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Research Report

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James K. Stewart

Director

Electronic Monitoring and Correctional Policy: The Technology and Its Application

Charles M. Friel
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June 1987

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U.S. Department of Justice
National Institute of Justice

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James K. Stewart

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Executive summary

Correctional policy often reflects the existing values and concerns of society at a given time. With some exceptions, the problems encountered by prisons and jails prior to 1960 were overshadowed by other historical events. Prison and jail operations reflected a punishment philosophy. The decade of the 1960's, marked by turbulence and violent confrontations, particularly in the area of human rights, emerged as a period during which a treatment philosophy guided a search for alternative methods, programs, and procedures designed to rehabilitate the offender.

During the 1970's crime escalated beyond the growing demand for crime control. This shift in policy resulted in a massive institutional crowding problem which has had profound and lasting effects on both local jails and State prison systems.

Several correctional alternatives have been proposed to stem the ever-increasing tide of incarceration rates. One of the most recent is the use of house arrest and electronic monitoring to supervise offenders in the community. This report is designed to document what is known about the technology and addresses the following areas:

- An examination of electronic monitoring and the types of equipment currently available.
- How the technology is currently being used.
- Legal and constitutional issues associated with the use of electronic monitoring devices.
- Administrative and policy issues.
- Suggested guidelines for implementation of an electronic monitoring program.

Electronic monitoring devices

Ten vendors of the equipment were identified and interviewed. The systems which are currently operational and available are of two basic types. The first is a continuously signaling system which constantly monitors the offender. The second is a programmed contact system which randomly calls the offender and verifies his or her presence only at the time the call is made.

Excluding field testing, four of the companies do not yet have their equipment being utilized by a criminal justice agency in an operating program. One of those manufacturers is in the process of developing a prototype of the equipment and another is awaiting final approval of the system from the Federal Communications Commission.

Estimated average daily costs per unit for acquisition of the equipment range from \$1.29 to \$9.04 per day for outright purchase, from \$0.95 to \$7.00 per day for lease-purchase agreements, and from \$1.91 to \$7.00 per day for straight lease agreements.

Applications of electronic monitoring

Ten programs were identified for examination by the study committee. A majority of the operational programs function at the county level. The type of offender eligible for the different programs varies from agency to agency. State agencies have developed applications directed at felony offenders. Only two of the counties use the technology on felony offenders, and in one of those counties, only for the least serious felonies.

Offenders are placed under supervision for varying time periods, normally from 1 to 4 months. Most of the programs have a limited number of individuals being monitored at one time, ranging from 4 to 20 people.

At the time of this report, 370 people are known to have completed electronic supervision programs. While figures are limited, the failure rate for these programs also appears to be less.

Legal issues

The legality of using electronic monitoring as a correctional alternative must be addressed from two perspectives; constitutional and legislative. Subject to the limitations addressed in that section, a properly designed program should withstand a court challenge based on constitutional issues.

It may be necessary for States to amend provisions of pertinent laws to authorize the use of electronic monitors as an alternative

for probation, parole, and institutional release (from jail or other detention facilities). Given the novelty of the approach, it may be wise for States to enact laws which grant immunity from liability in State tort cases for criminal justice personnel who are involved in the release and supervision of offenders in electronic monitoring programs.

Policy issues

It is premature to attempt to determine the actual cost benefits of an electronic monitoring program. The technology has only recently been introduced to the correctional field and time must pass before one can determine if the benefits outweigh the costs. One must consider the lost opportunity costs, that is, other programs could have been initiated or expanded with the funds used to purchase the monitoring equipment.

The nonmonetary benefits from use of the technology are as important as fiscal concerns. Policymakers must weigh the effects of incarceration on the individual against the magnitude of risk to public safety. It is neither humanistic or economically beneficial to incarcerate people who are capable of functioning under community supervision.

Advocates of electronic monitoring argue that the technology has the potential to reduce jail and prison populations. Whether or not this will occur is an empirical question which is yet to be answered. While the technology may be a useful tool for reducing crowding, it is not the sole answer to the problem. The technology cannot serve as a substitute for sound correctional planning.

Regardless of the perceived cost benefits, the introduction of the technology may require administrative changes affecting personnel policy, revocation procedures, and relations with the external environment. Whether additional personnel may or may not be required to operate such a program is unknown. To a certain extent this will be dictated by the number of offenders on the system and the number of violations reported.

If screening procedures are effective and the equipment is reliable, the number of reported violations should be low. If the number of violations reach an intolerable level, the screening procedures and the reliability of the equipment should first be examined before hiring additional personnel.

There is a wide range of philosophic attitudes toward the technology among the probation officials interviewed. Some saw it as a useful

tool which could find a proper place in probation; others saw it as going beyond the functions of probation. Most administrators, however, expressed a philosophic ambivalence about the technology. While mildly interested in the concept, they would rather let some other agency experiment with its use first.

Electronic monitoring can be a useful tool in the repertoire of criminal justice control strategies; however, it can also be abused. Excessive periods of surveillance are abusive and inconsistent with the concept of diversion. Some people are not appropriate candidates for the program. Those who require extended periods of continuous surveillance probably belong in an institution and not in the community.

Implementation guidelines

Development of an electronic monitoring program requires thoughtful consideration of a number of issues. An agency should first determine if the technology is needed or whether other correctional alternatives would be more appropriate.

It would be prudent to start a program with a select cohort that is nonviolent and poses the least risk of endangering public safety or failure. Any new program, regardless of the amount of preplanning, will experience difficulties. By restricting the program initially to low-risk offenders, the agency will gain time to develop proficiency in the use of the technology and to generate public understanding and support.

No agency in the criminal justice system functions in a vacuum. Support for any proposed use of the technology will have to be obtained from both within and outside the system. If the various entities do not agree on the policies for use of the technology, the program will be either difficult or impossible to implement.

Institution of a new program requires adjustment of the organizational structure and operating environment. New policies and procedures must be developed to address programmatic issues.

Once committed to an electronic monitoring project the agency will have to develop funding sources to operate the program. Traditionally, criminal justice funding has been sought from Federal, State, or local government agencies. Given current fiscal difficulties faced by many agencies, alternative funding schemes may have to be found.

Care must be taken in designing an electronic monitoring system. The more time invested in obtaining information from a variety of sources, the better prepared the agency will be to develop a formal request for proposals, (RFP) for vendors. The vendors must be made aware of what the agency will consider acceptable performance. Both the RFP and subsequent contracts should contain nonperformance clauses that allow the agency to void the contract if the vendor does not comply with the terms of the agreement or if the equipment does not function as specified.

Prior to program implementation the agency should design appropriate training procedures for staff members and offenders. To ensure uniformity, written guidelines and standardized forms should be developed.

Given the current state of the art of the monitoring devices, it would be advantageous to test each piece of equipment prior to use on actual offenders.

Early in the planning stage a decision must be made as to the type and amount of information to be released to the news media. Media coverage may allow the department to assess community acceptance and reaction to the proposal prior to committing to the project. By properly explaining the program the agency may be able to dispel unwarranted "Orwellian" concerns on the part of the public.

Chapter 1

Introduction

Punishment raises some of the most difficult questions that the moral intelligence has ever confronted, and most of man's answers over the centuries have been neither very moral nor very intelligent.

Time Essay, September 18, 1978

Throughout history mankind has struggled to devise a system of corrections that is both effective and morally acceptable. Correctional policy often reflects the existing values and concerns of society at a given time, hence the guiding rationale for correctional administration has ranged from revenge, retribution, punishment, restitution or rehabilitation, to the recent emphasis on increased public safety through incapacitation.

With some exceptions, the operation of prisons and jails in this country prior to 1960 reflected a punishment philosophy. Government leaders and society were occupied with historical events that overshadowed the problems of corrections. In the first half of the century the United States was involved in two world wars, experienced the excesses of the 1920's and the difficulties of the great depression, and survived the Korean War.

The decade of the 1960's was marked by turbulence and violent confrontations, particularly in the area of human rights. The assassinations of President John F. Kennedy and civil rights leader Martin Luther King, urban violence, racial tensions, and demonstrations against the Vietnam War gave impetus to a growing belief that the social order needed significant changes.

The violence of the era focused attention on the criminal justice system. In 1965 President Lyndon B. Johnson established the Commission on Law Enforcement and the Administration of Justice. The Commission conducted the most intensive study of the correctional system in this country since the appointment of the Wickersham Commission in 1929. Its report, The Challenge of Crime in a Free Society, detailed many of the problems existing in the American correctional system. The 1960's emerged as a period during which the treatment philosophy guided a search for alternative methods, programs, and procedures designed to rehabilitate the offender. The principal be-

liefs underlying that ideology could be characterized as follows:

- Long-term incarceration is counterproductive to rehabilitation.
- Many offenders do not need to be incarcerated.
- Community-based corrections programs are less expensive and are at least as effective as incarceration.

During the 1970's crime escalated beyond almost everyone's expectations and seemingly the ability of anyone to control it. With the rising fear of crime came a reluctance on the part of the public to adopt a treatment-oriented corrections policy. At the same time questions were raised about the effectiveness of rehabilitative efforts.¹ In response, numerous statutes were enacted which reflected the growing demand for crime control. The principal policy objectives of this era seemed to be:

- Increase the probability that those convicted would be incarcerated.
- Increase the duration of their incarceration.
- Reduce the probability of offenders being released before serving the full term of their sentences.

Not surprisingly, this shift in policy resulted in a massive institutional crowding problem which has had profound and irrevocable effects on both local jails and State prison systems. The 1983 Jail Census revealed that a record 233,551 people were being detained in local and county jails.² From 1972 to 1982 the population in Federal and State prisons more than

1. R. Martinson. "What works? Questions and answers about prison reform." Public Interest, Spring 1974, 35: 25-52.

2. Bureau of Justice Statistics. The 1983 Jail Census. Washington, D.C.: U.S. Department of Justice, November 1984.

doubled. By 1984 more than 430,000 men and women were incarcerated in those institutions.³

The ripple effects of crowding precipitated a correctional case-law revolution which raised a variety of challenges to the constitutionality of the Nation's correctional system. Solutions to crowding have been mandated by the courts in some 39 States, the District of Columbia, Puerto Rico, and the Virgin Islands.⁴

For policymakers the problem of crowding is a two-headed dragon, with each head equally dangerous. If the public's demands for punishment and increased public safety are to be accommodated, institutions will become more crowded and legal sanctions will ensue. Conversely, reducing prison populations through greater use of probation and parole would likely defy public sentiment. The traditional response to crowding has been to build more prisons.

There is a growing realization, however, that this response may not be economically wise or politically feasible. Initial construction costs are prohibitive and the public has shown signs of reluctance to expend public funds for that purpose. A new prison cell is estimated to cost from \$25,000 to \$75,000.⁵

Moreover, experts disagree on whether or not the construction of new prisons is the answer. Some maintain that new prisons are needed to alleviate crowded conditions; others believe that prison construction would merely widen the net and lead to more incarceration.⁶

3. J. Thompson. "Prison crowding: A symposium." University of Illinois Law Review, 1984, 78:203.

4. "Lock 'em up? There's no more room!" ABA Journal, 1983, 69: 1352.

5. G. Funke. "Economics of prison crowding." The Annals, March 1985, 478: 86-99.

6. For a full discussion of the issue, see Conrad and Rector, Should We Build More Prisons? A Debate. National Council on Delinquency, 1977.

Prompted by these pressures, alternatives have been explored which include restitution, community service, prerelease programs, early parole, intensive probation supervision, and most recently the use of electronic monitoring devices.

Use of the technology has generated immense interest in the criminal justice community and has raised many questions, most of which are not answerable. This report seeks to document the state of the technology and identify relevant questions policymakers should ask if they are considering implementation of an electronic monitoring program. Specifically, the following areas are addressed:

- What is electronic monitoring and what types of equipment are currently available?
- How is the technology currently being used?
- What are the legal and constitutional issues associated with the use of electronic monitoring devices?
- What administrative and policy issues are raised by use of the technology?
- What guidelines ought to be used in implementing an electronic monitoring program?

The authors believe that electronic monitoring of offenders has the potential to become a useful tool for corrections if programs are properly planned and implemented. However, the underlying philosophy which guides the use of the technology and the manner in which programs are implemented will determine whether it succeeds or becomes just another fad in the continuing search for meaningful alternatives in corrections.

Some have suggested that the technology may be used to address the crowding problem. While it may have some impact on that problem, it must be realized that the technology is not a panacea for institutional crowding.

Chapter 2

Electronic monitoring devices

Overview

The concept of electronic monitoring is not new. As early as 1919 the Army Signal Corps announced the development of technology which would allow them to track airplanes and ships using radio signals. The technique, crude by today's standards, utilized two receivers and a triangulation process to locate objects which were emitting a radio signal.¹

Research was reported by the medical field in 1961 in which tiny transmitters were implanted inside a human being. The transmitters were used to detect changes in abdominal pressure, body temperature, oxygen tension, acidity, and radiation intensity.² Additionally, systems were being developed by biologists that allowed them to track animals on land and in the ocean. One proposed application involved the use of satellites to receive the signal from a transmitter, allowing scientists to precisely plot the position of an animal.³

Early use of the technology was not limited to monitoring. In 1964 researchers from the Northwestern University Medical School at Chicago published the results of an experiment conducted with laboratory animals which included electronic stimulation of the brain in addition to the use of telemetry for electroencephalographic recording of brain activities. A transmitter and a receiver were implanted in cats, which allowed the scientists to stimulate the brain with electronic impulses and monitor changes.⁴

From 1964 to 1970 individuals conducting research into behavioral electronics developed and used a portable device to track the location of parolees, mental patients, and

research volunteers in Cambridge and Boston, Massachusetts.⁵ One of the first formalized uses of the technology by a criminal justice agency occurred during 1983 in Albuquerque, New Mexico. Judge Jack Love was inspired by a "Spiderman" comic strip to experiment with the concept of enforcing house arrest with the aid of an electronic monitoring device. Subsequently, programs were implemented in Florida. The initial reactions to those programs were favorable, prompting adoption of the concept in various locations.

The current systems can be divided into two broad categories: those that require a telephone to operate and those that operate without a telephone. The most prevalent systems are those using telephone lines to communicate between the offender's home and a central office. These systems may be subclassified into two categories.

The first category, referred to as a "continuous signaling" system, consists of a transmitter unit, a home monitor and receiver unit, and a central office computer or receiver unit. A transmitter, which is strapped to the offender, broadcasts an encoded signal to the receiver located in the offender's home. The receiver is connected by the telephone to the central office computer or base unit. When the transmitter being worn by the offender is within range of the home monitor and receiver unit, the system indicates that he or she is at the residence. When the offender goes beyond the range of the monitoring unit, such as when he or she leaves home, the signal from the transmitter is not received and the system is notified of the absence.

If the offender leaves home during an unauthorized period, in violation of curfew, a violation report is generated. If, however, the offender leaves home at an authorized time, the times of arrival and departure are noted, but no violation report is generated (see Figure 2.1).

1. "Wireless direction finders." Literary Digest, April 12, 1919, 61: 22-23.

2. R.S. Mackay. "Radio telemetering from within the body." Science, October 20, 1961, 131: 1196-1202.

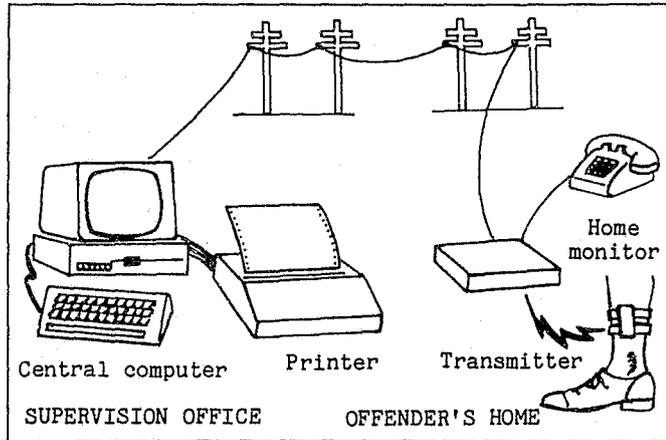
3. D. Cohen. "How to trace a turtle." Science Digest, March 1966, 59: 28-31.

4. I.J. Young and W.S. Naylor. "Implanted two-way telemetry in laboratory animals." The American Journal of Medical Electronics, January-March 1964, 3: 28-33.

5. R.K. Gable. "Application of personal telemonitoring to current problems in corrections." Journal of Criminal Justice, 1986, 14: 167-176.

Figure 2.1

Radio frequency system requiring use of telephone lines, continuously signaling

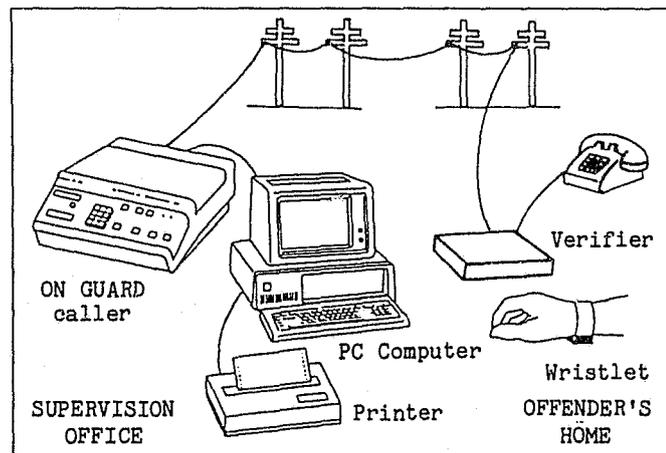


A second category of systems utilizing telephone lines has been referred to in the earlier literature as a "programmed-contact" system. It consists of a central office computer, an encoder device, and a verifier box. The encoder device is worn either on the wrist or ankle by the offender. The computer is programmed to generate either random calls or to call at specific times to the offender's home. The offender is required to provide voice identification and then insert the encoder device into the verifier box, confirming identity.

The system will provide exception reports if the phone is not answered, if a busy signal is received, if an operator intercept message is detected, or if the offender fails to properly insert the encoder device into the verifier box (see Figure 2.2).

Figure 2.2

Non-radio frequency system requiring use of telephone lines, programmed contact

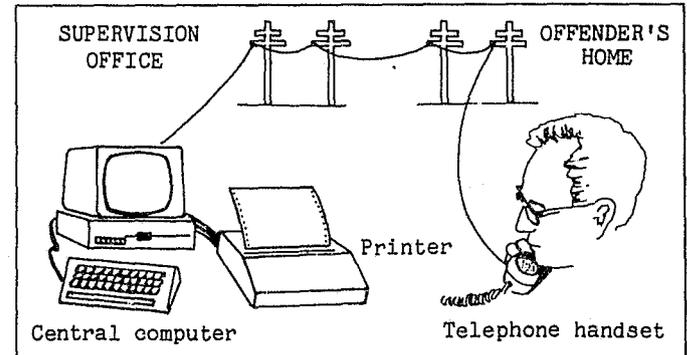


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Currently under development is a programmed-contact system that relies on computerized voice identification. The offender, who is not required to wear any type of device, must answer a series of random questions over the telephone which are then matched by the computer with a previously supplied voice exemplar (see Figure 2.3).

Figure 2.3

Computerized voice identification system, programmed contact

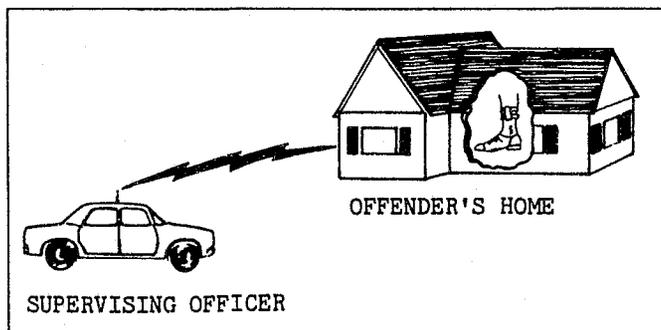


The essential difference between the continuously signaling and programmed-contact systems is that the continuously signaling system operates continuously, monitoring the times the offender arrives and departs. The programmed-contact system verifies the presence of the offender only at the time the telephone call is made from the central office.

The second major category of systems does not rely on telecommunications equipment. One such device consists of a transmitter and a portable receiver. The transmitter, worn by the offender, emits a radio signal. The portable receiver is placed in the monitoring official's car and will receive the signal from the transmitter when it is within one block of the offender. Periodic checks of residential areas are made during the time period that the offenders are required to be home. The device may also be used to make random checks at places of employment, treatment centers, or other locations to confirm the presence of the offender (see Figure 2.4).

Figure 2.4

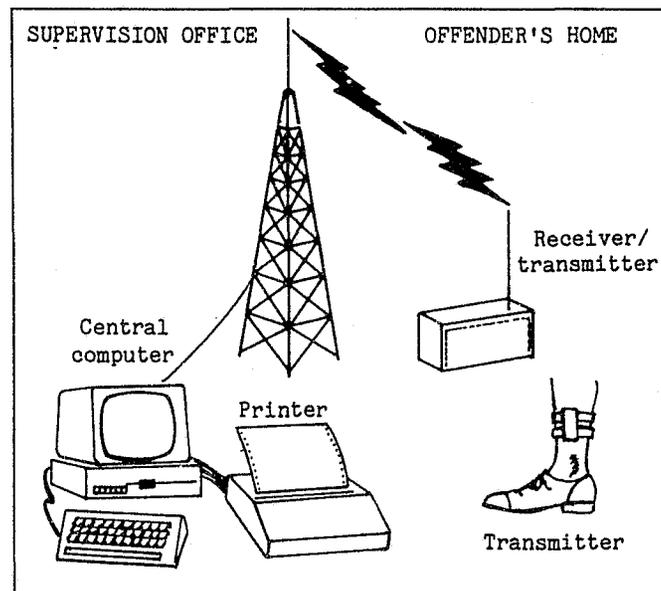
Radio-frequency system not requiring telephone lines



The technology exists to operate a system similar to those relying on telecommunications by radio transmitters. Under such a system, the offender wears a personal transmitter which sends a signal to the home receiver. The receiver records the information and then sends it by radio signal to a central location (see Figure 2.5).

Figure 2.5

Radio-frequency system not requiring telephone lines, continuously signaling



Descriptions of available systems

At the time the research was conducted for this report, 10 manufacturers were known to be making monitoring equipment. A telephone survey was conducted of those manufacturers, from which profiles of their equipment were developed. A copy of these summaries was then sent to each vendor for certification of the information. Excluding field testing, the equipment of four of the companies was not yet in use by a criminal justice agency in an operating program. (Since that survey was conducted, two additional manufacturers-- American Security Communications, Norman, Oklahoma, and Behavioral Systems Southwest, Pomona, California, have developed systems for marketing.)

