

Report to

## **British Columbia Justice and Public Safety Sector**

### **Technical Assessment of Electronic Supervision**

**Final**

**December 19, 2014**



737 Courtney Street,  
Victoria, BC V8W 1C3 Canada  
[www.SierraSystems.com](http://www.SierraSystems.com)

Contact: Christopher Litton  
Phone: 250.385-1535  
Fax: 250.882.0207  
Email: [ChristopherLitton@SierraSystems.com](mailto:ChristopherLitton@SierraSystems.com)

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# 1. EXECUTIVE SUMMARY

The objective of this assessment is to identify technology trends and program efficacy in the use of electronic supervision as a public safety measure. The approach used to generate the assessment were research reviews and a series of interviews with program representatives who are using electronic supervision in innovative ways, vendors in the electronic supervision space, corrections technologists, and the Executive Director of the American Association of Probation and Parole (APPA).

## 1.1. Electronic Monitoring in BC

The most significant usage for electronic monitoring (EM) in BC is the use of electronic monitoring as a condition of Conditional Sentence Orders for the purpose of curfew monitoring, “Electronic monitoring systems monitor the offender’s compliance with the requirement to remain at approved locations during specified curfew times.”<sup>1</sup> However, the BC numbers over the past five years show a trend towards a decrease in the use of EM overall, but an upswing in usage for bail supervision.

Offenders are placed on EM by order of a Provincial or Supreme Court Judge. Once a judge has issued an order that contains a condition of electronic monitoring, a BC Corrections staff member attaches an electronic ankle bracelet to the offender’s leg. Once activated, the device transmits a signal to the phone line in the offender’s home system, communicating the offender’s activities to the BC Corrections Central Monitoring Unit (CMU).

The CMU operates 24 hours a day, seven days a week. During the day, the unit officers monitor and respond to alerts from the software system that determines if offenders are non-compliant with the terms of the court order e.g. curfew; and communicates these incidents to case managers. At night, unit officers notify on-call managers of any incidents and, if necessary, notify the police.

The CMU is currently operated by BC Corrections rather than the vendor (or a 3<sup>rd</sup> party representative of the vendor).

The technology in use in BC is a Radio Frequency (RF) device with a receiver attached to a landline telephone. Offenders’ RF device data and signals are sent to the receiver and cross-referenced with a centrally programmed schedule to monitor offenders’ activities. Costs

The average annual cost for the technology, exclusive of taxes and expenses is \$463,637.50 per annum. Note: This figure does not include the costs to operate the CMU or the ISB/HPAS costs.

The Province maintains ownership of monitoring data which means that BC Corrections staff and police agencies can have access to the monitoring information to support court processes related to breaches and other violations.

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<sup>1</sup> BC Corrections Branch Community Corrections Policy Manual. Chapter 14: Electronic Monitoring Policy (Rev. March 2014).

## 1.2. Current State Observations

### 1.2.1. Program Costs

The Serco electronic monitoring contract for RF devices and services (excluding monitoring) are very high compared to the pricing options available in the market today. In addition to this contract, BC is also paying the costs of the Central Monitoring Unit (CMU) which is staffed 24 hours a day, seven days a week, plus the costs for the on-call case managers who receive after-hours calls from the CMU based on alerts.

There are also costs associated to the services provide by the Information Services Branch (ISB) and HPAS for the server and support costs which are not factored into the Serco contract.

### 1.2.2. Device Utilization

At the last count, there are only 45 people currently on electronic monitoring bracelets at this time. The Serco contract has more units available which means that BC is paying for more capacity than they are using.

### 1.2.3. Technology Limitations

The Radio Frequency (RF) devices that BC is using can only monitor that offender is at an approved location. This supports the monitoring of curfew and house arrest conditions for compliance but it does not support monitoring beyond that.

There is very limited reporting and analytic ability with the current technology implementation because the program is only monitoring if a person is or is not at an approved location.

### 1.2.4. Program Vision

The vision of electronic monitoring in 1996 was to provide a less costly alternative to incarceration for select offenders. In current day, the program is monitoring curfews and home confinement based on whether the offender is in an approved location in accordance with conditions. Modern day technology supports program expansion, however the vision of the program has not really evolved beyond the capability supported by the RF devices.

In a recent meeting with Serco representatives, they indicated that the program in BC could do more. They note that there has been very little contact between the Province and Serco with respect to enhancements or improvements to the system.

The current electronic monitoring program in BC is isolated within BC Corrections as a stand-alone program. There are areas for program integration with the police, victims groups, and others that could make the program part of a bigger whole.

## 1.3. Innovative Electronic Supervision Programs

The Province of Alberta is currently running three pilot programs using GPS technology. These pilots are the Targeted Offenders Program operated by Edmonton Police Services, the High Risk Offender Program operated by the Calgary Police and the Red Deer Domestic Violence Court Collaboration Project operated by the Red Deer RCMP, Community Corrections and the Central Alberta Women's Emergency Shelter. All three pilots are funded until March 2015 and Safetracks GPS is the provider of the electronic monitoring technology and services for all of them.

The Edmonton and Calgary police supervise high-risk offenders on 810 Peace bonds using a combination of GPS technology and monitoring by the police. The police report that the pilot is effective for monitoring the behaviour of very, very high risk offenders but that if an offender wants to reoffend, he will. Offenders have reported during interviews that they find the bracelet acts as a visual deterrent. The police have had success with the program from a public safety perspective, and they report very few incidents with the offenders under supervision. This is attributed in large part to the staff time that is supporting the program.

In Edmonton, offenders are placed on the program based on evaluation by the Behavioural Unit:

- 810 applications are completed by the Behavioural Unit and they take approximately 40 hours of time per offender
- There are 4 offenders on the program at the current time with 8 officers monitoring them. The plan is to scale up the number of offenders and they currently have 2 additional devices ready to go.
- Police check to see if offenders are where they are supposed to be based on GPS coordinates
- Behavioural Unit staff interview the offenders weekly.
- Police are happy with the technology and services but they report that staff monitoring is the “real” cost of the program

The Central Alberta Women’s Emergency Shelter is the lead agency in the domestic violence court collaborative project, along with the Red Deer RCMP and Community Corrections. The Shelter reports that the program has been effective from a technology and public safety perspective. However, they find it would be more cost-effective as a larger program.

- High-risk domestic violence offenders are recommended for the program at sentencing.
- Crown asks for an electronic monitoring condition in appropriate high risk domestic violence community sentence cases. Community Corrections then decides if the person is eligible for monitoring based on an assessment.
- There are 10 offenders on bracelets at any one time
- Crown and Corrections were initially reluctant to participate in pilot but political will got them engaged
- No additional staffing was provided to Community Corrections for monitoring and it can be quite labour intensive for the two resources that are doing it.

Nova Scotia Correctional Services uses a full range of monitoring devices (provided by Jemtec Inc.) in combination with case management to monitor offenders based on risk level. They monitor adult offenders on Conditional Sentence orders with a condition for electronic supervision, and youth offenders on deferred custody or a probation order with a curfew condition. The Probation Officer ultimately makes the decision if the offender is a good candidate for electronic supervision identifying if there are any reasons why they cannot participate such as health and mental health issues or safety concerns in relation to their employment.

- They use a graduated program, through case management, where an offender may start with Active GPS monitoring to RF monitoring to Voice verification to in person reporting only.
- Currently they have 45 on GPS, 10 on RF, 6 on RF cellular and 27 on Voice Verification.



- Used as a tool to assist with case management of offenders and youth.
- Training PO's to appropriately monitor the reporting system to ensure compliance is very essential. Also training in installation, removal and case management is very important.
- Nova Scotia will be continuing to use electronic supervision and hopes to increase their numbers every year.

Training is the key to avoiding false alerts. They report that as long as the PO has the schedule set up properly, false alerts are not a big issue.

## 1.4. Best Practices

In an interview with Carl Wicklund, the Executive Director, American Association of Probation and Parole (APPA), Mr Wicklund stated that the key first step for any agency implementing electronic monitoring is to define the purpose of the program, "What do you want to use it for and to what end?", and the next determination is, "Do you have the resources to do what you want to do?". From a resources perspective, he is referring to financial and manpower. An additional consideration is does the agency have the mandate (governance) to achieve its vision? He says, "Where there is reliance on others, e.g. Victims or Law Enforcement then Governance support and authority is required to force collaboration."

According to a 2012 report by the Standing Committee on Public Safety and National Security, EM programs tend to be of short duration – never longer than 6 months and most commonly between 1 – 4 months. For periods longer than 6 months, EM programs have been found to lose their effectiveness."<sup>2</sup>

A large-scale comparison of EM and recidivism using one year post-conviction information of 262 offenders conducted across Newfoundland, British Columbia, and Saskatchewan, concluded that there was "no statistically significant differences in recidivism one year after completion of EM supervision...it is risk level and not type of supervision that influences recidivism."<sup>3</sup> In accordance, the evaluation of Canadian's Electronic Monitoring Program Pilot (EMPP) in 2009 by the Correctional Service of Canada (CSC) also found no decrease in the rate of reoffending.<sup>4</sup>

For reoffending during supervision, one of the more robust evaluations of EM effectiveness, investigating the use of both RF and GPS technologies, published by National Institute of Justice in 2010 suggests EM is effective in reducing reoffending behaviour while under EM. They concluded that "EM reduces the likelihood of failure under community supervision. The reduction in the risk of failure is about 31%, relative to offenders placed on other forms of community supervision."<sup>5</sup> The same report also suggests that GPS typically has a 6% improvement rate in the reduction of supervision failures for offenders relative to offenders placed on RF supervision.

While some findings are optimistic that EM can reduce recidivism for clients while they remain under EM supervision, none of the existing studies has shown that EM does more than *postpone* recidivism. Parolees appear to be compliant while subject to monitoring, but, in the words of Peckenpaugh and

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<sup>2</sup> <http://www.johnhoward.ab.ca/pub/pdf/monitorupdate.pdf>

<sup>3</sup> <http://www.johnhoward.ab.ca/pub/pdf/monitorupdate.pdf>

<sup>4</sup> <http://www.parl.gc.ca/HousePublications/Publication.aspx?DocId=5692404&File=21#intro>

<sup>5</sup> <https://www.ncjrs.gov/pdffiles1/nij/grants/230530.pdf>

Petersilia, “when the bracelets come off, other studies have found that monitored offenders perform no better than offenders [who] were never subject to monitoring.”<sup>6</sup>

In an interview with George Drake and Joe Russo from the NIJ, they identified the main issue for implementing a successful electronic monitoring program is that agencies don’t define specific objectives for their program. They stated that good planning is imperative as what typically happens is that the technology gets selected and implemented but the program is underfunded from a staffing and resource perspective. The expectation is that staff who normally work 9-5 will be stretched to cover the 24x7 nature of alerts. This creates overtime issues and programs that fail.

