3. Analyses of security problems are based on courthouse functions, the persons performing them, facilities used and the spaces occupied. Because each of these factors can change over a period of time, measures relating to them should be flexible.
4. Some security problems are predictable and can be countered by particular measures; others can be anticipated only as contingencies, and countered with adaptive measures.

5. Security measures involving space use are directed at the location and size of spaces in which functions are performed and through which people move. Space planning measures have in the main, a deterrent effect; secondarily, they affect detection of threats and limitation of damage.
6. Technological security measures, such as alarms, communications systems and weapon detectors, have a primary effect on detection of threats. Their mere presence can be a deterrent, and they may indirectly limit damage.
7. Operational measures, including the number and use of security personnel, have a more or less across-the-board effect on the level of security.

INTERACTION OF SECURITY MEASURES

Most security measures interact with one another. A private corridor for moving prisoners securely between courtroom and detention spaces may add to construction costs but requires a smaller number of guards than to secure movement through public corridors. The addition of private corridors -- in fact, any architectural feature of privacy -- may add to building size; but cost and difficulty of maintaining an increased force of security personnel for an adequate level of security over the lifetime of a courthouse may be excessive. Many design "tradeoffs" of this kind contribute to a final security design; they become resolved in an economic bargain, subject to relevant constraints.

Designing for security must account for at least one intangible factor. Architectural measures are usually permanent, whereas spatial functions change. When architectural design is not easily adaptable to changing spatial functions, future problems may be set in motion. Changes in spatial functions reflect as well as cause changes in security problems -- and spatial functions in courthouses

do change as judicial processes are modified to accommodate accelerating changes in the life style of modern society.⁴ Procedural safeguards, rights to jury and multi-judge trials in a wider number of cases, an increasing number of multi-defendant trials, jury size, numbers and types of criminal hearings and proceedings, and the importance of negotiated pleas are all recent procedural changes which are influencing courthouse spatial considerations.

It is clear that security is not an isolated design factor but a highly integrated and interactive design component. It can be isolated for purposes of analysis but not for purposes of synthesis.

PROPRIETY OF SECURITY MEASURES

An important constraint ruling out the implementation of many simple security measures is their inconsistency with the principles of judicial administration. If the purpose of security ultimately must be to ensure the safety of persons in a courthouse, then certain common approaches must be rejected as not meeting these requirements. Design of a criminal courtroom, for instance, that allows jurors to view a detention pen from the jury box generally might be construed as prejudicing jury deliberations.

Each security measure must be capable of withstanding challenge on the grounds of prejudice to individual rights. Operational measures such as the indiscriminate search of all persons entering a courthouse or courtroom may be challenged unless such procedures are properly authorized and conform to constitutional safeguards. Successful challenges might be mounted against the use of weapons-detection devices on the grounds that they radiate energy fields into the bodies of persons being scanned. A strong force of opinion holds that the public and the press do not have the absolute right to witness all trials; certain court proceedings forbid it absolutely

4. Tentative Draft, "Standards Relating to the Judge's Role in Dealing With Trial Disruptions," American Bar Association, May, 1971, p. 17.

(juvenile and family matters, adoptions); but it is apparent that measures to limit public and press attendance must be subject to proper safeguards for the rights of all concerned individuals, including those rights guaranteed under the First Amendment.

A concept frequently advanced for multi-courtroom buildings is that of providing in one courtroom an increased number of security measures. This "secure" courtroom, it is argued, would have special provisions for the safety of participants and would limit the capability of spectators to influence proceedings. In this regard, a number of suggestions have been made to provide:

- A high, bullet-proof, transparent partition at the bar to separate spectators from the trial spaces.
- A transparent compartment to isolate defendants.
- Closed circuit television cameras and monitors in the court and detention spaces to transmit the proceedings to a defendant being tried in absentia.
- Weapons-detection devices located in a soundlock at public courtroom entrances to scan all entering persons for concealed weapons.

The "secure" courtroom would be used when a large number of spectators was expected or when spectator or participant behavior problems were anticipated. Few jurisdictions, however, could afford to activate such a courtroom only in special instances, but would have to assign routine cases to it as well. The use of such a courtroom does raise a significant legal question: Is such a courtroom, by virtue of its design and appearance, inherently prejudicial to the presumed innocence of a defendant? There has been at least one legal challenge along these lines.⁵ Architectural and technical design could compensate -- one might say, camouflage -- an admittedly high-security courtroom to avoid charges of bias, as follows:

5. Earl Caldwell, "3 Inmates Trial Delayed on Coast," The New York Times New York, N.Y., Aug. 10 1971.

- A defendant isolation compartment could be located on an elevator platform which descends to a detention space directly below the court. In routine cases, the compartment would be completely out of sight, its top flush with the courtroom floor; but, when a judge ordered a defendant restrained, the compartment could be raised up to the courtroom.
- Armor-plate on judges' benches could easily be covered with wood veneer.
- Protective glass or plastic barriers could be treated as an integral part of design to reduce psychological objections.
- Weapons scanners, relatively inconspicuous pipe-like devices, also can be incorporated unobtrusively in a facility design.

After all this is said, however, it would appear that extensive camouflage accomplishes little more than to increase security costs out of proportion to effectiveness. Certainly, to enhance the administration of justice, all security measures within a courtroom should be carried out in the least visually objectionable way. But it is unlikely that the existence of unusual security measures can be kept from all parties. Legal challenges can be expected on the grounds of courtroom environmental differences compared to other spaces in the same building. The temptation might also be great to rely solely on these measures which would not ensure anyone's safety absolutely, and could weaken the use of fundamental security practices, such as good spatial design and adequate, trained staff.

PUBLIC ACCESS

In general, security is more effective when public access to a courthouse is limited. In Baltimore and New York City, for example, more or less regular searches of people entering courthouses or courtrooms during the last few months have turned up quantities of potential

weapons, mainly knives.⁶ This is not to say that indiscriminate frisking or preventing the public from entering a courthouse is desirable; but it appears reasonable that public access should be subject to some form of control. Limiting the number of public entrances will expedite observation or surveillance to detect and deter suspicious persons.

After courthouse functions are analyzed according to whether public access is a requirement, provision for public movement can be designed for an appropriate security level. Considerations may include procedures to:

- Discourage the wanderer and pilferer by locating private spaces in proximity to each other, separated vertically and horizontally from public spaces.
- Deter the casual visitor and determined thief alike by:
 1. Limiting the number of unlocked access doors.
 2. Limiting the access to interfloor staircases by locking them from the stairwell side, possibly connected to an alarm.
 3. Prohibiting stairwell openings onto detention floors.
 4. Preventing public elevators from stopping at private floors.
 5. Allocating those spaces most remote from public entrance to functions which, though perhaps not conveniently made private, need least public contact.

COMMON OFFENSES

A persistent annoyance in many courthouses is petty theft of personal and office property -- a problem shared by administrators in many kinds of buildings. The simplest means of discouraging visitors who

6. Based on staff interviews conducted by Courthouse Reorganization and Renovation Program with supervising court officers of Superior Bench of Baltimore and New York County State Supreme Court.

would commit these offenses is to prevent unidentified persons from moving freely through the courthouse. Basic to this end is to cluster spaces where unidentified visitors may be expected in units separate from more private spaces. Access to non-public spaces can be restricted by locked doors and by planning reception areas so that visitors can be easily detected, even though staff moving through the building may have to be slightly inconvenienced. The thief, knowing that his presence in certain parts of the building is likely to be noticed and challenged (whether he is improvising an action or following a plan), probably will be deterred or slowed in committing an act.

Very little traffic should be expected or permitted to basement or upper-story mechanical or electrical equipment spaces. By locking entrances to such spaces, an unsupervised resting place is denied to the vagrant, the drunk, or the addict whose presence may be a hazard to himself and to the building's legitimate occupants. Fire hazard is reduced and an attractive bombing target is denied. Because only maintenance and custodial personnel are the routine users of these spaces, effective key control and locking procedures are feasible.