The following tables were prepared to assist the reader in comparing different systems. Table 2.1 shows the features of the central computer. A description of the receiver-dialer units placed in the offender's home is provided in Table 2.2. Table 2.3 describes the features of the transmitter worn by the offender. Table 2.4 provides a comparison of equipment costs.

Narrative descriptions of equipment available from the 10 manufacturers who were in existence at the time of the survey are provided in Appendix A. Cost estimates for that equipment are provided in Appendix B. The reader should note that appendixes reflect the information that was available in March of 1986. The equipment designs may change and the costs may fluctuate either upward or downward.

While price is a factor, it may not be the most important concern. The systems function differently and have different features. It would appear prudent to first match the particular systems to the operating environment of the agency and then to consider the costs of those systems that provide the desired features for an individual program.

Table 2.1

Central computer features

	Advanced Signal Concept	BI Incorporated	CONTRAC Controlled Activities, Inc.	Controllec, Incorporated	Corrections Services, Inc.	Cost-Effective Monitoring System	Hitek Community Control	Life Science Research Group	Monitech Systems	VOXTRON
SYSTEM CHARACTERISTICS										
Central Computer Features	200 (400)	200	500 (1,000)	200	200	N/A	400	200 (Approx.)	1,000	300
CLIENT CAPACITY										
INTERNAL MEMORY STORAGE	640k 20mg Hard Disk	85mg Hard Disk	20mg Hard Disk	20mg Hard Disk	20mg Hard Disk	N/A	640k 10mg Hard Disk	640k	640k 20mg Hard Disk	640k 20mg Hard Disk
MEMORY BACK-UP CAPABILITIES										
<ul style="list-style-type: none"> ● Floppy Disk ● Tape ● Paper print-out logs 	Yes Optional Yes	Yes Yes Yes	Yes Yes Yes	Yes No Yes	Yes Optional Yes	N/A N/A N/A	Yes No Yes	Yes No Yes	Yes No Yes	Yes Option Yes
BACK-UP BATTERY POWER SUPPLY	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Available	Yes
POLLING FOR SYSTEM CHECKS										
Frequency Direction: To House From House	Program X	 X	6 X	Program X	Program X	N/A N/A N/A	N/A N/A N/A	Program X	Program X	N/A X
POLLING FOR MONITORING										
Direction: To House From House	X X	X X	X X	X X	X X	N/A N/A	X X	X X	X X	X X
TELEPHONE LINE CAPACITY	8	3	4(8)	2	4	N/A	4	1	1 to k	6
TERMINAL NETWORKING CAPABILITY										
<ul style="list-style-type: none"> ● In House ● Remote ● Number of Terminals 	Under Develop- ment	X X 8-32	Option	Under Develop- ment	Under Develop- ment	N/A N/A N/A	No	Yes Yes Unlimited	Option	Yes Option Option
PRINTED REPORTS										
<ul style="list-style-type: none"> ● Violation ● Equipment Failure ● Daily Summary ● Monthly Summary ● Summary by Client ● Summary by Officer 	X X X Program Program	X X X X X	X X X X X	X X X X X	Program Program Program Program Program	N/A N/A N/A N/A N/A	X X X X X	X X X X X	X X X X X	X X X X X
INDIVIDUAL CLIENT FILES										
<ul style="list-style-type: none"> ● Client Data ● Client Schedules ● Medical ● Court Restrictions ● Officer Contacts 	Program Program Program Program	X X X X X	X X X X X	Program Program Program Program	X X X X X	N/A N/A N/A N/A	X X X X X	X X X X X	X X X X X	X X Program Program
PASSWORD PROTECTION	X	X	-		X	N/A	X	X	X	X
MULTIPLE IN/OUT CAPABILITY										
<ul style="list-style-type: none"> ● Maximum Periods ● Agency Programmable 	2 X	Unlimited X	2 X	Unlimited X	2 X	N/A N/A N/A	Unlimited X	Unlimited X	Unlimited X	4 X
FCC REGISTERED AND APPROVED										
<ul style="list-style-type: none"> ● Computer Equipment ● Phone Line Interface 	X X	X X	X X	X X	X X	N/A N/A	X X	X X	X X	Yes Yes

NOTE: Monitech system's computer has the capacity to serve 1,000 monitoring units. Each monitoring unit can monitor thirty subjects.

Table 2.2

Home monitor receiver unit features

HOME MONITOR FEATURES	Advanced Signal Concepts	BI Incorporated	CONTRAC	Controlec	Corrections Services Inc.	Cost-Effective Monitoring Systems	Hitek Community Control	Life Science Research Group	Monitech Systems
Size	?	13½x8x2-3/4	8"x9"x4"	10/10/10	2½/5½/12"	4"x8"x4"	2½x4½x7½	?	12"x12"x6"
Weight	?	1.5 lbs.	4 lbs.	25 lbs.	8 lbs.	21 lbs.	1 lb.	?	12 lbs.
<u>TELEPHONE COMPATIBILITY</u>									
● Use standard phone lines	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes
● Use modular phone lines	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes
● Memory re-dial capability	Yes	Yes	Yes	Yes	Yes	N/A	Yes	Yes	Yes
● Line seizure capability	Yes	No	Yes	No	Yes	N/A	No	N/A	Yes
● Transmitter violation delay Length	Yes 10 min.	Yes 1 sec.	Yes 8 min.	Yes 5 min.	Yes Program	Yes N/A	N/A N/A	Yes Program	Yes 20 sec.
PROGRAMMABLE BY AGENCY	No	No	No	Yes	Yes	Yes	No	No	Yes
<u>CAPABILITY TO REPORT TO MULTIPLE COMPUTERS</u>									
● Number	Yes 2	No -	Yes	Yes	No	N/A	N/A	Yes 2	Yes ?
<u>L.E.D. INDICATORS</u>									
● Monitor failure		X	X	None		N/A	N/A		None
● A/C power failure	X	X	X	None	X	N/A	N/A	X	None
● Transmitter proximity	X	X	X	X		N/A	N/A		None
● Communication on tamper	X	X	X	X		N/A	N/A		None
<u>CAPABILITY TO TRANSMIT</u>									
● Client Out	X	X	X	X	X	N/A	N/A	X	X
● Client In	X	X	X	X	X	N/A	N/A	X	X
● Home Monitor Unit On	X	X	X		X	N/A	N/A	X	X
● Home Monitor Tampered with		X	X	X	X	N/A	N/A	X	X
● Transmitter Tampered with		X	X	X	X	N/A	N/A	X	X
● Transmitter Power Failure	X				X	N/A	N/A		
● Home Unit Power Failure	X	X	X		X	N/A	N/A	X	X
● Home Unit Relocation		X	X		X	N/A	No	X	X
BACK-UP BATTERY POWER SUPPLY	Yes	Yes	Yes	Yes	Yes	N/A	No	Yes	Yes
COILED CORDS	No	No	Yes	Option	Option	N/A	N/A	Yes	Option
CARRYING HANDLE	Yes	No	Yes	No	Yes	N/A	No	No	No
STORAGE CASE	No	No	No	No	No	No	No	No	No
MEETS NATIONAL ELECTRIC CODES	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MEETS FCC REGULATIONS	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
ALL SOLID STATE CIRCUITS	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes

Note: Cost Effective Monitoring Systems and VOXTRON do not utilize a home monitor. See narrative description of equipment.

Table 2.3

Transmitter features

TRANSMITTER FEATURES	Advanced Signal	BI Incorporated	CONTRAC	Controlec	Corrections Services, Inc.	Cost-Effective	Hitek	Life Science Research	Monitech
Size	2.1x2.6x.85	2½/2½/3/4	5x1.25x1.25	3½/2/3/4	2/5-1/8/1-1/8	½x½x9/16	1½x3/4x½	2x2½x3/4	1.1"x2.3"x.3"
Weight	4 oz.	6 oz.	3 oz.	8 oz.	4 oz.	2 oz.	7 grams	2.5 oz.	3 oz.
Waterproof Housing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Tamper Resistant Housing	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Non-irritant to skin	X	X	X	X	X	X	X	X	X
Reusable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Secure Fastening	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fastening Replaceable by Agency	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Capability to Detect Tampering	No	Yes	Option	Yes	No	Yes	No	Yes	Yes
Signal Range	150'	150'	200'	150'	130'	2 blocks	N/A	100'-300'	1000'
Battery Life	6 mos.	6 mos.	18 mos.	3 mos.	18 mos.	4 mos.	N/A	3-4 wks.	5 mos.
Battery On/Off Capacity	Yes	No	No	No	Yes	Yes	N/A	No	No
Transmitter Worn On;									
● Neck									X
● Wrist	X					X	X	X	
● Ankle	X	X	X	X	X	X	X	X	
● Waist	X				X				

NOTE: VOXTRON does not use a transmitter. See narrative description of equipment.

Table 2.4

Equipment costs

COSTS	Advanced Signal	BI Incorporated	CONTRAC	Controlec, Inc.	Corrections Services, Inc.	Hitek	Life Science Research	Monitech
20 Unit Purchase Average Cost Per Day	25,700 1.76	131,900 9.04	40,341 2.77	NOT QUOTED	76,704 5.26	NOT QUOTED	46,700 3.20	110,300 7.55
50 Unit Purchase Average Cost Per Day	47,000 1.29	254,750 6.98	76,191 2.09	NOT QUOTED	131,370 3.60	NOT QUOTED	96,800 2.65	263,200 7.21
20 Unit Lease/ Purchase Average Cost Per Day	19,500 1.34	94,900 6.50	43,446 2.98	102,200 7.00	87,984 6.03	NOT QUOTED	NOT QUOTED	32,900 2.25
50 Unit Lease/ Purchase Average Cost Per Day	34,500 .95	237,250 6.50	82,706 2.27	182,500 5.00	176,670 4.85	NOT QUOTED	NOT QUOTED	61,950 1.70
20 Unit Straight Lease Average Cost/Day	NOT QUOTED	NOT QUOTED	NOT QUOTED	NOT QUOTED	7.00	36,000 2.47	44,200 3.03	NOT QUOTED
50 Unit Straight Lease Average Cost/Day	NOT QUOTED	NOT QUOTED	NOT QUOTED	NOT QUOTED	7.00	69,600 1.91	91,600 2.51	NOT QUOTED

NOTE: Prices reflect information available as of March, 1986. Prices not quoted by Cost-Effective and VOXTRON.

Chapter 3

Applications of electronic monitoring

Ten programs were identified in the Spring of 1986 that were using electronic monitoring. Those programs were found by asking vendors for a list of their current customers and from information provided by the National Institute of Justice, which has a continuing interest in programmatic applications of the technology. The 10 programs are as follows:

- Pride Inc., West Palm Beach, Florida.
- Palm Beach County Sheriff's Department, Florida.
- New Jersey Administrative Office of the Courts.
- Clackamas County, Oregon.
- Utah Department of Corrections.
- Kenton County, Kentucky.
- Dade County, Florida.
- Linn County, Oregon.
- Michigan Department of Corrections.
- Oklahoma Department of Corrections.

The director of each program was contacted by telephone and interviewed with respect to the following issues:

- The purpose, organization, and history of their monitoring program (see Table 3.1).
- The scope of planning that preceded implementation of the program, whether enabling legislation was required, and the eligibility criteria used to screen program applicants (see Table 3.2).
- The type and number of monitoring units being used, the criteria used in the selection of equipment used, and how the equipment was field tested (see Table 3.3).
- Maximum and average duration of time of offenders were kept under electronic monitoring, policies governing requests for curfew expectations, and the extent to which officers and offenders are trained in the use of the technology (see Table 3.4).
- How the program is financed, how the equipment was purchased, whether a monitoring fee is paid by the offender, and statistical information on the numbers of offenders who have participated in the program (see Table 3.5).
- The kinds of problems encountered with the equipment, other criminal justice agencies, and public reaction to the program (see Table 3.6).

- Identification of the benefits derived from electronic monitoring, future plans, and public reaction to the program (see Table 3.7).

The tables included in this section and the program descriptions contained in Appendix C were developed from these interviews. The materials were mailed to each program director for verification.

In order to gain a better understanding of the issues encountered and the benefits to be derived from electronic monitoring, four programs were selected for site visits: the two in Palm Beach County, Florida, and the two in Oregon. In addition, a site visit was made to the Law Enforcement Standards Laboratory at the National Bureau of Standards to observe the results of tests being conducted with several of the vendors' equipment.

Program development

When program directors were asked what precipitated the use of electronic monitoring, most responded either prison or jail crowding. However, it was interesting to note that 3 of the 10 mentioned that the agency wanted to implement the technology because it was believed to be an innovation in its own right and provided an opportunity to experiment with a new approach to community supervision.

The agencies' awareness of the technology emanated from several sources. Several of the directors first learned of the technology while attending professional meetings such as that of the American Correctional Association and viewing exhibits. Others were introduced to the concept through visits by vendors or by word of mouth within the correctional community. Six of the ten programs conducted a feasibility study which indicated that electronic monitoring appeared to be practical for their agencies.

One should not infer, however, that absence of a feasibility study indicates the programs were implemented in a simplistic manner. Two of the programs were suggested by entities external to the agency--a State legislature and a county criminal justice planning agency. In the case of a third agency, the project was developed by the program director through a series of

Table 3.1

Type of application, area of coverage, and age of program

Agency	Current Application	Coverage	Date Began	First Offender Placed	Age of Program*
(1) PRIDE Inc., West Palm Beach, Florida	<ul style="list-style-type: none"> • Misdemeanant jail diversion 	1 county	October 1984	December 1984	17 months
(2) Palm Beach Co. Sheriff's Department	<ul style="list-style-type: none"> • Work release program in county jail 	1 county	Fall 1984	December 1984	17 months
(3) New Jersey ISP	<ul style="list-style-type: none"> • Complement to an ISP of offenders released from prison 	Statewide	ISP Program September 1983	June 1984, still experimenting	23 months
(4) Clackamas Co., Oregon	<ul style="list-style-type: none"> • Jail & residential center diversion • Pretrial release • Convicted misdemeanants & felons 	<ul style="list-style-type: none"> • 1 county • Some outside county 	April 1985	April 1985	12 months
(5) Utah State Department of Corrections	<ul style="list-style-type: none"> • ISP Probation & Parole 	2 counties	June 1984	April 1985	12 months
(6) Kenton Co., Kentucky	<ul style="list-style-type: none"> • Diversion of misdemeanor and Class D felony offenders who would be sentenced to jail • Placed on probation with monitoring as a condition of probation 	<ul style="list-style-type: none"> • 1 county • Some outside county 	January 1985	May 1985	11 months
(7) Dade County, Florida, Dept. of Corrections & Rehabilitation	<ul style="list-style-type: none"> • Work furlough of sentenced felons in county jail • 2 pretrial offenders--one with contagious disease & one deaf mute 	<ul style="list-style-type: none"> • 1 county • 2 offenders in neighboring county 	June 1985	July 1985	10 months
(8) Linn County, Oregon	<ul style="list-style-type: none"> • Jail diversion program--primarily DWI 	1 county	July 1985	October 1985	7 months
(9) Michigan Department of Corrections	<ul style="list-style-type: none"> • Recidivist felons convicted of property offenses who would normally go to prison • Deferred sentence 	1 county pilot study for 6 months	February 1985	April 1986	1 month
(10) Oklahoma State Department of Corrections	<ul style="list-style-type: none"> • House arrest diversion for felons in state prison • Offenders work and pay program service fee 	2 counties planned	House arrest program: October 1984	None yet	N/A

*As of April 1986

Table 3.2

Program planning, required legislation, and eligibility criteria

Agency	Enacting Legislation Required	Precipitating Incident	Feasibility Study Conducted	Eligibility Criteria	Exclusion Criteria
(1) PRIDE Inc., West Palm Beach, Florida	No	Wanted to divert: • Low risk offenders • Cost avoidance	No	• Would to to jail otherwise • Have a job • Voluntary	• Sex offenders • History of violence • Multiple DWI convictions • Certain drug offenders
(2) Palm Beach Co. Sheriff's Department	No	Jail over-crowding	No	• Successful under work release program • Have a home and phone	• Drug offender/user • History of violence • Sex offender
(3) New Jersey ISP	Court Rule	Prison over-crowding	Yes	• Served 60 days of current sentence • Non-violent offense	• Violent offense • Sex offender • Mandatory minimum sentence • History of violence • Extensive prior record
(4) Clackamas Co., Oregon	No	Good idea in its own right	Yes	• Sentenced by court • Risk classification screening • Home and phone • Discretionary with respect to offense and prior history	• Discretionary
(5) Utah State Department of Corrections	No	Jail-Prison overcrowding	No	• Discretion of courts and Board of Pardons	• Discretionary
(6) Kenton County, Kentucky	Not originally. Legislation recently enacted	• Jail over-crowding • State/county cooperative experiment	Yes	• Stable in community • Gainful employment • No history of violence	• Failure to appear on priors
(7) Dade County, Florida, Dept. of Corrections & Rehabilitation	County ordinance for work furlough program	Jail over-crowding	No	• Approved for work furlough • Gainful employment • Good institutional behavior • A dependent to support • If successful on work furlough, can be transferred to electronic monitoring	• Discretionary
(8) Linn County, Oregon	Yes	Jail over-crowding	Yes	• Non-violent offense • Judge sentences offender to house arrest without prior screening	• Violent offense
(9) Michigan Department of Corrections	No	• Good idea in its own right • Prison over-crowding	Yes	• Property offender who would go to prison otherwise	• Convicted of violent offense
(10) Oklahoma State Department of Corrections	For house arrest program but not monitoring program	Awareness of technology, interest in experimentation	Yes	• Non-violent offender • 30 months from release date • Served 15% of sentence • Not denied parole in last 6 months • Violent offender 11 months from release date	• Sex offenders

Table 3.3

Equipment and field testing

Agency	Equipment	Number of Units	Reason for Choosing Vendor	Field Test Equipment
(1) PRIDE Inc., West Palm Beach, Florida	<ul style="list-style-type: none"> • Contrac but changing to Corrections Services, Inc. 	30	<ul style="list-style-type: none"> • Contrac: only system available when program began • Corrections Services, Inc.--due to technology enhancements 	Worn by staff
(2) Palm Beach Co. Sheriff's Department	<ul style="list-style-type: none"> • Contrac • Corrections Services, Incorporated • Advanced Signal Concepts 	45	<ul style="list-style-type: none"> • Contrac--only system available when program began • Experimenting with other two systems 	Worn by staff
(3) New Jersey ISP	<ul style="list-style-type: none"> • Digital* 	20	<ul style="list-style-type: none"> • Don't have staff to monitor "active system" 	Worn by staff
(4) Clackamas Co., Oregon	<ul style="list-style-type: none"> • Contrac (5) • Digital (20)* • Corrections Services, Incorporated (1) 	<ul style="list-style-type: none"> • 40 • 16 on order from Corrections Services Inc. 	<ul style="list-style-type: none"> • Contrac--only "active" system on market in 1984 • Digital--versality, voice verification* 	Worn by staff
(5) Utah State Department of Corrections	<ul style="list-style-type: none"> • Computrac (15)* • Control Data (15)* • Digital (10)* 	40	<ul style="list-style-type: none"> • <u>Computrac</u>: located in Salt Lake City* • <u>Control Data</u>: tamper alarm feature* • <u>Digital</u>: Price, simplicity of operation* 	No: planning reliability study now
(6) Kenton County, Kentucky	<ul style="list-style-type: none"> • Contrac 	Originally 20; 12 units now	<ul style="list-style-type: none"> • Demonstration by vendor 	Worn by staff
(7) Dade County, Florida, Department of Corrections & Rehabilitation	<ul style="list-style-type: none"> • Contrac 	10 units; purchasing 30 more	<ul style="list-style-type: none"> • Geographically near manufacturer • System "tamper proof" • Contrac only vendor responding to RFP 	Worn by staff
(8) Linn County, Oregon	<ul style="list-style-type: none"> • Contrac 	24	<ul style="list-style-type: none"> • Demonstration by vendor 	Worn by staff
(9) Michigan Dept. of Corrections	<ul style="list-style-type: none"> • Control Data* 	25 under contract	<ul style="list-style-type: none"> • Tamper alarm feature 	Worn by staff
(10) Oklahoma State Department of Corrections	<ul style="list-style-type: none"> • RFP in preparation 	Plan: <ul style="list-style-type: none"> • 20 Tulsa • 20 Oklahoma City 	N/A	Worn by staff

*Corporate name at time equipment was purchased. Digital has since been changed to Hitek, Computrac to Monitech, and Control Data to BI Inc.