They note that there is some work going on in terms of link analysis and pattern analysis through federal and private funding. The focus is mostly on the law enforcement side, and innovative aspects have not been explored at all. Mr. Drake and Mr. Russo state that true value can be found in analyzing the data to identify precursors to an event that can be studied to look for deviation from established patterns. This may lead to more informed use of the technologies.

## 1.5. Pricing

It has been recommended by vendors interviewed as part of this assessment that BC consider a rental or lease program for units (which allows more flexibility) so that extra units don’t sit idle, especially during cleaning and testing time. Flexibility in the type and amount of units is recommended, as it is the people resources that make up most of the cost, rather than per unit cost.

## 1.6. Summary

Electronic monitoring technology has come a long way over the past five years, especially in the area of GPS monitoring. We are likely to see new innovations over the next 24 months including, cell phone applications that alert victims when an offender is in the vicinity, drug and alcohol screening and reporting through the device, smaller, less intrusive bracelets, and other valuable case management tools.

There has been improvement and cost-reduction in GPS and cellular services over this time and there is continued investment in this area that will likely see further advancement. This offers opportunities to BC Corrections to look at what they would like to achieve with their electronic monitoring program and tailor technologies to meet program goals. The key themes that emerged throughout our analysis are summarized below.

### 1.6.1. Program

The key messaging from practitioners and advisors who were contacted as part of this assessment, and in fact evident in the literature reviews, is that the first step is to define the mandate of the program and then choose technology that supports program objectives.

It is important to understand what the technology can and cannot do from a program perspective. All respondents emphasized that the device is a tool that must be used in combination with case management/supervision to monitor and manage offender behaviour. The identification of resource

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<sup>6</sup> <https://www.ncjrs.gov/pdffiles1/nij/grants/238481.pdf>

requirements for program support is more important than the technology choice, because inadequate staffing is a more likely impediment to program success.

It is recommended that the Province develop a roadmap for the program that defines the vision and objectives for electronic monitoring in BC. Options that can be considered are partnerships with the police for high risk offender supervision (810's), victim support groups (domestic violence offenders), Crown and others with a focus on public safety.

### **1.6.2. Technology**

There are many options for technology in the electronic monitoring realm. Programs such as the Targeted Offender Program and the Domestic Violence Collaboration are using GPS technology combined with intensive supervision to effect controls over high risk offenders in Alberta. These programs are having success with their mandate, however all interview subjects note that while the technology by itself can act as a deterrent, it will not prevent criminal behaviour if the offender is intent on reoffending. The real cost of the program is the intensive supervision requirements of the staff.

Nova Scotia Correctional Services is using a graduated program where offenders may be on a series of monitoring devices (GPS, RF, Voice Verification, etc.) based on performance and other factors. This program allows the adjustment of staffing requirements for supervision based on the assessment of the offender and the device selected. Nova Scotia reports that false alarms with GPS can be controlled using training to teach Probation Officers how to effectively set up the schedule for monitoring.

The opportunity to collect significant data about the ongoing movements of offenders, to identify patterns, associations and deviations from established routines can take monitoring to the next level. Investing in the analytics and intelligence capability that is offered using this data can provide the opportunity for timely interventions and investigative opportunities.

A wealth of data can be combined with existing OMS data, operational analytics and pattern analysis capability to influence case management decisions. Partnerships with police could be established to support the intelligence component of the data obtained through monitoring with GPS devices.

Some technology options that the Province might require to support program objectives may not be available today but they can be brought online as technology matures. There is some advancement in technology that is being developed consistently, and can be brought onboard in alignment with the technical roadmap.

### **1.6.3. Costs**

The real costs of electronic supervision of offenders is the staffing costs of responding to alerts, and reviews of offender movements rather than the technology itself. Two of the programs surveyed are responsible for high risk offenders on 810 Peace Bonds. These programs are operated by police services who also combine the GPS technology with surveillance and interviews to provide a "high touch" service. The staff time required is extensive, but the program as implemented is resulting in curbing offending behaviour, despite program participants who are described as very, very high risk to re-offend.

EM vendors recommend a leasing program for technology and services that does not lock the province into long-term contracts with technology that won't evolve. The ability to provide multiple types of units that can allow the ability to scale up or scale down intervention is the type of flexibility that should be a facet of the program. Additionally, the Province should look for a contract that allows them to only pay for the units in use.

The lease costs of the technology combined with monitoring is significantly less expensive than the current costs incurred by the Province for the small population currently under EM supervision. If the goals and number of clients utilizing EM remain the same, it is recommended that BC consider outsourcing the monitoring component of the program. There are EM vendors that provide data collection and monitoring within Canada.

The Province has the opportunity to maximize the value of the investment that is currently being made in electronic monitoring in BC. Realigning the current spend to capitalize on staffing and cost-effective technology that supports delivering program outcomes in accordance with the mandate, would provide a better cost model. Because of ongoing technical advances and the analytical capability provided by the data, there are effective options for electronic monitoring programs to support timely interventions and investigative opportunities.

## 2. INTRODUCTION

The Province of British Columbia Corrections Branch selected Sierra Systems to assist the Branch with the technology review of electronic supervision programs, options and practices available within the current marketplace. The objective of this assessment is to identify technology trends and program efficacy in the use of electronic supervision as a public safety measure.

To complete this evaluation, Sierra Systems completed an assessment of the current state of electronic supervision in the Province. Sierra then surveyed the broader Canadian and US market for “top right hand quadrant” practices, effective solutions, and emerging trends in the practice of electronic supervision for offenders.

This assessment details how electronic tools such as GPS, RFID and biometrics are being used effectively to manage and monitor offenders in North American communities. Details include delivery models, offender supervision options, tracking and response methodologies, and a review of published research studies.

### 2.1. Background

On July 31, 2015, BC Correction’s contract with the current electronic monitoring program provider, Serco Geografix Ltd. will expire. It is anticipated that the Province will publish a Request for Proposal (RFP) prior to the expiration of this contract to find a vendor to provide electronic monitoring technology and services to the province. The contents of this assessment is intended to assist BC Corrections with their decision-making about the future of electronic supervision in BC and the focus of the program which will shape the direction of the RFP when issued.

### 2.2. Objectives

The business objectives for the technical evaluation of electronic supervision options and practices is to conduct strategic research to identify best practices, emerging trends and technology in the field of electronic supervision. The goals of this paper are to:

- Identify current policies and practices in the field of electronic supervision of offenders;
- Assess program efficacy including staffing models, reliability, violations/breaches, etc.
- Provide statistical analysis and profiles of offenders under electronic supervision;
- Assess available and emerging technologies;
- Conduct a market scan of available programs, services and costs.

### 2.3. Approach

The approach to gathering the information for this paper are outlined in the table below:

Task	Description
Meetings	Meetings with BC Corrections were held to finalize the focus of the paper and identify contacts and information sources for the current state assessment.

Task	Description
Interviews	<p>Organizations that provide innovative electronic supervision were interviewed to understand service delivery model, pros, cons, recommendations, etc. These are provided as case studies.</p> <p>Organizations with an interest in providing electronic supervision to offenders (e.g. American Association of Probation and Parole (APPA) and JustNet) were interviewed to understand best practices, policy and practice directives, etc.</p> <p>Key vendors in the marketplace were interviewed to identify their technology and services and recommendations for BC to consider when putting together an RFP.</p> <p>The current EMP vendor – Serco – was interviewed to obtain insight into the services currently provided, what works and what could be improved in the future.</p>
Market Survey	A market survey was conducted to identify vendors in the market and the services/technology they provide. A broader look at technologies that could be used to provide this service was also examined.
Research	General research was conducted to locate relevant RFP's/RFQ's, white papers, research studies that provide useful insight or information. Summaries of this information is provided in Section 5 of this document.
Statistical Analysis	Statistical data was analyzed and compared to similar data from other provinces and jurisdictions. This information was used as part of the assessment of current state and comparative analysis with other modes/practices of electronic supervision.

The information gathered from these tasks form the foundation of the Technical Evaluation of Electronic Supervision.

## 2.4. Participants

Name	Organization
Christopher Litton	Managing Director of Management Consulting, Sierra Systems
Carrie Young	Principal/Justice Subject Matter Expert, Sierra Systems
Ming Emma Ko	Management Consultant, Sierra Systems
Carl Wicklund	Executive Director, American Association of Probation and Parole (APPA)
Valerie Dolhanty	Senior Probation Officer, Nova Scotia Corrections
Sergeant Glenn Ball	Targeted Offenders Program, Edmonton Police Services

Name	Organization
Ian Wheeliker	Executive Director, Central Alberta Womens Emergency Shelter (Domestic Violence Collaboration with Red Deer RCMP and Community Corrections)
Joe Russo	Director, Corrections Technology Center of Excellence, JustNet. Org
George Drake	Community Corrections Program Manager, Corrections Technology Center of Excellence, JustNet.Org
Eric Caton	President, Jemtec Inc.
Bob Alosio	VP, SafeTracks GPS
Vince Morelli	President, SafeTracks GPS
Paul Eastaugh	Design Manager, Serco Geografix Ltd. (also Serco PM for BC Corrections Implementation of Serco Products and Services)
Matthew Armiger	General Manager, Serco Geografix Ltd.
Ron Stewart	G2 Research
Mike Tholenaer	VP Sales, SecureTracksGPS

## 2.5. In Scope

The scope of the work includes:

- Assessment of current policies and practices in the field of electronic supervision of offenders;
- Assessment of current program efficacy including staffing models, technology, reliability, violations/breaches, etc.
- Statistical analysis of available electronic supervision data;
- Identification and assessment of available and emerging technologies;
- Market scan of available programs, services and costs (where provided).

## 2.6. Out of Scope

The following list of items is considered outside of the scope of the assessment:

- Development of requirements for electronic supervision of offenders;
- Electronic supervision solution recommendations.



## 3. ELECTRONIC SUPERVISION IN BC

### 3.1. History of Electronic Monitoring in BC

The first Canadian use of Electronic Monitoring (EM) was in British Columbia in 1987. It began as a pilot program in Vancouver that was intended to provide a less costly alternative to incarceration for selected offenders. By 1992, EM was available throughout the province except in the most sparsely populated areas. In 1996, the EM program managed 300 offenders on an average day. Early reports of the program suggested that it produced a cost savings (compared to incarceration) and that it provided a number of benefits to the offender (Mainprize, 1992, 1995).

A review of the characteristics of offenders and program eligibility criteria at the time reveals a portrait of an alternative program that seemed to target relatively low risk offenders. The belief was that using low risk offenders to “prove” the technology would be more acceptable to the public. The plan was to add higher risk offenders over time.