In any courthouse, casual visitors are not desirable in a judge's chambers -- in essence, his private office. Making chambers easily accessible only encourages public intrusion. The need for privacy is not dictated so much by the function of the court as by the adjudicative function of the chambers. Aspects of this privacy include:

- Locating chambers spaces in as few as possible different parts of a courthouse, separated from all other spaces by walls and locked doors
- Planning receptionists' areas on chambers floors
- Implementing private, guarded street entrances and private elevators

After-hours circulation is yet another security problem. A wide open court building is an invitation that need not be extended to potential troublemakers. Night courts and night operations of small claims courts and probation departments do not require keeping open an entire building. Better use of space would cluster night activities near the public entrance, well separated from other floors. Procedural safeguards such as locked doors and closed elevators (and others previously mentioned) would effectively close off the parts of a building unrelated to night activities, saving maintenance costs as well. In any event, routine building patrols probably should include closed-off areas as an added measure of security.

THE BOMB THREAT

Many security problems in the courthouse are related to specific proceedings or individuals but another can be quite non-specific in application -- the bomb. Combining the effects of real danger and fear with a relative ease of use, explosive and incendiary bomb incidents have become significant in security planning for many courthouses.

Although courthouses historically have not been prime bomb targets,⁷ they are believed to be attractive objects for threatened bombings or hoaxes. In the courthouse, particularly, where ongoing processes are so sensitive to external influence, the disruptive effect of bomb hoaxes can be severe. Bombs placed in courthouses more frequently are found lodged in washrooms and public corridors rather than in courtrooms, judges' chambers, or private offices -- although, given the minimum level of security in some courthouses, these spaces cannot be considered off-limits to a would-be bomber. It is generally agreed that most bombings to date have been

7. "Six Months Summary Report," National Bomb Damage Data Center, Gaithersburg, Md., Dec. 31, 1970, Table F.

motivated by opposition to the prevailing structure and way of life in society.⁸ Warnings have preceded most bombing attempts in public buildings, an indication perhaps that specific aims are not at issue. Threats have become nearly as effective as explosive incidents, encouraged by the rapid dissemination of information about bombings or attempts and bomb construction techniques.

Explosive devices are not inordinately difficult to make; incendiary bomb construction is well within the ability of any person of reasonable intelligence using materials from a supermarket or drugstore. Bombs are relatively simple to conceal and small enough to be placed in almost any part of a conventional building -- at least given the present state of the art of bomb detection. Although premature detonation is a constant threat to the constructor/emplacer, determined bombers have displayed remarkable ingenuity in constructing sophisticated devices with at-hand components.

While explosive and fire bombs remain as popular weapons, the question still must be asked: What can be done about this security problem in the courthouse?

Modern building construction techniques apparently provide ample strength compared to the explosive power of most bombs used to date. Confined structural and fire damage would appear to be the major problem to be overcome.

When a building is set on fire by a bomb the emergency can be handled as would any other fire. Architectural and construction standards mandated under local fire and safety codes also should be effective against fire bomb damage. Fire alarms, fire drills and evacuation plans are familiar techniques here. What is not so familiar is the proper response to a bomb threat once it is received.

First, it is essential upon receiving such a threat to put into effect a proven emergency plan. Such a plan should cover the

8. Ibid, Table D.

contingencies of information transfer -- how to get word of the incident to the authorized decision-makers, and how to get their instructions implemented. It would also embrace procedures, routes of evacuation (not including any use of automatic elevators), and what action to take concerning ongoing court processes and records. The choice of whether to take action at all cannot rest individually with the occupants of the building who most likely do not have accurate information on the situation. Without such facts, they should not be placed in the position of making potential life-and-death decisions. Because the threat of bombing can have as much effect on courthouse operation as an actual incident, the action taken is of primary importance and must apply comprehensively to the entire courthouse. Left to be improvised, the response likely will fail.

Bomb detection and disposal practices vary throughout jurisdictions. Some large cities have police bomb squads.* Most administrators may find it necessary to rely on military experts or federal or state agencies which may not be close enough to respond immediately in an emergency. The administrator, or his delegate, will have to make an initial decision -- to evacuate or remain -- probably only on limited information as to the reality of the threat or the possible nature and effects of the device. Given the greater frequency of threats over actual incidents and the degree of disruption to proceedings resulting even from a threat, it is important to define specifically what is to be done with records, exhibits, prisoners, and all persons participating in court processes and objects in the court's custody.

Operational and technological measures have application to the detection of explosive devices being smuggled into a courthouse, a topic discussed later in this monograph.

* New York City maintains only a 12-man bomb squad which must contend each year with at least 10,000 situations.

COMPREHENSIVE ANALYSIS

Security systems analysis is fundamental in assessing and improving security in existing courthouses. Four steps constitute this procedure:

1. Threat analysis: assessment of threats to people, facilities, and functions of a courthouse.
2. Space use analysis: determination of the use of space by persons (circulation) and for function.
3. Application of security measures: reduction of total risk.
4. Evaluation: comparison of alternative solutions for effectiveness, cost, and impact on operations.

SOME DEFINITIONS

The security of persons and functions is inversely related to their exposure to risk: to increase security, reduce exposure. To reduce exposure, two techniques are used: 1) minimize circulation exposed to risk and 2) minimize spaces exposed to risk. These procedures can be implemented in several ways, but before discussing them, the terms circulation and space need to be defined.

The concept of circulation carries several connotations. Most directly, circulation can be defined as a record of locations and the path of movement between them of a person (or function) over a period of time. Circulation refers to the spaces occupied one after another by a person while in a courthouse. This time sequence includes the spaces through which he moves (such as corridors, elevators, and stairs), as well as those in which he functions (such as chambers, courtrooms, offices, or robing rooms).

Spaces can be defined as areas within a courthouse denoted by the functions taking place in them, typified by a courtroom and its ancillary spaces; or a judge's spaces of robing room, bench area, chambers, or private elevator. Spaces may be set off by walls, but

they are always determined by associations between functions. A large record room might be considered to have several spaces within it -- a file space, a copying space, a fee-collection space, and a supervisory space -- although it has no walls or physical dividers, because each function or procedure is distinct.

THREAT ANALYSIS

Security is affected by the relative location of functionally related spaces, their distance from other spaces, accessibility of spaces to various categories of persons in the courthouse, methods of circulating between spaces, and physical protection within spaces. To minimize risk to all circulation, the persons and functions in a courthouse can be assigned "security categories" and significant circulations can be traced. For this procedure, persons are compared according to their relative hazard to each other and to courthouse functions as well as to the relative protection each may need. Functions are categorized according to requirements of access or privacy. Then, because functions are performed in spaces, security needs for spaces can be developed based on occupants and functions.

For purposes here, the typical criminal court will be considered because it includes most security problems found in any type of court. The persons and spaces of a criminal court significant in a security analysis are listed below.

PEOPLE

Judges
Defendants
Complainants

Prosecuting Attorneys
Defense Attorneys
Jurors

Witnesses
Court Staff
Public

SPACES

Courtrooms
Detention Facilities
Chambers
Robing Rooms
Jury Deliberation
Rooms

Jury Assembly and
Impaneling Rooms
Clerk's Offices
Record Rooms
Witness Waiting Rooms
Filing Offices

Public Corridors
and Areas
Elevators
Stairs
Court Staff Rooms

SPACE USE ANALYSIS

A comprehensive analytic security study must: 1) trace the circulation one by one of each class of participants in the courthouse processes, and 2) gradually combine these circulation patterns into a comprehensive pattern for all spaces. Sensitive to time and space, this procedure correlates to security measures dealing with persons as they move in time through spaces, and spaces as they are occupied at various times by persons.

When security of judges is being considered, their circulation patterns would be traced through the courthouse during a typical day, examining their relative security in each space occupied or transitted. When considering the security of a courtroom, on the other hand, each kind of proceeding would be examined as to location and movement of occupants. Specific security measures then can be applied, including factors of space planning, technology and operations, to provide alternative degrees of security.

The analysis can be expedited by following a few simple rules. After people, functions, and spaces have been categorized according to requirements of privacy and relative hazard, circulation patterns can be examined, space by space, as built up in composite courthouse circulation charts. Ideally, where two different circulation patterns cross or overlap in the same space, they should be separated in time or space, depending on the measures adopted. Time separation is fundamentally an operational measure, as when all persons in a courtroom are required to remain in their places until the judge leaves the bench and is beyond interference. Spatial separation introduces "privacy features," such as those listed in Table 1.