Table 3.4

Duration of monitoring and training

Agency	Duration of Monitoring		If Exception to Curfew Requested	Training	
	Maximum	Average		Officers	Offenders
(1) PRIDE Inc., West Palm Beach, Florida	6 months	4 months	For treatment only	Officers field test equipment	Orientation
(2) Palm Beach Co. Sheriff's Department	311 days	2 months	No exceptions	Officers field test equipment	Orientation for inmates and family/sponsor
(3) New Jersey ISP	Discretionary	Still experimenting	For treatment only	Officers field test equipment	Orientation
(4) Clackamas Co., Oregon	Duration of sentence: 4.5 months longest to date	1 month	Discretionary	One officer supervises all cases	Orientation
(5) Utah State Department of Corrections	<ul style="list-style-type: none"> • Discretionary • 1 year planned for sex offenders 	2 months	For treatment only	Only what manufacturer provides	<ul style="list-style-type: none"> • Digital: none • Control Data: officer installs in offender's home • Computrac: company rep. installs in offender's home
(6) Kenton County, Kentucky	For duration of house arrest sentence. Six months longest to date	1 month	No exceptions	One officer supervises all cases	Orientation
(7) Dade County, Florida, Dept. of Corrections & Rehabilitation	100 days	2 months	No exceptions	Officers field test equipment	Orientation
(8) Linn County, Oregon	6 months	1 month	At discretion of officer	One officer supervises all cases	Orientation
(9) Michigan Department of Corrections	<ul style="list-style-type: none"> • 4 months planned--life cycle of battery in transmitter 	Still experimenting	N/A	Officers field test equipment	Orientation
(10) Oklahoma Department of Corrections	Discretionary	N/A	N/A	Officers field test equipment	Orientation

Table 3.5

Program funding and caseload statistics

Agency	Who Paid for Equipment	Does Offender Pay Fee	PROGRAM STATISTICS*			
			Under Surveillance	Completed Program	Failures	Average Placed Per Month
(1) PRIDE, Inc., West Palm Beach, Florida	Pride, Inc.	\$7/day plus fees for additional services	16	110	3	7
(2) Palm Beach County Sheriff's Department	County	\$9/day	20	116	3	20
(3) New Jersey ISP	Legislature	Yes, for ISP. None yet for electronic monitoring	**	**	**	**
(4) Clackamas County, Oregon	<ul style="list-style-type: none"> • Criminal Justice block grant • Local funds 	<ul style="list-style-type: none"> • \$7/day • amortize equipment in one year 	16	75	2	6
(5) Utah State Department of Corrections	Legislature	No	14	N/A	3	1
(6) Kenton County, Kentucky	County--state provides the supervision	<ul style="list-style-type: none"> • Yes--sliding scale based upon income • Equipment amortized by fees 	4	31	3	1
(7) Dade County, Florida, Dept. of Corrections & Rehabilitation	County: fees used to amortize equipment	\$7/day for work furlough; \$7/day for monitoring adm. costs	10	9	1	2
(8) Linn County, Oregon	Grant from National Traffic Safety Commission bought 20 units, other units bought with CCA grant	\$15/mo. plus daily fee based upon income and family size	15	29	3	7
(9) Michigan Department of Corrections	Legislature	Not in pilot study; may be in future. No probation fee but restitution, fines and court costs	Began April 14, 1986	N/A	N/A	N/A
(10) Oklahoma Dept. of Corrections	Legislature	Program support fee (\$45/mo.) but no monitoring fee	N/A	N/A	N/A	N/A

*As of April 1986

**Statistics not available since the application is still experimental

Table 3.6

Problems encountered

Agency	PROBLEMS		
	Equipment	Other CJ Agencies	Public
(1) PRIDE Inc., West Palm Beach, Florida	<ul style="list-style-type: none"> Some reliability problems 	No	Positive press coverage
(2) Palm Beach County Sheriff's Department	<ul style="list-style-type: none"> Some reliability problems 	No	Positive press coverage
(3) New Jersey ISP	No	No	Positive press coverage
(4) Clackamas County, Oregon	<ul style="list-style-type: none"> <u>Contract</u>: reliability problems <u>Digital</u>: software problems 	No	Positive press coverage
(5) Utah State Department of Corrections	<ul style="list-style-type: none"> <u>Digital</u>: A.G. limits hours of surveillance <u>Control Data</u>: Software, reliability of tamper feature <u>Computrac</u>: Delivery of equipment, reliability 	No	Initial press coverage mixed
(6) Kenton County, Kentucky	Initial problems with equipment reliability	No problems but number of referrals is low	Positive press coverage
(7) Dade County, Florida Department of Corrections and Rehabilitation	<ul style="list-style-type: none"> 1 case of radio interference "Sleep errors" 	No	Positive press coverage--national, international--little local coverage
(8) Linn County, Oregon	<ul style="list-style-type: none"> 1 offender absconded with equipment Computer--poor service support from local vendor 	No	Positive press coverage
(9) Michigan Department of Corrections	Reliability of equipment during field testing	No	Positive press coverage
(10) Oklahoma Department of Corrections	N/A	N/A	Positive press coverage

Table 3.7

Program benefits, future plans, and caveats offered

Agency	Primary Benefits	Future Plans	Caveats Offered
(1) PRIDE Inc., West Palm Beach, Florida	<ul style="list-style-type: none"> ● Divert people who don't need to be in jail ● Keep offender with family ● Offender keeps job ● Judges control program ● Client still gets due process if violates curfew 	<ul style="list-style-type: none"> ● Purchase more units ● Include pretrial offenders ● Parents who fail to pay child support 	<ul style="list-style-type: none"> ● Plan procedures carefully ● Begin slowly ● Expand program as experience is gained
(2) Palm Beach Co. Sheriff's Department	<ul style="list-style-type: none"> ● Reduce jail crowding ● Cost avoidance ● Gradually release offender into community ● Offender finishes sentence with money and a job 	<ul style="list-style-type: none"> ● Plan to purchase 80 more units 	<ul style="list-style-type: none"> ● Don't use with violent or sex offenders
(3) New Jersey ISP	<ul style="list-style-type: none"> ● Reduce overcrowding ● Chance to experiment with new supervisory strategies ● Give offenders a chance to reestablish themselves 	<ul style="list-style-type: none"> ● Still experimenting with electronic monitoring 	<ul style="list-style-type: none"> ● Experiment with equipment
(4) Clackamas Co., Oregon	<ul style="list-style-type: none"> ● System pays for itself ● Offender works ● Keeps family together 	<ul style="list-style-type: none"> ● 16 more units on order ● Developing inter-county network 	<ul style="list-style-type: none"> ● Pretest equipment ● Develop tight performance contract with vendor ● Multiple systems provide versatility
(5) Utah State Department of Corrections	Too soon to tell	<ul style="list-style-type: none"> ● Sex offenders released on parole ● Diversion of probationers serving 30-90 days ● Study reliability of equipment 	<ul style="list-style-type: none"> ● Preplanning critical ● Field test equipment before program implementation
(6) Kenton County, Kentucky	<ul style="list-style-type: none"> ● Good for men not paying support ● DWI offenders 	<ul style="list-style-type: none"> ● State considering expansion to other counties 	<ul style="list-style-type: none"> ● Beware of community reaction if releasing violent offenders
(7) Dade County, Florida, Dept. of Corrections & Rehabilitation	<ul style="list-style-type: none"> ● Diverting offenders who don't need to be in jail--yet limit their freedom at low cost 	<ul style="list-style-type: none"> ● Change \$7/day fee to scale based upon income ● Could use 200 units for offenders in last 60 days of sentence 	<ul style="list-style-type: none"> ● Use with offenders needing little supervision ● Probably not effective with high risk offenders ● Use it on offenders who have served some jail time ● Don't put on offenders "you don't know" ● Select vendor carefully
(8) Linn County, Oregon	<ul style="list-style-type: none"> ● Offender keeps job--supports family ● Offender keeps self-respect ● Diversion-cost avoidance 	<ul style="list-style-type: none"> ● Purchase more equipment 	<ul style="list-style-type: none"> ● Pretest equipment
(9) Michigan Department of Corrections	<ul style="list-style-type: none"> ● Cost avoidance ● Instill discipline in marginal offenders 	<ul style="list-style-type: none"> ● After pilot study, expand to other counties 	N/A
(10) Oklahoma Department of Corrections	<ul style="list-style-type: none"> ● Gain control of marginal offenders in house arrest program 	<ul style="list-style-type: none"> ● Not operational yet 	N/A

lengthy discussions with a criminal court judge. The fourth was initiated by a county that already had a monitoring program that had proved successful in operation by another agency.

Six of the ten programs required no enabling legislation since they were either extensions of existing work-release programs already established by State law or county ordinance or were probation programs where the monitoring was made a special condition of probation.

Program operation

Of the monitoring applications which were operational in the spring of 1986, six were county programs involving either jail diversion via probation or complements to existing jail work-release programs. While the New Jersey program is the oldest State-level program, use of electronic monitoring in its Intensive Supervision Program is still in an experimental stage. The two programs in Palm Beach County, Florida, are the oldest programs, followed by the two in Oregon.

Generally, a State or local unit of government buys the equipment and the cost is amortized by charging the offender a daily fee, typically \$7 per day. Some programs have developed a sliding-fee scale based upon the offender's income and the number of dependents being supported. Several program directors have found that with continuous use the equipment can be paid for in 11 to 12 months.

The average number of offenders being placed in these programs per month ranges from 1 or 2 to as many as 20. At least five program directors indicated that the number of offenders accepted for monitoring depends on the number of units available, not demand. As these programs have gained acceptance, service demand has begun to outpace the number of available units.

Although the eligibility and exclusion criteria for offenders vary with the type of program, several generalizations can be made. All the programs are voluntary, and because the technology is relatively new, most reject high-risk offenders, such as those convicted of sex crimes, those having a history of violence, or those convicted of a violent crime. In other words, as might be expected with any new correctional program, the eligibility criteria tend to be conservative and are not likely to be liberalized until sufficient experience has been gained. This was precisely the case found in the interviews with the directors of the older programs. As they have gained experience with the technology, they are permitting higher risk offenders to be included in the program.

All of the agencies provide an orientation program for new offenders, with some inviting the spouse, family members, or friends that the offender will be living with to participate. In addition to explaining the conditions of release, the orientation provides the offender with an understanding of how the equipment works, guidelines for its care and maintenance, and what to do if there is a malfunction.

No one has yet put forth an ideal criterion for determining the maximum duration of surveillance. Based upon the telephone interviews and field visits, the longest an offender has been electronically monitored is 311 days, while the average duration is between 1 and 2 months.

Most programs will not grant requests for curfew exceptions unless they are treatment related. However, some program directors reserve judgment on this issue and may grant exceptions on a case-specific basis. The general attitude seems to be that in-house arrest is a substitute for incarceration, and curfew exceptions should be restricted in the same way temporary release from prison or jail is restricted.

Equipment

At the time of the survey only six vendors' systems were being used in operational programs, including:

- Advanced Signal Concepts.
- BI Incorporated.
- CONTRAC.
- Corrections Services, Inc.
- Hitek Community Control Corporation.
- Monitech Systems, Inc.

Nine of the programs had a total of 216 monitoring units (Oklahoma had not yet purchased any); however, not all were in use. In fact, most of the program directors admitted that their initial estimates of the number of offenders that would participate in their programs were too optimistic. Based upon their experience, they suggested that it is better to start slow, purchase a few units, gain experience, and only expand the program as demand and experience dictate.

Varying reasons were offered for an agency's choice of equipment. For the most part, CONTRAC and Hitek systems were initially purchased by the older programs since they were the only ones available when the program began. Price has been a consideration for some programs, as has the "tamper alarm" features offered by several vendors. In some instances

the equipment was selected because the manufacturer was located geographically near the program. At least one program, Clackamas County, Oregon, advocated the use of several different systems so that the equipment could be matched to the differential needs and risks presented by different offenders. Additionally, one system can serve as a backup in the event that the other goes down.

All of the program directors agree that the equipment should be thoroughly field tested prior to being used with offenders. This includes both the system hardware and the software. Usually, this is accomplished by having the staff wear the equipment for a period of time before the program is implemented. In addition, it is recommended that any additional units purchased after implementation be worn by staff for a period of time to assure that they are in proper working order.

Generally, the vendors have been very responsive in repairing or replacing defective units, but any equipment problems should be identified before the offender is released, since reliability problems after release can jeopardize public safety and erode the integrity of the program.

Problems encountered

As is discussed in more detail in the program summaries contained in Appendix C, the equipment itself has been the primary source of difficulty. Generally, program directors have encountered little difficulty in securing the cooperation of other criminal justice agencies, and public reaction, as measured by media coverage, has been positive.

Where substantial problems have been encountered, they have been with the equipment: Software problems, equipment delivery problems, false positive reports from monitors, environmental obstacles in the house which interfere with the monitor, problems with telephone transmission, etc. All programs have encountered equipment problems--some major, some minor. Most programs have been able to resolve most of these problems.

The fact that there are problems with the equipment, however, should not be interpreted as an indictment against the vendors' products. Instead, many of the problems reflect the growing state of the art of both the program applications and the technology.

As more people are put on monitors, living and working in increasingly diverse environments, technical problems will be encountered, sug-

gesting the limits of the technology. Over the past year, for instance, some vendors have modified and improved their products based upon their experience with many of these problems, and the quality of the equipment now available has improved substantially.

Perceived benefits

Most of those interviewed agreed that the technology should only be used with offenders who would otherwise be in an institution--they recognize the temptation to widen the correctional net. Contrary to those who see electronic monitoring as an undue invasion of privacy, the program directors see it as a humane yet restrictive alternative to jail or prison. Since the offender must work, fines and restitution can be paid, the family is supported, taxes are paid, and other than the in-house curfew at night and on weekends, the offender lives a relatively normal life. To the extent that offenders are diverted from jail or prison, the technology, along with other programs, may have a marginal effect on crowding, although empirical data in this regard are scant.

Others laud the technology as a useful tool in easing the transition from the institution to the community, as in the case of work-release programs. Finally, many see the technology as a good remedy for certain classes of offenders who present unusual problems for the small and resource-limited institution, such as pregnant offenders and offenders with communicable diseases or special handicaps. They also see the technology as a viable remedy in dealing with offenders who have failed to pay child support, drunk drivers, and some juvenile delinquents.

Research hypotheses on the behavioral effects of electronic monitoring

The site visits provided an opportunity to interview supervising officers and some offenders on the effects of electronic monitoring and in-house arrest. The effects discussed in this section should not be interpreted as conclusions, but rather as hypotheses about the possible behavioral effects of the technology.

During the site visits, supervising officers were asked how electronic monitoring and in-house arrest might change the lifestyles and habits of offenders. While onsite, several offenders making routine office visits were also interviewed along the same lines.

Additional behavioral information was acquired from 55 exit interview records which had been gathered by the supervisor at Pride, Inc., during the early stages of that program.

Although the data are limited and certainly not the result of a random sample of officers or offenders, several researchable hypotheses are worthy of discussion.

Electronic monitoring as punishment--Interviews with officers and offenders suggest that the curfew restrictions associated with a typical electronic monitoring program are more punishing than one might think, particularly for young offenders. Typically, the offender is required to be at home except if working or participating in a treatment program.

Of the offenders interviewed, none minded the monitoring particularly, but most found the curfew restrictions difficult, especially on weekends and holidays. It would be interesting to determine the punishment tradeoff between in-house arrest and a jail or prison sentence. For instance, is 1 day in jail equivalent to 5 days of in-house arrest? One county judge in Palm Beach County, Florida, uses the following sentencing equation: 10 days jail time or 20 days of weekends in jail, or 30 days of in-house arrest.

Research on the equivalency of punishment would be useful to both existing and future programs since such information could be used to develop sentencing guidelines as well as standards for determining the maximum advisable duration of monitoring and in-house arrest.

Changes in peer group relations--A number of offenders commented in their exit interviews that the curfew restrictions altered their peer group relations. As one offender put it, ". . . you quickly find out who your real friends are."

In a typical program, the offender is house-bound while not working or in treatment. If the offender needs a package of cigarettes or a quart of milk, he or she will either have to turn to a family member or a friend or wait until the next day. This dependency on others for things that are normally taken for granted may have several positive benefits. Family ties may be strengthened and casual friendships may become more responsible. If the offender lives alone, he or she will have to plan ahead more carefully and allocate time more frugally.

In fact, several offenders mentioned in their exit interviews that they had learned to schedule their time much better as a result of the in-house arrest program. It would be of

interest to determine the extent to which in-house arrest fosters these effects since they are generally in a desirable direction.

Domestication--Apparently it is not unusual for offenders to become more domestic after a period of in-house arrest. As television becomes less interesting and with little else to do in the evenings or on weekends, some offenders turn to repairing and decorating their residences. This can be considered a positive effect since it is a constructive use of time and manifests some degree of personal pride. Further research is needed, however, to determine the frequency of this response or the extent to which it can be encouraged by the supervising officer.

The monitor as a symbol--A number of offenders have provided interesting comments about the effect of wearing a monitoring device. Some have said that it is a continuous yet positive reminder of the deviant behavior that led to their conviction. Others mentioned that they use the monitor as a crutch. For instance, friends may suggest that they go for a drink after work, and the offender will point to the monitor and say he has to be home by 6 p.m. In a sense, they use the monitor as an excuse to do what they know they ought to do. In at least one case, a young woman asked if she could continue to wear the monitor even though she had served her sentence because she was not sure whether she could make it on her own.

One of the questions used in the Pride, Inc., exit interview concerned whether people treated the offender differently when he or she was wearing a monitor. Using a five-point scale from "often" to "seldom," 62 percent checked "seldom" and the remaining 38 percent checked "sometimes." Apparently, the device does not prove socially embarrassing for most offenders. When asked about the monitor, some offenders simply tell the inquirer that it is a medical monitoring device, and this seems to satisfy most questioners.

Physical and financial effects--A number of offenders find that they are healthier and wealthier after a month or more of electronic monitoring. Restricted to their residences in the evening and on weekends, there is a tendency to live a more sedate life and to go to bed earlier. The regularity of the imposed schedule seems to improve the health and sense of well-being of some offenders, although further research is needed to substantiate this observation.

Some offenders have expressed surprise that they had accumulated money after a short period of in-house arrest. While this will vary with income, of course, a typical monitoring program does not provide much opportunity to spend money. In fact, several offenders mentioned that one of the more punishing aspects of in-house arrest was the inability to window-shop or buy something on a whim.

Several offenders found this experience rewarding, because by their own admission, the in-house arrest experience was the first time in their adult lives that they began to see the benefits of leading a regulated life denoting constructive use of time, accumulation of savings, and improved health.

Needed research--The observations discussed above raise interesting research questions about the possible behavioral effects of monitoring and in-house arrest. Although some of these effects are unintended, they are socially desirable.

Program directors should work closely with social scientists to determine the behavioral changes that may be induced by monitoring programs. If the hypotheses discussed above are correct, they add to the list of benefits to be achieved with the technology and provide objectives to be sought in case supervision as well as criteria to be used in program evaluation and justification.

Chapter 4

Legal issues in electronic monitoring

The use of electronic monitors raises a host of legal and constitutional issues that need to be addressed. Our study reveals that despite its novelty, case law or statutes indicate that electronic monitoring can withstand legal or constitutional challenge, if proper procedures are followed. The validity and constitutionality of the use of the device are derived from the following postulates and legal principles:

1. Probation, parole, and other diversionary programs are generally considered a privilege and an act of grace, not a right. In the absence of specific State statute to the contrary, they may be given or withheld at will; consequently, the conditions imposed are usually considered valid as long as they are reasonably related to the rehabilitation of the individual, to the protection of society, or to both. This gives the sentencing or diverting authority ample discretion, except in jurisdictions where such is specifically curtailed by statute or case law.
2. Acceptance by the offender of electronic monitoring as a condition for release or non-incarceration generally denotes consent and a valid waiver of rights.
3. Probationers, parolees, and other adjudicated offenders are generally entitled only to diminished constitutional rights and may therefore be subjected to limitations which otherwise cannot be imposed on the non-offending population.
4. Electronic monitoring does not violate the fourth amendment protection against unreasonable search and seizure because it does not constitute a search or seizure within the meaning of the fourth amendment. The device does not monitor conversations; neither can it determine what a user is doing within the confines of his or her own home. Its sole purpose is to ensure that the user is complying with the conditions of residence confinement. Moreover, even if the use of electronic monitors comes under the fourth amendment, its installation and use pursuant to a judicial order in the form of a condition indicates that such use is judicially authorized and therefore complies with the warrant requirement.
5. Adjudicated defendants are entitled to only a diminished right to privacy; besides, intrusion is valid as long as there is a

reasonable relationship between the condition imposed (being subjected to electronic monitoring) and the goals sought to be served (the protection of society, the rehabilitation of the offender, or both). Moreover, diverted offenders, particularly those on probation and parole, are subject to visitation anyway by government officers. What electronic monitoring does is increase surveillance proficiency rather than widening the scope of intrusion.

6. There is no violation of the right against self-incrimination because the evidence obtained will be used only for administrative purposes (revocation in cases of probation and parole) and not as evidence in a criminal trial. Moreover, the privilege against self-incrimination protects against testimonial, not physical, self-incrimination. If any incrimination is involved at all in the use of electronic monitors, such incrimination is physical, not testimonial, and is therefore outside the scope of the fifth amendment.
7. The use of the device is more humane than incarceration and is not unduly oppressive or grossly disproportionate to the offense committed, hence is not violative of the constitutional prohibition against cruel and unusual punishment.
8. The use of electronic monitors is not prohibited by Federal law, specifically Title III of the Omnibus Crime Control and Safe Streets Act of 1968. That law prohibits law enforcement officers, Federal and State, from tapping or intercepting wire communications or using electronic devices to intercept private communications except if there is a court order authorizing the wiretap, or if consent is given by one of the parties. Title III, however, regulates only the interception of the "contents" of any oral or wire communication. The term "interception" is defined by statute as referring to the "aural acquisition of the contents of any wire or oral communication through the use of any electronic, mechanical, or other device." Electronic monitors do not intercept any verbal or oral communication, hence their use should not come under the provisions of Title III.

9. The use of curfew restriction for offenders has been upheld by the courts as valid as long as it is reasonably related to the rehabilitation of the offender. Electronic devices merely enhance enforcement efficiency and therefore should not create additional legal problems.

10. If used for detainees, the device can be justified as less restrictive than incarceration. Despite the presumption of innocence, case law holds that the State can legally treat detainees and the convicted alike--in the interest of achieving legitimate institutional goals.

Strategy recommendations

Some strategy recommendations are designed in order to deflect or minimize legal challenges and protect the implementing personnel against possible liability lawsuits emanating from the use of the electronic device.

1. The legal implications of the use of electronic monitors must be studied carefully by appropriate legal counsel prior to planning, processing, and implementation. Constitutional issues, in the context of specific use, need to be explored further and the provisions of State laws carefully analyzed. In case of doubt, legislation specifically authorizing the use of the device for specific programs should be passed.

2. There is need to know if sentencing laws in a jurisdiction are construed narrowly or broadly by the courts. If interpreted broadly, judges can most likely be "creative" in sentencing and electronic monitoring can be used without special legislative authorization. If interpreted narrowly, there may be need for specific legislation.

3. If authorization is not clear from existing statutes or if the legality of the use of electronic monitors is in doubt, an opinion from the State Attorney General must be sought.

This determines tentatively the legality of the use of the device and opens up possible courses of action for prospective user agencies. Legality of use will ultimately be decided by the courts.

4. In the absence of specific legislation, the use of electronic monitors as a condition for release should be imposed by the releasing authority, whether that be the judge, the parole board, or the youth authority and not by field officers. If the condition turns out to be illegal under State law, the releasing authority is usually better protected from liability under absolute immunity than are other criminal justice officers who enjoy only qualified immunity.

5. State laws must be reviewed to determine if there are existing statutes authorizing, limiting, or prohibiting the use of electronic monitors. If necessary these statutes can be strengthened (if authorization is unclear), repealed (if it prohibits electronic monitoring), or modified (to extend to programs where the use of the device is contemplated).

6. If users are charged for use of the device, the agency must provide alternatives for indigents who cannot afford the cost; otherwise an equal protection challenge becomes a possibility.

7. Defensible criteria should be established to determine which offenders qualify for electronic monitoring.

For an extended discussion of the legal issues involved in electronic monitoring, refer to "Legal issues in the use of electronic surveillance in probation," by R.V. del Carmen and Joseph B. Vaughn, Federal Probation, June 1986: 60-69.