Since 1996 the number of offenders on electronic monitoring in BC has decreased. Data provided by the Corrections Branch for the past five years show the following<sup>7</sup>:

Year	Yearly Average
2009/2010	172.1
2010/2011	145.6
2011/2012	119.0
2012/2013	81.8
2013/2014	75.0

The most significant usage for electronic monitoring in BC is the use of electronic monitoring as a condition of Conditional Sentence Orders for the purpose of curfew monitoring. However, the numbers over the past five years show a trend towards an overall decrease in the use of electronic monitoring in BC, but an upswing in the use of EM as a condition of bail supervision.

### 3.2. Current State Assessment

#### 3.2.1. Policy

Electronic Monitoring in BC is defined as follows, “Electronic monitoring systems monitor the offender’s compliance with the requirement to remain at approved locations during specified curfew times.”<sup>8</sup> The

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<sup>7</sup> BC Corrections Branch – EMP Graph Provincial and Regional2.xlsx

<sup>8</sup> BC Corrections Branch Community Corrections Policy Manual. Chapter 14: Electronic Monitoring Policy (Rev. March 2014).



Electronic Monitoring policy describes the assessment and criteria for inclusion in the Electronic Monitoring program as follows:

### **Offender Suitability**

The following factors are to be considered:

1. Confirmation that the telephone in an offender's residence is technically suitable;
2. Whether an offender was compliant with previous electronic monitoring;
3. Availability of electronic monitoring equipment;
4. Offender activities requiring curfew exemptions (employment, education, program, health, humanitarian, other);
5. Other factors that support or hinder an offender's successful completion of electronic monitoring;
6. Identity of other residents;
7. Willingness of spouse/domestic partner/parent(s), or other residents to accept that an offender is restricted to the residence with electronic monitoring, including limits on their access to telephone lines;
8. Safety of the spouse, domestic partner or children in the home, especially regarding the risks of having an offender with a conviction or prior convictions for spousal assault, sexual assault or other violence, reside in the victim's residence;
9. Results of a Protection Order Registry check when the protected party would be affected by an offender's presence in the community;
10. Willingness and capacity of other residents to assist an offender in living a lawful lifestyle. This includes concerns about evidence that the other residents misuse alcohol or illegal drugs or concerns about criminal activity in the home; and
11. Concerns about the presence of firearms, other weapons or dangerous animals.

### **Technical suitability—telephone system**

1. Electronic monitoring units are compatible with digital home telephones that plug into common telephone jacks and not systems that require a modem or other means of connection.
2. Electronic monitoring systems do not operate with rotary dial telephones.
3. A dedicated telephone line must serve the proposed residence. Party lines do not allow the use of monitoring technology.
4. Cellular telephones are not suitable for electronic monitoring.
5. Cordless telephones are not suitable for electronic monitoring. The system does not work when there is a power outage.
6. When the above requirements are not met, and an offender meets all other requirements, the offender is advised to make a connection to a second phone line to be eligible for electronic curfew monitoring. The offender is expected to produce documentation confirming the application of a technically suitable telephone system.

### **Limits on telephone use**

- 1) Candidates for electronic monitoring as a mode of supervision are required to cancel optional features on their home telephone connection. Optional features and equipment beyond basic telephone service are not permitted:
  - Call waiting;
  - Call forwarding;
  - Caller identification;
  - Fax machines;
  - Answering machines; and
  - Phone company answering features.
- 2) If possible, the offender obtains written confirmation from the phone service provider about removal of the above features to qualify for electronic monitoring.
- 3) Offenders who use the Internet via telephone modem are instructed to disconnect their computer from the Internet during electronic monitoring. This does not include cable Internet access.

### **3.2.2. Practice**

In BC, offenders are placed on electronic monitoring by order of a Provincial or Supreme Court Judge. Once a judge has issued an order that contains a condition of electronic monitoring, a BC Corrections staff member attaches an electronic ankle bracelet to the offender's leg. Once activated, the device transmits a signal to the phone line in the offender's home system, communicating the offender's activities to the BC Corrections Central Monitoring Unit (CMU).

The CMU operates 24 hours a day, seven days a week. During the day, the unit officers monitor and respond to alerts from the software system that determines if offenders are non-compliant with the terms of the court order e.g. curfew; and communicates these incidents to case managers. At night, unit officers notify on-call managers of any incidents and, if necessary, notify the police.

The CMU is currently operated by BC Corrections rather than the vendor (or a 3<sup>rd</sup> party representative of the vendor).

Note: BC Corrections is not the only supervising agency in BC that might be electronically monitoring offenders. E.g. Police 810's, Federal Corrections, and Mental Health Services.

### **3.2.3. Offender Profile**

The courts typically place offenders on electronic monitoring as a condition of a conditional sentence order. To be subject to electronic monitoring, the offender must adhere to the following:

- Wearing a personal identification device at all times;
- Allowing monitoring equipment to be connected to the telephone at his/her residence;
- Not interfering with operation of electronic monitoring equipment;
- Returning electronic monitoring equipment to the Corrections Branch at the end of the period of monitoring or the date set by the supervisor;
- Contacting the supervisor or the Central Monitoring Unit (CMU) if unable to comply with the curfew condition, or if there is technical difficulty with the equipment;
- Cancelling telephone features beyond basic service during electronic monitoring; and

- Ensuring an operational phone is in place at all times (i.e. leave the ringer on and do not take the phone off the hook) and the telephone account is in good standing.

#### **3.2.4. Technology**

The technology in use in BC is a Radio Frequency (RF) device with a receiver attached to a landline telephone. Offenders' RF device data and signals are sent to the receiver and cross-referenced with a centrally programmed schedule to monitor offenders' activities. The traditional continuous signal (CS) RF models and systems work well to provide information about whether an offender is (or is not) in a particular location at a certain time.

The current vendor (Serco) is responsible for the provision of the following:

- Program implementation
- Onsite initial training
- System support 24x7
- Software license
- Regular software and equipment maintenance
- Delivery and/or customs fees
- Monitoring equipment (including transportation boxes and tool kits) – GEMS2Web
- Warranty repairs
- Batteries
- Equipment loss rate of 2% per year
- Adequate equipment inventory to deal with decentralized service structure
- User reference documentation
- Consumables with the exception of straps and clips.

BC Corrections provides their own monitoring through the CMU, and maintains their own electronic monitoring data within the Province.

In a recent interview with representatives from Serco, they noted that unique to BC is the hosting of the system by BC Government. This system is almost completely closed to Serco which they say makes maintenance of the system quite difficult. Further, they put in the original system 10 years ago and then 5 years ago they did an upgrade to the new version of the GEMS software. In the intervening years, they haven't had any requests for upgrades. Typically, they are receiving requests for reports and enhancements all the time from their clients so BC's silence is notable.

#### **3.2.5. Costs**

The contract that resulted from the most recent RFP had a term of August 1, 2008 - July 31, 2015. The total aggregate for this contract is \$3,245,462.50 in fees and \$235,514.02 in expenses. The total aggregate including PST is \$3,655,025.35. Actual expenditure to date is \$2,409,948. The average annual cost exclusive of taxes and expenses is \$463,637.50 per annum. Note: These figures do not include the costs to operate the CMU, or ISB or HPAS costs.

### **3.2.6. Efficacy**

The current Radio Frequency (RF) solution used by BC allows the monitor to know when an offender is not within the approved location. This supports curfew monitoring and home confinement. However, RF technology does not provide details about the location of the offender when the offender is away from their approved location.

### **3.2.7. What's Working**

The program supports its described mandate to "...monitor the offender's compliance with the requirement to remain at approved locations during specified curfew times."

The Province maintains ownership of monitoring data which means that BC Corrections staff and police agencies can have access to the monitoring information to support court processes related to breaches and other violations.

### **3.2.8. Current State Observations**

This section describes our observations based on our analysis of the current state of electronic monitoring in BC today.

### **3.2.9. Program Costs**

The Serco electronic monitoring contract for RF devices and services (excluding monitoring) are very high compared to the pricing options available in the market today. In addition to this contract, BC is also paying the costs of the Central Monitoring Unit (CMU) which is staffed 24 hours a day, seven days a week, plus the costs for the on-call case managers who receive after-hours calls from the CMU based on alerts.

There are also costs associated to the services provide by the Information Services Branch (ISB) and HPass for the server and support costs which are not factored into the Serco contract.

### **3.2.10. Device Utilization**

At the last count, there are only 45 people currently on electronic monitoring bracelets at this time. The Serco contract has more units available which means there is more capacity in the program that BC is already paying for but not using.

### **3.2.11. Technology Limitations**

The Radio Frequency (RF) devices that BC is using can only monitor that an offender is at an approved location. This supports the monitoring of curfew and house arrest conditions for compliance but it does not support monitoring beyond that.

There is very limited reporting and analytic ability with the current technology implementation because the program is only monitoring if a person is or is not at an approved location.

### **3.2.12. Program Vision**

The vision of electronic monitoring in 1996 was to provide a less costly alternative to incarceration for select offenders. In current day, the program is monitoring curfews and home confinement based on whether the offender is in an approved location in accordance with conditions. Modern day technology supports program expansion, however the vision of the program has not really evolved beyond the capability supported by the RF devices.

In a recent meeting with Serco representatives, they indicated that the program in BC could do more. However, there has been very little contact between the Province and Serco with respect to enhancements or improvements to the system.

The current electronic monitoring program in BC is isolated within BC Corrections as a stand-alone program. There are areas for program integration with the police, victims groups, and others that could make the program part of a bigger whole.

## 4. INNOVATIVE ELECTRONIC SUPERVISION PROGRAMS

This section provides three case studies showing innovative electronic monitoring programs. These include, police supervision of high risk offenders on 810 peace bonds, a collaborative approach to supervising high risk domestic violence offenders, and a community correction program using multiple different device options in combination with case management.

### 4.1. Alberta

The Province of Alberta is currently running three pilot programs using GPS technology. These pilots are the Targeted Offenders Program operated by Edmonton Police Services, the High Risk Offender Program operated by the Calgary Police and the Red Deer Domestic Violence Court Collaboration Project operated by the Red Deer RCMP, Community Corrections and the Central Alberta Women's Emergency Shelter. All three pilots are funded until March 2015 and Safetracks GPS is the provider of the electronic monitoring technology and services for all of them.

#### 4.1.1. Edmonton Police Services – Targeted Offenders Program

Sergeant Glenn Ball manages the Target Offender section, which has a mandate to look after high risk offenders in the Edmonton area. Clients are people who have served their sentence, are coming out of federal or provincial custody and present a high risk to reoffend. Clients are selected by the Behavioural Unit of the police force. Members of the squad apply the bracelet to offenders and look after maintenance and installation of the bracelets as well as training of other squads.