Where neither space nor time separation is feasible, protection is required in areas of common circulation. A judge, for instance, might be escorted by an armed court officer from courtroom to judges' elevator through public corridors. Such protection measures, although frequently used, smack of expediency and present a poor

impression to the public. Such measures also run the risk of being inadvertently relaxed at the wrong time and place a considerable responsibility on just a few persons. Where safe corridors for court staff and judges can be provided and made completely inaccessible to all others, more constant and effective security results.

The effects on security of this analytic procedure can be seen in some examples.

When a detained defendant is out of sight and hearing of all other parties to criminal court proceedings, he can neither reach nor be reached by anyone for any purpose, except as directed by the court. Only in the courtroom is he visibly and audibly part of the proceedings and there, as with paroled or bailed defendants, he is always individually guarded. His departure and arrival are out of sight of the jury, as is the detention cell adjoining the court. Detention spaces are isolated from all others in the courthouse.

Separate spaces and passages for judges give maximum protection. Only in designated spaces (courtroom, chambers, conference room, hearing room, robing room) where rules of decorum and procedure govern, do judges come in contact with other participants. Minimal opportunity for prejudicial contacts and minimal out-of-court exposure to litigants and other interested parties can enhance the balanced judicial atmosphere.

Jurors, isolated from the courtroom and other persons while deliberating, moving between the courtroom and deliberating spaces, and travelling between court and assembly spaces under escort, require several different kinds of security measures. To isolate the deliberation process, it must take place in a space near the courtroom and be connected to it by private passages, preferably as short as possible.

Impaneling procedures are separated only in space from the

rest of the courthouse. When an impaneled jury moves between assembly area and courtroom it is escorted by court officers to guide it directly, protect it from any interference, and to keep the group together. Time or space separation even may be possible for this movement, depending on overall courthouse design.

Witnesses normally are given a lesser degree of privacy and isolation than juries, in part because they come and go more frequently and individually and need to be present in the courtroom only while on the stand. When separate courtroom ancillary spaces are provided, witnesses cannot see or hear the court proceedings except when testifying. They are separated temporarily from the public and trial participants and can be guarded to protect them from influence.

Certain courthouse operations involve public participation by persons having specific business within the building; others do not. Typically, the clerk's office where civil actions are initiated is closely involved with the public because it begins the judicial process when a plaintiff files a complaint. The complaint room in a criminal court, visited by police officers and complainants who file papers to start the judicial process, has a public function. In contrast, the records room of a family court probation department is completely private and its contents may not be accessible even to judges at certain stages in a proceeding.

The location and space planning of staff office and clerical spaces therefore contribute directly to courthouse security. As a general rule, where staff spaces to which the public needs access are located close to the main entrances and, preferably, on the main floor, and where private staff spaces are located remote from public and public staff spaces, security is enhanced. In a multi-story courthouse a great many security problems are deterred by locating the entire criminal arraignment process, including detention, court and complaint spaces, in close proximity on the main floor. Especially where night and weekend arraignment courts are held, this

eliminates one potential security problem: unauthorized persons moving vertically through a building after hours. It is always a sound security practice to make public access to non-public areas difficult, either by locking the non-public spaces or making them difficult to reach.

APPLICATION OF SECURITY MEASURES

SPACE PLANNING MEASURES

Applying space planning techniques to security problems can be complex. Not only do different security needs interact with or inhibit each other, but other functional space needs may conflict with security needs. Where should chambers be located relative to courtrooms? What route should judges use to move between them? Minimum distance between chambers and courtroom reduces exposure en route and is convenient for a judge, given that the courtroom is near the 'judges' entrance to the courthouse and, perhaps, the law library, and that a chambers space is adequate for law assistant or clerk, secretary, and other aides. But when chambers is located adjacent to a courtroom, a number of other difficulties are introduced.

If judges are assigned to different court parts from time to time -- a common practice in jurisdictions implementing new calendaring techniques -- chambers also must be reassigned or the entire security precaution becomes meaningless. But when chambers are periodically reassigned, they no longer are functional as private, permanent offices. Chambers adjoining courtrooms cannot as readily be made private as if they were on a separate floor, because public, trial participants and others are in the courtroom areas during most of the day. A few chambers spread across each floor are difficult and expensive to protect or provide with reception service after hours. Chambers tend to occupy more area than other ancillary spaces, and thus are an expensive competing use for relatively scarce space. Finally, it usually will be extremely difficult to

arrange full private circulation for judges between chambers adjoining courts and other spaces they use.

A more useful approach is to provide only a robing room adjacent to a court, which can be used in recesses and for informal conferences, and to locate all chambers together in another area of the courthouse. Separate chambers floors are easier and less expensive to secure, can have better reception services with fewer personnel, and permit a much higher proportion of private circulation for all judges' functions. If complete chambers floors are not feasible, then one area of a floor can be reserved for chambers and made completely private. In either situation, the courthouse is an entity and can be thought of as a system of spaces containing a subsystem of private spaces dedicated to the judicial function, as well as other subsystems of private spaces dedicated to other functions, and spaces of less restricted access and unrestricted access.

Space management is an architectural/systems discipline that is most effectively handled by professionals in the field. Some commonly used measures -- which should not be applied piecemeal or indiscriminately -- are listed in Tables 1 and 2. Security measures within the architectural field are diverse, and include acoustical and lighting design, surface treatment and finishing, overall dimensionality, and design esthetics. Tables 1 and 2, following, list a number of "do's" and "don't's" for security systems.

TABLE 1: USEFUL SPACE PLANNING AND ARCHITECTURAL PARAMETERS

- Private corridors, stairs, and elevators for each category of person requiring complete privacy.
- Detention spaces directly feeding each criminal courtroom.
- Separate access to courts for judges and court staff, juries, witnesses and attorneys, public, and detained defendants.
- Detention floors or floor areas in a criminal courthouse connected directly to a detention building and feeding

directly and only to spaces where prisoners are routinely sent.

- Trial courtroom floors or floor areas in a criminal courthouse surrounding detention floors (vertical or horizontal).
- Chambers located in close proximity to each other on their own separate floors or floor areas.
- Limited and controlled public access to chamber spaces.
- Private building entrances for judges and prosecuting attorneys.
- Limited number of doors giving public access to building.
- Public functions (complaint, arraignment, bail and parole hearings) on first and lowest floors.
- Secured building entrance into detention spaces for prisoners under arrest.
- Facilities with higher security needs located in proximity to each other and away from public and low security areas.
- Double walls or soundproofed walls for jury deliberation rooms.

TABLE 2: SPACE PLANNING FEATURES TO AVOID

- Courtrooms adjoining public spaces, such as washrooms in which bombs can be easily hidden.
- Public spaces, such as washrooms, with false ceilings or removable ceilings, ducts, or wall panels. Bombs can be easily secreted behind access panels and fixtures, especially where some measure of temporary privacy in a public space is possible.
- Cul-de-sacs in corridors and little used corridors or stairwells which would present an excellent environment for a would-be bomber to install an explosive device.
- Low ceilings and those with ducts and removable panels in public spaces are attractive locations for bombs.
- Public furniture, including ash trays, flower pots, benches,

and seats which can be opened, moved, or otherwise used to conceal bombs. Where feasible, furnishings should be designed as an integral part of the wall, flush-finished to avoid good hiding places.

- Furnishings and objects of lightweight or flimsy construction in or near courtrooms which can be used wholly or broken as weapons. Chairs, ashtrays, tables, lamps, and other furniture would be included in this category.
- Public elevators that are not easily programmed to by-pass certain floors. Those floors designated as secured detention floors for example, must not have public elevator access. A combination of no-stop programming and walled-over elevator door openings can achieve these ends. Floors which are to be inaccessible at night also should be by-passed by elevators.
- A high degree of accessibility for the public to all parts of the building. Stairways are necessary as fire escapes and other emergency routes, but need not be used for inter-floor access. Locks or crash locks and alarms can deny these routes to the curious and nefarious alike without seriously inconveniencing others.