Chapter 5

Administrative and policy issues raised by electronic monitoring technology

The introduction of electronic monitoring technology raises a variety of administrative and policy issues, including:

- Is it cost beneficial?
- What administrative changes are required to accommodate the technology?
- What are the potential uses and abuses of the technology?
- What philosophic concerns does it raise?

Cost benefit of electronic monitoring

It is premature to attempt to determine the actual cost benefit of the technology. It has only been recently introduced, and time must pass to determine whether the benefits derived outweigh the costs.

The question of cost benefit is complex. The assessment of costs and benefits vary depending upon one's point of view; for instance, the sheriff with a crowded jail versus the probation department which may have to pay for the equipment. In addition to the direct cost of purchasing the equipment, there is the indirect cost of operating the system as well as the lost opportunity costs. Finally there are nonmonetary costs and benefits to be considered.

Probably the primary selling point of the technology is the alleged cost savings over the expense of operating an institution or building a new one. The institutional crowding problem has made policymakers keenly aware of the extraordinary costs associated with incarceration. Institutional operating costs vary, but a recent study suggests that they may well range between \$15 and \$50 per day.

From this perspective, the direct cost (i.e., the equipment) of electronically monitoring offenders in the community is cheaper than holding them in a prison or jail. Typically, however, the cost of monitoring exceeds the cost of correctional community supervision.

Although costs vary among manufacturers and according to the number of units acquired, the current direct cost of a system ranges from a few dollars to \$12 a day per offender. This may represent an attractive cost tradeoff for

policymakers who see savings not only in institutional operating costs but also in the reduced need for future capital construction.

For the supervising agency, the technology may not be cost beneficial. Funds expended for one purpose are usually not available for another. When an agency considers the use of electronic monitoring, it should carefully consider the lost opportunity costs in terms of the benefits associated with other possible programs.

If an agency succeeds in securing funds to buy a monitoring system, will this be at the expense of needed funds to expand other programs or initiate new ones? Administrators need to properly assess the priority to be attached to the acquisition of the technology relative to other agency needs.

Most observers agree that the technology should only be used to divert offenders who would be otherwise incarcerated. If the technology is simply used with individuals who would be granted probation or parole anyway, there is no cost savings relative to institutional costs. By the same token, unless it can be demonstrated that use of the technology with typical probationers and parolees reduces recidivism more than conventional supervisory strategies, there would be no savings from a public safety perspective either.

In all probability, if the technology is only used to enhance the surveillance of people granted probation or parole in the first instance, the result will be a widening of the correctional net, thus increasing costs with no appreciable benefit.

Despite the above, several monetary benefits can flow from the proper use of the technology. Obviously money saved by diverting offenders can be used in other ways. However, the non-monetary benefits that might be derived from the technology are also attractive. For example, humanistic benefits are achieved.

The decisionmaking criteria used in the administration of justice are generally conservative for understandable reasons. When the risks seem high, the system is more likely to incarcerate an individual than provide supervision in the community. In such in-

stances, the secondary effects of incarceration are neither few nor trivial. Individuals who are incarcerated may lose their jobs or residences, default on their car payments, and be in no position to support their families. In this case policymakers must weigh the secondary effects of incarceration against the magnitude of the risk to public safety.

Although the actual calculation of such trade-offs is complex, the cost-benefit issue is simple: It is neither humanistic nor economically beneficial to hold people in prison or jail who do not need to be there.

Some advocates of electronic monitoring argue that the technology has the potential to reduce jail and prison populations. If this be true, one of three benefits might be achieved depending upon local conditions. First, it could reduce the need to expand existing facilities. Second, it could obviate the need for new construction. Third, it could actually reduce the population in an existing facility.

Critics express skepticism about the third alleged benefit. They suggest that even if offenders were diverted from an existing institution, thereby making bed space available, the beds would be filled anyway.

In assessing the potential benefit of diversion, one should understand how institutional operating costs are calculated. For example, consider a daily operating cost of \$30 per prisoner. This expense includes administrative, support service and line staff salaries, supplies, utilities, etc. Even if electronic monitoring reduced the institutional population by 10 percent, one would not expect a comparable 10-percent reduction in operational costs since this would imply that salaries, utilities, etc. were also reduced by 10 percent.

It is safe to assume, therefore, that even if electronic monitoring is used successfully to reduce an existing institutional population, cost savings in operating costs will be proportionately far less than the percent reduction in the population. The benefit to be achieved in reducing and stabilizing the population will be associated with the reduced need for capital expansion of an existing facility or the construction of a new one.

While some offenders in correctional institutions may be good candidates for electronic monitoring, many may not be. To assess the extent to which electronic monitoring can be used to reduce the need for capital expansion, one must first determine the

proportion of the current and future population which would constitute a good risk for diversion. If this proportion is small, the actual impact of monitoring technology on the need for capital expansion may be marginal.

A final thought on cost benefit concerns the research and the development costs associated with the technology. If the proposed benefits are to be realized by the correctional community and the public, the cost of the technology must be reasonable, the equipment reliable, the operation efficient, the training requirements minimal, and noticeable improvement in public safety must be achieved.

Currently there are a number of companies offering electronic monitoring technology. In choosing a system the cautious consumer should keep in mind the adage "caveat emptor": let the buyer beware. Certainly a public agency does not want to become a guinea pig, paying for the research and development of an untested system.

Private enterprise requires that the private sector absorb the research and development costs prior to offering the technology to the correctional community. This suggests that correctional administrators should not only look at the comparative costs among the different systems currently in the marketplace, but also assess the extent and quality of the research and development behind these products. The purchase of an unreliable system requiring a high degree of maintenance may prove to be an irrevocable mistake, resulting in agency embarrassment and loss of public confidence.

Administrative concerns

The introduction of monitoring technology may require administrative changes affecting personnel policy, revocation procedures, and relations with the external environment.

Case supervisors may argue that they are too highly paid and skilled to be spending their evening hours and weekends checking curfew violations reported by a computer. While this may be a valid concern, it can also be argued that the technology provides an opportunity to free the officer to do that which he or she does best. The agency could hire surveillance officers to actually follow up the curfew violations. A surveillance officer need not be as highly paid or trained as a probation or parole officer since his or her sole function would be to follow up reported violations.

Depending upon the number of monitored offenders, one surveillance officer could be assigned to each caseload, or possibly to two or three caseloads. The actual number needed would depend upon the number of offenders on the system and the number of violations reported. If curfew violations are frequent, then a larger number of surveillance officers would be required. However, if the reported number of curfew violations is high, it may be that the wrong kind of offender is being put under surveillance, or the equipment is unreliable and producing a large number of false alarms.

If screening procedures are effective and the equipment is reliable, the number of reported violations should be low. If the number of violations go beyond a certain level, the issue is not how many surveillance officers to hire, but what is wrong with the screening procedures or the equipment.

Procedures must be developed to govern how supervisory officers are to handle reported curfew violations. Certainly, discretion must be exercised since a reported violation could be a false alarm, a function of mechanical error rather than a true violation. As with conventional probation or parole, a curfew violation should not necessarily result in a revocation.

The department should consider whether it will enter into a contract with a private concern for monitoring services. It is quite conceivable that private investors will purchase electronic surveillance systems and offer to provide monitoring services on a contractual basis. This could be a cost-beneficial arrangement, since the department would not have to make a capital investment in the equipment, be concerned with maintenance, or be involved in the hiring, training, or supervision of the monitors.

Potential uses of electronic monitoring

Currently, electronic monitoring is being used in various ways such as probationary diversion of misdemeanants and felons, as a complement to jail work-release programs, as a supplement to intensive supervision programs, and other uses. Presented below are several potential applications of the technology and the consequent administrative and policy issues.

Pretrial diversion--Typically most of a community's jail population is composed of pretrial detainees. As the jail population reaches capacity, policymakers are faced with the choice of either constructing additional

space or diverting some of the population, particularly pretrial detainees. If diversion is the policy of choice, then the first question should be why these individuals did not make bond.

Many are indigent and simply can not afford bond. Some can probably afford bond but would rather use their limited resources to retain an attorney. Others may believe, perhaps correctly, that if they post bond, the court will deny their request for a court-appointed lawyer on a claim of indigency.

The alternative in such cases is release on recognizance (ROR). Communities vary substantially in their recognizance release criteria. Some have liberal policies and divert a substantial number of pretrial detainees; others have more conservative policies, while still others will only release individuals under conventional security bonds.

Electronic monitoring is not a panacea for the pretrial jail crowding problem. The use of the technology in communities which do not have a recognizance release program is probably a waste of money. Their pretrial release policy is probably unnecessarily conservative and so the establishment of a recognizance release program would be a more cost-beneficial solution.

Similarly, communities with overly strict recognizance release criteria may not realize much benefit from electronic monitoring. Such communities need to determine whether their criteria are overly cautious. It might be wise to first lower release standards and determine whether there is any appreciable effect on either public safety or the failure to appear rate. Lowering the recognizance criteria where a noticeable difference appears on one or both criteria provides an empirical indication of the point at which electronic monitoring might be a cost-beneficial alternative. Electronic monitoring should therefore not be used if conventional less expensive diversionary tactics work equally well.

Weekend sentences--Weekend sentencing is a correctional alternative which combines the elements of punishment and deterrence with the economic benefit of leaving an individual in the community to work.

While this appears meritorious, weekend sentencing creates a variety of problems for the jail administrator. Typically, jails are busiest on weekends. Booking and releasing

weekend prisoners simply increases the burden. Because of the added burden and the perception that weekend offenders are not a major threat to public safety, the jail administrator may subvert the process by booking individuals at 11:59 on Saturday night and releasing them at 12:01 Sunday morning. This defeats the purpose of the sentence, and decreases respect for the law. Another problem is that the weekend prisoner can be easily victimized by other jail residents. Inmates can force the weekend prisoner to do favors for them during the week or face retaliation when they return the next weekend.

Electronic monitoring may be a cost-beneficial and productive alternative to weekend sentencing. It has at least three advantages. First, it may be cheaper. Second, it relieves jail personnel of additional administrative duties. Finally, it eliminates potential problems emanating from other jail inmates.

Work release --One of the earliest applications of electronic monitoring was an extension of a county jail work-release program. It is an attractive application because it is cost beneficial in two ways: prisoners can live in their homes and they contribute to their own support and that of their families because they are working.

Under this arrangement, prisoners work for several weeks under a conventional work-release program. They leave the jail each morning and return to the institution at night. After a period of adaptation, they are released from the institution under an electronic-monitoring program and are expected to work during the day and be in their homes during specified curfew hours. If the offender violates the conditions of the program, he or she is returned to the institution and loses the privilege of participating in the program.

Intensive supervision programs (ISP) --Because of prison crowding, a number of States have instituted ISP's to divert individuals who would otherwise be sentenced to prison. Typically, ISP caseloads are small, and the probation officer is expected to make weekly, or in some cases daily, contact with the offender. For the most part, ISP probationers represent high-risk cases and must be watched carefully to ensure public safety.

The technology could be very useful in an ISP program. If the technology is used with all ISP offenders, then it would free officers from either physically or telephonically confirming that their probationers were complying with curfew restrictions. If using the technology with all ISP cases proved to be either un-

necessary or cost prohibitive, then it could be used selectively as an increment in the degree of control exercised in the program.

For example, if an ISP probationer was found in violation of one or more of the conditions of probation, the technology could be imposed in lieu of revocation. Since the probationer has much to lose from revocation, the impact of the technology could be significant.

Juveniles --The technology could be used with juveniles, but some consider this application suspect, suggesting that the juvenile justice system is now overcriminalized. Others disagree, saying that the juvenile justice system does not respond strongly enough or early enough to certain forms of juvenile deviance.

One administrator interviewed in the course of this study speculated that short periods of electronic curfew imposed early enough in the career of a delinquent might be beneficial, in that it would indicate that the system is prepared to respond immediately and firmly to deviant behavior.

Other applications --Enough has been said to this point to suggest the wide range of potential applications of the technology. If used in conjunction with shock probation, it may permit judges to sentence more serious offenders to this alternative. It could also be used by prison and jail administrators in conjunction with educational or home furlough programs.

Another interesting possibility is the use of the technology for medical purposes. It is not uncommon, for instance, to find pregnant women in jail or prison. In such cases, the institution must make special arrangements to ensure the physical well-being of both mother and child. Depending upon the level of risk involved, a pregnant woman could be released to her home or the home of a relative during pregnancy. This would be cost effective and would likely provide an atmosphere that is more conducive to the health and welfare of both mother and child.

Other medical applications include diversion of such persons as those with AIDS, those with other communicable diseases, inmates in need of long-term postoperative recovery, mentally ill or retarded offenders, geriatric offenders, or offenders with various physical handicaps.

The above discussion suggests several conclusions. First, the technology has broad poten-

tial applications. Secondly, it should be used primarily for diversion since other applications may have the effect of widening the correctional net and offsetting the cost benefit of the technology. Finally, the technology should only be used in lieu of alternatives which are either less effective or more costly.

Potential abuses of electronic monitoring

Electronic monitoring can be a useful tool in the repertoire of correctional supervisory strategies, but it can also be abused. The primary use of the technology should be the diversion of individuals who would otherwise be in prison or jail.

Using the technology with individuals who would be granted community supervision anyway would be an unwise decision. This application is likely to raise costs without necessarily increasing benefits. In addition, it would needlessly widen the correctional net.

It is conceivable that judges and prosecutors, enamored with the technology, could adopt the policy of including everyone under community supervision in an electronic monitoring program. This extensive use of the technology should be avoided. To reiterate a caveat mentioned elsewhere, the technology should not be used if other methods which are less expensive and less intrusive would work equally well.

Being diverted from prison or jail is a benefit to the offender, but excessively long periods of house arrest may have adverse effects. Some might argue, for instance, that it would be cost beneficial to use electronic monitoring to hold people under house arrest for 24 hours a day, 7 days a week. If this condition were imposed for any length of time, it would be abusive.

If the offender represented such a threat to the community that total and prolonged house arrest was necessary, he or she probably needs to be in an institution.

To a lesser extent, and for the same reasons, long-term partial confinement during weekday evenings and weekends can be abusive. Such regimens of confinement may be reasonable for several months, but if an individual has demonstrated that he or she can work during the day and obey curfew restrictions in the evenings and on weekends, continued monitoring may be unnecessary.

It would be better to reduce the level of surveillance and use the equipment on some other individual in need of more extensive supervision.

Some suggest that the technology represents an unwarranted invasion of privacy which will eventually lead to litigation. While this possibility should not be ruled out, the authors believe that if the technology is used appropriately, successful suits will be unlikely. Since offenders diverted to a monitoring program would have been incarcerated otherwise, they are not likely to sue since jail or prison is a less desirable alternative.

In fact, electronic monitoring may be a convenient and attractive alternative for a defense attorney looking for leverage in plea negotiation. This carries potential dangers in that the busy prosecutor may become too willing to negotiate pleas resulting in use of electronic monitoring, when the more appropriate alternative from the standpoint of public safety would be incarceration.

For this reason it is critical to involve both the prosecutor and the courts in developing diversionary policy long before the monitoring system is purchased.

The technology should not be conceived of as a quick fix for the complicated problem of a community's crowded jail or a State's crowded prison system. Overpopulation is a complex problem, unlikely to be solved simply by purchasing an electronic monitoring system.

A community or State with a crowding problem needs to conduct an indepth analysis of why the problem exists and identify various strategies which can ameliorate the situation. Electronic monitoring might be a useful tool, but certainly not the sole remedy for the problem. It cannot be used as a substitute for sound correctional policy development.

Although practical experience is limited, common sense suggests that certain kinds of offenders may be inappropriate candidates for electronic monitoring programs. Given the current public sensitivity about the treatment of sex offenders, it may not be wise to include them in the program at first. This is not to say that such individuals could not benefit from the program, but that subsequent violations committed by sex offenders under electronic monitoring may so arouse community reaction that it could jeopardize the use of the technology with other suitable offenders.

Common sense would also suggest that offenders with a history of spouse or child abuse may not

be suitable candidates for the technology since the use of the technology may put the offender's family in clear and eminent danger if they are to reside in the same house.

Finally, one needs to consider carefully the potential use of the technology with juveniles. Communities vary, both in the extent of delinquency and their corresponding tolerance for the criminalization of the juvenile justice system. The technology could be a very effective means of responding to early signs of delinquency; however, the danger always exists that the juvenile justice net will be widened too far and that the ill effects of labeling, attendant to an overreaction to deviance, could become excessive.

Philosophic concerns

Interviews with community corrections administrators suggest that opinion about the technology is divided. On the one hand, some see it as a useful tool which could find a proper place in community supervision, while others see it as one step beyond what probation or parole is supposed to be.

Most administrators, however, expressed a philosophic ambivalence about the technology. They realized that the system must change with the times, but were uncertain whether or not electronic monitoring is an appropriate change. These administrators are adopting a "wait and see" attitude. While mildly interested in the technology, they would rather let some other agency experiment with its use before taking the plunge themselves.

It may be that the differences found among the administrators' attitudes emanate from divergent views as to the purpose of community corrections. Some see it as primarily a surveillance function, and although they are not opposed to the ends of rehabilitation, they are not likely to take risks when asked to

choose between these two objectives. In all likelihood, administrators who hold this view may be converted more readily to the use of electronic monitoring.

Other administrators approach community supervision from a more humanistic perspective. While they do not discount their responsibility to assure public safety, they give more emphasis to rehabilitative goals.

These administrators are more sensitive to the Orwellian connotations of the technology and view it as one step beyond the appropriate function of community supervision. They might characterize their philosophy in the following way: Offenders make mistakes, but some of them have enough going for themselves that society can take a chance on them remaining in the community.

The purpose of community supervision, therefore, is to allow offenders to demonstrate that they are trustworthy enough to live among their fellow citizens. While some degree of human surveillance is prudent, the probationer must be given enough room to demonstrate trustworthiness. From this perspective, some administrators feel that electronic monitoring goes beyond trust, and therefore beyond the scope of what community supervision ought to be.

These differences in philosophy suggest that the technology may not be appropriate for every community corrections agency. To work well, the goals and objectives of the technology must be congruent with those of the agency using the technology. In all likelihood, if these goals are at cross purposes, an electronic monitoring program may create more problems than it solves.

Chapter 6

Guidelines for developing an electronic monitoring system

Identifying the need

Jail or prison overcrowding is often the precipitating factor in the adoption of an electronic monitoring program. Some agencies, however, have used the technology regardless of institutional population levels, believing the idea to be inherently good. In determining whether an agency needs the technology, it is best to view the issue from a systemic perspective because programs and activities initiated by one agency will impact other agencies in the criminal justice system.

If the prospective user feels that the program is needed to alleviate institutional crowding, several other factors should be examined first. A wide range of alternatives can be used to address such a problem, electronic monitoring being only one of them. Of prime concern is the type of individuals under incarceration. As suggested earlier, it may well be that the wrong people are being held for the wrong amount of time. The extent to which sentencing alternatives are used should also be considered. While electronic monitoring is cheaper than incarceration, in some instances it is more expensive than other alternatives.

There are two general cautions when determining the necessity or desirability of an electronic monitoring program. First, the technology, by itself, will not solve institutional crowding. It can be a useful tool in the correctional process, but it is not the sole solution to current problems. Administrators who expect their programs to reduce jail populations may be disappointed. While electronic monitoring programs may be used as one element, the complexity of the problem will require initiatives by all components of the criminal justice system if overcrowding is to be addressed.

Secondly, electronic monitoring will not work in an operating environment that is already unstable. A monitoring program requires a great deal of internal organization and coordination. Additionally, it will necessitate a certain amount of reorganization, introducing varying degrees of instability in an agency's policy and operations. If an agency is disorganized and functioning in a less than efficient manner, it is likely that an electronic monitoring program will only add to its difficulties.

Identifying the client population

One of the first tasks in developing an electronic monitoring program is identifying eligible client populations. To a great extent the type of individuals who are placed in the program will be dictated by the local environment. In some communities, it would be unthinkable to place anyone except minor offenders in the system; in others a wide range of offenders would be acceptable.

Regardless of the perceived tolerance to types of acceptable offenders, it would be prudent to start a program with a very select cohort that is nonviolent and poses the least risk of endangering public safety or failure. Any new program, regardless of the amount of preplanning, will experience difficulties. In particular, electronic monitoring programs are susceptible to failures in hardware, software, procedures, and training. By using offenders who potentially will cause the least problems, the agency permits itself to address other difficulties and minimize the risk of a negative public reaction.

If high-risk offenders are initially placed in the program and fail, the use of what might be an otherwise valuable alternative may have to be discontinued. Moreover, restricting the program initially to low-risk offenders allows the agency time to gain proficiency in the use of the technology and to generate public understanding and support for the program. As more experience is gained and the programmatic difficulties are addressed, more diversity in the type of offenders can be achieved.

There is no magic formula to predict success or failure. The criteria for screening offenders in existing programs range from minimal to stringent. Even though all programs have formal selection criteria, identification of eligible individuals in fact relies most heavily on the intuition of the screening officer.

Two unwritten factors for selection were repeatedly offered by current users. First, the offender must have a genuine desire to succeed. In all likelihood, an electronic monitoring device has more of a psychological than a physical effect on the individual. If the person does not want to succeed, there is little the device can accomplish other than detecting violations. Second, the offender

must have something to lose by failing the program. For this to occur, there must be a credible response by the system in the event of failures.

Preferably, the actual selection of the participants should be done by the agency responsible for monitoring. At the least, sentencing judges should allow the agency to conduct a qualification interview with the offender and present recommendations prior to a final decision being made.

In some instances a judge has sentenced the offender to serve a period of house arrest under electronic monitoring without prior screening. This has created difficulties for the agency because the person did not have a home, job, or a telephone. Additional problems are created if the agency does not have the equipment available at the time the person is sentenced.

During the screening interview, the following basic considerations should be explored to determine if the offender is eligible for the program:

- Would the offender normally be incarcerated for the current offense?
- Will release of the offender pose a threat to public safety?
- Is the offender employed?
- Does the offender have a telephone? If not, can one be obtained?
- Will the offender have a stable place of residence for the period of house arrest?
- What does the offender have to gain or lose by being placed in the program?
- Did the offender volunteer for the program?
- What is the interviewer's opinion on the likelihood of the offender successfully completing the program?

Another option for offender selection which has been used successfully is to allow the agency to identify those persons from the sentenced population who are eligible for the program. The agency then forwards a request to the sentencing judge for use of the alternative.

Developing system support

No agency in the criminal justice system functions in a vacuum. Support for any proposed use of the technology will have

to be obtained from both within and outside the system. By their nature house arrest and electronic monitoring programs require the coordination and cooperation of the courts, jails, probation and parole offices, prosecutors, defense attorneys, and law enforcement agencies.