The program started several years back as a pilot program, which has been extended to March 2015. There are currently four constables and two promoted ranks supporting the program, and they are currently bringing on one more squad which will increase the compliment up to eight constables responsible for enforcement. They currently have 4 offenders that they are monitoring and approximately 13-15 have gone through the program. The most they have monitored at one time has been seven. Of the four clients they are currently monitoring, 3 offenders are on 810's and one offender is on probation. They are all sex offenders. Currently 2 of the offenders they are monitoring are very violent and are a high risk to reoffender (1 federal and 1 provincial release). According to Sergeant Ball there are not enough members to do 24x7 surveillance, therefore EM allows them to provide monitoring without the hit to resources.

- *Supervise High Risk Offenders on 810 Peace Bonds*
- *Offenders have said that the bracelets act as a visual deterrent*
- *Staff monitoring is the "real" cost of the program*

The Behavioural Unit identifies the clients based on select criteria and applies for an 810 peace bond. It is a long process to get offenders on the program (approximately 40 hours of Behavioural unit time per offender). They currently have 2 devices ready to go as they anticipate 2 more clients coming soon. The Behavioural unit is working on their 810 binders for these offenders and they believe there are quite a few more clients who meet the mandate.

Officers use a tablet to monitor the individuals. They do not have the tablet on all the time but they can receive messages through their phones when an alert is triggered. When they receive the email they

can access the program on the tablet, work or home computer. Most of the clients are in a halfway house so they can call the home to validate where the person is and often issues can be fixed over the phone. Officers can change the parameters for alerts if they want to by contacting the vendor.

In Sergeant Ball's opinion the bracelet is only as good as the person wearing it. "It will not stop them from reoffending – if they want to they will." However, the bracelet is seen as a reinforcement. The Behavioural Unit interviews the participants weekly and they are getting feedback from the offenders that the bracelet is a deterrent in most cases.

One of the things that works really well for the unit is the data storage in Canada – they don't need a warrant and can retrieve data quickly. They don't need to go to a company in the US with a subpoena to get access to their data.

Staff overhead is the real cost of the program. \$20-22/day for the bracelet is not the cost-factor they are worried about as that is the responsibility of the Province. They would like to see more high risk offenders on the program but don't have the manpower to expand beyond current capacity. This is still a relatively new program and it has not had a lot of publicity because there is not a high number of offenders being monitored.

The clients are generally low functioning which can mean user issues with technology. The number of hours required for support is variable dependent on the capability of the client to understand how the technology works. Some clients can be very high maintenance. Sergeant Ball notes that if all clients were high maintenance, it would cost a lot of money in overtime.

Sergeant Ball states that they are very happy with the vendor and the product itself. They have conducted internal studies on reliability using a criminology student who is writing a paper on EMP. She wore the bracelet for a week beating it up, putting it under water, putting certain coverings over top of it, wore it in parkades, underground at Light Rail Transit (LRT), and other areas with compromised cellular service. They encountered similar issues that anyone has with GPS – they lost her sometimes and then picked her back up when she reconnected to GPS. However knowing where the signal was lost and picked back up, they were able to triangulate to know where she was.

Sergeant Ball identified potential obstacles for service in very isolated rural areas. They don't have 24x7 coverage by the members which means relying on the on-call member to respond immediately to an "alert" email. In reality, if an offender breaks his parameters it can take up to an hour for a response by an on-call member and Sergeant Ball can see issues with that.

The vendor has been very responsive to requests for service, training and modifications to the bracelets and alert configuration.

#### **4.1.2. Red Deer Domestic Violence Court Collaboration Program**

Ian Wheeliker is the Executive Director of the Central Alberta Women's Emergency Shelter which is the lead agency in the domestic violence court collaborative project, along with the Red Deer RCMP and Community Corrections. They began eight years ago by talking to people that were aware of what other jurisdictions were doing with GPS monitoring of domestic violence offenders. Brian MacDougall, Manager of Nova Scotia Community Corrections was an advisor and pioneer with the technology. Over three years ago, they received operational money to do a pilot project. The shelter was involved because the only way they could obtain government funding was through a non-profit partnership.

The Crown was very reluctant to go down this road as they were worried that the program would open the floodgates to defense counsel to keep clients out of jail by putting them on the bracelet. There was fear by both Crown and Corrections that the defense and the courts would view this as a safe alternative



to incarceration. The Crown developed an internal policy and protocol for circumstances where they would support this as a sentencing recommendation. From the shelter's perspective, their interest was in enhancing the toolbox for safety planning with victims of domestic violence.

Corrections was also reluctant to participate however there was enormous political will to get this going - pressure got them on board. The Probation office was not given any additional resources to support the program. They have two Probation Officers who have built this into their regular day. It is a small program and they are very diligent which creates a lot of work for them. There is a lot of additional data available about the offender that they feel obligated to be aware of.

The process to get an offender on the program is at sentencing. Crown asks for an electronic monitoring condition in appropriate community sentence cases. If the person was going to be incarcerated they still will be as the target population is offenders serving their sentences in the community. The wording of the order condition is that the offender will participate in the EM GPS program as directed by a PO. Corrections will then assess the offender and ultimately decide if they will go on the program. The shelter contacts the victim and explains the technology and that it does not guarantee safety, and then they keep in contact with the victim throughout the process. If a violation of a no go occurs, police and probation are notified (Corrections is notified on next business day if the violation occurs after hours). Police notify the victim.

The program can have 10 active ankle bracelets at any time. At one point there were 13 offenders on the bracelets because the program started slow to gain experience and then picked up momentum. This allowed them to use surplus funds to run with more than 10 bracelets. High risk offenders are the target population.

A corporal with the Red Deer RCMP activates the bracelet, the no-go zone is set up by Safetracks GPS and then RCMP responds to alerts. The dispatch is trained on the use of the software and can locate the bracelet and relay the coordinates to the RCMP.

There have been tampering attempts

however the technology has been very reliable. One offender managed to get his ankle out of the cuff which set off an alarm. The RCMP found the bracelet but not the offender. They reviewed his bread-crumble trail for the previous few days and noticed a pattern of places he went. They found him at one of those places.

If the offender is doing well after 3-6 months, the PO can make a recommendation to the high risk collaborative court team to remove him from the program. All agencies participate in this review so that critical information can be shared.

Mr. Wheeliker recommends that any agency considering this program should start with 2 or 3 jurisdictions and get them working with each other to evaluate and develop the program (inter-jurisdictional). Agencies would quickly find program development requirements, education requirements, training, etc. The Red Deer pilot shares learnings with Edmonton and Calgary and they are currently trying to assess how this can be rolled-out province wide. It is his opinion that the bigger the program is, the more cost effective it is - small programs are not cost effective. He notes that the technology is improving all the time and cellular and satellite costs are coming down and it is not a question of "if" this will become a greater part of community corrections and enforcement, it is "when".

- *Domestic Violence Offenders*
- *Crown and Corrections initially reluctant to participate in pilot*
- *Political will got programs engaged*
- *Technology has been reliable.*



Challenges that will be faced when implementing this program is obtaining buy-in from Crown and Corrections and also the cost-effectiveness of a pilot – to any reasonable standard the pilot is not cost-effective.

Although the technology has been reliable, there could be concern about GPS drift in densely populated areas with a lot of high-rise buildings. This has not been an issue for Red Deer.

## 4.2. Nova Scotia

### 4.2.1. Nova Scotia Correctional Services

Valerie Dolhanty, Senior Probation Officer with Nova Scotia Correctional Services provided the following information about their electronic supervision program. The objectives of their program is to:

1. Increase public safety
2. Reduce recidivism
3. Increase offender accountability/change offender behaviour.

Their client population is adult offenders on Conditional Sentence orders with a condition for electronic supervision, and youth offenders on deferred custody or a probation order with a curfew condition. The Probation Officer ultimately makes the decision if the offender is a good candidate for electronic supervision identifying if there are any reasons why they cannot participate such as health issues, mental health issues or safety concerns in relation to their employment.

The technology used is both GPS and Radio Frequency (RF) devices. Nova Scotia uses a graduated program, through case management, where an offender may start with Active GPS monitoring to RF monitoring to Voice verification to in person reporting only. Currently they have 45 on GPS, 10 on RF and 6 on RF cellular. They also have 27 on Voice Verification (which Val said is low – they are ramping up again with new software).

Nova Scotia Corrections uses BI Industries for ES and Voice and they find them excellent. Monitoring services are provided through JEMTEC and they look after all of their alerts and according to the protocol will respond appropriately.

Nova Scotia Corrections has been using ES since 2006 and have found it to be a great tool to assist with case management.

Val says that they do not use the technology as a stand-alone process, but rather a tool to assist with case management of offenders and youth. Training PO's to appropriately monitor the reporting system (they use BI) to ensure compliance is very essential. Also training in installation, removal and case management is very important. Val is the provincial coordinator with administrative support for the ES program to manage the inventory, technical support and training. They have 5 trainers across the province as well. They are currently developing a proposal for a formal evaluation of the program.

- *GPS, RF, Voice Verification and PO appointments are options for EM Supervision.*
- *Great tool to assist with Case Management*
- *Training is key to avoiding false alerts.*

Nova Scotia will be continuing to use electronic supervision and hopes to increase their numbers every year. The barriers Val identified with this possibility are concerns about the cost of the program and training issues.

As long as the PO has the schedule set up properly, false alerts are not a big issue. This is where the training comes into play – it is very important to train PO's properly. Jemtec has also provided training for our training team who then train PO's. The training team consists of Senior PO and PO's.

## 5. BEST PRACTICES

### 5.1. American Association of Probation and Parole (APPA)

APPA has published a second edition of *Offender Supervision with Electronic Technology - Community Corrections Resource*, a guidebook that aims to “assist manufacturers, service providers, and product and service users in the field of electronic technology to enhance their use of technology for effective community-based supervision.”<sup>9</sup>

The guidebook states that there are two significant trends occurring with electronic monitoring (EM) tools—(1) the emergence of GPS tracking and (2) the development of technologies designed specifically for lower risk offenders. However there remains a lack of evaluative data on the implementation of EM technologies which has been an ongoing concern. In the few studies that have been conducted, the samples are very small or there are other methodological problems that limit their definitiveness.

Sections from the guidebook are summarized below.<sup>10</sup>

#### 5.1.1. Evidence-Based Practices and Electronic Monitoring

Agencies with an evidence-based practice focus collect and analyze evidence to determine which practices should remain, be eliminated, or altered according to desired outcomes. Central to the use of and decision-making in evidence-based practices is the identification of the justice system’s goals and cost effectiveness. While recidivism, during or after supervision, is typically the benchmark to measure success in evidence-based practices, it doesn’t have to be the sole focus. For example, Kiosk reporting is not expected to reduce recidivism but might alleviate workload problems in many agencies.

Despite the growing popularity of electronic supervision tools—especially GPS tracking of sex offenders—the bulk of research fails to find a significant crime reduction benefit from using electronic supervision. The only optimistic and the most robust evaluation of electronic monitoring effectiveness investigates the use of both RF and GPS technologies (2006) – which examined more than 75,000 offenders under house arrest in Florida, and found that offenders monitored with either technology had significantly lower rates of revocations for technical violations or new crimes as well as lower absconding rates. It is noted that this may or may not speak to crime reduction.