OPERATIONAL MEASURES

Security operations may have developed to accommodate court procedures and courthouse architectural design and space allocation. Optimal security operations, however, are not the result of fitting manpower to cover deficiencies in overall security systems; rather optimal security is a well-balanced mix of operational, technological and architectural security procedures.

Security operations are conducted by persons operating in the architectural environment of a courthouse and using such tools as are available to them. These tools can range from the technological

-- weapons, alarms, detection, and communications, to name a few -- to those of the medical, behavioral and management sciences. Perhaps the major contribution still lacking in most courthouse security operations is a complete range of these tools.

A paradox concerning uniformed court officer requirements exists in some criminal courts in this country. The great mass of all criminal cases -- misdemeanors, petty offenses and preliminary felony hearings -- are heard in criminal courts of limited jurisdiction, the lower courts. (Cases of this kind in 1970 amounted to at least 90% of the total.⁹) By nature of their procedures, these are courts of last resort for most citizens coming in contact with the criminal justice process.¹⁰

Yet the qualifications of uniformed court officers in the lower criminal courts often are less stringent than for officers serving in the higher courts. The lower criminal courts, those with the largest security problems in terms of numbers of persons processed, are served by security personnel with the fewest qualifications for job entry. It follows that the lower courts may be served by security officers of less experience than their counterparts in the higher courts -- except where training is available.

This paradox reflects a general attitude toward courthouse security best characterized, perhaps, as haphazard. At one extreme is a courthouse closed to the public except when court is in session. During the session, all persons entering are searched; some judges and prosecuting attorneys carry firearms.¹¹ At the other extreme are some jurisdictions in which court officers are appointed with no particular experience, or at best, a high school certificate. No on-the-job training is offered, and the officer may be required to be in court only when requested on special occasions.

9. T.F.R.: The Courts, p. 29, op. cit.

10. Ibid.

11. A.H. Goldstein, Jr., Brief Case, San Francisco Bar Assn., March-April, 1971.

Salaries range from less than \$4,000 to as much as \$15,000 annually for responsibilities that may include simply keeping order in the court and escorting judges to and from court, or encompass building-wide responsibilities for security such as regular searches of all spaces.

Some courts use security equipment, including alarms and weapons detectors; others do not arm their personnel. Police officers and deputy sheriffs are sometimes used as court officers and building security personnel; more commonly, building security is provided only by maintenance personnel. Keys generally are issued by a custodial superintendent, the loosest form of control. Maintenance personnel, sometimes supervised by a building custodian, usually have unlimited access to all parts of the courthouse and, in many cases, are not subject to a security clearance. Occasionally, an informal liaison is maintained with other security or police agencies in the courthouse or in nearby jurisdictions, but even this is rare.

These disparities probably reflect differing severities of local security problems. Given such a wide range of conditions, it may be fair to assume that the comments below derived from study of metropolitan courts are representative of serious security problems in general. The belief here is that what applies for these courts will hold, probably in relaxed form, elsewhere.

Operational security measures can be conveniently separated into three categories: procedures, management organization, and personnel qualifications. Each can be discussed alone, although, in application, they function together.



PROCEDURAL MEASURES

From a security viewpoint, a courthouse is an entity where problems can spread from one location and one level of responsibility to another. A prisoner attempting escape from a courtroom is not awarded

freedom for successfully reaching the public corridor, but often he need go no further to make good his attempt. If there are several jurisdictions in a courthouse, security responsibilities may be fragmented with no group responsible for overall building security. In such a case, an effective form of unification must be structured, taking into account building-wide emergencies, such as fires, security control outside of courtrooms and after-hours protection. For this force to be effective, it should be able to communicate quickly with all other security units.

In courthouses subject to bomb threats, regular and thorough searches are basic deterrent and detection measures. If it is known that searches are routine practice, some threats and actual incidents may be discouraged. Regular patrols during and after court hours not only provide a highly visible function for security personnel, but also are a strong deterrent to prospective trouble-makers.

Courtrooms and ancillary spaces kept locked, except while court is in session, discourage threats of hidden bombs or weapons (and the annoyance of littered and disordered courts). Clearing a courtroom when it is not in session enhances its dignity and importance as a place where justice is dispensed.

Doors to all private and public spaces not in use should be locked after hours. If the locking procedure is checked regularly, control of the premises is easier. Controlling the issuance of keys and noting their disposition on accurate, up-to-date records can help to keep effective this aspect of security. But it is difficult to avoid the gradual loss and unauthorized duplication of keys in a large organization. A more effective policy would be to limit the number of spaces where denial of entrance is a security factor and to give keys to only one person in the spaces in question. Although a common practice, making the building custodian completely responsible for issuing keys seems an excessive security responsibility, one that might better be handled directly by building security personnel.

An effective procedure to improve security, if not already in use, is to encourage an habitual challenge in non-public spaces of all persons unknown to the staff. Receptionists, court staff personnel, and security officers, all can make such simple challenges by offering to be of assistance. Suspicious persons in a courthouse ought also to be challenged, although courts frequently require suspicious persons to be on the premises. In large measure, common sense must rule. Someone carrying an unusually large box, wearing a heavy coat in August, or asking unusually detailed questions about the location of private spaces in the courthouse might be considered suspicious and observed or questioned further.

A courthouse evacuation plan for fire, bomb, and other emergencies is an inexpensive investment of high potential value. Three key elements characterize an evacuation plan:

1. Establishing procedures to control the movement of all people out of the building.
2. Establishing safe routes of evacuation from every space in the building.
3. Denoting, by job title, personnel to carry out the plan.

In developing an emergency plan, it must be remembered that persons do not act calmly or make rational decisions when they are frightened and uninformed. Security personnel directing such operations need accurate information to relay to the building occupants -- and accurate information is difficult to obtain during an emergency. Misinformation and rumors tend to spread rapidly; the telephone system may not be reliable. Security personnel should have alternate communications procedures such as runners or two-way portable radio or intercom systems. A chain of reporting and command, linking responsible authoritative sources of information with security personnel directing operations, is essential. Pre-established reporting procedures then can determine quickly the status of evacuations and damage.

The courts, like banks and hospitals, cannot stop cold to exit in an emergency. Records in storage and in use, trial exhibits, detained prisoners, witnesses, and jurors, to name a few, each present special handling problems in respect of ongoing court processes. When court reconvenes after an evacuation, how can it be determined that normal procedural requirements and safeguards have been observed? Have the jurors mingled with witnesses and attorneys or talked with parties? Have all records been returned to safe storage or been otherwise accounted for? If the emergency was an action planned to release a prisoner or destroy certain exhibits, were routine precautions observed to guard against such possibilities? Emergency plans, prepared in advance, should anticipate these and other contingencies with a degree of assurance impossible with ad hoc measures.

The condition of a building and its services can be altered by damage. Lights may be out, glass may be shattered and spread across floor areas, and elevators may be dangerously inoperative in a fire. Many newer automatic elevators have heat sensitive call buttons which have been known to malfunction in a fire by drawing all operating elevators to the floor on fire and holding them there with doors open. To allow for contingencies, an emergency plan should list primary evacuation routes, using the most reliable and directly accessible stairs and corridors, and alternate routes to use if primary routes become blocked.

A final point on procedural measures concerns a regular need: the subjugation of violent persons. One major metropolitan court has unofficially recorded 26 instances of courtroom violence over a recent 10-year period. In most of them, one or more court officers was injured subduing a violent defendant or spectator. In none of the above is there a report of the use of guns carried by court officers during each incident. Apparently, restraining personal force is the preferred method for dealing with violent individuals.

A pre-established procedure for subduing violent persons would seem to be appropriate, using specific methods and means of cooperation

among all court officers present. Such a procedure would offer increased safety for court officers and more effective performance in this difficult duty. Non-lethal weapons may be of use here and are deserving of study.

PERSONNEL QUALIFICATIONS

The uniformed court officer holds a unique position. Neither policeman, prison guard, nor court clerk, he combines in his job requirements of all three. He is, above all, responsible for security in the courtroom -- for maintaining order, carrying out rules of decorum, and ensuring the personal safety of the judge. He also may be responsible for security in corridors, chambers, or other courthouse spaces. In some courts, the uniformed officer also is responsible for clerical functions of bailiff or court clerk. In any court, the officer must be thoroughly familiar with all court procedures, including handling evidence, proper placement and treatment of participants and attorneys, and traffic through the court. Some duties are specific to the type of court or the particular courtroom, and the wishes of the presiding judge; but most duties are common to all court officers.