If the various entities do not agree on the policies for use of the technology, the program will be difficult if not impossible to implement. Prior to purchasing the first piece of equipment, policies should be developed in conjunction with the other components of the local criminal justice environment which are acceptable, or at least tolerable, to them.

Support will also have to be generated from outside the system. It would be unwise for an administrator to implement a program without some certainty of public acceptance. Funding and operational support will have to be obtained from public officials who may be reluctant to give them. They will have to be convinced that the program is viable and acceptable to the public.

To accomplish this, an administrator must know what the technology can and cannot do, and how she or he proposes to utilize it. A common initial response to the concept is that "Orwell's 1984" has arrived. One of the major hurdles for any agency is to overcome this apprehension and convince the users and the public that the system works.

A majority of the currently existing systems require the use of a telecommunications system. Early in the planning process representatives of the telephone companies that service the proposed area of operation should be consulted to ensure that the proposed monitoring equipment will be compatible with the telephone equipment.

Service representatives can provide valuable assistance in developing RFP's. Depending upon the particular location it may be necessary to use long-distance services. The telephone company can assist in the agency's evaluation of the costs to be incurred if a particular monitoring system is used. Once purchased, technical assistance may be needed to adapt the telephone equipment to the monitoring devices.

Administrative and organizational concerns

Institution of a new program requires adjustment of the organizational structure and operating environment. New policies and

procedures must be developed to address programmatic issues. Of initial concern in electronic monitoring programs is the perceived necessity for a 24-hour-a-day operation. The procedures to be followed in the event of a violation need to be established before the program is implemented. One must determine where in the organizational structure the program will be placed. System operation and security must be addressed.

Electronic monitoring requires development of agency procedures to detect and respond to violations. An agency has three basic options in responding to reported curfew violations.

Monitoring officials can call the offender at home to verify the violation; however, positive recognition of the offender's voice by the calling official is problematic. The second option is for the monitoring official to alert an officer who then goes to the offender's home to verify the violation. The third option is to forward violation reports to the supervision officer who later (preferably the next day) contacts the offender concerning the violation.

The first two options require a 24-hour-a-day operation of the monitoring equipment. While law enforcement and corrections departments have traditionally functioned in this manner, a substantial number of probation and parole agencies do not. Employees may resent the departure from a traditional 9-to-5 operation. In those agencies with employee unions it may be difficult to change work schedules without awarding differential pay for after-hours work. Also, supervision agencies that do not have the power of arrest or the authority to carry firearms should consider the potential danger to the officers who might be responding to violations during nighttime.

The third option, forwarding violation reports to the supervision officer for later contact with the offender, may be the most viable method of operation in many agencies for several reasons.

First, the technology is still in the developmental stage and is still subject to false reports. If false violation reports are immediately responded to, both the offenders and agency personnel will soon lose confidence in the system. Second, revocation should not necessarily occur with a single violation, but only when a pattern of violations develops. Third, if the type of offender is so dangerous that an immediate response is necessitated, that individual belongs in an institution and should not have been released to community supervision. Administratively, the

third option of having the offender contacted later presents the least disruptive method of operation for the organization.

It is desirable, as far as possible, to integrate the program into the existing agency structure. For example, applications for jails would logically fit within work-release programs while probation and parole applications could be integrated with existing residential or treatment centers.

Some existing programs have found it advantageous to assign a particular officer responsibility for coordinating the monitoring activities. The officer conducts qualifying interviews, makes recommendations to the courts, oversees installation of the equipment, and contacts the offenders weekly to verify work schedules and inspect the equipment. In addition, the offenders remain under the supervision of a regular probation officer who handles the more traditional functions of supervision. A copy of the curfew schedule is forwarded each week to the probation officer along with any reported violations.

A process must be developed to record information from offenders for the electronic supervision officer. Instances will arise when the offender cannot comply with the previously established curfew times. A member of the family may become ill and have to be transported to a medical facility. In certain occupations, last minute requests to work overtime may be made by employers.

The flexibility of programs will differ significantly. While some may not permit any exceptions to the curfew restrictions, others may be less restrictive. For example, some programs will not allow time for grocery shopping, haircuts, etc., while others may allow the offender to go next door to help a neighbor start a stalled car or borrow carpentry equipment.

In less restrictive programs, the offender is required to report by telephone any unscheduled departures from the home, his or her destination, and anticipated length of absence. These reports are recorded in a log which is reviewed by the supervision officer assigned to the monitoring program each day (Exhibit 6.1 shows a sample log of calls received from various offenders).

Exhibit 6.1

Chronological report

				CHRONOLOGICAL REPORT			Name _____
DATE	PLACE	PERSON	PO	C - Client	Col - Colateral		Address _____
				E - Employment	O - Office	S - Spouse	City _____
				H - Home	T - Telephone		Phone _____
5/26			9 ³⁰	P/C	David		Back home
5/26			10 ³⁰	P/C	P. [redacted]		going to Fred Meyer for food - (H) (P)
5/26			10 ³⁰	P/C	[redacted]		going to get some for the lawn mower. (P)
5/26			10 ⁴³	P/C	[redacted]		Did not go to meeting - want to come to look at job with another contractor. Stayed over night at [redacted] SE Division.
5/26			11 ⁴²	P/C	[redacted]		has been fishing it was supposedly cleared by Ingrid or Annette - (P)
5/26			11 ⁵²	P/C	[redacted]		Home now (P)
5/26			3 ³⁰	P/C	[redacted]		Just got home was at other job - Balance of the week will be at the wood yard - 6 ⁰⁰ AM to 7 ⁰⁰ PM (P)
5/26			5 ³⁰	P/C	[redacted]		going to night at neighbors house (girlfriends father) to help get pickup running (diagnose problem) it will hold all [redacted]

An important consideration is system security. While it is a general principle of computer security to administratively separate computer operators from those authorized to make changes in the system, that may not be practical for all agencies. If the agency employs personnel strictly to monitor the equipment, the supervisor of the electronic monitoring program should be empowered to authorize changes, but prevented from having physical access to the hardware. It would be the supervisor's responsibility to verify whether the changes made in the computer corresponded with those which were authorized.

More common, however, will be situations where one individual is responsible for the electronic monitoring program authorizing the changes to curfew time and entering the information into the computer. Regardless of the number of employees assigned to the program, the computer equipment must be in a secure area to avoid inadvertent or unauthorized tampering.

Many decisions will have to be made on a day-to-day basis during the planning and initial operation stages of an electronic monitoring program. While the initial planning will require the assistance of several people, it is recommended that one individual be given the authority, within specified parameters, to make decisions concerning the daily operation during the implementation and early stages of the program. If the agency employs an outside consultant to assist in the planning and evaluation of the program, the consultant should work closely with that person.

Program funding

Once committed to an electronic monitoring program, the agency will have to develop funding sources to operate the program. Traditionally, criminal justice funding has been sought from Federal, State, or local government agencies. Given the current fiscal difficulties faced by many agencies, alternative funding schemes may have to be found.

The possibility of obtaining Federal money to fund startup costs of programs is very limited. The Linn County In-House Arrest Program obtained funding under a grant from the National Highway Traffic Safety Commission to use the technology for diversion of alcohol-related traffic offenders from jail. Some States may have available grant moneys that could be utilized for program development. The more likely source of government funding, however, will be local government entities.

Two other options can be explored by the agency: private funding sources and offender fee systems. There are numerous private corporations and foundations that might be approached to fund electronic monitoring programs. Electronic monitoring may be appealing to private foundations concerned with alternative sentencing practices, dispute resolution, and offender rehabilitation, as well as those concerned more generally about the quality of life in the community.

Many jurisdictions have in place statutory authorization to charge probation fees to offenders. Six of the ten programs reviewed in this study currently require the offender to pay a fee for the program, with others considering adoption of a fee system in the future. In developing fee schedules, a sliding scale is used in at least two programs which sets the amount to be paid based upon the offender's income (see Exhibits 6.2 and 6.3).

Clackamas County, Oregon, charges offenders \$7.00 per day to participate in the electronic monitoring program which, as of January 1986, reportedly cost \$5.05 per day to operate. The figure of \$5.05 per day covers all administrative overhead, including personnel to supervise the program, equipment lease, equipment purchases not yet amortized, and monthly phone line charges. This system allows the county to offset the cost of the program and generate almost \$2.00 per day in revenue.

In addition, the agency must determine whether it will purchase or lease the equipment. Lease agreements offer several advantages for the organization. If funds are not available for outright purchase, leasing allows the agency to spread the costs over an extended period of time, often with a purchase option included. Lessors normally provide the maintenance and repair for the equipment.

Leasing is the least hazardous way to acquire a system, for the users need not renew the lease if the system proves to be unsatisfactory. If the equipment is purchased outright, the department may find it more difficult to upgrade as advances are made in the technology.

At least one company, Corrections Services, Inc., offers a lease program where the agency is charged a daily fee only on the equipment that is actually being used by an offender. This reduces the overall cost to the agency because it does not have to pay for unused units.

Exhibit 6.2 Rental costs--Kenton County home incarceration program (net household income)

Days	\$0-99	\$100-199	\$200-299	\$300-399	\$400+
0-7	\$0	\$ 25	\$ 50	\$ 75	\$100
8-14	0	\$ 50	100	125	150
15-28	0	75	150	200	250
29-56	0	125	225	300	400
57-84	0	175	300	400	550
85-112	0	225	425	500	700

Exhibit 6.3 In-house arrest fee schedule

Family size	Fee per day based on gross monthly income and family size					
	\$2.00	\$3.00	\$4.00	\$5.00	\$6.00	\$7.00 +
1	\$0-1187	\$1188-1297	\$1298-1407	\$1408-1517	\$1518-1627	\$1628 +
2	0-1369	1370-1479	1480-1589	1590-1699	1700-1809	1810 +
3	0-1551	1552-1661	1662-1771	1772-1881	1882-1991	1992 +
4	0-1733	1734-1843	1844-1953	1954-2063	2064-2173	2174 +
5	0-1915	1916-2025	2026-2135	2136-2245	2246-2355	2356 +
6	0-2097	2098-2207	2208-2317	2318-2427	2428-2537	2538 +
7	0-2279	2280-2389	2390-2499	2500-2609	2610-2719	2720 +
8	0-2461	2462-2571	2572-2681	2682-2791	2792-2901	2902 +
9	0-2643	2644-2753	2754-2863	2864-2973	2974-3083	3084 +
10	0-2825	2826-2935	2936-3045	3046-3155	3156-3265	3266 +

Probation officers will have discretionary powers to waive part of the fee, down to the minimum of \$2.00/day, depending on their assessment of the defendant's ability to pay.

Selecting the hardware

The care to be taken in designing an electronic monitoring program cannot be overemphasized. If the new system is going to be an expensive one, it may be wise to use an independent consultant. The agency should become familiar with the capabilities of different operating systems. In order to do so, it is recommended that the person responsible for establishing the program not only read about the technology, but also talk directly with vendors, users, and those who have previously researched the use of electronic monitoring systems. Where possible, site visits to operational programs should also be made.

Different vendors and users can offer a variety of viewpoints and information. The more time invested in obtaining information from a variety of sources, the better prepared the agency will be to develop a formal request for proposals (RFP) from the vendors.

The agency should identify what the proposed system will be required to do. Some systems provide continuous monitoring while others provide programmed contact. Some use RF (radio frequency) signals and require telecommunications; others do not. Decisions have to be made on whether or not to require tamper-proof capabilities; the number of units required will need to be estimated, and so forth.

The hardware-software system requirements will, out of necessity, have to be determined after the program is designed. It is necessary to fit the technology to the operating environment of an agency and the proposed program. The functional specifications should fully satisfy the needs of the particular agency. If funding is not currently available for the desired system, the wisest decision may be to postpone the acquisition until funds for an adequate system become available.

The RFP should contain specific requirements for maintenance agreements for all equipment purchased or leased. Realistic timeframes for delivery of equipment and installation should be specified. The type and location of training to be provided by the vendor must be established.

A common feature in RFP's is a requirement that the vendor will have been in business for a specified period of time. Given the novelty of the criminal justice application for the technology and the relatively short time of existence for all of the vendors, such a requirement is not feasible. However, the agency may want to require that there be a minimum level

of capitalization, product liability insurance, support capabilities, etc. It is suggested that the agency's legal adviser review the RFP prior to distribution.

Once the RFP has been fully developed it can be disseminated to interested vendors. Because the vendors may suggest capabilities that differ from those requested by the department, the selection process should have the flexibility to evaluate the merits of each offering and to give competing vendors the opportunity to respond to any new requirements that differ significantly from the original request.

The vendor must be made aware of what the agency will consider acceptable performance. Both the RFP and subsequent contracts should contain nonperformance clauses that allow the agency to void the contract if the vendor does not comply with the terms of the agreement or if the equipment does not function as specified. Once the vendor is selected, a written contract should be required for all equipment and services agreed upon. As with the RFP, the contract should be first reviewed by the department's legal adviser.

Staff training

Prior to initiating the actual monitoring of offenders the agency should conduct general training for all staff members to explain the program. Specific training procedures need to be developed for employees who will actually be involved in the monitoring process.

From an organizational standpoint it is prudent to offer training to all employees during which the nature and purpose of the electronic monitoring program is explained. Members of the staff should be aware of the referral process and offender selection criteria. By including the general staff in the training process the administrator fosters the feeling that this is an agency program and not a "pet project" of selected individuals. This enhances the chances of program success.

Electronic surveillance officers need to receive detailed training in the procedural aspects of the program and offender selection criteria. It would be advantageous to include these people in the development of the eligibility criteria during the planning process. Once the monitoring devices are received, the officers need to be thoroughly familiarized with

Portions of this section were adapted from Guide to Computer-Aided Dispatch Systems, Document NBSIR 84-2991, U.S. Department of Commerce, National Bureau of Standards, March 1985.

their operation. One of the better methods to accomplish this is to allow them to take the equipment home and use it.

Depending upon the particular agency, supervision officers will be required to conduct screening interviews, install and remove the equipment, and perform program evaluations. To ensure uniformity, written guidelines and standardized forms should be developed during the planning phase and the officers should become competent in their use. Procedures for data collection necessary to evaluate the program should also be explained to the officers prior to program implementation.

Testing the equipment

Given the current state of the art of the monitoring devices, it would be advantageous to test each piece of equipment prior to use on actual offenders. The equipment should be tested not only in the office, but also under field conditions. As suggested above, supervision officers can be given the equipment to take home with them and use. It has been previously suggested that initially only low-risk offenders with whom the agency is familiar be placed in the program. In addition to allowing the agency time to work out the programmatic aspects, these individuals can provide valuable feedback on the reliability of the equipment.

Implementation issues

There are three remaining issues which should be considered by the agency prior to implementation of a program: Offender orientation, the need for human surveillance, and media relations.

Offenders vary in their level of comprehension and may require various types of training in the use of the technology. At some point, preferably just prior to attaching the equipment, the offender and supervision officer should meet. The officer should explain the operation of the equipment to the extent necessary for the offender to be able to comply with the terms of release. The conditions of release should be explained one by one to ensure that the offender completely understands and agrees to them. If the offender is to install the equipment at home, instructions for doing so need to be given. Curfew schedules should be established with a written copy given to the offender.

Once the formal process is completed and the equipment installed, the responsibility of the surveillance officer should not stop. The technology does not replace the need for human

surveillance and contact. Offenders should be contacted at regular intervals by the surveillance officer. At that time the equipment can be inspected and any violations or other problems discussed. The next curfew schedule can be established and agreed to, and any requested social passes or exceptions discussed.

In addition to the surveillance officer, it is recommended that the offender be assigned to a probation officer's caseload and that he/she routinely contact that officer. Unless there are a very limited number of offenders on the system, the programmatic aspects of an electronic monitoring system will consume too much of the surveillance officer's time to allow him/her to effectively manage a normal caseload of offenders.

Early in the planning stage a decision has to be made as to the type and amount of information to be released to the news media. One school of thought is to implement the program without media coverage and allow the program to develop first. Conversely, others would recommend that the media be contacted early in the process. Doing so may have some advantages for the agency.

Early media coverage may allow the department to assess community acceptance and reaction to the proposal prior to committing to the project. Press coverage on the programs in existence so far has generally been positive, particularly when the program administrator has approached the media and taken the time to explain the system. In doing so the agency is able to subvert unwarranted "Orwellian" concerns on the part of the public.

Regardless of the approach taken, the department would be well advised to present the program in an honest manner when inquiries are made. This requires admitting up front that in all probability there will be failures, that the system is not foolproof, and that in all likelihood, at some time in the future, someone under electronic supervision will commit a new crime. This should not, however, be seen as detrimental because that possibility already exists with every other sentence alternative.

It may be advantageous to designate one staff member to handle requests for information from the news media and other agencies. Until the technology moves from the developmental stage into an accepted component of the correctional system, media interest will remain high as will requests for information from other agencies. By having one central source for information, the surveillance officers will have more time to devote to the actual program, with routine inquiries handled by administrative personnel.

Program evaluation

A process for program evaluation should be in place prior to implementation. Specifically, the evaluation should consider the equipment, program procedures, offender characteristics, and program impact.

The equipment should be evaluated to determine what operational problems developed and how they were corrected. This would include such items as environments in which the equipment did not operate, software or hardware problems, telephone equipment problems, etc. To assist in future planning the agency would want to know the amount of down time that occurred, the number of units actually used at any one time, and the actual cost of operations.

Program procedures should be closely monitored, particularly during initial operations, so that modifications can be made as necessary. The referral and selection processes deserve special attention. The sources of referral may need to be expanded or narrowed to allow the program to operate to its full capabilities.

The criteria for offender selection may need to be made more or less stringent based upon the initial failure rates. Rules and regulations established for the offenders may prove to be impractical or inadequate, requiring modification.

Meetings with offenders and exit interviews can be an invaluable source of information. From them it can be determined whether the intake procedures are adequate to explain the rules and regulations and operation of the equipment. Additionally, they can provide insight into undiscovered equipment problems.

If more than one monitoring system is utilized, the offender can provide an evaluation of the different systems. An assessment can be made through observation as to the optimal length of time a person should undergo electronic surveillance. To the extent possible, it would be helpful to determine from the offenders the impact the program has had on their families and themselves.

Administratively, the agency will want to determine the number of failures and under what circumstances they occurred. Records should be kept on the disciplinary actions taken for violations. For planning purposes, information should be collected on the amount of fees generated by program participants.

Program impact may be the most difficult to assess. Some determination must be made as to whether or not electronic monitoring is a cost-effective alternative or whether other methods are less expensive and just as effective.

To the extent possible the administrator will want to generate information that will allow for comparison of recidivism rates between program participants and other offenders. This will require tracking the offenders for a minimum of 6 months, with a 1-year period or longer being preferable.

Sound evaluation procedures are an essential component of any program and should be an ongoing process from its inception. The administrator may want to consider the advisability of utilizing a researcher from outside the organization to conduct these evaluations. In all likelihood agency personnel are capable of doing evaluative research; however, an independent evaluation lends greater credibility to the program.

Appendix A

Equipment descriptions

In March of 1986 a survey of the 10 vendors known to be in existence was conducted. Profiles of available equipment were developed and mailed to the vendors for verification of the information obtained. At the time of final editing for this report, two additional manufacturers--American Security Communication, Norman, Oklahoma, and Behavioral Systems Southwest, Pomona, California, had developed systems for marketing.

The reader is cautioned that these descriptions represent the information that was current at the time of the survey. As with any new technology, enhancements and modifications are continuously being considered and implemented by different manufacturers.

Advanced Signal Concepts
Box 1856
Clewiston, Florida 33440
813-983-2073

Advanced Signal Concepts markets a continuously signaling system under the trade name "ACS IIB." Currently a limited number of units are installed in Palm Beach County, Florida. The company, which is less than a year old, would be reluctant to market systems with a small number of units outside of Florida until they have the capability to support and service the equipment.

While the transmitter is designed to be worn on the ankle, it can be modified to be worn on the wrist or around the waist. The straps that secure the transmitter to the offender can be replaced by the agency. There is no mechanism which will detect and report attempts to remove the transmitter.

The unit is crystal-controlled to eliminate interference generated by a person's body heat. The battery life for the transmitter is approximately 115 days. The vendor exchanges transmitters with the agency when a new battery is needed. During the first year, battery replacement is done without charge. Unlike some systems, the battery may be "turned off" when the transmitter is not in use, thereby reducing the frequency of replacement. The transmitter has a signal range of approximately 150 feet.

The home monitoring unit is programmed to transmit to the central office computer either over telephone lines or by radio signals. The monitor is not programmable by the agency. A flexible external antenna is included with the unit to enhance signal reception from the

transmitter worn by the offender. There is an internal backup battery power supply which is constantly being charged while the unit is plugged into a standard wall outlet. The unit has a 16-gauge metal case to enhance durability. The monitor can report to a primary computer and one alternate computer.

The equipment can be adapted to use radio transmissions rather than telephone lines to communicate with the central office. A standard radio tower without a repeater system would provide limited coverage. With the addition of a repeater system, the range could be increased substantially. One system can be configured to allow both radio and telephone reporting.

The computer software will operate on any IBM PC compatible. The system also has the ability to interface with other larger computers, such as a Burroughs. By integrating the program into the existing computer system, the necessity of making duplicate entries of inmate records in two separate computers is eliminated. The memory storage capacity will vary with the different computers selected by the user. The standard monitoring capacity of the system is 200 units, expandable to 400.

BI Incorporated
6175 Longbow Drive
Boulder, Colorado 80301
303-530-2911

BI Incorporated markets an active system under the trade name "BI Home Escort." Currently the product is being used by the Michigan Department of Corrections and the Utah Department of Probation and Parole.

The transmitter, designed to be worn on the ankle, will detect and report attempts to tamper with the device. The fastening straps can not be replaced by the agency and the unit must be sent back to the factory for refurbishing once it is removed from the offender.

For every unit purchased, the agency will receive two spare transmitters, allowing them to rotate the units back and forth from the factory with little or no down time for the equipment. The transmitter is battery operated and has an internal mechanism which will report to the central computer when the battery is low and needs to be replaced.

The home monitor is programmed to transmit information to the central office computer over the telephone system. Additionally, the central office computer will call to the house at specified intervals to make system checks. The monitor will detect and report attempts to tamper with or relocate the unit. A battery backup-power supply is included with the monitor.

The central computer is an NCR XP with 85 megabytes of data storage. It has the capability of performing memory backup functions on floppy disks, tape, and paper printout logs. A battery system provides approximately 4 hours of operation if there should be a power outage. Included in the system is a multiple-level password protection system which limits access to the computer.