In an interview with Carl Wicklund, the Executive Director, American Association of Probation and Parole (APPA), Mr Wicklund stated that the key first step for any agency implementing electronic monitoring is to define the purpose of the program, “What do you want to use it

Mr Wicklund stated that the key first step for any agency implementing electronic monitoring is to define the purpose of the program, “What do you want to use it for and to what end?”, and the next determination is, “Do you have the resources to do what you want to do?”

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<sup>9</sup> [http://www.appa-net.org/eweb/docs/appa/pubs/oset\\_2.pdf](http://www.appa-net.org/eweb/docs/appa/pubs/oset_2.pdf)

<sup>10</sup> [http://www.appa-net.org/eweb/docs/appa/pubs/oset\\_2.pdf](http://www.appa-net.org/eweb/docs/appa/pubs/oset_2.pdf)

for and to what end?”, and the next determination is, “Do you have the resources to do what you want to do?”. From a resources perspective, he is referring to financial and manpower. An additional consideration is does the Agency have the Mandate (Governance) to achieve its vision. If you need to rely on others, e.g. Victims or Law Enforcement then you need Governance support and authority to force collaboration.

#### **5.1.2. Ongoing Supervision with Electronic Technologies**

EM technologies and tools do not change the fact that community corrections is a human relationship intensive occupation and that the success of the program depends largely on face-to-face interactions with offenders, victims and the public. Incorporating electronic supervision technologies requires making other organizational changes as new technologies bring about new ways of doing things, such as:

- New policies and practices as staff will need training before knowing how to use the electronic tool as part of an ongoing supervision process
- Administrative decisions including enrolment, strategies, fees, monitoring decisions, what to do with GPS data, emergency contingency plans, etc.

#### **5.1.3. Human Resources**

The people employed to implement this electronic component will largely determine its success or failure. Human Resources factors that should be considered are:

- Obtaining staff support for electronic supervision
- Staff organizational issues that are particular to electronic supervision, such as what size caseloads, or how many staff, or 24/7 monitoring will be needed for an electronic supervision program component?
- Competencies and qualifications staff need
- Staff training and development needs

#### **5.1.4. Information Management and Evaluation**

The purpose and the type(s) of evaluation planned will determine the information that must be collected and maintained. Thus, each agency must begin planning both its management information system (MIS) and its evaluation plans at the same time that initial planning for the implementation of the electronic monitoring tool is taking place. An agency’s MIS must yield valid, reliable information, yet must operate within the confines of the agency’s resources and expertise. Agencies should consider factors such as ease of use, easy of retrieval, speed of compiling information.

#### **5.1.5. Public Relations**

The perception of the public is that technology can keep track of high risk offenders and prevent them from committing further crimes. However, if the technology fails, the public look for a human being to blame. Expectation management is key to the success of the program. Some considerations for public relations management are:

- Research and assess public perceptions using surveys and public opinion polls to identify problems

- Consider the role of a variety of stakeholders in the planning and implementation phase: social groups, other agencies, and the public
- Importance of having a crisis management plan

## 5.2. Research Summary

### 5.2.1. Overview and History of Electronic Monitoring (EM)

Pioneers in the 1960s, Ralph Kirkland Schwitzgebel and Robert Schwitzgebel, designed the first portable electronic monitoring (EM) unit to send two-way messages between a base station and the unit to report the offenders' activities while in natural social settings. The concept and device were poorly received because at the time changing behavior using positive reinforcement was not widely accepted. Additionally, EM reinforced the idea of the "Big Brother" manifestation. In 1970s, the dawn of the digital age, improvements in electronic technology made EM units more feasible given the pressure of overcrowding issues in jails and prisons, particularly in Florida.

EM for offenders has been in practice since the 1980s in the US and Western Europe. In New Mexico, the first of three probationers were sentenced to be monitored via home detention as a condition of probation in 1983. An experimental project testing a full implementation began in November 1984 in Palm Beach. In less than three years from the first judicially sanctioned experiences, at least 53 EM programs in 21 states had been initiated. Real-time tracking of offenders using Global Positioning Satellite system (GPS) was first implemented in 1997 and grew slowly at first. By 2006, Professor Mark Renzema, the former editor of the Journal of Offender Monitoring estimated that approximately 100,000 offenders were on EM alone.<sup>11</sup>

In Canada, British Columbia was the first province to introduce EM in 1987, and was later joined by Saskatchewan, Newfoundland and Labrador, Alberta and Nova Scotia. In 2008, the Government of Canada launched an Electronic Monitoring Program Pilot (EMPP) for federally sentenced offenders. The EMPP, costing \$856,000, tracked 46 volunteer parolees at low risk in Ontario. The program received criticism based on technical malfunctions and little proof of the device's effectiveness.<sup>12</sup>

Despite the growing popularity of EM technology and tools, especially GPS tracking of sex offenders, EM usage in BC has dropped in the past five years. According to the BC Ministry of Justice EM cases were as follows:

- 2009-10: there were 172 EM cases;
- 2011-12: there were 119 EM cases; and
- 2013-14: the number dropped to 75 EM cases.<sup>13</sup>

Current figures show 45 offenders currently on EM in BC.

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<sup>11</sup> <http://rgable.files.wordpress.com/2012/02/j-offender-rehabilitation-pdf.pdf>

<sup>12</sup> <http://www.cbc.ca/news/canada/electronic-anklet-trial-a-disaster-1.866174>

<sup>13</sup> <http://www.theglobeandmail.com/news/british-columbia/questions-arise-over-dramatic-drop-in-electronic-monitoring/article20782255/>

Recent skepticism on the cost and effectiveness of EM emerged again focusing on questions such as: “*Is EM effective in reducing recidivism?*” and “*Is EM more effective for tracking and deterring low-risk offenders or high-risk offenders?*”

Application of EM is evident in various programs with different purposes. They are often used in:

- Jail Release Programs
- Intermediate Sanctions (positive and negative responses)
- Crime Investigation
- Treatment Enhancement (monitoring substance abuse treatment)
- Specialized Caseloads (impaired-drivers, domestic violence, sex offences)

EM has also been used in the criminal justice process at both the “front-end” and the “back-end.”

“Front-End” EM	“Back-End” EM
<ul style="list-style-type: none"> <li>• Pretrial (or pre-adjudication) as a condition of bail or in lieu of bail, as an alternative to the criminal process (pretrial diversion), probation, and intermediate sanctions. For instances, work release centers and day-reporting programs such as parole supervision.</li> <li>• An alternative to the incarceration of probationers for violations (breaches).</li> </ul>	<ul style="list-style-type: none"> <li>• Re-entry into society after incarceration.</li> <li>• Agencies and corrections programs gradually expand the responsibilities of reintegrating parolees including increasing surveillance of inmates in work release centers and sanctioning rule violations.<sup>14</sup></li> </ul>

According to a 2012 report by the Standing Committee on Public Safety and National Security, EM is used most often for people serving sentences of incarceration of less than two years, who are under a probation order or conditional sentence order, or who are on temporary absence or parole.<sup>15</sup> “With the exception of the life time imposed GPS programs for dangerous sex offenders in Florida (and increasingly elsewhere in the US), EM programs tend to be of short duration – never longer than 6 months and most commonly between 1 – 4 months. For periods longer than 6 months, EM programs have been found to lose their effectiveness.”<sup>16</sup>

### 5.2.2. Evaluation on Electronic Monitoring and Evidence-Based Practices

Generally, there are two approaches to evaluating EM: (1) process evaluation, and (2) impact evaluation. “The first approach is used to provide information regarding how results were achieved, whereas the latter is interested in knowing what the practice or program accomplished.”<sup>17</sup> Particularly in the justice system, evidence-based practices (or data-driven method) provide the field with strategies for agencies to collect and analyze empirical data to determine which programs or practices should remain, be

<sup>14</sup> <http://rgable.files.wordpress.com/2012/02/renzema-evaluative-research-2010-final.doc>

<sup>15</sup> <http://www.stleonards.ca/sitefiles/SLSC%20Policy%20Brief%20on%20Electronic%20Monitoring%20Review%20and%20Recommendations.pdf>

<sup>16</sup> <http://www.johnhoward.ab.ca/pub/pdf/monitorupdate.pdf>

<sup>17</sup> [http://www.appa-net.org/eweb/docs/appa/pubs/oset\\_2.pdf](http://www.appa-net.org/eweb/docs/appa/pubs/oset_2.pdf)



eliminated, or altered according to desired outcomes, such cost reduction or lower recidivism rate.<sup>18</sup> While recidivism is typically the benchmark to measure success in evidence-based practices, agencies can also have other goals. For example, Kiosk reporting is not expected to reduce recidivism but might alleviate workload problems in many agencies. Many of the evaluations aim to answer questions including:

- Does EM affect offender criminal behavior during the monitored period?
- Does EM affect recidivism after the electronic monitoring period has concluded?
- Does EM have positive or negative impacts other than those on offender criminal behavior? For instance, offenders' relationships with others, stigmatism in society, employment rate after the monitored period etc.
- What is the financial impact of operating EM and GPS? (Considering central concerns such as purchasing and maintaining equipment, responding to notifications, training, and staffing.)

While every meta-analysis attempts a comprehensive collection of evaluation studies, there is a lack of evaluative data on the implementation of EM technologies in general. In many studies conducted in the past couple of decades, the samples are either very small or there are other methodological problems that limit their definitiveness such as improper comparison groups (groups matched for offender risk.) Past meta-analytic studies also have delineated publication bias, i.e. "studies done by scholars at prestigious universities are more likely to be published than those done by backwater governmental agencies even if both are competently done."<sup>19</sup>

Among those evaluation studies that were published, the bulk of research fails to find a significant crime reduction benefit from using EM. The research on the relationship between EM and the effectiveness of recidivism reduction is mixed, at best. For example, a large scale comparison of EM and recidivism using one year post-conviction information of 262 offenders conducted across Newfoundland, British Columbia, and Saskatchewan, concluded that there is "no statistically significant differences in recidivism...it is risk level and not type of supervision that influences recidivism."<sup>20</sup> In accordance, the evaluation of Canadian's Electronic Monitoring Program Pilot (EMPP) in 2009 by the Correctional Service of Canada (CSC) also found no decrease in the rate of reoffending.<sup>21</sup>

*The bulk of research fails to find a significant crime reduction benefit from using EM. The research on the relationship between EM and the effectiveness of recidivism reduction is mixed, at best.*

One of the more robust evaluations of EM effectiveness, investigating the use of both RF and GPS technologies, published by National Institute of Justice in 2010 suggests that EM can significantly decrease reoffending rates while the person is under EM supervision. The study examined more than 75,000 offenders under house arrest in Florida during 2001 and 2007,

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<sup>18</sup> [http://www.appa-net.org/eweb/docs/appa/pubs/oset\\_2.pdf](http://www.appa-net.org/eweb/docs/appa/pubs/oset_2.pdf)

<sup>19</sup> <http://rgable.files.wordpress.com/2012/02/renzema-evaluative-research-2010-final.doc>

<sup>20</sup> <http://www.johnhoward.ab.ca/pub/pdf/monitorupdate.pdf>

<sup>21</sup> <http://www.parl.gc.ca/HousePublications/Publication.aspx?DocId=5692404&File=21#intro>

and suggested that the cost of imprisonment is about six times higher than the cost of EM. They also concluded that “EM reduces the likelihood of failure under community supervision. The reduction in the risk of failure is about 31%, relative to offenders placed on other forms of community supervision.”<sup>22</sup> The same report also suggests that GPS typically has a 6% improvement rate in the reduction of supervision failures for offenders relative to offenders placed on RF supervision.