To assure an adequate supply of professionally capable court officers, standard requirements, independent of court assignment, would be desirable. Standardized prior requirements for job entry, pre-assignment training, and continuing update training would accelerate professionalization. Over a period of time, available security tools and problems change; training could adapt court officer skills to such changes.

Job entry requirements are formulated to attract persons with desired skills. Specific deficiencies, especially experience with court procedures and security operations, can be remedied by a formal training program upon entry, thus differentiating from

fundamental qualifications of personality, intelligence, and physical characteristics. The alternative of early on-the-job training, especially in crowd control and handling violent persons, appears to be a slow and inefficient procedure and, in any event, usually places a man on duty in the courtroom who may not be fully qualified. Periodic refresher training will update skills, improve readiness for new situations, and refresh familiarity with changing court procedures. In many court systems, appropriate refresher and entrance training might be obtained at a local university or community college. Experienced court officers and security specialists could offer practical instruction either periodically for short, intensive courses or in regular after-hours classes, if there is sufficient enrollment.

Valuable fields of training to the court officer might include:

1. Adult and child behavioral psychology
2. Spanish or another locally spoken language
3. Cultural backgrounds of ethnic groups
4. First aid
5. Court procedures and trial rules
6. Crowd and riot control procedures
7. Bombs and bomb detection (incendiary and explosive)
8. Building space planning concept and space use
9. Use of weapons (stressing non-lethal techniques and devices)
10. Subjugation of violent persons

MANAGEMENT ORGANIZATION

Most courthouses contain spaces for non-courtroom functions, including clerical and record operations. Many large courthouses also provide space for several jurisdictions of courts, possibly criminal courts of limited jurisdiction and of general jurisdiction. Security problems occur in any building space, not only in courtrooms, and can spread across spaces and among jurisdictions. The basic problem of

security is building-wide protection. The basic management activity of a court security force is to integrate all security efforts and personnel into a coordinated operation within the building.

Implementing security operations on a broader basis than the individual courtroom level may imply far-reaching consequences in some jurisdictions. Feasible means of achievement will differ, depending on local conditions, legislative traditions, civil service rules, and other relevant practices. Security personnel in some courts are part of that system only; in other systems, they are part of a separate security force, such as a sheriff's office, administered outside the courts.

With outside administration, building-wide operations are more easily coordinated. Security organizations administered by a court system may be more responsive to individual judges or courts. If the goals here considered desirable are to be realized -- adequate minimum levels of training, building-wide operations, flexibility of assignment in emergencies, upgraded professionalism, application of current technology, and uniformly effective operations -- then each courthouse will have to find an appropriate way to implement a security organization.

Whatever the management format, central security staffs can best be organized around lines of operational information flow. In the range of situations between routine daily courtroom assignments of court officers and emergency deployment of all available personnel for riot-control duties, the rapid flow of accurate information is necessary to effective operational control. Operations are effective when directed from a single operations center, whether it be a captain's office with phone and duty roster board or a command center equipped with T.V., alarms, mobile radio, telephones, and a public-address system. Effective operational control then can be achieved by organizing security operations around these lines of communication and implementing them with emergency and routine communications equipment.

Not every court system has an organizational entity around which to structure building-wide security staffs. In fact, few court systems have any form of building organization. Many courthouse buildings simply are maintained and operated by a public works department and house a number of government agencies, including courts, court-associated agencies, and non-related agencies. Security problems for the entire building are set by its most security-sensitive occupants, the courts. Unfortunately for the courts, building security provisions are not always equal to court problems. The remedy for this deficiency lies not in piecemeal security measures applied haphazardly in spaces where present jurisdiction permits, but in comprehensive application of security measures which integrate operational, technological, and architectural features of courthouse design and use.

Elementary schools hold regular fire drills, both to prepare for safe evacuation and to educate students in non-panic response to emergencies. International agreements require lifeboat drills on passenger ships to rehearse passengers and crews to respond well in emergencies. Recently, New York City, after several disastrous fires in new buildings, instituted a requirement for fire drills in all large buildings.¹² It should not be difficult, considering the alternatives, to conduct evacuation drills in courthouses, perhaps annually or semi-annually. Since the major purpose of holding drills would be to rehearse court personnel, especially court security staffs, in the exercise of emergency responsibilities, it probably would be satisfactory to conduct them outside of regular hours.

TECHNOLOGICAL MEASURES

Modern technology, especially electronics, offers many aids -- but no panaceas -- to the maintenance of courthouse security. Applicable

12. "Fire Drills Due In Skyscrapers," The New York Times, New York, July 6, 1971. p. 1.

devices and systems generally operate to reduce the number of personnel for a given function or to extend the capability of the previously unaided person. Most useful in the detection of security problems, technological measures also have some deterrent value to all but the most experienced or determined, when it is known that they are being used. Technology is significant for information transfer functions, including voice communications and transmission of alarm signals. Finally, among technological measures, it is logical to include weapons, especially the technology of non-lethal devices.

Technological measures can be grouped under four headings: detection, signalling and communications, protection, and weapons. These are briefly described below in terms of their security applications, physical configuration and major operational features.

DETECTION TECHNOLOGY

Detection technology provides three areas of security detection as listed in Table 3 at the back of this monograph:

1. Unauthorized entrance to premises
2. Concealed metallic and non-metallic weapons and devices
3. Explosive materials

Detectors of all types generally follow a standard method of operation. When a sensor detects a change in the physical condition it is monitoring, it compares the change to a standard reference and signals an alarm if the change exceeds an allowable value.

Explosives detectors generally operate on the principle of sensing the vapors emitted by most explosives. No entries for such devices are made in the following tables because reliable detection techniques are more or less still in the range of esoterica.

At the time of this writing, two categories of detectors were being tested and evaluated: chemical devices and the use of dogs.

Dogs have been used to detect marijuana and heroin by scent, and are being evaluated for use against explosives. Chemical and biochemical devices in development use reactions peculiar to explosive material vapors. Operationally, a certain amount of time is needed to confirm vapor identification. Present experimental techniques, therefore, do not appear applicable to detecting a bomb being carried into a courthouse past a checkpoint. Such devices promise more usefulness in locating explosives already placed in a courthouse.

SIGNALLING AND COMMUNICATION TECHNOLOGY

In the area of technological systems described in Table 4, the following three functions can be included:

1. Personal safety
2. Surveillance of space (including transmission of courtroom proceedings to remote locations)
3. General communications

The capabilities of this technology are particularly well adapted to:

- A. Integrated alarm and communications systems having a multiplicity of purposes and individual users
- B. Serving spaces and moving persons

PROTECTION TECHNOLOGY

Various types of conventional and unconventional locking devices and systems under this category are shown in Table 5. One intriguing new concept using computer-control is capable of going far beyond ordinary lock-and-key control systems in systematizing and controlling the operation of all locks and authorizing access to all keyholders.

WEAPONS TECHNOLOGY

No comments are made in this monograph about weapons for security personnel, with the exception that non-lethal weapons appear to merit further study.

Courthouse security officers infrequently use guns. Most jurisdictions do not permit guns to be taken into detention spaces (with the paradoxical exception in some cases of police officers). The use of guns in courtrooms is considered hazardous, at best, to bystanders and spectators. For attorneys and judges to carry guns, which presumes their possible use, is an even greater risk to the safety of persons in a courtroom. A shot from the bench toward the trial participants' and the spectators' areas most likely would injure bystanders or other court personnel -- to say nothing of its effect to the image of justice.

Several types of incapacitating gases ("Mace," tear gases) and other chemicals, such as tranquilizers, have been used or tested. Presumably other techniques are being studied by police and military units, but these apparently do not as yet offer the ease, speed of use or accuracy of the gun.

CONCLUDING EXAMPLES

Courthouse security has been examined here by introducing the concept of a security system to integrate several problems, thereby allowing them to be treated as a whole. While the information here is interim in nature, based on research studies still under way, it is timely to discuss the concept of approaching security on a systems basis.