Under a lease-purchase plan, title to the equipment passes to the agency upon installation. The agency must then pay a per diem rate based upon the number of units. The rate is determined on a 3-year decreasing scale.

The first-year rate is \$7.00 per unit, the second-year rate is \$6.00 per unit, and the third and subsequent years are charged at \$3.00 per day per unit. The lease provides for termination of the contract after written notice from the agency. The corporation will provide a straight lease option with prices quoted upon request.

CONTRAC

93351 Overseas Highway
Tavernier Florida 33070
305-852-9507

CONTRAC (Controlled Activities Corporation) markets a continuously signaling system under the trade name "In House Arrest System." The company has clients located in Florida, Oregon, and Kentucky.

The transmitter unit, designed to be worn on the ankle, is held in place by secure straps which may be replaced by the agency. An internal mechanism which will detect and report attempts to tamper with the unit is available as an option. The batteries, which must be replaced by the vendor, have an average life of 18 months. The cost of one battery replacement for each unit is included in the lease price. The transmitter has a range of approximately 200 feet.

The home monitoring unit is programmed to transmit from the offender's home to the central office equipment. The monitor is not programmable by the agency. A rechargeable battery is installed in the monitor to ensure system operation during power outages. A low battery report is sent to the central office

whenever the monitor battery is low or unable to recharge. Any attempt to tamper with the monitor or relocate it will be detected and reported.

The central office equipment includes a receiver and a computer. The standard computer for the system is an IBM PC XT; however, an option is available that allows the agency to select an IBM PC AT for an additional charge. The computer system has a standard 640k internal memory and a 20 megabyte hard disk. The memory can be "backed up" on floppy disk, tape, and paper printout logs. A backup battery-operated power supply and surge protector is included as standard equipment.

The central receiver is separate from the data stored in the computer. The system is designed to automatically log all improper calls and disconnect, thereby limiting the probability that someone could gain unauthorized access to the system over the telephone lines. The computer can be programmed for only two in-out periods in a day.

Controlec, Inc.

Box 48132
Niles, Illinois 60648
312-966-8435 or 286-7377

Controlec, Inc., markets a continuously signaling system under the trade name "Prison Monitoring System." As of March 1986, they have no clients or systems installed.

The transmitter is designed to be worn on the ankle of the offender. The housing material will not irritate healthy human skin. The unit will shut itself off if an attempt is made to tamper with it. The fastening strap can be replaced by the agency. The signal range is approximately 150 feet and the transmitter's battery has a life expectancy of 3 months.

The home monitor is battery powered and utilizes a transformer and household current to continually charge the battery. Any attempt to move the monitor will cause it to shut off, causing a LED light to come on.

The computer is an Apple compatible, with a 20 megabyte hard disk. The central computer has the capacity for two telephone lines and is designed for a total client capacity of 200 individuals.

The company, which operates on a lease basis, provided cost information for a 2-year lease-purchase agreement. Replacement straps for the transmitter will be provided without charge. Maintenance agreements are available for a 10-percent surcharge on the lease-purchase price.

Corrections Services, Inc.

2715 Australian Avenue, Suite 105
West Palm Beach, Florida 33407
305-833-4550

Corrections Services, Inc., has systems installed in Florida, Kentucky, Oregon, Illinois, Pennsylvania, and Vancouver, British Columbia. One of the principals in the company is also the Executive Director of Pride, Inc., a private organization that supervises probationers on a contractual basis in West Palm Beach County.

The transmitter device is designed to be worn on either the ankle or around the waist of the offender. The battery for the unit has a shelf life of 3 to 5 years, with an active life of approximately 18 months. The battery may be turned off when the unit is not being used, reducing the frequency of replacement. The system will detect when the battery is low and notify the central office computer.

The home monitor has several features that are programmable by the agency: telephone number for monitor to call, frequency of calls, range of transmitter, and a unit identification number. The monitor has a nonvolatile memory for storage of messages if the phone lines are disconnected. When telephone service is restored the information contained in the memory will be reported to the central computer. There is a test button on the equipment which will allow the agency or client to activate a status transmission. This feature can be used to test the monitor prior to placing it in an offender's home, or to verify that the equipment is functioning properly after it has been installed. A telescoping antenna is provided with the monitor to enhance reception of the transmitter's signal.

The system operates on a custom built IBM compatible computer which has a 20-megabyte memory storage capacity. The software allows the agency to generate custom reports. The computer may be programmed for two in-out periods per day for each client. Within the agency, access to the computer can be controlled through a multiple-level password protection system. Access from outside the agency through a telephone modem is inhibited by an interface board which requires a digital pass.

Cost Effective Monitoring System

2207 Grange Circle
Urbana, Illinois 61801
217-333-4579

Cost Effective Monitoring Systems has a system under local use and testing which has not yet received final FCC approval. It therefore can be leased for use only in federally funded research or in States that elect to be included

in the vendor's FCC Experimental Service License. At present, field tests are being conducted by the Champaign County, Illinois, Probation and Court Services Department. Initial feedback from that department to the vendor was described as positive.

The system operates with two components, a transmitter device worn by the offender, and a receiving unit placed in the monitoring official's car. The offender wears a watch-size unit on his ankle or wrist which emits a continuous signal. If the transmitter's fastening device, a clasp, is removed by the offender, the signal is interrupted. The strap can be reconnected by the officer through use of a special tool.

The receiving unit, described as being approximately the size of a lunchbox, is placed in the officer's car. It is powered by the automobile's battery through use of the cigarette lighter and is also equipped with a rechargeable battery. The officer has the option of using either a magnetic rooftop antenna or a hand-held directional antenna.

The system requires the officer to drive within two blocks of the offender's home at irregular intervals. When the receiver is within range of the transmitter, the offender's presence is indicated. The receiver has the capability to monitor 12 different transmitter signals. The system is designed primarily for use with intensive probationary supervision or pretrial release, or for offenders who do not have a telephone.

Hitek Community Control Corporation

4021 NE. Fifth Terrace
Fort Lauderdale, Florida 33334
305-564-0521 or 800-327-9476

Hitek Community Control Corporation, a subsidiary of Digital Products Corporation, manufactures a programmed contact system under the trade name "On Guard Wristlet/Verifier System." The equipment has been used in New Jersey, Oklahoma, Utah, Oregon, Indiana, Maryland, and Florida.

The "On Guard" system is operationally different from others described. It utilizes a central office system, a verifier box in the offender's home, and a wristlet device. The verifier box operates with current supplied through the telephone connection, while the wristlet does not require batteries.

The supervised client is required to wear the wristlet, a watch-size identification module. The central system generates telephone calls to the offender's home. When the person answers the phone, he receives a recorded message which must be responded to and is recorded for voice identification purposes.

Instructions are then given to the client for insertion of the wristlet into the verifier box. When the wristlet is inserted a proprietary handshake takes place between the calling computer and the client's verifier unit, confirming that the client is at the location of the verifier, provided the wristlet has not been removed.

The central system consists of an IBM XT computer with a 10 megabyte hard disk and a caller unit designed to interface with the computer and operate the software. Each computer has the capacity to permit operation of up to four caller units, each caller unit having the capacity to handle 100 clients. The caller unit utilizes a patented voice recognition technique designed to ensure that the system will communicate only with a human, limiting the probability that it could be defeated by use of a tape recording of the offender's voice.

The wristlet is secured to the offender through the use of a plastic strap sold only to correctional institutions and other qualified sources. The company suggests for added security against alterations or unauthorized replacement that the strap be signed by the supervising officer and visual inspections of the wristlet be made periodically while the offender is being monitored.

The verifier unit is a self-contained unit which attaches to the telephone line and the client's telephone set. It operates solely on the telephone's power supply. For that reason, no backup power supply is included in the system, which is inoperative if the offender's telephone is out of order.

Because patents are still pending, the company will not disclose further information about the functional characteristics of the technology, other than to say the design is such that those who would attempt to defeat the system would likely be discovered before they succeed.

Life Science Research Group, Inc.
515 Fargo Street
Thousand Oaks, California 91360
805-492-4406

Life Science Research Group, Inc., manufactures a continuously signaling system under the trade name "SCAN SYSTEM" (Social Communication Assistance Network). The equipment was developed by the same researchers who established the first location-monitoring system for offenders in Massachusetts in the 1960's and designed the first telemonitoring system in the 1970's.

The operating characteristics of the system are designed to facilitate community-based corrections and the use of volunteers. There are four major components to the system: the link

(transmitter unit), the locator unit, the network information center, and a remote information center.

The link, a small transmitter worn by the offender, emits an individually coded signal at pre-set intervals to indicate the person's location. It is fastened around the offender's wrist or ankle by a security band which cannot be removed without sending an alarm signal to the network information center and to the remote information center. If the person goes beyond the range of the receiver an alarm signal is indicated at the network information center which notifies the network manager and network members in the offender's community.

The locator unit is placed in the offender's home, workplace, and other approved locations to receive the signals sent by the transmitter. The signals are received by the locator unit which downloads the information to the computer.

The network information center is a micro-computer which is placed in the network manager's home or office. The network manager is a volunteer in the community who has assumed responsibility for supervision of the offender. He is normally assisted by several other volunteers in the community who are connected by telephone through the local area monitor to form a community-based network to assist the offender in his adjustment to the community. Each network can handle up to 20 offenders.

Additionally, the information can be transmitted directly to a remote information center located in a correctional agency or probation office for additional security or for direct monitoring of the individual by an agency.

Monitech Systems, Inc.
419 Wakara Way
Salt Lake City, Utah 84101
(801) 584-2543

Monitech Systems, Inc., markets a continuously signaling system under the trade name of "ComTrac One." Currently the system is being utilized by the State of Utah. Monitoring of the equipment can be contracted through the ADT Alarm Company, which has a 24-hour-a-day response capability in the event a violation report is generated.

The transmitter, which is worn around the offender's neck, is reported to be unobtrusive underneath normal clothing. The company designed the transmitter to be worn around the neck in order to enhance reception of the radio signal. The coded message broadcast by the transmitter is changed every hour to prevent attempts to duplicate the signal. The indi-

vidually coded signal identifies the person wearing the transmitter and reports the condition of the transmitter's battery. Attempts by the offender to remove the necklace are detected by the home receiver and reported.

Unlike some systems, the fastening strap for the transmitter does not need to be replaced after use if properly removed by the agency. The vendor will replace damaged straps free of charge, unless an excessive number of replacements is required. In that event, the charge would range up to \$5 per strap. The battery life for the transmitter is approximately 5 months. The transmitter has a maximum signal range of approximately 1,000 feet.

The base station, placed in a halfway house or the offender's home, is programmed to make calls randomly or at set times to the host computer. The user can determine the number and frequency of calls made. Programming for the base station can be downloaded from the host computer, allowing for changes in curfew hours from the central office. If the telephone line in the home is busy or out of order when the calls are to be made, the system will give a warning tone to the offender. The system can be adapted to seize the telephone line and complete the call. If the phone line or power connection is unplugged, or if an attempt is made to tamper with or move the base station, a report will be generated at the host computer.

Each base station has the capacity to receive and process signals for up to 30 transmitters. This would allow installation in a halfway house with only one receiver, eliminating the need for multiple receivers which would be required if other systems having a limited capacity were utilized.

The central computer system is a Leading Edge, Model D, having 640k internal memory, a 20 megabyte hard disk, and two floppy disks. A backup battery system is available, but is not included as standard equipment. If the computer were to "crash" due to a power failure, without the backup power supply, data in the internal memory (open files) would be lost. If the system is operated under a contract arrangement with ADT this would not be a problem because they have an existing auxiliary power supply system which operates their alarm systems in the event electric service is interrupted.

The software can be programmed for up to four levels of passwords. Each level will allow the person accessing the computer to perform only authorized functions. The system can be expanded to accommodate an infinite number of telephone lines. As presently designed and utilized, the system will accommodate only one terminal; however, the capability does exist to network terminals.

VOXTRON Systems, Inc.
190 South Seguin Street
New Braunfels, Texas 78130
512-629-4807

VOXTRON Systems, Inc., was developing a programmed contact system under the trade name "Provotron Home Confinement System," also known as "Homer," at the time our research was conducted. It was expected to be available late in 1986.

The company has developed specialized software that uses Texas Instruments speech processing hardware to create a computerized model of a person's voice. The system will call each offender, verify the offender's identity through voice verification, and optionally request a demonstration of manual dexterity using the telephone keypad. The only equipment required in the individual's home is a telephone with touchtone capability and a special telephone handset provided by the company.

Voiceprint data are collected for up to nine phrases from the offender. Because the system is designed to detect differences in the voice, it is imperative that the voiceprint data be collected using the same telephone that will later be used by the offender to provide verification. The system is sensitive enough to detect responses given by a different person and responses given over a different telephone.

The system may be programmed for up to four different calling periods per day with one to five random telephone calls being made during each period. Additional calls can be manually initiated by the person monitoring the system. Any failure to establish a telephone connection is noted by the equipment. If the failure condition continues for a period of 10 minutes, an alarm is generated.

The person receiving the call is asked to repeat from one to three of the phrases which were recorded in the enrollment process. If the spoken voice matches the voiceprint, the individual may then be asked to repeat a sequence of digits using the telephone touchtone keys as a manual dexterity test designed to indicate drug or alcohol abuse. An individual who is under the influence of alcohol or other drugs may fail the verification process if his speech is sufficiently slurred or if he does not possess sufficient eye-hand coordination to enter the numbers as directed.

If there is a system operator in attendance, he or she may initiate a call at any time, direct the verification process, and request additional verification. The system operator may also enter remarks into the computer log for any call which she or he directs.

Two types of errors may occur with this system. A Type I Error occurs when the system fails to recognize the voice of the offender when he or she in fact properly responds. A Type II Error occurs when the computer improperly accepts the voice of someone other than the offender without generating an alarm. Preliminary tests conducted by the vendor indicate the error rate is low. Type I Errors are estimated at less than 1 percent, while Type II errors are estimated at less than .1 percent.

Appendix B

Equipment costs

Estimates of system costs were provided by the vendors during telephone interviews and reflect prices quoted as of March 1986. The figures represent estimates based upon the following assumptions:

- The cost estimates do not reflect personnel expenses, telephone lines, or administrative overhead which may be incurred.
- Costs were amortized over a 2-year period.
- Average daily cost per unit was calculated on the basis of 730 days in the 2-year period, assuming each unit is being utilized every day.
- Cost of maintenance contracts are included in estimates unless otherwise noted.
- All fractions were rounded upward to the nearest whole cent.

Where available, cost estimates are provided for the purchase price, lease price, and lease-purchase price for systems of 20 and 50 units.

In planning a program, it will be necessary to reprice the equipment as cost may either increase or decrease. One should also be cautioned that price should not be the sole criteria for selection. The systems vary in their functions and operational characteristics. While cost is certainly a factor, it is more important to match the technology to specific programs.

Advanced Signal Concepts

Central equipment costs*

● PC computer with "intelligent" data base software and interface	\$ 6,000
● Digital receiver with eight-phone-line capability	3,500
TOTAL	<u>\$ 9,500</u>
Purchase price--20-unit system	
● Central equipment	\$ 9,500
● Transmitters and home monitors (20 @ \$810)	16,200
TOTAL	<u>\$ 25,700</u>

* Prices do not include installation costs

Average cost per day = \$1.76

Purchase price--50-unit system

● Central equipment	\$ 9,500
● Transmitters and home monitors (50 @ \$750)	37,500
TOTAL	<u>\$ 47,000</u>

Average cost per day = \$1.29

Two-year lease-purchase plan--20 units

● Monitors and transmitters (\$100 per unit buyout at end of 24-month lease)	\$ 2,000
● Security deposit	8,000
● Purchase of digital receiver with eight-phone-line capability	3,500
● Purchase of PC computer with software and interfacing	6,000
TOTAL	<u>\$ 19,500</u>

Average cost per day = \$1.34

Two-year lease-purchase plan--50 Units

● Monitors and transmitters (\$100 per unit buyout at end of 24-month lease)	\$ 5,000
● Security deposit	20,000
● Purchase of digital receiver with eight-phone-line capability	3,500
● Purchase of PC computer with software and interfacing	6,000
TOTAL	<u>\$ 4,500</u>

Average cost per day = \$0.95

BI Incorporated

Central equipment costs

● Computer equipment including monitor, printer, software, backup power supply, and central office receiver. No charge for installation or training	\$ 50,000
Purchase price--20-unit system	
● Central equipment	50,000
● Home receiver with 3 transmitters (20 @ \$3,000)	60,000
● Maintenance contract for all equipment, including refurbishing of transmitters	21,900
TOTAL	<u>\$181,900</u>

Average cost per day = \$9.04

Purchase price--50-unit system

● Central equipment	\$ 50,000
● Home receiver with 3 transmitters (50 @ \$3,000)	150,000
● Maintenance contract for all equipment, including refurbishing of transmitters	54,750
TOTAL	<u>\$254,750</u>

Average cost per day = \$6.98

Two-year lease-purchase plan--20 units

● Equipment lease, including maintenance	\$ 94,900
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Average cost per day = \$6.50

Two-year lease-purchase plan--50 units

● Equipment lease, including maintenance	\$237,250
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Average cost per day = \$6.50

CONTRAC (Controlled Activities Corporation)

Central equipment costs

● Computer equipment including software, printer, backup power supply, and surge protector	\$ 8,766
● Central office receiver	6,000
● Two-year maintenance contract	825
● Onsite installation and training	850
TOTAL	<u>\$ 16,441</u>

Purchase price--20-unit system

● Central equipment	\$ 16,441
● Transmitters and home monitors (20 @ \$1,096)	21,900
● Two-year maintenance contract for transmitters and receivers	2,000
TOTAL	<u>\$ 40,341</u>

Average cost per day = \$2.77

Purchase price--50-unit system

● Central equipment	\$ 16,441
● Transmitters and home monitors (50 @ \$1,095)	54,750
● Two-year maintenance contract for transmitters and receivers	5,500
TOTAL	<u>\$ 76,191</u>

Average cost per day = \$2.09

Two-year lease-purchase plan--20 units

● Equipment lease	\$ 43,446
Includes cost of transmitter/monitor, tuning, and transmitter battery replace- ment. All other parts subject to 6- month warranty.	

Average cost per day = \$2.98

Two-year lease-purchase plan--50 units

● Equipment lease	\$ 82,706
Includes cost of transmitter/monitor, tuning, and battery replacement. All other parts subject to 6-month warranty.	

Average cost per day = \$2.27

Controlec, Inc.

Two-year lease-purchase plan--20 units

● Equipment lease	\$102,200
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Average cost per day = \$7.00

Two-year lease-purchase plan--50 Units

● Equipment lease	\$182,500
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Average cost per day = \$5.00

Corrections Services, Inc.

Central equipment costs

● Computer equipment including monitor, printer, receiver, software, and backup power supply. No charge for installation or training.	\$ 18,500
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Purchase price--20-unit system

● Central equipment	\$ 18,500
● Transmitters and home monitors (20 @ \$1,895)	37,900
● Two-year maintenance contract	20,304
TOTAL	<u>\$ 76,704</u>

Average cost per day = \$5.26

Purchase price--50-unit system

● Central equipment	\$ 18,500
● Transmitters and home monitors (50 @ \$1,895)	94,750
● Two-year maintenance contract	40,770
TOTAL	<u>\$131,370</u>

Average cost per day = \$3.60

Two-year lease-purchase plan--20 units

- Equipment lease, including maintenance \$ 87,984

Average cost per day = \$6.03

Two-year lease-purchase plan--50 units

- Equipment lease, including maintenance* \$176,670

Average cost per day = \$4.85

Cost-Effective Monitoring System

Pending final approval of the equipment by the Federal Communications Commission, it can not be sold outright. It was indicated that the cost for leasing a 20-unit system for 2 years would be \$8,540 or \$0.58 per day. This price would include the transmitters, two receivers, four antennas, and a service contract for each year which includes transmitter battery replacement.

Hitek Community Control Corporation

At the present time the company will only lease the system to an agency. Costs for insurance and maintenance are not included in the quoted lease prices.

Two-year lease--20 units

- Equipment lease \$ 36,000

Average cost per day = \$2.47

Two-year lease--50 units

- Equipment lease \$ 69,600

Average cost per day = \$1.91

Life Sciences Research Group, Inc.

An estimation of cost for a single unit system and a 20-unit system was provided by the company. At the present time they have no straight lease options.

Purchase price--one unit

- Equipment costs \$ 4,900

Average cost per day = \$6.92

(Additional locator units are available at \$1,400 each)

*Corrections Services, Inc., will offer a straight lease for any number of units at \$7.00 per day for each unit in use. They reserve the right to adjust the number of units with any agency under this type of agreement so that the units do not remain unused.

Purchase price--20-unit system \$ 46,700

- Equipment costs

Average cost per day = \$3.20

(Additional locator units are available at \$1,400 each. Cost to add central base station approximately \$12,000)

Purchase price--50-unit system

- Equipment costs \$ 96,800

Average cost per day = \$2.65

Two-year lease--20 units

- Equipment lease \$ 44,200

Average cost per day = \$3.03

Two-year lease--50 units

- Equipment lease \$ 92,600

Average cost per day = \$2.51

Monitech Systems

Central equipment costs

- Computer equipment including monitor, printer, modem, and software. \$ 3,500

Does not include backup power supply or cost of maintenance on central equipment. No charge for installation or training.

Purchase price--20-unit system

- Central equipment \$ 3,500
- Transmitters (20 @ \$675) 13,500
- Home receivers (20 @ \$4,300) 86,000
- Two-year maintenance contract for transmitters and receivers 7,300

TOTAL \$110,300

Average cost per day = \$7.55

Purchase price--50-unit system

- Central equipment \$ 3,500
- Transmitters (50 @ \$675) 33,750
- Home receivers (50 @ \$4,300) 215,000
- Two-year maintenance contract for transmitters and receivers 10,950

TOTAL \$263,200

Average cost per day = \$7.21

Two-year lease-purchase plan--20 units

● Equipment lease	\$ 25,600
● Maintenance	<u>7,300</u>
	TOTAL \$ 32,900
Average cost per day = \$2.25	

Two-year lease-purchase plan--50 units

● Equipment lease	\$ 51,000
● Maintenance	<u>10,950</u>
	TOTAL \$ 61,950
Average cost per day = \$1.70	

VOXTRON Systems, Inc.

The company intends to lease the equipment rather than offer it for sale. There will be an initial enrollment fee of \$25 to \$50 per client. In addition, a per-client fee will be assessed at a rate of \$2.50 to \$5.00 per day. System equipment, maintenance, and updating of software are provided without additional charge. Onsite training will be conducted for up to six people upon initial installation. Additional staff training can be accomplished through a computer-assisted instruction (ACI) program which is included in the software packages.