Another study that examined 516 high-risk sex offenders on parole in California for one year, released from prison between 2006 and 2009, also showed positive result. Those subjects under GPS monitoring had significantly lower recidivism rates and better compliance during their monitoring period than those who received traditional parole supervision. The research states that GPS is more cost-effective compared to incarceration. The daily rate of using GPS is more expensive, however, than traditional parole supervision.<sup>23</sup>

While some findings are optimistic that EM can reduce recidivism for clients while they remain under EM supervision, none of the existing studies has shown that EM does more than *postpone* recidivism. Parolees appear to be compliant while subject to monitoring, but, in the words of Peckenpaugh and Petersilia, “when the bracelets come off, other studies have found that monitored offenders perform no better than offenders [who] were never subject to monitoring.”<sup>24</sup>

Some research also examined the extended negative impact of EM usage on the offenders’ families, relationships, employment situation, and society stigmatism as part of the reintegration effort. Both the John Howard Society of Alberta and James Wilson from the St. Leonard’s Society of Canada, emphasize that the impact EM can have on children and persons within the household should be taken into account before imposing the program.<sup>25</sup> Renzema, on the other hand suggests that these problems are minor for the most part and “could be reduced by using more appropriate technologies and by more flexible program management.”<sup>26</sup>

### 5.2.3. Potential Issues and Implications on Policies

In 2012, Bill C-10, the Safe Street and Community Act, amended the Correction and Conditional Release Act (CCRA) to allow Correctional Services Canada to demand that an offender wear a monitoring device in order to monitor their compliance with conditions established in their temporary access, work release, parole, statutory release or long-term supervision that restricts access to a person or geographical location. <sup>27</sup> In addition to the amendment, additional law and policies can also add stricter measure onto the sentence or parole condition. For instance:

- Section 810.1 order is used in cases in which an individual may commit a sexual offence against a child; and

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<sup>22</sup> <https://www.ncjrs.gov/pdffiles1/nij/grants/230530.pdf>

<sup>23</sup> <http://www.nij.gov/topics/corrections/community/monitoring-technologies/Pages/gps-community.aspx>

<sup>24</sup> <https://www.ncjrs.gov/pdffiles1/nij/grants/238481.pdf>

<sup>25</sup> <http://www.stleonards.ca/sitefiles/SLSC%20Policy%20Brief%20on%20Electronic%20Monitoring%20Review%20and%20Recommendations.pdf>

<sup>26</sup> <http://rgable.files.wordpress.com/2012/02/renzema-evaluative-research-2010-final.doc>

<sup>27</sup> [https://www.priv.gc.ca/parl/2011/parl\\_20111118\\_e.asp](https://www.priv.gc.ca/parl/2011/parl_20111118_e.asp)



- Section 810.2 is used when an individual may commit an indictable offence for which they could be sent to prison for 10 or more years.<sup>28</sup>

As EM technologies evolve, and while corrections agencies improve and adapt current laws and programs to meet the changing needs, new obstacles rise along with existing issues that put more pressure on current policy makers. A few highlighted in the research include:

- 1) Since location (and sometimes real-time) information is retained through EM and GPS and available to law enforcement, concerns such as **privacy issues** arise whenever an intrusive enforcement model shifts to a compulsory requirement. Whether or not the offenders (or their co-residents) should have the right to choose whether they wish to be considered for an EM program remains at debate.
- 2) The issue of “**net-widening**” also deserves attention from policy makers to ensure the usage EM is not being abused. ‘The danger that EM surveillance is perceived as an extra precaution (just because it is available) to ensure “public safety” even if the offence does not warrant the program,’<sup>29</sup> is evident in the Martha Stewart case in 2005. Researchers have found that when low-risk offenders are given a more severe penalty, they are more likely to make mistakes and less likely to complete the program successfully.
- 3) While equipment cost is far less onerous than the traditional incarceration, the **additional infrastructural needs and resource costs** associated are simply not taken into consideration. There have been programs in which jurisdictions pass on a portion of all of the hardware expenses to the offender in an attempt to re-coup some of the associated costs. Nevertheless, this practice raises serious concerns around the potential selection of candidates for an EM program being influenced by their ability to pay and also questioning the extra hardship imposed on families barely able to pay for living necessities.
- 4) EM technologies and tools do not change the fact that community corrections is a human relationship intensive field and that the success of the program depends largely on face-to-face interactions with offenders, victims and the public. How does society **rehabilitate and reintegrate** those who have violated current laws remains a fundamental yet elusive question. In addition to using EM, the role of ongoing supervision as part of a comprehensive program and approach is a key factor for successful rehabilitation and public safety.<sup>30</sup>

### 5.3. Best Practices and Recommendations for Research

With the objective to help develop proper policies and procedures for implementing EM, American Probation and Parole Association (APPA) suggests that agencies need to make decisions on the type of individual to be monitored. This decision-making process involves three components:

- 1) Place in the justice system and purpose for the EM program

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<sup>28</sup> <http://www.theglobeandmail.com/news/british-columbia/is-bc-doing-enough-to-monitor-high-risk-offenders/article21073370/>

<sup>29</sup> <http://www.johnhoward.ab.ca/pub/pdf/monitorupdate.pdf>

<sup>30</sup> <http://www.johnhoward.ab.ca/pub/pdf/monitorupdate.pdf>

- 2) General offender selection criteria for participation that correspond to public policies, community and professional views (for both inclusion and exclusion of offenders)
- 3) Assessment and selection of specific offenders considering factors such as:
  - Personal factors, including risks and needs;
  - Stable residence that will accommodate the electronic supervision equipment and telephone service, if needed; and
  - Other members of the household also must be cooperative with the restrictions required for use of the equipment.

The National Institute of Justice (NIJ) currently deploys a Special Technical Committee that develops standards and testing for offender tracking technologies. The standard will help corrections officials make wise purchasing decisions knowing that products that meet the NIJ standards will return reliable location information regardless of the conditions under which they are used.

Five characteristics of minimum integrity requirements specified by the committee are:<sup>31</sup>

Ergonomics	<ul style="list-style-type: none"><li>• The physical attributes of the device, such as its size and weight</li></ul>
Robustness	<ul style="list-style-type: none"><li>• The extent to which the device can withstand wear and tear over time</li></ul>
Circumvention	<ul style="list-style-type: none"><li>• Ability of the device to defeat attempts to disable it</li></ul>
Technical Operation	<ul style="list-style-type: none"><li>• Functioning ability under different conditions, such as extreme cold, dust, rain, humidity</li></ul>
Software Requirements	<ul style="list-style-type: none"><li>• Data to be collected and reports to be provided from the device</li></ul>

In an interview with George Drake and Joe Russo from the NIJ, they identified the main issue for implementing a successful electronic monitoring program is that agencies don't define specific objectives for their program. They stated that good planning is imperative as what typically happens is that the technology gets selected and implemented but the program is underfunded from a staffing and resource perspective. The expectation is that staff who normally work 9-5 will be stretched to cover the 24x7 nature of alerts. This creates overtime issues and programs that fail.

Further, they stated that there are unrealistic expectations of the technology. Governments will implement laws to necessitate the use of the technology without understanding the limitations of the technology. The bracelet can be a deterrent for an offender because it limits them to 3 choices when considering committing a crime: 1) don't commit the crime, 2) cut off the bracelet, and 3) commit the crime anyway. The Schwitzgebel twins' vision for the technology when it was first introduced was to support the rehabilitative process. The questions are how does geographic context impact recidivism? And, can we understand and intervene in a timely way to prevent recidivism? They note that there is some work going on in terms of link analysis and pattern analysis through federal and private funding. The focus is mostly on the law enforcement side, and innovative aspects have not been explored at all. Mr. Drake and Mr. Russo state that true value can be found in analyzing the data to identify precursors to an event that can be studied to look for deviation from established patterns. This may lead to more informed use of the technologies.

G2 Research in Halifax, NS is doing analytics on electronic monitoring data to support intelligence activities.

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<sup>31</sup> <http://www.nij.gov/topics/corrections/community/monitoring-technologies/pages/tracking-standards.aspx>

## 6. EMERGING TECHNOLOGIES

### 6.1. Types and Application of Electronic Monitoring Tools

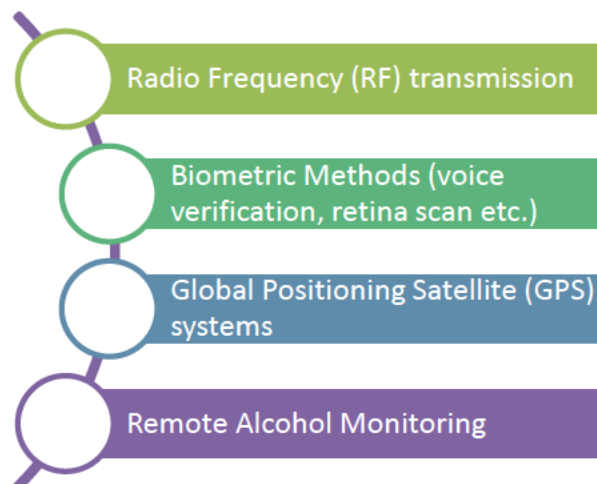
The earliest and most common type of EM technology used for house arrest is a **Radio Frequency (RF) transmissions** device with a receiver attached to a landline telephone. Offenders' RF device data and signals are sent to the receiver and cross-referenced with a centrally programmed schedule to monitor offenders' activities. The traditional continuous signal (CS) RF models and systems work well to provide information about whether an offender is (or is not) in a particular location at a certain time.

**Biometric methods** coupled with programmed contact system call offenders at various times and places by using either voice pattern analysis or visual feed for identity verification. Fingerprint and retinal scans employed at specified kiosk locations for reporting are also employed. They are a viable alternative to other types of technology, especially for agencies with a large banked or administrative caseload. These tools are recommended to only be used with offenders presenting little potential risk.