The methodology of security systems analysis is accessible to a court administrator when he fully understands that security is inextricable from the other courthouse functions, and, in fact, interacts strongly with them. In well-designed courthouses, most security problems will have been anticipated and resolved by the

designers; in others, the administrator may not have come to appreciate what good security design can accomplish.

Since the goal of this paper is to explain, not prescribe, a list of simple recommendations is not given; instead, a number of observations and guidelines was offered for court administrators' use in examining their particular problems. To develop widely applicable recommendations, a continuing program of analysis and empirical testing is requisite. However, to illustrate the major points made here, three brief concluding examples are presented for an arraignment court, a criminal trial court and a family court.

ARRAIGNMENT FACILITIES

Substantial improvements in the security of crowded arraignment processes should result from introducing operational measures designed to reduce tension and architectural measures adapted to the needs of this court. From the earlier description of an arraignment court, it is obvious that:

- Where more people occupy the spectator area than are concerned with the hearing in progress, crowd control is more difficult and order harder to maintain.
- Excess traffic through the court disturbs defendants and others.
- Inefficient circulation patterns throughout the court waste time and heighten tension.
- The lack of secure spaces for prisoner/lawyer conferences and prisoner/family visits only increases confusion and heightens tension.

A comprehensive attack on these difficulties can be mounted in a system-oriented security design. An arraignment court need not be designed to resemble other courtrooms. It should be feasible to

design the arraignment courtroom containing two spaces: a larger space for the waiting officers, complainants, public, summoned defendants, and relatives, and a smaller space for hearings. Clerks in the waiting space would keep the calendar up-to-date and advise parties when to move into the hearing space. Much more privacy would be possible for all participants. Crowded spectator areas no longer exposed to emotional confusion sometimes accompanying hearings could be kept more orderly. A higher case flow with more time for hearings might be achieved. If small spaces were provided for interview and visiting rooms, one of the most serious security problems might be defused: lawyers and relatives could meet with prisoners away from the business of the court without impeding case flow. Some of these measures are practiced now in some family court intake parts where no one is allowed to be present during a hearing except the actual participants.

The system objective -- increased security -- can be achieved by:

1. Reducing queues of persons in the hearing court waiting for service, accomplished by:
 - A. Setting up a waiting space separate from the hearing space.
 - B. Scheduling the waiting room queue approximately, say on a one- to two-hour basis, and monitoring the hearing status closely, perhaps on a 10-15 minute basis.
 - C. Scheduling participants into the hearing space no earlier than about 15 minutes before their case is due to be called.
2. Using security measures that reduce tension, not increase it, such as:
 - A. Advising participants (pictorially, by signs, or by personal instructions) as to what to expect and how to behave in and near the courtroom.

- B. Establishing small, secure interview and visiting spaces for detained defendants.
- C. Directing around the hearing space traffic between detention and other spaces not related to the present or next hearing.
- D. Planning a smaller courtroom, but one with the same amount of hearing space to provide more efficient, faster circulation through the court.

CRIMINAL TRIAL FACILITIES

Earlier this monograph examined security problems in criminal trial courtrooms and the concept of a "secure" courtroom designed for situations of extreme hazard. Conceptually, a security system is needed which deals primarily with the normal courtroom security problems but which adapts well to the extreme. The approach throughout this monograph amounts to a comprehensive way of looking at a problem characterized by these four dimensions:

1. The emotional state and, perhaps, the tactics of spectators are relatively predictable.
2. The number of spectators allowed in the courtroom and courthouse can be controlled.
3. Routes of spectator movement through the courthouse and the opening of courtroom doors are controlled by security personnel.
4. In the courtroom, spectators and defendants can be kept separated.

Given these points, the underlying security problems can be dealt with in a coordinated manner, including:

1. An adequate number of security personnel deployed operationally on a building-wide basis from a central security command post.

2. Fast communication between a command post and all security personnel, as well as all courtrooms.
3. Means of eliminating the possibility of weapons being brought into a courtroom at any time.
4. A courtroom design which provides space for unrestrained movement of security and other court personnel, adequate personal supervision of defendants and a reliable degree of separation between spectators and all participants.
5. Absolutely no standing in the courtroom at any time, except as authorized.
6. A system of preventing more spectators than can be accommodated in a courtroom from approaching its vicinity.
7. Design of lighting, thermal, and acoustic environment which permits security personnel adequate observation of all persons in the courtroom.

FAMILY COURT FACILITIES

Because all persons not directly participating in a hearing are excluded from family courtrooms, security attention is shifted to the parties themselves and to other courthouse operations. Family court security problems are characterized by:

- Emotionally unstable and immature persons who may be prone to violence and escape attempts.
- Disputes between persons which cannot be confined to the courtroom but may break out elsewhere.
- A high proportion of interview and waiting spaces in relation to courtroom spaces.
- Juveniles held in detention facilities who are potentially dangerous to themselves and to each other. They may be held "in need of supervision" or for offenses up to homicide.

Children in the courthouse who are present with families but are not themselves parties and are undergoing long waits.

To implement the objective of increased security, these comprehensive measures may be applicable:

1. Assigning to courtroom and other courthouse spaces security personnel who are:
 - A. Trained and particularly competent in child behavior and the handling of disturbed people; able to persuade, inspire confidence and command the respect of juveniles; and possessed of the physical strength and experience to control violence.
 - B. Capable of reducing tension by showing empathy with the people and problems brought before the court.
 - C. Quick to respond when informed by a central security office when problems occur elsewhere in the courthouse. Security personnel should be stationed in waiting and interview spaces and halls to deter outbreaks and restrain violence.
2. Detention facilities designed and staffed to handle juveniles which are:
 - A. Free of prison atmosphere and equipped with facilities to occupy the minds and attention of detained children and which are appropriate to the legal and social situation.
 - B. Staffed by unarmed supervising personnel in civilian clothes, trained in handling disturbed and violent children. The total environment should be arranged to calm fears and divert energies from destructive ends.
 - C. Located remote from any juvenile detention center, reformatory, or jail. A jail looming over a family courthouse will increase tension, adding to security problems.

3. Circulation spaces for detained juveniles which are:
 - A. Private so that juveniles prone to violence and escape can receive constant close supervision.
 - B. Isolated so that others in the courthouse who could be exposed to the potential physical and emotional hazards of detained juveniles can be protected.
 - C. Planned for vertical and horizontal movement of detained juveniles. From building entrance to detention facilities, to courtrooms, and to interview spaces, all juvenile detention spaces should be private and separated from all other spaces. In multi-court buildings, waiting rooms for detained juveniles should be included adjacent to courtrooms.
 - D. Completely separate from adult detention spaces, including circulation and holding spaces. Whether adult detention should be private depends on the experience of the court.
4. Waiting spaces for children not parties to proceedings or not actually participating:
 - A. Children from infancy to late teens, some only bystanders, may be required to spend a long day waiting. They are likely to become restless and noisy and disturb others. Infants will require attention, feeding, changing, sleep, and protection. Older children also need protection as well as to occupy their minds and hands.
 - B. The sounds and sights of bored children lend a chaotic and uneasy air to the serious business of a family court.
 - C. Private spaces, equipped to care for the mental and physical needs of infants and older children, staffed by trained counselors and isolated from other courthouse activities, will remedy this difficulty.