Appendix C

Program descriptions

Presented below is a description of each of the 10 programs surveyed in the spring of 1986.

PRIDE, Incorporated, Palm Beach County, Florida

PRIDE, Inc., is a not-for-profit corporation which has been providing misdemeanor probation services for Palm Beach County, Florida, since 1977.

In December of 1984 PRIDE began an electronic monitoring and home arrest program. The program is designed to divert misdemeanor offenders who would otherwise go to jail. Participation in the program is voluntary. Participants must have a job in the community and are required to pay a daily surveillance fee of \$7. For the most part, program participants are DWI offenders and traffic offenders, although the program has been used on several occasions for conventional probation violators.

In addition, PRIDE has a contract with the State of Florida to monitor juveniles who will be sent to nonsecure facilities such as halfway houses. Ordinarily these juveniles would be held in detention pending commitment at a cost of \$55 per day. Putting them under house arrest with electronic monitoring reduces the cost to \$7 a day.

PRIDE originally used equipment provided by CONTRAC, but has since begun to use equipment manufactured by Corrections Services, Inc. (CSI). Currently they have 30 units and are charging out the CONTRAC devices for CSI.

PRIDE runs the program, operates the equipment, and provides the surveillance under an agreement with the county judges. They also operate a comparable program in Volusia County (Daytona Beach), which began in December 1985. That program is designed primarily to handle DWI offenders.

The use of electronic monitoring in Palm Beach County stemmed from conversations between PRIDE, County Judge Edward Garrison, and Sheriff Richard P. Willie. All parties agreed that there were offenders who did not need to be in jail but who required some form of restraint. Both the sheriff and the judge agreed to experiment with the CONTRAC equipment and the concept of home incarceration. Since 1984, 110 individuals have completed the program and only 3 failed while in the program. Approximately 10 offenders a month are placed under supervision; however, the number would be increased if more monitoring devices were available.

PRIDE's probation services are completely financed by fees paid by offenders. Currently PRIDE has 53 staff members and a budget of \$1.9 million. The fees charged probationers vary depending upon the services provided. All pay a probation service fee, and some may be paying fees for DWI school or drug treatment as well. Those under electronic monitoring pay an additional \$7 per day.

Those under electronic monitoring remain under surveillance for the duration of their sentence, normally about 4 months, although one offender was under surveillance for as long as 6 months. The program has been positively received by the judges, prosecutors, and law enforcement agencies in the county. In addition, the program has received positive press coverage.

The only program requirement that has changed over the last 16 months is that the offender must have a job to enter the program. On occasion, a judge will sentence a person who does not have a job to house arrest and permit him or her 30 days to secure employment.

Program planners are considering expansion of the program to include pretrial detention and persons sentenced for failure to pay child support.

The program director identified several benefits derived from the electronic monitoring program. It permits the county to divert people who don't need to be in jail, but who need some form of control. In addition, the program allows offenders to stay with their families, keep their jobs, and contribute to the support of their dependents.

Palm Beach County Sheriff's Department, Florida

The Palm Beach County Sheriff's Department implemented the first law enforcement application of home arrest with electronic monitoring. The technology is used as a complement to the department's work-release program, which began approximately 9 years ago.

Under the work-release program, misdemeanants and nonviolent felons are permitted to work in the community, returning to the jail in the evening. After a period of adaptation, work-release inmates may apply for the home arrest program. Applicants are screened by a sergeant who reviews their record to determine any

history of violence, sexual misconduct, or drug abuse. If the applicant is found acceptable, the case is reviewed by a captain who explains the conditions of the program to both the offender and the family or sponsor. Applicants must have both a home and a phone, and are required to pay the \$9 a day surveillance fee.

The average offender is under house arrest and electronic monitoring for 60 days; however, one was in the program for 311 days. The monitoring program is designed for postconviction work-release inmates; however, the department is considering extending the program to misdemeanor pretrial detainees who are bondable but cannot afford to pay the bond.

To date, 139 inmates have been under electronic monitoring, and 3 have been revoked. Approximately 60 percent of the program participants are nonviolent felons and 40 percent are misdemeanants. About 20 offenders are placed in the program each month, and all participants must live and work within Palm Beach County and have sentences of a year or less.

As in other jurisdictions, the precipitating incident for the program in Palm Beach County was jail crowding. Experiments had already taken place elsewhere in the use of house arrest and electronic monitoring with probationers. When the county learned of the technology, the county judge permitted the Sheriff's Department to conduct a pilot test with five misdemeanants on work release. The test was successful and the county has since bought additional equipment which has been amortized by charging the program participants \$9 per day.

Initially the Sheriff's Department purchased CONTRAC equipment, but is now using equipment from Corrections Services, Inc., and Advanced Signal Concepts as well. The department is anticipating the purchase of 80 additional units at an estimated cost of \$1,200 to \$1,800 a unit. The current fee structure allows the county to pay for the equipment within 14 months. The budget for the current fiscal year for the software, transmitters, and dialer receivers is \$49,000.

Reliability problems have been encountered with the equipment. So-called "dead spots" in different areas of an offender's home produce reports indicating that the offender has momentarily left. The department has found that Milar (foil) wallpaper will interfere with the monitoring function. By regularly pre-testing the equipment and occasionally relocating the monitor in the offender's home, these problems have been eliminated.

The technology has been well received by the community and press coverage has been positive. Some initial inquiries were received from the

American Civil Liberties Union, but when the nature of the program was explained, no further inquiries were forthcoming.

The department sees several benefits to the program. It has helped to relieve jail crowding and contributes to cost avoidance. The fees charged inmates have amortized the cost of the equipment, and the county is able to recoup its capital investment within 14 months. In addition, the program allows inmates to be put back into the community gradually, permitting them to provide for their own support and that of their families.

New Jersey Intensive Supervision Program (ISP)

In the latter part of 1983, the State of New Jersey implemented an intensive supervision program and has been experimenting in the use of electronic monitoring as one component of the program. The program is a result of a recommendation made in 1982 by the Annual Judicial Conference, which encouraged exploration of the use of intensive supervision to assist in relieving prison crowding.

The goal of the program is to identify offenders already sentenced to prison who are eligible candidates for intensive supervision in the community. Offenders who have served a minimum of 60 days on their current sentences may apply. Offenders sentenced for homicide, sex offenses, or robbery, and those serving mandatory minimum sentences are not eligible. The offender's record is reviewed to determine any history of violence, the extent of prior criminal activity, or any aggravating circumstances which would preclude them from the program.

If the offender passes this initial screening, he or she is interviewed by an ISP officer who helps the applicant develop a release plan. The release plan specifies where the offender will live, his or her employment, and most significantly, goals and objectives. This plan is reviewed by a screening board, and if found acceptable, the case is recommended to a three-judge Resentencing Panel, which by rule of court can suspend the current sentence and place the offender in the intensive supervision program on a trial basis.

A progress report is submitted to the Resentencing Panel after 90 days, and if the offender continues to be successful for 180 days, the Resentencing Panel vacates the current sentence and places the offender in the intensive supervision program.

Offenders under intensive supervision are required to work, obey the conditions of the treatment plan, perform a minimum of 16 hours per month of community service, keep a daily diary and a weekly budget. They are contacted a minimum of 20 times per month by their supervising officers. In addition, they are required to maintain a 10 p.m. to 6 a.m. curfew and are subject to urinalysis for drug detection and warrantless searches of their houses, persons, and autos.

Electronic monitoring is only a complement to the ISP program used by the officer as a supervision tool. New Jersey is currently experimenting with Hitek Community Control Corporation's equipment and has 20 wristlets. These are used selectively, either on offenders just entering the program or as a punitive measure with those who have committed curfew or other technical violations.

The program is administered statewide with offices in East Orange, East Brunswick, and Camden. Surveillance officers work primarily out of their homes and use State vehicles to make contact with the offenders. Officers are on duty 24 hours a day and carry pagers so that they can be contacted by either an offender or a supervisor.

The ISP program has been in operation since September 29, 1983, and currently has 383 offenders under supervision. To date, 131 have completed the program. Approximately 20 percent of the participants have returned to prison. Most revocations are for technical violations: failure to work, curfew violations, and positive urine tests. Currently about 25 to 30 offenders are placed in the program each month.

The ISP program is financed through a special State appropriation enacted 3 years ago and budgeted annually. This appropriation provides funding for administrative and line personnel, and will be used for the purchase or lease of electronic monitoring equipment. For fiscal year 1986, ending in July, the program budget is \$2,119,000.

Recently, provisions have been made to require offenders to contribute to the cost of services. After the 180-day probationary period, the Resentencing Panel assesses the offender's ability to pay and may levy a maximum fee of \$7,200 per participant for the duration of the supervision. Partial payments are collected each month and may average about \$50 per month per offender. The estimated cost of the supervision program is approximately \$6,800 per year per offender.

The New Jersey program is only using electronic monitoring as a complement in its intensive supervision program. It is considering the expanded use of electronic monitoring as needs

and funds permit. No particular problems have been encountered with the use of the equipment, and media coverage has been positive. Over time both judges and victims have become more positively disposed toward the program, and no negative community reaction has been experienced. The primary benefits of the program are seen to be:

- That intensive supervision with the selective use of electronic monitoring is a useful tool in dealing with prison crowding.
- Administrators have the opportunity to experiment with a variety of probationary supervision strategies which would not be possible otherwise.
- Offenders are provided an opportunity to "reestablish their lives" under intensive and directed supervision.

Clackamas County Community Corrections, Oregon

The Clackamas County electronic monitoring program operates under the administration of Clackamas County Community Corrections. The county's correctional program is subsidized by the State and operates under the Oregon Community Corrections Act.

The agency provides multiple correctional services, including probation and parole supervision, presentence investigations, recognizance screening, supervision of community service orders, and administration of two residential centers. Electronic monitoring is used to complement several of these services. Typically program participants are sentenced to a period in the county jail, after which they are referred to the residential center.

The residential center is a minimum security facility, housing offenders who work in the community during the day and return to the center at night. After a period of adaptation and appropriate screening, individuals accepted into the monitoring program are released from the residential center and continue to work in the community during the day, returning to their homes at night.

Both misdemeanants and felons have participated in the monitoring program and their offenses have ranged from DWI to armed robbery, drug offenses, manslaughter, and sexual violations. A risk classification instrument and extensive interviews with both the offender and the family are the primary tools used to screen applicants. These procedures have worked well since only 2 individuals have been revoked among the 75 who have been in the program.

Participation in the program is voluntary and the applicant must have a stable home, a telephone, and either a job or prospects for employment. Initially, the screening criteria were more conservative, but the low failure rate has caused program administrators to relax the criteria somewhat.

Clackamas County currently has 26 monitoring units and has 16 more on order. Their equipment includes 5 CONTRAC units, 20 Hitek units, and 1 Corrections Services unit. The 16 units on order will be purchased from Corrections Services, Inc.

Clackamas County Community Corrections operates the equipment, provides the surveillance, and is responsible for financing the program through the collection of fees.

Although the program is designed for offenders residing in Clackamas County, offenders convicted in Clackamas County but residing elsewhere have also been program participants. In such cases, WATS lines are used for telecommunications and courtesy supervision is arranged with a probation officer in another county.

The program began in April of 1985. The program director first became interested in the technology after seeing it exhibited at the Western Corrections Association Conference and the American Correctional Association Mid-Winter Conference in 1984. A program plan was developed with vendors visiting the county in March of 1985, and the first offender came under surveillance in April of 1985.

Unlike other counties, Clackamas was not propelled in the program by jail crowding. The technology was considered an innovation in its own right, capable of providing an additional sentencing option which was both humane and relatively inexpensive.

The county bought equipment from two different vendors thinking that this would provide versatility. CONTRAC equipment was purchased since it was the only continuous signaling system on the market at the time. The Hitek equipment was purchased because it provided voice verification, which would be helpful in monitoring alcoholic and drug-abusing offenders. The equipment was tested for approximately 30 days prior to the first offender being put under surveillance.

Clackamas County initially purchased the equipment under a criminal justice block grant program administered by the State plus local moneys. Offenders are charged a flat rate of \$7 a day to defray the cost of the equipment, and the program has collected 95 percent of the charged fees. The program director estimates that the total cost of the electronic surveil-

lance program including salaries, overhead, equipment, phone installation, and so forth is \$5 a day, or a net profit of \$2 a day.

Offenders remain under electronic monitoring for the duration of their sentences. Typically, this is 30 days, although one offender was under surveillance for as long as 4-1/2 months. A human operator monitors the system 24 hours a day. If a curfew violation is reported, the offender is called for verification, and depending upon the circumstance, may be required to report the next day.

Individuals in the residential center are permitted "social passes" allowing them to deviate from curfew restrictions. This same privilege is extended to offenders under the electronic monitoring program, and exceptions to curfew restrictions can be granted depending upon the circumstance.

One probation officer supervises all electronically monitored cases. Extensive screening is conducted and both the offender and the family are thoroughly briefed on the nature of the technology and the conditions of the program.

The program has experienced technical problems with both the CONTRAC and Hitek equipment. Initially the CONTRAC equipment produced some false positive reports and the Hitek system contained software problems. These problems have since been corrected. Two computers are used--one each for the CONTRAC and Hitek systems. The director finds this advantageous since if one system goes down, the other can be used as a backup.

The program has been positively received within the county. Judges are making increasing use of the monitoring option and the State Department of Corrections has asked the department to handle offenders released on temporary leave. This is a program in which offenders are released temporarily from prison in order to find jobs and establish residencies for up to 6 months before their parole eligibility date.

In addition, other counties have made inquiries about the possibility of joining the Clackamas County system. Under this arrangement, Clackamas County would operate the host computer and WATS lines would be used for telecommunications, resulting in a system network of electronic monitoring over a multicounty area.

The county has realized several benefits from the program. Beds are made available in both the jail and the residential center. In addition, monitoring has proved to be a sentencing alternative which is both humane and cost beneficial. Currently, the per diem cost in

the residential center and the jail is \$18 and \$45 a day, respectively. The program has also enhanced the recognizance release program since it permits judges to place marginal offenders on recognizance who would otherwise remain in jail.

Department of Corrections, Utah

The State of Utah began planning the use of electronic monitoring in June of 1984. The first offender was placed under supervision in the spring of 1985, and the program has been in operation for approximately 1 year.

The technology was first used to electronically monitor parolees and probationers under intensive supervision who were on the verge of revocation. Plans are currently underway to extend the technology to two other groups of offenders: Sex offenders being released on parole and probationers diverted from what otherwise would be a sentence to jail confinement. The current plan is to put parolees sentenced for sex offenses on a Monitech System for 3 months, followed by 9 months of monitoring on a Hitek System.

Currently the State has 40 monitoring units including 15 Monitech units, 15 BI units, and 10 Hitek System units. Initially the State purchased a Monitech System, but because of delays in delivery and reliability problems, it awarded contracts to the two other vendors to determine which system best suited its needs. The BI system was judged attractive because it offered a tamper alarm feature, and the Hitek system was purchased because of the attractive price offered by the vendor.

The entire program is administered by the Utah Department of Corrections which operates the equipment and provides the surveillance. Currently Hitek and Monitech systems are used in Salt Lake City, while the BI system is used in Ogden. Offenders must reside in one of those counties to be eligible for the program.

Like other jurisdictions, Utah began experimenting with electronic monitoring because of prison and jail crowding. The Legislature encouraged experimentation with the technology and has been the sole source of funding since the program began. The State did not conduct a formal feasibility study before purchasing monitoring equipment. A contract was initiated to purchase the Monitech system, since the manufacturer was located in Salt Lake City and had been active in encouraging the Department to experiment with electronic monitoring.

The State has gained considerable experience since the inception of the program. The equipment was not extensively field tested prior to being put on offenders, and equipment reliability and software problems have been

encountered, with the result that officers have spent needless overtime in following up false positive reports. Because of these problems, the number of offenders being placed under supervision has varied since the inception of the program.

Currently, 14 offenders are under electronic monitoring and several have been revoked, although not for curfew violations. Until equipment reliability problems can be resolved, the Department has been hesitant to revoke offenders solely on the basis of computer-reported curfew violations. Regrettably, one offender absconded with the equipment, which represents a substantial financial loss to the program.

In order to address some of the technical problems encountered with the equipment, the Department created an Electronic Surveillance Steering Committee in February of 1986. Since that time, 14 offenders have been placed in the program. The Department is currently planning to conduct an experiment to determine the relative reliability of the monitoring systems. College students will be used in that experiment and the results will be used to determine the type of offender which would be appropriate for each of the monitoring systems.

Unlike other jurisdictions, Utah does not charge the offender a fee for being under electronic monitoring. Legislative appropriations have been used to purchase equipment, as well as pay for telephone charges, equipment installation, and so forth. Currently the BI and Monitech equipment costs \$9.00 a day, while the Digital system costs \$2.50 per day.

To date, the average duration of electronic monitoring has been 2 months. Under current planning, sex offenders released on parole will be under surveillance for a year. Offenders may request curfew exceptions in which case an officer, in consultation with his or her supervisor, may grant the exception, but generally only in the case of a treatment-related conflict.

Supervising agents receive no formal training in electronic monitoring other than that provided by the vendor. Offenders receive some training, but this varies with the monitoring system. In the case of the Hitek system, the offender is simply given the equipment and a set of instructions. An agent goes to the home of the offender if the BI system is used and demonstrates the use of the equipment. In the case of the Monitech system, a company representative must go to the home of the offender to fine-tune and adjust the equipment.

Originally, delays in the delivery of the Monitech equipment caused renegotiation of contracts and delays in the startup of the program. Problems have also been encountered with the BI system software and with the tamper alarm feature.

Technical problems have not been experienced with the Hitek system, but procedural problems have been encountered. The State's Attorney General has discouraged the department from using the Hitek system to make random calls throughout the night. As a result, offenders on the Hitek system are only monitored until 10 p.m. There is no monitoring through the night, and because of the nature of the system, no monitoring between calls.

When the program was first announced, there was mixed reaction in the print media. Since that time, however, there has been no media coverage of the program. Acceptance by the criminal justice community has been positive and funds for the purchase of equipment have not been a problem.

Kenton County, Kentucky

Kenton County has been administering an electronic monitoring pilot project since May 1985. The program began when Kenton County entered into a cooperative agreement with the State Department of Probation and Parole to test the effectiveness of the technology. For almost a year the county and State have administered a jail diversion program in which non-violent misdemeanants and Class D felons have been allowed to voluntarily participate in the monitoring program. Normally these individuals would be sentenced to jail, but under the terms of the program, their sentences are probated and a period of time under home arrest is ordered.

To date, most of the participants in the program are offenders who have been convicted of drunk driving or driving with a suspended license. The remainder have been shoplifters and individuals in possession of a controlled substance or convicted of passing worthless checks.

Under the cooperative arrangement with the State, the county bought the equipment and operates the monitoring computer while the State is responsible for screening program candidates and providing supervision. The program uses CONTRAC equipment and although 20 units were originally contracted, only 12 have been bought and no more than 8 people have been on the program at any one time.

Based upon the success of the program and an evaluation conducted by Dr. Robert Lilly of Northern Kentucky University, the State Legislature enacted enabling legislation in 1986 to permit direct sentencing to house arrest. With

this legislative enactment, it is anticipated that other counties in Kentucky and the State Department of Corrections will begin using electronic monitoring and house arrest.

To date, 35 offenders have finished the Kenton County program and four have been revoked. As of mid-April, four offenders were being electronically monitored, with the courts placing about one offender per month on the program.

Although the county purchased the equipment, offenders are required to pay a surveillance fee which varies depending upon their income. A sliding fee schedule was developed with the help of the Legal Aid Office. For example, offenders making less than \$100 a week pay nothing. Those making between \$100 and \$199 a week and sentenced to 7 days of home arrest pay a total fee of \$25. If sentenced to 14 days, they pay \$50, and so forth.

The maximum duration of surveillance is determined by the sentencing judge. A typical sentence would be 12 months in jail probated to 2 years with 45 days of house arrest. To date, the longest period to which an individual has been sentenced to house arrest has been 6 months.

The program has been favorably accepted by the community. Prosecutors, judges, and law enforcement agencies have been supportive and the program has received positive media coverage. Program planners, however, were overly optimistic in their estimation of the number of individuals who would be sentenced to the program.

The county has derived several positive benefits from the program. The 35 individuals diverted over the past 11 months would have occupied jail space for anywhere from 7 days to 6 months. Instead these individuals have been working in the community, supporting their families, and in the case of drunk-driving offenders, have been participating in alcohol treatment programs.

Dade County, Florida, Department of Corrections and Rehabilitation

Since July of 1985, Dade County has used home incarceration and electronic monitoring as a complement to its work furlough program. The program is administered by the Pretrial Services Program within the Dade County Department of Corrections and Rehabilitation.

To participate in the home incarceration program, an inmate must first participate in the work furlough program. To qualify for work furlough, the inmate must make application to

the furlough committee and may appear before the committee with an attorney. The inmate must have a good institutional record, have secured a job, and be responsible for supporting someone other than himself or herself. Under the furlough program, inmates leave the jail each morning, work in the community during the day, and return to the jail at night.

After a period of adaptation, the inmate may apply for home incarceration. The case is reviewed by a counselor, and if the inmate is found acceptable, he or she continues to work in the community, returning home during the evening.

Inmates are monitored 24 hours a day from a computer within the administrative offices of the Dade County Department of Corrections and Rehabilitation. If the system indicates a curfew violation, the offender is called to determine whether the report is a false positive. Depending upon the circumstance and the history of the offender, an officer may be dispatched to the home, or the offender may be asked to report to the jail the next morning.

Inmates are electronically monitored for the duration of their sentences, normally 40 to 60 days, although one inmate was monitored for as long as 100 days. With 2 exceptions, all 19 people who have been on the program over the past year have been convicted felons, serving jail time for such offenses as grand theft, cocaine possession, burglary and forgery. No misdemeanants have been on the program since they are not in jail long enough to qualify for work furlough.

In two cases pretrial detainees were put under home incarceration because they represented peculiar management problems for the jail. One was a deaf mute and the other was an individual with a highly contagious disease. Nine offenders have completed the program to date. Two have been revoked, one for trying to defeat the monitoring system, the other for throwing the monitor at his wife.

The precipitating incident for the program was jail crowding. The Dade County facility currently handles about 3,500 inmates. A local criminal justice planning agency suggested the use of electronic monitoring to help solve the jail crowding problem. In 1985 an RFP was issued, with only one vendor, CONTRAC, responding. The staff of the Pretrial Services Program field tested the equipment for approximately 1 month before it was put on the first inmate.