Gaining traction in recent years, **Global Positioning Satellite systems (GPS)** tracks the physical position of an offender wearing a bracelet that receives transmission from the satellites to calculate accurate time and position information. The *tracking* function (rather than merely *verifying*) signifies a significant evolution in EM technologies. "Passive" GPS "maintains a log of the offender's location throughout the day and uses landline telephones to transmit a summary of the data to correctional officers the next day. In contrast, "active" (or "continuous signaling") GPS transmits real time offender data to authorities.<sup>32</sup> Though arguably cheaper than other EM tools, GPS location tracking of high-risk offenders (e.g. gang members, domestic violence offenders, and sex offenders) can be much more labor intensive for active monitoring and response.

**Remote alcohol monitoring** utilizes breathalyzer-like machines to detect the presence and amount of alcohol. A typical condition of supervision is alcohol abstinence, which is difficult for officers to enforce without conducting a urinalysis. In addition, a continuous remote alcohol monitoring bracelet with a tamper-resistant strap combines RF technology with remote alcohol skin tests to report to a central monitoring agency and a secure webpage, thereby enabling officers to review each offender's progress.<sup>33</sup>

**Drive-By Monitoring (EM)**, consists of a mobile hand held unit used by Police, Parole and or Corrections which detects an ankle worn transmitter and stores this data for download to a computer for evidence. This technology provides notification of the subject's presence at home or when they are away from home, and is well suited for checking on an individual attending workshops or counseling without need



<sup>32</sup> <http://www.oppaga.state.fl.us/reports/pdf/0519rpt.pdf>

<sup>33</sup> [http://www.appa-net.org/eweb/docs/appa/pubs/oset\\_2.pdf](http://www.appa-net.org/eweb/docs/appa/pubs/oset_2.pdf)

for face to face meeting. These units also work well in a group home environment where a number of subjects live together such as a halfway house.

**Mobile Alcohol Monitoring (MAM)** offers a cost-effective and discreet alternative to continuous alcohol monitoring wherein a mobile, compact designed device collects a deep-lung breath sample, while simultaneously photographing the subject and collecting their GPS location at the time of testing.

**Voice Verification (VV)** subjects call an automated system that verifies their identity through biometric "voice print" authentication. The system then verifies that the individual is where he or she is supposed to be throughout the day. This is accomplished through a series of outbound calls from the system to the subject, or inbound calls from the subject from various locations-work, meetings, school or home. Calls must match pre-determined locations for each person. Calls are random or scheduled, but importantly, no equipment is required except a telephone.

**Automated Client Contact (ACC)** clients call an automated system to verify their identity through biometric "voice print", pin number, or other authentication. Then, they easily report status changes, compliance with conditions of release, basic changes in employment or home address, attendance at treatment programs and more. If a client forgets to check in, the application makes reminder calls which can enhance client compliance. Supervising officers can maintain periodic contact with a large number of clients with little effort – saving time and resources. No equipment is required except a telephone.

**Alcohol/Drug Detection (ADD)** drug detection tools or drug test kits for community based offenders who have a history of drug and alcohol problems to help break the cycle of entrenched criminal behavior with evidence-based practices that reduce the likely hood of recidivism.

**Domestic Violence Deterrence (DVD)** consists of ankle worn single piece design incorporating GPS for location and cellular communication for reporting data to central computers. These units allow continuous tracking of the perpetrator throughout the community and may also employ pager or cellular unit carried by the victim.

A US company, Corissoft provides technology and services known as **AIR (Alternative to Incarceration via Rehabilitation)**<sup>34</sup> The offender is provided with a smartphone equipped with GPS, geo-fencing and voice authentication technology. The device provides 24/7 communication and alerts with supervisors and the call centre. The smartphone is paired with a tamper-proof tether device to ensure the offender has their smartphone with them at all times. Corissoft also provides the **Recidivism Deterrent System (RDS)** by partnering with businesses and service providers to help with job searches, substance abuse counseling, parenting workshops, GED and vocational resources. The Recidivism Deterrent System equips participants with calendars, planners and alerts to help them better meet the conditions of their sentences and increase their chances of success.

## 6.2. Technology Considerations

According to Carl Wicklund, Executive Director of APPA, GPS has some benefits but there are a high number of false positives related to lost signals. He states that a number of places have determined that it is too resource intensive to implement GPS because staff are always responding to alerts which puts a lot of pressure on the officer doing the monitoring and staff can become overwhelmed by a constant stream of information. However, he says that there are a number of plusses and minuses with all technology options.

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<sup>34</sup> <https://www.corrisoft.com/air-overview/>

Mr. Wicklund recommends putting only the highest risk people on GPS as it can be beneficial for the agency to see where someone was. This type of tracking works best when working closely with law enforcement as the data provides the ability to identify someone as a suspect or eliminate them as a suspect.

The approach he recommends is to have a range of technology options that can be targeted to the problem that is being solved. For example,

- RF units still have some utility because you know when someone is home and you know when they are not.
- Call systems that utilize voice verification to identify the individual work well for reminding people of things.
- Kiosks can be used for people that you wouldn't normally see to check in, update their information and remind them of certain things.
- SCRAM device (Secure continuous remote alcohol monitoring) can be implemented with RF technology or other technology options to monitor alcohol use.
- Ignition interlock – prevents car from being driven if they have been drinking.

The key is to determine the objectives of the electronic monitoring program and use the technology tool that will support these objectives. Tools can be used to check behaviour but the most positive outcome will be seen when there are interventions to address and change behaviour while you have them checked. The ultimate question for practitioners is, "Will this make us better at what we do?"

George Drake and Joe Russo identified problems with a number of the research studies completed to date. They highlighted the work that is coming out of G2 Research in Halifax with analytics and intelligence using raw GPS data. This data provides for comprehensive pattern analysis on large groups of offender using a massive amount of GPS coordinates.

## 7. MARKET SURVEY

### 7.1. Vendors

A number of vendor organizations were interviewed as part of this survey. They are Serco Geografix Ltd. JemTec Inc., Safetracks GPS Canada, SecureTracksGPS, and G2 Research. .

#### 7.1.1. Serco Geografix Ltd.

Serco is the current provider of electronic monitoring technology and services to BC. Serco have decided that due to restructuring, they will not partake in the RFP process for electronic monitoring in BC when their current contract expires in 2015. Serco will see the contract through to its conclusion but will not offer any additional equipment.

#### 7.1.2. JemTec Inc.

Jemtec Inc is a Canadian company with offices in Ontario and British Columbia, with services provided and supported across the country. In 1987, JemTec began a contract with BC Corrections (Home Incarceration Program) at Vancouver Pre-Trial, using 25 units obtained from BI Incorporated. They also had contracts with Yukon, Newfoundland, Saskatchewan and Ontario. JemTec is an integrator who sources technology from multiple vendors including, BI Incorporated (US host system,) 3M, STOP LLC, Omnilink, Shadowtrack and Buddi. Their focus is the Canadian market for now.

Jemtec currently has around 500 offenders on supervision on some level - e.g. provided technology, not supervision to Saskatchewan, whereas Nova Scotia has monitoring from a US company BI Incorporated. The monitoring center will contact offenders after the first alert, establish why the alarm went off and then verify against criteria established by the Province to see if action is required. If warranted they will inform the police; and in most cases, inform probation officers.

Jemtec provides a variety of service options, including:

- Host processor for self-monitored agreements, hardware; host software may require dialers/receivers
- Complete integrated implementation ranging from hardware, to software, to monitoring, to training; and IT requirements.
- Software “as a service” offering including bracelet installations on the client, home checks, monitoring, computers, etc. This is a complete third party solution. No infrastructure whatsoever.

#### 7.1.3. Safetracks GPS Canada

Founded in 2009, Safetracks GPS provides public safety through GPS. Clients include the Edmonton police and the Calgary police (810 high risk offenders), probation and private rentals, victims and crown prosecutor safety through their ankle bracelet division. They also provide GPS monitoring for Alzheimer patients through an insert in their shoes and services to autistic children with watch technology. They have Canada’s largest monitoring center, which also provides a 911 national transfer. Their technology uses cellular service through Rogers, TELUS and they are currently looking at Bell sim cards. Safetracks GPS is a Canadian company and all the data collected stays in Canada.



Safetracks currently has approximately 30-35 active offender devices but about 400 total units (with Alzheimer's patients, children with autism, etc.). The company is based in Red Deer, Alberta and they have a complete National footprint (although not in the extreme North). As long as there is cellular coverage, they can provide service.

The product they offer is GPS electronic monitoring using an ankle bracelet, combined with the complete end-to-end monitoring process. They own a service stack in the Ontario monitoring centre that provides complete failover and 24x7 capabilities, and all of the data that streams from the ankle bracelet goes into a secure Canadian location

The unit provides intuitive features:

- 2 and 3 way voice communication - can talk to the offender through the bracelet.
- Vibration feature – when an offender enters a red zone the device vibrates to warn them.
- 95 decibel siren embedded in device – Sets off an alarm to notify the public. E.g. if a sex offender is in a playground it can set off the alarm.
- Secure cuff – uses tempered steel in the strap which provides a deterrent to remove.
- RF Beacon – beacon in the house validates they are home.
- Alerts and notifications – 15 different styles – inclusion zone, exclusion zone, no GPS, curfew, etc. The Probation Officer can go online and set the notification types they want to apply to the alerts which provides an immediate update to the monitoring center. Can set it specifically for each different offender.

Safetracks uses a program called Assisted GPS (to boost cell access) and provide triangulations. They supply initial training, installations, shipping procedures, etc. Enrollment and activation of the devices is done by Safetracks and then shipped to the agency. They leave one device at each location at all times. Devices are installed on the ankle by a correctional officer or probation officer and then they call Safetracks to activate it online.

Over the next 24 months Safetracks will be bringing new technologies to the market, including

- Wireless alcohol monitor using GPS – Offender will blow into the device which will send the reading to the monitoring unit.
- Smaller ankle bracelet for lower risk, white collar crime to replace GPS.
- Smartphone application for domestic violence cases – ankle bracelet is placed on the offender – cell phone app alerts the victim when the offender is in the vicinity.

#### **7.1.4. SecureTracks GPS**

SecureTracks GPS is a distributor of “Secure Alert” EM technology in the US (particularly Texas and Oklahoma). The distributor of “Secure Alert” in Canada is SafeTracks GPS, and the companies recently began a joint venture with to scale up in Canada. Up until that point, SecureTracks had US (including Corrections agencies) and SafeTracks had Canada (primarily Law Enforcement).

Safetracks recommends contracting for monitoring services so that staff can focus more on case management – especially for high risk offenders.