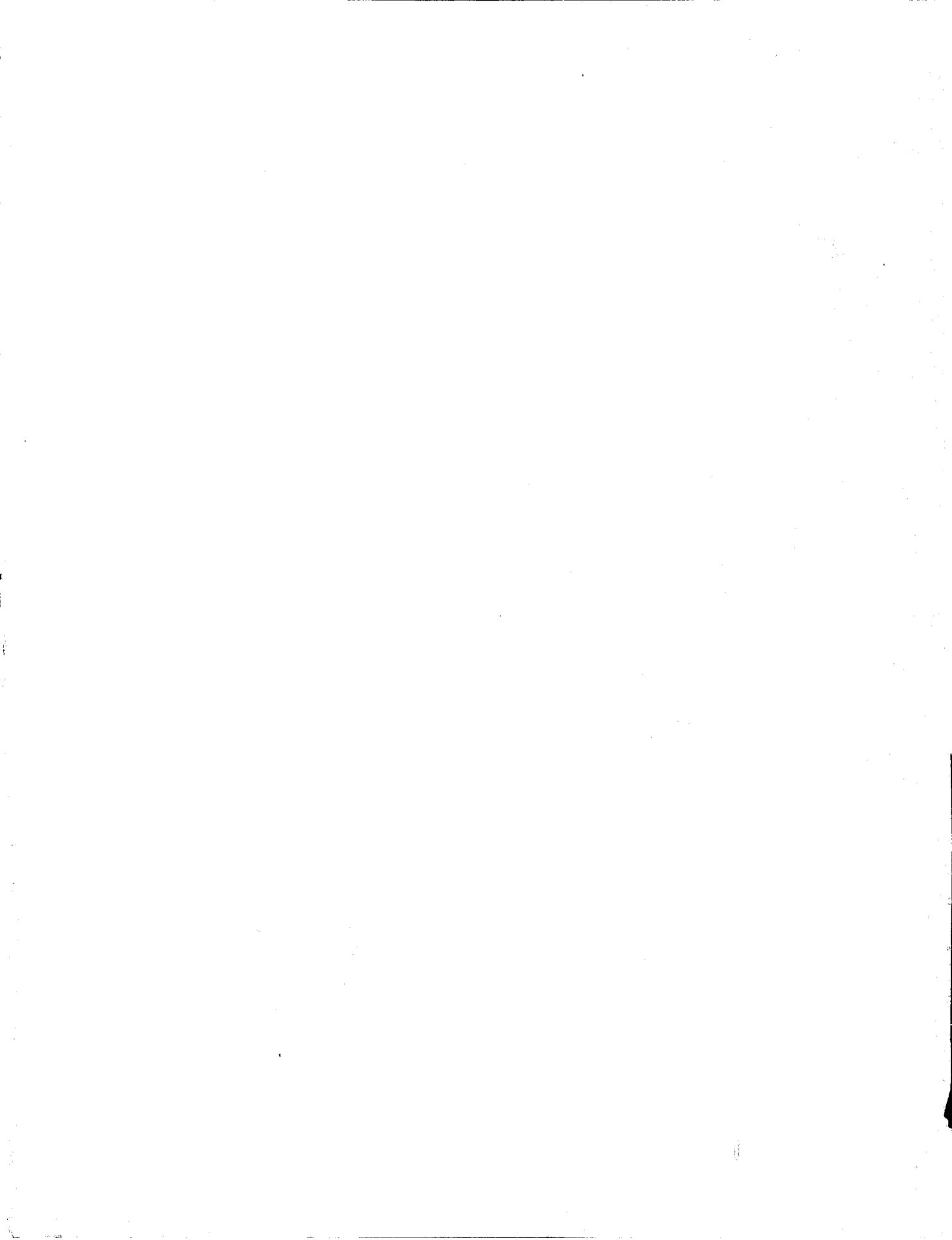


TABLE 3: DETECTION TECHNOLOGY

3.1 DETECTING ENTRANCE TO PREMISES

TECHNIQUE	OPERATION	COMMENT
<u>A. At building perimeters</u>		
Photo-electric beams --visible light --infra-red light	Establish light beams from point-to-point along outside perimeter of courthouse; person or object interrupting activates alarm; light source and receiver	Works during hours of darkness
Floodlights	Light building exterior decoratively, and for personnel or TV monitor surveillance	Personnel must observe directly or on monitors
Closed-circuit television (CCTV)	Normal TV cameras for daylight or floorlit buildings and ultra-sensitive cameras for unlit night surveillance; monitors also can be fitted with automatic detectors to activate alarms	Unless automatic detector used, requires constant attention
<u>B. At building entrances</u>		
Door alarms Magnetic switch Mechanical switch Open or closed circuit	Applied to doors, windows, gates, etc; alarms locally (buzzer on door), remotely or both when door opened by key or force	Can be connected to commercial, police, or security staff central office; alarm location identified by central office equipment
Wall vibration pickups	Applied to walls to sense and amplify unusual vibration levels, send remote or local alarm; sensitive to sledge hammer blows, boring drills, etc.	Main use: vaults, safes; prone to false alarm at normal building vibration levels
Light sensors	Detects light entering when safe or closed dark space opened; remote alarm routine	Very sensitive and reliable

3.1 DETECTING ENTRANCE TO PREMISES (CONTINUED)

TECHNIQUE	OPERATION	COMMENT
<u>C. For interior spaces</u>		
Switch cords and mats	Placed near entrance, sounds alarm, local or remote, when depressed	In stores, signals customer's entrance
Ultra-sensitive microphone	Picks up indistinct room sounds; possible false alarm detecting rodents, cats, birds, street noises	Used in vacated building, otherwise false alarm on normal activity
Microwave	Small wall transmitters, receiver(s) flood corridors, rooms with "radar-like" energy; adjusted and calibrated to space; movement detected of greater than set minimum velocity of objects greater than set minimum size. Signals locally or remotely when beam disturbed	Possible false alarms on electrical interference from radios, elevators, etc; can be jammed and deceived
Ultrasonic	Similar to microwave but emits sound energy of higher than audible frequency; transmitter (loudspeaker) and receiver (microphone)	False alarm prone on air movement, from heat, wind, vibration, vents, blowers; can be jammed and deceived
CCTV	Similar to building perimeter application	Similar to building perimeter comment
Capacitance	Safes, file cabinets; detects change in electronic capacitance to ground when person touches	Not too reliable; setup may be too complex
Door alarms Wall vibration pick-up Light sensors	Similar to operation at building entrances	Similar to building entrance comment

3.2 DETECTING CONCEALED WEAPONS

TECHNIQUE	OPERATION	COMMENT
<u>At doorways, turnstiles, desks, gates, search points and in corridors</u>		
Magnetometer	Senses alteration in normal ambient magnetic field when magnetic metals (steel, iron) brought near	No radiation from devices; can indicate falsely on keys, coins, when sensitive enough to reliably detect weapons
	Can detect concealed guns, knives, metal combs, tools, ice picks, etc., carried on person or in packages; alarm signals audibly or visually, local or remote	Can fail to detect weapons when made insensitive to false alarms; useful to screen possible weapons carriers and limit number of personal searches
	Models hand-held (night stick size) and fixed (two tall tubes); aimed at person or walk between tubes -- immediate reaction	Can be useful to locate metallic objects, frisking still necessary
X-ray	Compact machine radiates into packages; X-ray film, including Polaroid, used for indicator	Can detect weapons hidden in items ordinarily not opened: portable radios, tape recorders, briefcase false bottoms, etc. Not useful if packages can be opened. Film must be developed, relatively slow indication. Trained interpreter must read picture for dynamite, bomb components, other eye discrimination. Cannot be used on persons, X-rays harmful

TABLE 4: SIGNALLING AND COMMUNICATIONS TECHNOLOGY

4.1 PERSONAL SAFETY: SIGNALLING EMERGENCY CONDITIONS

TECHNIQUE	OPERATION	COMMENT
Alarm button concealed and fixed to bench, desk, chair, etc.	<p>Connection by wire or radio system (see below) to remote courthouse location. About 4"x2"x1". Connects to central office where space identified, alarm network can cover many spaces</p> <p>Actuated by finger on button, removing weight (a book) from switch, pulling paper from switch jaws, foot pedal, etc. Actuating device also can activate surveillance equipment (TV or audio pickup) to transmit to central office visible and audible activities</p>	<p>Useful in courtrooms, chambers, other offices; unobtrusive; reliable and precise, usually difficult to actuate false alarm. Location depends on personal judgement -- in court, probably at bench. Courtroom, courthouse must be wired, if wire device used, to connect each location; can give local alarm (in courtroom), if desired. Available from many sources</p>
Alarm button concealed on person	<p>Similar to above; cigarette-pack size radio transmitter signals to receiver and relays to central station; transmitting frequency and possibly other signal characteristics identify unit, person carrying it and assumed location; not restricted to one location; can be transferred to another person.</p>	<p>Similar to above except does not directly identify location, only bearer; simpler to install than wired alarms; needs additional equipment to actuate local alarm</p>