The Department's monitoring equipment was bought by the county; however, it is being amortized by an administrative fee charged participating inmates. Inmates under conventional work furlough pay \$7 per day. Those

qualifying for home incarceration pay an additional \$7 a day as an administrative cost for the monitoring equipment. Given the current flow of offenders through the program, it takes approximately 13 months to amortize the equipment.

Currently the Department is using 10 CONTRAC units. They plan to purchase 30 more units and to change the daily fee rate to a sliding scale where the administrative fees charged the inmates will vary depending upon their income. They estimate they could use as many as 200 units. One possible program expansion under consideration would be to release jail inmates in the last 60 days of their sentence under home incarceration. Eligible candidates would be inmates with good institutional records and no history of violence.

Initially the program encountered some reliability problems with the equipment until they became familiar with its operation. They have encountered several environmental problems that interfered with the system's performance. For instance, one inmate lived near a taxicab dispatching station and the two-way radio traffic produced many false positive reports. In another case the batteries in a transmitting unit malfunctioned, producing erratic violation patterns.

They have also encountered "sleep errors" which are produced when a subject rolls over in his or her sleep imposing his or her body between the transmitter and the receiver. In another case, a participant was living in substandard housing with such poor wiring that the system produced a number of unreliable reports.

No enabling legislation was required for electronic monitoring. However, a county ordinance was enacted in order to establish the work furlough program. The program is designed for inmates living in Dade County, although two inmates from Broward County (Fort Lauderdale) have been on the program. This required modification of the equipment to permit long distance calls to the monitoring computer. In this instance the inmates were required to pay for the long distance calls.

The department has not encountered any negative feedback in the use of home incarceration and electronic monitoring. This acceptance is probably a function of the fact that the inmates placed under surveillance are well-known to the department, having demonstrated good work records while on the work furlough program. Media coverage has been positive, although most of the coverage has been national and international, not local.

The department sees several benefits stemming from the program. First, they are able to divert people from jail who present little risk to the community, and at the same time, provide some measure of punishment and control. Since the offenders pay for the use of the equipment, the county is able to provide confinement without incurring the substantial cost required to keep an inmate in jail. The second benefit stems from the fact that the offenders can be reunited with their families and contribute to their support.

Linn County Inhouse Arrest Program, Oregon

The Inhouse Arrest Program in Linn County, Oregon, is the result of a grant received from the National Highway Traffic Safety Commission. The program is designed to divert offenders from the county jail, which is currently operating under a capacity ceiling mandated by a Federal court.

Initially, all program participants were misdemeanants convicted of drunk driving since the funds used to purchase the equipment were obtained from the National Highway Traffic Safety Commission. Subsequently, additional units were bought under funds made available by the Community Corrections Act, and the program has been expanded to include other types of misdemeanant offenders as well as conventional probationers who were put under house arrest for technical violations.

The program is administered under the probation department and includes program participants who live and work in Linn County and surrounding counties. The program began in the spring of 1985, and the first offender was put under surveillance on June 1, 1985. To date, 29 offenders have completed the program, 3 absconded, and 15 individuals are currently under inhouse arrest. The number placed under supervision varies but has averaged about seven a month over the last 6 months. The 29 who have completed the program represent a substantial diversionary impact considering that the county jail has a 24-bed capacity.

When the program began, a county probation officer would conduct background investigations on program applicants to determine whether they had a home, a phone, and a job in the community. Based upon the officer's report, a judge would then sentence the offender to a term of probation with a special provision that they be under house arrest. As the program progressed, however, the judges no longer asked for the background check and began to directly sentence offenders to probation with house arrest. This has complicated the program since in some cases the offender may not have a place to live, a phone, or a job.

While grants have been used to purchase the equipment, offenders are charged from \$2 to \$7 a day to participate in the program, depending upon income.

Program administrators identify several benefits flowing from the program. It has proven to be an effective way to divert offenders from the jail, 51 having been diverted in 6 months. In addition, offenders are allowed to keep their jobs, preserve their self-respect, and contribute to the support of their families.

Normally, offenders are under surveillance for 30 days although one was under surveillance for as few as 10 days and another for as long as 6 months.

Linn County has encountered two problems with their equipment. Some of the monitoring equipment supplied by CONTRAC proved unreliable and had to be replaced. Replacement was accomplished promptly and satisfactorily.

The computer, which monitors the system, was bought from a local vendor and the county failed to negotiate an appropriate service and maintenance contract. Since the computer runs 24 hours a day, maintenance problems have been frequent and the vendor has proven to be less than responsive to the county's service needs.

Acceptance of house arrest and electronic monitoring has been positive within the criminal justice community, and press coverage has been supportive. The county plans to purchase more equipment as funds permit and plans to expand the program to include offenders convicted of driving with a suspended license as a means of diverting pretrial detainees.

Department of Corrections, Michigan

The Michigan Department of Corrections became interested in the use of electronic monitoring after seeing vendor displays at the American Correctional Association 1984 Congress of Corrections.

While prison populations were a consideration in the use of the technology, the department developed the program because it was considered a good idea of its own merits.

The department began planning the program early in 1985. At that time, several vendors offered monitoring technology, but they were attracted to the BI system since it was purported to be tamper proof. The department had planned to implement the program in April 1985, but encountered reliability problems with the equipment. These problems have been resolved, and the first offender was put in the program on April 14, 1986.

The Michigan program is designed to divert recidivists convicted of property offenses who would otherwise go to prison. Violent individuals, or those who have been convicted of violent offenses in the past, are automatically excluded.

The program has been set up in three phases. The first phase involves development of procedures and testing of the equipment. The second phase involves a 6-month pilot study conducted in Washtenaw County. Based upon the success of the pilot study, the final phase will involve implementation of the program in other counties throughout the State.

During the pilot study, a committee will review the cases of convicted property offenders who would otherwise be sentenced to prison. Eligible candidates will be referred to the sentencing judge, and if found acceptable, the judge will defer sentencing and place the offender in the house arrest program. If the offender complies with the conditions of the program, the judge will sentence him or her to a period of probation. The department intends to implement the program slowly, with the goal of initially placing 25 offenders under electronic monitoring.

No enabling legislation was required to implement the program, since Michigan law not only empowers circuit judges to defer sentencing but also grants them broad latitude in establishing probation conditions.

The program is financed by State appropriations. The department estimates that the current cost of probation supervision is approximately \$1.60 per day. The monitoring equipment costs \$8.00 a day, resulting in an estimated program cost of \$9.60 per day.

During the pilot program, offenders will not be required to contribute to the cost of the equipment. The State of Michigan has a stringent restitution law which requires offenders to pay restitution, fines, and court costs. Unless the pilot study indicates that the offenders are able to contribute to the cost of the equipment, the department will continue to finance the program through State appropriations.

During the pilot study, offenders will be under electronic monitoring and house arrest for 4 months, after which the monitoring devices will be removed. The decision to set the maximum period of surveillance at 4 months is dictated by the fact that 4 months is the life of the battery used in the transmitter. Offenders who wish to enter the program will have to provide their own home and telephone. The department will not subsidize these costs.

The department sees two benefits flowing from the program, the primary one being cost avoid-

ance for the State if offenders can be diverted from prison. It is also felt that a period of house arrest could be very useful in teaching marginal property offenders to discipline their lives.

Department of Corrections, Oklahoma

In October 1984 the Oklahoma Department of Corrections implemented a House Arrest Program. To date, approximately 4,000 sentenced felons have been released under the program.

Currently the department is planning to use electronic monitoring as a complement to its House Arrest Program. The technology will serve two purposes. First, it will allow administrators to extend the program to inmates not previously qualified. Second, the department plans to use the technology on those currently under house arrest whose behavior indicates that they need added surveillance.

Oklahoma's House Arrest Program is designed for the reintegration of offenders. To qualify, inmates must be within 30 months of their current release date, have served 15 percent of their sentence, and not have been denied parole in the last 6 months. Sex offenders are automatically excluded, but inmates with prior violent offenses can qualify if they are within 11 months of their current release date.

Inmates under house arrest are still considered inmates of the department, but are in the lowest security level. They are supervised in the community by a case manager and a community correctional officer.

The State initially contracted to buy 40 units from Monitech for use in Tulsa and Oklahoma City. The equipment was field tested between January 26 and April 1, 1986, but the State canceled its contract since Monitech could not deliver the equipment specified in the contract. As a result, the State will issue another RFP to interested vendors.

Under current planning, the host computers will be located in Oklahoma City and Tulsa. House arrest inmates who will be put under electronic monitoring will be required to live and work in one of these two cities.

No enabling legislation was required to permit the department to use electronic monitoring. However, legislation was enacted to provide specific authorization and criteria for the operation of the House Arrest Security Level.

Currently, inmates under the House Arrest Program can pay up to \$45 a month program support fees. A sliding scale has been constructed so the fees charged vary with income. Under current planning, no additional fee will be charged to those inmates under the House Arrest program who are also electronically monitored.

Appendix D

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Appendix E

Sample forms

Exhibit E-1: Presentence interview form

The presentence interview form serves as a checklist and guide for the screening officer during the initial interview of an offender who is being considered for the program.

Exhibit E-2: Client information sheet

The client information sheet provides a format for collecting and recording data about an offender during the initial interview and at the time he/she is placed in the program. This form, if placed in the front of an individual's file, provides ready access to information that the program officers may need on a frequent basis.

Exhibit E-3: Presentence interview report to the court

This form provides a written recommendation to the sentencing judge from an agency which has been requested by the court to interview a potential program participant.

Exhibit E-4: Court referral request

This request form would be submitted to the sentencing court when an agency has identified a person in its custody as a suitable candidate for electronic monitoring and the agency is seeking authorization to place that person in the program.

Exhibit E-5: Postsentence interview form

The postsentence interview form serves as a checklist and guide for the program officer during the orientation interview with an offender who is being placed in the electronic monitoring program.

Exhibit E-6: Rules and regulations

A copy of the rules and regulations governing the program are provided during the orientation interview to the participant. Additionally, the offender is required to sign a copy of the rules which are placed in the supervision file.

Exhibit E-7: Informed consent form

In addition to the rules and regulations form above, the offender may also be asked to sign an informed consent form which specifically sets out his or her obligations as a program participant.

Exhibit E-8: Receipt

The form acknowledges receipt of the monitoring equipment by the offender and contains a warning that failure to return the equipment could result in a criminal charge of theft being filed. Whether or not the form is legally binding may vary from jurisdiction to jurisdiction. An agency may wish to consider incorporating the receipt into the informed consent form.

Exhibit E-9: Chronological report

Information received from or about program participants is logged on this form. An agency may either keep a separate sheet for each offender or use the form as a daily log to record information received about all offenders. If a separate sheet was kept on each offender, the agency would have a chronological summary of all activities pertaining to that individual as a method of interoffice communication between program officers and other employees who receive information about offenders after hours or when the program officer is unavailable.

PRIDE, INC.

2711 Exchange Court • West Palm Beach, Florida 33409

MAILING ADDRESS

P.O. BOX 307

WEST PALM BEACH, FLORIDA 33402

(305) 683-6776

IN HOUSE ARREST PRE-SENTENCE INTERVIEW

1. Show transmitter and receiver/dialer to defendant.
2. See if defendant has telephone in home, If not, give information re: temporary line.
3. Show how transmitter straps on -- leg -- wrist.
4. Explain weekly visual check in probation office -- random basis.
5. Discuss fees.
6. Consequences of violation of probation.
7. Parameters of in-house arrest, such as going and returning to job, DWI School, etc.
8. Explain the system works and this is a check on the person as to how well he or she maintains curfew.
9. Explain difficulties of being on in-house arrest and change in life style, especially if doing straight time in-house. Also, influence of friends, relatives, neighbors.
10. Discuss who defendant is living with, in terms of pressure.
11. Check record for history of failures to appear and prior convictions.
12. Calls to client are free as we use an 800 number in the State of Florida.
13. Medical check for problems that may influence the positioning of the straps, such as swelling of the leg, etc.
14. Clients placed on in-house arrest must show pay stubs for proof of employment the first two weeks. If no pay stub is available, a copy of paycheck will be acceptable.
15. Clients are to be told that after the first two weeks they may be required at any time to produce evidence of employment.
16. Clients are to be told that, as stated under Condition #7 of the probation order, their employer may be contacted at any time to verify continued employment.

Exhibit E.2: Client information sheet



TERRY L. GASSAWAY
Director

CLACKAMAS COUNTY COMMUNITY CORRECTIONS
ELECTRONIC SURVEILLANCE PROGRAM (ESP)

CLIENT INFORMATION SHEET

Interview Date _____

CLIENT NAME _____
Last First Middle

CLIENT ADDRESS _____
Street Apt. # City
State Zip Phone
Message Phone _____

COURT INFORMATION _____
Judge Court Length of Sentence Probation Officer

IDENTIFICATION _____
Sex Height Weight Race Eyes Hair

Social Security No. Driver's License No.

SID No. Place of Birth

Aliases _____

Reside with Relationship How long?

ESP INFORMATION: Beginning Date: _____ Ending Date: _____

Telsol No.: _____ DOC/Case No.: _____ Wristlet No.: _____

Band No.: _____ Receiver Box No.: _____ RF File No.: _____

ESP Officer Name _____
Last First Middle

Work Status: Full time Part time Shift (Circle)

Treatment: Drug Alcohol Mental Health (Circle)

Other: _____

Treatment Mandated: Yes No (Circle)

Treatment Provider: _____
Name(s)

Address(es) _____

Antabuse Schedule: _____

Where: _____

Mandated Voluntary (Circle)

501 Pleasant Avenue; Oregon City, OR 97045; Phone 655-8603

CCP-P884 (3/86)

Exhibit E.2 continued

CONTACTS (e.g., friends, relatives, neighbors)

Name _____ Relationship _____ Phone _____

Address _____ City/State _____

Name _____ Relationship _____ Phone _____

Address _____ City/State _____

EMPLOYMENT

Current Employer _____ Work/Hours _____

Address _____ Wage \$ _____

Occupation _____

Length Time at Present Job _____ How Long at Last Job _____

Reason for Leaving Last Job _____

EDUCATION

Highest Grade Completed _____ Military Branch of Service _____ Discharge Rank _____

GED: Yes No (Circle)

Vocational Training: Yes No (Circle) Type: _____

MARITAL (Circle item)

Single: Yes No Date _____ No. Previous Marriages _____

Married: Yes No Date _____ No. of Children _____ Ages _____

Separated: Yes No Date _____ Current: Yes No (Circle)

Widowed: Yes No Date _____ In Arrears: Yes No Amount \$ _____

FINANCIAL

Source of Income _____

Net Monthly Income \$ _____ Monthly Cost of Living \$ _____

PRIDE, INC.

Probation

2711 Exchange Court • West Palm Beach, Florida 33409

MAILING ADDRESS
P.O. BOX 307
WEST PALM BEACH, FLORIDA 33402
(305) 683-6776

IN-HOUSE ARREST — PRE-SENTENCE INTERVIEW

TO: JUDGE _____

DEFENDANT: _____

COURT DATE: _____

CASE NO.: _____

The above defendant is/is not recommended for the In-House Arrest Program.

REASON: _____

BEVERLY AUERBACH
Program Director

PRIDE, INC.

2711 Exchange Court • West Palm Beach, Florida 33409

MAILING ADDRESS

P.O. BOX 307

WEST PALM BEACH, FLORIDA 33402

(305) 683-6776

IN-HOUSE ARREST POST-SENTENCE INTERVIEW

1. Match serial number of receiver/dialer and transmitter.
2. Discuss and verify work schedule thoroughly. Write down on the form provided. Do not trust to memory.
3. Advise client of need to hang up phone when hears clicking and call their party back after five minutes. If this is not done, it will cause violation.
4. Client leaves office with receiver/dialer -- instruct to return home immediately and plug in. Call office if client cannot install. Once installed, Black Box not to be moved.
5. Advise client we will receive signal immediately upon installation, so important done directly.
6. Have client sign agreements. Discuss fees.
7. Explain again random weekly visual check on transmitter.
8. After defendant leaves, program both IBM-PC.
9. Enter data in personal log book.
10. If client has an emergency:
 - A. After Hours -- client is to call 969-2568. This is a toll call for south of Boynton Beach. This connects to a recording device. Client is to leave message stating his name and the time and date and the nature of the emergency. If this emergency necessitates the client's leaving the house, the emergency will be validated the following day by the officer calling all parties involved.
 - B. True emergencies are considered to be:
 1. Called to return to work.
 2. Medical -- self and close family.
 3. Fire---evacuation.
 - C. Examples of non-emergencies which will not be considered valid are:
 1. To pay bills.
 2. To pick up pay check.
 3. To run out for food.
 4. Car breaks down or friend's car or family members' cars break down.

Exhibit E.6: Rules and regulations



TERRY L. GASSAWAY
Director

CLACKAMAS COUNTY COMMUNITY CORRECTIONS

RULES AND REGULATIONS FOR PARTICIPANTS ON ESP

- I. All participants will be required to maintain a drug and alcohol-free status while involved in the Clackamas County ESP.

Drug-free status will be verified by random U.A. and Intoxilizer testing. A positive result for drugs and/or alcohol will result in immediate termination from ESP, notification to the Court and return to jail, pending disposition of violation.
- II. All participants on the ESP are required to be employed prior to placement.
 - A. If during the course of their involvement on ESP, the participant's employment is terminated for reasons beyond that person's control, they may be continued on ESP under the following condition:
 1. Begin an intensive job search program which will require a minimum of 10 verifiable employment inquiries per work day.
 2. Mandated treatment is continued.
 3. Loss of social pass privileges until employment is secured.
 - B. If loss of employment is due to poor attendance (unexcused), use of drugs, alcohol, or misconduct, participant may be terminated from ESP and returned to jail.
- III. All participants will be required to attend a weekly ESP group meeting.
- IV. All participants will be required to provide verification of work hours and treatment attendance upon demand. Failure to substantiate work hours or treatment attendance may result in termination from program and return to jail, pending disposition of violation.

V. Weekly schedules, once submitted to the Electronic Surveillance Officer, may only be changed for the following reasons:

- A. Emergency (Medical). Participant must contact the Clackamas County Residential Center (655-8262) as soon as possible to inform ESP Officer or Center staff as to the nature and extent of the problem. Failure to notify this office may result in termination from the program and the participant's return to jail.
- B. Change in work hours or treatment due to illness. If participant is unable to report to work or treatment due to illness or injury of a non-emergency nature, they must contact this office prior to their scheduled departure time (655-8262) to inform ESP Officer or Center staff of length and type of schedule change. Failure to do so may result in termination from the ESP and return to jail.
- C. Overtime or shortened work hours. At times your employer may request that you work over or shorten work hours due to lack of work. You are required to inform this office (655-8262) at the first available break, of these schedule changes. Failure to do so may result in your removal from the ESP and return to jail.

VI. Pass Policy

- A. The sentencing Judge will determine social pass eligibility. This time may be broken down to no more than 3-4 hour blocks. Maximum social pass time is 12 hours.
 - 1. For persons without social passes, time will be allowed for grocery shopping as necessary.
 - 2. Acquisition of medications. This includes taking of antabuse. Maximum time allowed is 1 hour three times per week.

3. Treatment Programs. No maximum time, however, all attendance must be verifiable. Failure to attend mandated treatment (unauthorized absence) will result in termination from program and return to jail.

B. Social Pass time is subject to the following restrictions:

1. Location must have a phone where participant can be reached. If the location is a place where verification is not possible (restaurant, movie, picnic, skiing, etc.), the participant will be required to stop at the Center prior to returning home to give Mobat and leave a urine sample.
2. All Social Passes which extend past midnight will require the participant to come to the Center prior to going home and give a Mobat and urine sample.
3. Any participant living outside a 40 mile radius of the Center will be restricted to a midnight curfew.
4. Failure to follow Social Pass Rules may result in loss of Social Pass privileges or termination from ESP and return to jail.

VII. Failure to obey all laws, Municipal, County, State, and Federal, will result in termination from the ESP and immediate return to jail, pending disposition by the Courts.

I have read, understand, and agree to abide by the above rules of ESP.

Signature

Date

ESP Officer

Date



TERRY L. GASSAWAY
Director

CLACKAMAS COUNTY COMMUNITY CORRECTIONS

**ELECTRONIC SURVEILLANCE PROGRAM (ESP)
INFORMED CONSENT FORM**

CLIENT NAME: _____

1. I understand that my placement on the Electronic Surveillance Program is voluntary.
2. I understand that I will be charged \$7.00 per day to offset the cost of the program. Clients who are in the program 30 days or less will be charged an additional \$20.00 set-up fee. Payments will be made to the Residential Centers, failure to make payments as scheduled may warrant disciplinary action.
3. I understand that while on the ESP, I am under the supervision of Clackamas County Community Corrections and subject to all rules and regulations of the ESP.
4. I understand that home visits from the ESP officer are to be expected. My refusal to allow the ESP officer access to my home will result in my arrest and termination from the ESP.
5. I understand that I must keep the monitor on my arm/leg and the receiver plugged in and attached to my phone.
6. I understand that I will be held responsible for any damage to the equipment. I will not tamper with, attempt to fix, or allow anyone else to tamper with or attempt to fix the equipment. All equipment will be returned to the Residential Centers upon termination of the program. If I do not bring the equipment back in good condition, the County can charge me with theft or vandalism.
7. I understand that if there is any problem with the equipment, I will call the Residential Centers, phone 655-8262, immediately.
8. It has been explained to me and I do understand that violations, while I am on the Electronic Surveillance Program, will be dealt with by the appropriate disciplinary hearings process.

Enter Date _____ Termination Date _____

CLIENT SIGNATURE _____ DATE _____

ESP OFFICER SIGNATURE _____ DATE _____

Exhibit E.8: Receipt

LINN COUNTY COMMUNITY CORRECTIONS

1400 S.E. QUEEN AVE., ROOM 202
ALBANY, OREGON 97321

(503) 967-2044

I ACKNOWLEDGE RECEIPT OF MONITOR NO. _____
(Identification Number)

THIS MONITOR WILL BE INSTALLED IN MY PLACE OF RESIDENCE WHILE I AM
BEING SUPERVISED UNDER "HOUSE ARREST".

FAILURE TO RETURN THIS MONITOR AT THE END OF THE SUPERVISION PERIOD

TO:

CORRECTIONS DIVISION

1400 S.E. QUEEN AVE., RM. 202

ALBANY, OREGON 97321

COULD RESULT IN A CRIMINAL CHARGE OF THEFT I BEING FILED AGAINST ME.

NAME

DATE