4.2 REMOTE SURVEILLANCE: TRANSMISSION OF COURTROOM PROCEDURES
AND REMOTE SPACE ACTIVITY FOR OBSERVATION ELSEWHERE

TECHNIQUE	OPERATION	COMMENT
Closed circuit television (CCTV)	TV cameras fixed to walls, ceilings; operated from remote location; zoom or turret lenses; transmits picture of space to monitor via wires. In courtroom application, as for defendant tried in absentia, can be manually operated in studio-type situation. A monitor panel for camera network throughout courthouse feasible; ultra-sensitive for low light levels, normal cameras; automatic monitors to detect movement feasible	Manual or automatic/manual monitoring needed (continual manual monitoring fatiguing); can reduce security manpower patrol duties. When used "in absentia" trials, may require special legal precaution; should not be subject to possibility of unauthorized recording
Film cameras	As in banks, automatically operated, remotely actuated cameras photograph persons in emergencies for subsequent identification	Possible use as evidence and identification for apprehension
Audio	Emergency-actuated system transmits courtroom situation to central security office	

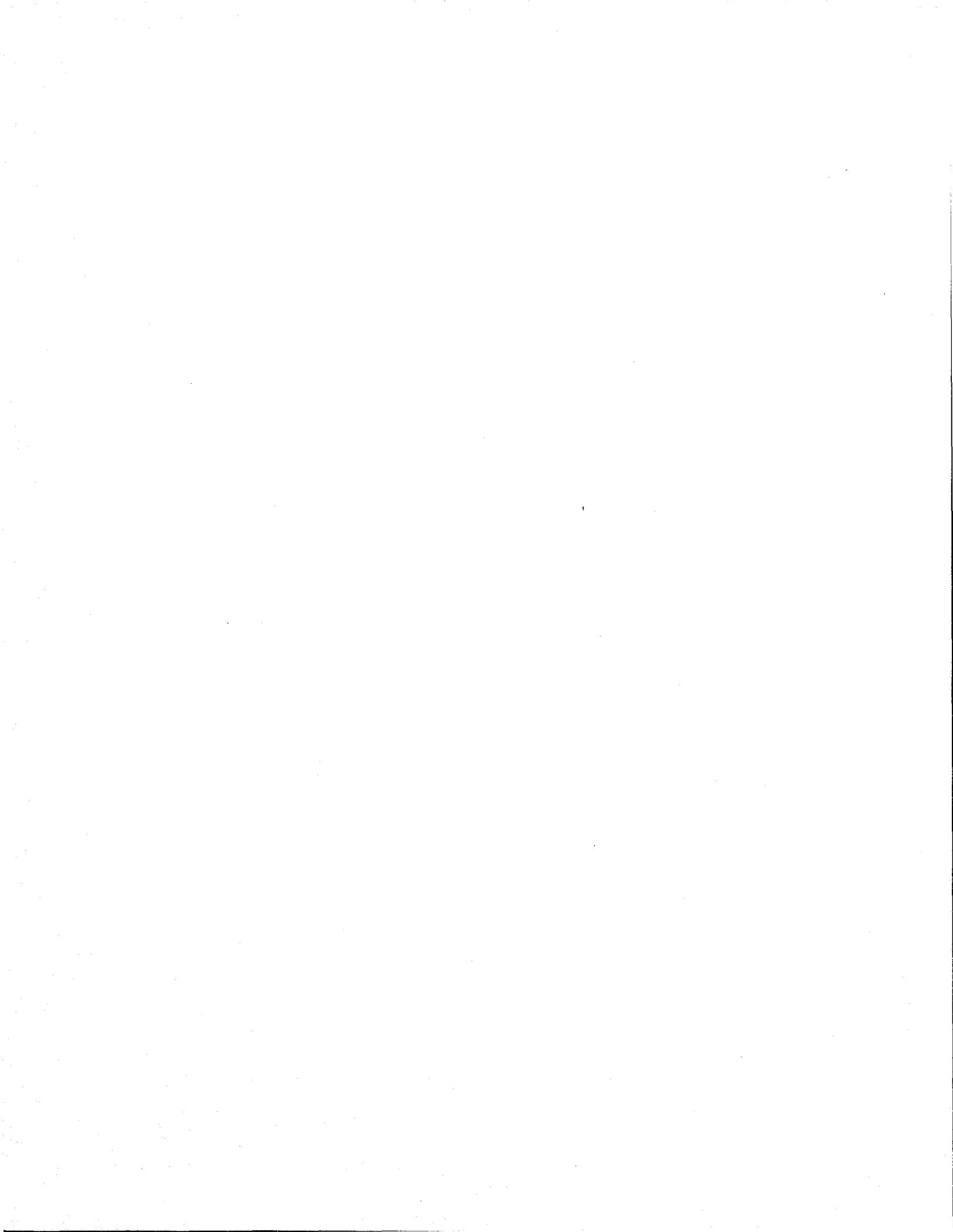
4.3 COMMUNICATIONS

TECHNIQUE	OPERATION	COMMENT
<u>A. Point-to-point, wired</u>		
Telephones, intercom	Emergency signalling with special dial codes to and from security offices; party-line broadcasts of emergency messages from central security office to all others	Telephone on cradle also used in system to pick up and transmit sounds to prearranged receiver, under local or remote control
<u>B. Sound broadcasting</u>		
Audio public-address system	Broadcast to public in crowd-and riot-control operations or to security personnel in control operations. Notification of evacuations, fires; in selected spaces and times, public information on calendars, court locations; to call participants into court	
<u>C. Mobile</u>		
Radio		
Portable "walkie talkie"	Broadcast messages throughout courthouse from central transmitter to unlimited number of portable receivers--voice or alarm signals; two-way transmissions throughout courthouse between central transmit/receive station and limited number of portable transceivers; multi-channel capability to handle multiple communications simultaneously, either broadcast or two-way; coverage throughout courthouse, including all closed rooms, sub-basements, elevators; selective calling capability to address specific receivers	Requires FCC license and frequency allocations; portable units battery operated, can be small and secreted, if desired; system can connect to PA or telephone systems; courtroom alarms can feed system; integrates into courthouse communications for normal (non-security) operations; receivers can be silent (visual alarm notifies bearer to go phone or take other specific action) or squelched (to be silent except when called)
Fixed or portable central station		
Broadcast or two-way operation		
Voice transmissions or alarm signals		

TABLE 5: PROTECTIVE TECHNOLOGY

5.1 LOCKING SYSTEMS: DOORS, GATES, TURNSTILES, OTHER ACCESS MECHANISMS

TECHNIQUE	OPERATION	COMMENT
Mechanical locks	Conventional lock-and-key systems with hierarchical mastering	Various devices using mechanical and magnetic keys inserted in lock actuate it; function only to lock and unlock access (no record keeping); locks difficult to alter; difficult to limit availability of keys; most keys easily duplicated
Electrical locks	Lock operated by electrical solenoids, no conventional key; actuated by switch (pushbutton on desk, etc.) or inserted magnetically-coded card; lock measures magnetic code and actuates itself, if set for that code; key cards issued to personnel as keys can also be ID card; hierarchical mastering possible; control of all or some courthouse locks from central office possible, i.e., to seal off particular area	Magnetic keys difficult to duplicate; code usually cannot be changed; new key card must be made if lock code is changed by rewiring or inserting a permanent or temporary code card; standby power source required; locks can be networked into door alarm system, replacing separate alarms
Computer-controlled locks	As above, but with added control and recording capability provided by small digital computer wired to all courthouse locks. Computer determines key cards allowed to actuate each lock, according to memory-stored list; hierarchical mastering associated with key card code also can be assigned to bearer for predetermined access; one key per person for any number of doors; lock time control by central computer can be programmed to lock public doors after hours; all lock status (open or closed) computer-monitored, custodial operations included	Record kept, printed out of each time lock opened and by which key; list of key/door authorizations can be modified at central computer in real time. Overriding control by computer can open or close any lock selectively; locked doors automatically relock and cannot be left open; computer will automatically signal malfunction, blocked door, etc; feasible to check automatically from central office any door left open



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