Up until a few years ago the quality available in GPS monitoring devices was not very good, but since that time the technology has really improved. However, they identify issues in remote locations with no satellite or cellular signals. In these areas, GPS devices offer nothing. If cellular coverage is patchy, the



device's built-in CPU stores the location data at 1 minute intervals and will report the data as soon as cell coverage is restored. GPS combined with RF can tell you where a person is in a multi-story building. GPS can put them in the building and RF can tell you where in the building they are. They have had no problems with their devices in densely populated urban areas and have done a lot of testing in basements, underground parkades, etc., and can pinpoint an offender within 20-30 feet.

There are 11,000 sex offenders in Florida on "Secure Alert" and close to 100,000 offenders on multiple types of GPS devices in the US overall. They have no estimate at this time on the number of offenders on this product in Canada.

#### **7.1.5. G2 Research**

G2 Research was started in 2009 to address a specific need around delivering intelligence from raw GPS data. Their first market was Law Enforcement in support of Counter Terror operations. Over time their footprint has expanded, and for the past couple of years they have been working on Corrections GPS data, mainly from GPS tracking tools. They currently work with police agencies in Canada and have a significant client-base in BC. Currently they are not working with any Corrections agencies in Canada because it is not a large market compared to the US. However, they are interested in working with Canadian corrections agencies and recently did a presentation to an Alberta working group.

EM GPS bracelet devices generate massive amounts of data containing approximately 1400 GPS points per day from each offender across 12 months. G2 focuses on the latitudinal and longitudinal data to identify movement patterns and in-depth analytics for agencies. Data from the devices is generated to a .csv extract which can be imported and analyzed immediately.

G2 is device agnostic so they can use any GPS data that has been collected, which includes data that can be collected along with the GPS data (e.g. if alert was tripped, geo-fencing boundaries, etc.). Ron says that GPS vendor's software typically picks up geo-fencing, alerts, and that kind of data but G2 goes beyond that.

G2's high value use cases are based on caseload and program goals:

- Treatment and compliance monitoring – patterns of offender attending treatment – are they late, do they stay for the duration, what days do they attend, etc.?
- Investigative orientation – fast analysis of data. Most agencies have a daily review of GPS hotspots but when you look daily at data, you can miss things. The software can surface very quickly patterns that are not obvious through the devices.
- Associations – can find patterns between offenders.

They have done a lot of work in the law enforcement and intelligence sector who use their tools to analyze location data gathered through covert surveillance. They are also working with cell phone data but sometimes there is not enough data to see patterns. Their product has data fusion capability so they can take license plate data, visa transactions and cell phone data and fuse it together to get a more comprehensive location profile of an individual.

The product is an MS based platform with no proprietary hardware required. It is a Microsoft stack, SQL server db, and it can run on desktop, Toughbook (totally standalone), on a server environment locally or a web environment through a browser. G2 can also offer a service where they host the environment.

To set up a pilot, all they need is the data (from .csv extract) and they are up and running same day.

## 7.2. Options

If the goal of the EM program is to focus on high risk offenders only, one option for BC to consider is the “Stair-Step” approach to monitoring offenders where they start with the most intrusive form of monitoring and gradually “step-down” based on compliance. GPS/Home Visits – successfully completed, step down to Radio Frequency, then step down to voice verification, then step down to weekly check in with PO. GPS is recommended for intensive supervision requirements that RF cannot meet (sex offenders, violent offenders, high risk offenders, and prolific offenders). The goal of GPS is to condition certain behaviors over time but GPS is an auditing device and it will not stop someone from doing something if they choose to. This is a model that has been implemented at Nova Scotia Corrections with Jemtec.

Another option is to pick a technology that can do it all – GPS combined with RF, alerting and voice communication through the bracelet – and then use that in whatever mechanism you choose.

There are challenges associated with locking into longer term contracts with a fixed number of units. It can limit the use of the program due to the concrete number of units, it limits flexibility, the units and software may become quickly outdated, and if units are not utilized, the costs of the program per client increase significantly. An option is to move away from the fixed number – fixed type of unit program to a flexible contract with multiple types of technology and base it on rental rather than fixed number agreement. While a certain minimum number of units would be required to ensure there is enough revenue to interest suppliers and that the chosen provider bring top line support it would provide the Ministry with the flexibility to get the tools they need for the clients they have.

Serco representatives advise when going out for tender – determine what the data security needs are and then select the vendor that can meet those needs no matter where they are. Apart from shipping costs, there is no issue with getting equipment from anywhere in the world. They also state that in their experience, many agencies are replacing RF technology with GPS tracking without any consideration of the fact that it is much more intensive on the monitoring staff. The monitor to offender staff ratio needs to increase when using GPS, therefore, it is optimal to have both options - RF and GPS, to complement each other.

Vendors attributed barriers to widespread rollout of GPS technology in Canada due to small numbers of units requested by provincial and federal agencies (a recommended minimum is 30-40), the need for significant training, and the need for data to be gathered and stored in Canada. There are a number of providers who have offshore call centres and monitoring services and these providers cannot respond to an RFP that states that no data can cross the border. They advise that there is a high start-up cost in establishing data centres in two different locations with complete back-up and disaster recovery solutions in place.

Vendors note that there are a lot of opponents to EM but they don’t think they’ve taken the studies broad enough to see what the opportunities are. The focus is mainly on the technology and failure points, when there needs to be a program perspective. GPS technology is definitely an improvement over RF but there are diminishing returns in the technology. There are opportunities with the data to develop intelligence that will change behaviours. Offenders know where the boundaries are and they may stay just outside of them so that they don’t trigger alerts. Software can tell you what days they are in the vicinity, where exactly they go and how long they stay there – this information can be more meaningful than simply tracking alerts.

### 7.3. Pricing

It has been recommended that BC consider a rental or lease program for units (which allows more flexibility) so that extra units don't sit idle, especially during cleaning and testing time. Flexibility in the type and amount of units is recommended, as it is the people resources that make up most of the cost, rather than per unit cost.

Vendors are offering at least a couple of different pricing models.

1. Daily rate based on active monitoring - which works to get a small program off the ground as agencies are not paying for dormant units.
2. Lease program based on the number of devices for a year. Day to day lease is anywhere from \$16-22 per day on a contract, based on quantity of devices leased.

For GPS data analysis, at least one vendor interviewed provides the option of a daily per-unit use fee. This model makes sense up to a certain point (less than 100 units), after that it is possible to scale up to an enterprise model. Given the usage of these types of products with BC police agencies, some leverage points with the police may be possible. Annual costs of this service for BC with about 40 units on a daily per-unit use fee are estimated to be in the neighbourhood of \$10,000-\$15,000 per year.

All of the representatives interviewed stated that the real costs of electronic monitoring are in the staffing required by the Province to support the program.

## Appendix A. JemTec Inc.

Material Provided by JemTec Inc. <http://www.jemtec.ca/>

Jemtec Inc. is a Canadian company with offices in Ontario and British Columbia, with services provided and supported across the country.

The Company supplies the majority of Radio-Frequency, GPS and Voice Verification systems used in Canada. Jemtec helped to introduce the first Electronic Monitoring program in 1987, and since that time has started programs in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Nova Scotia, Newfoundland and the Yukon.

Jemtec is not a manufacturer, so we can provide top-tier solutions from different vendors such as BI Inc., STOP LLC, 3M, Omnilink, Shadowtrack and Buddi.

Jemtec's product range ensures an agency gets supervision tools that match their needs and budget. GPS, Electronic monitoring (EM), Voice Verification (VV) and Alcohol Monitoring (AM) are effective, safe and proven tools that can help police services manage challenging high risk / high-profile cases like Section 810 orders.

### RELATIONSHIP WITH GOVERNMENT

Jemtec has worked with Municipal, Provincial, Territorial and Federal government agencies across Canada as well as Courts and Immigration. We have provided modern supervision technologies for over 25 years and have been awarded many contracts and numerous extensions. We are pleased to say all our projects have been implemented on time and within budget.

### TECHNOLOGY

Jemtec's systematic management approach to technology allows for cascading the client through different technologies to suit their risk/needs profile. This means clients needing different intensities of monitoring or curfew checking can be monitored at the most reasonable costs while providing the greatest flexibility.

An example of this might be a client who is subject to GPS monitoring (higher-risk) for a period of weeks or months then moved to electronic monitoring (medium) or in some cases Alcohol Monitoring (medium) for a period of time and finally subject to their successful curfew compliance, voice recognition monitoring (low).

### Solutions:

Jemtec's offerings allow for the option to store client data in house or in a cloud based environment; either way, Jemtec provides proven secure solutions and services for maximum flexibility.

**Global Positioning System (GPS)**, ankle worn single piece design incorporating GPS for location and cellular communication for reporting data to central computers. Active or Passive GPS technology can be augmented by cell tower triangulation when GPS signals are weak and also often backed up by some form of home based Beacon to provide a tight location and save battery thus extending time between charging. These units allow continuous tracking of the individual throughout the community and when at home.

**Electronic Monitoring (EM)**, as used in BC presently consist of an ankle worn transmitter sending signals to a receiver dialer connected by either a telephone landline or by cell network connection to the central computers. This technology provides notification of the subject's presence or absence when they

enter or leave home, and is well suited for home curfew verification. These units also work well in a group home environment where a number of subjects live together such as a halfway house.

**Alcohol Monitoring (AM)** provides a sophisticated way to monitor a subject's alcohol intake. Continuous alcohol monitoring (CAM) measures ingested alcohol through a sensor that rests firmly on the client's ankle. Another option - Mobile Alcohol Monitoring (MAM) - offers a cost-effective and discreet alternative to continuous alcohol monitoring wherein a mobile, compact designed device collects a deep-lung breath sample, while simultaneously photographing the subject and collecting their GPS location at the time of testing.

**Voice Verification (VV)** subjects call an automated system that verifies their identity through biometric "voice print" authentication. The system then verifies that the individual is where he or she is supposed to be throughout the day. This is accomplished through a series of outbound calls from the system to the subject, or inbound calls from the subject from various locations-work, meetings, school or home. Calls must match pre-determined locations for each person. Calls are random or scheduled, but importantly, no equipment is required except a telephone.

**Automated Client Contact (ACC)** clients call an automated system to verify their identity through biometric "voice print", pin number, or other authentication. Then, they easily report status changes, compliance with conditions of release, basic changes in employment or home address, attendance at treatment programs and more. If a client forgets to check in, the application makes reminder calls which can enhance client compliance. Supervising officers can maintain periodic contact with a large number of clients with little effort – saving time and resources. No equipment is required except a telephone.

**Alcohol/Drug Detection (ADD)** drug detection tools or drug test kits for community based offenders who have a history of drug and alcohol problems to help break the cycle of entrenched criminal behavior with evidence-based practices that reduce the likely hood of recidivism.

**Drive-By Monitoring (EM)**, consists of a mobile hand held Drive-Bi unit used by Police, Parole and or Corrections which detects an ankle worn transmitter and stores this data for download to a computer for evidence. This technology provides notification of the subject's presence at home or when they are away from home, and is well suited for checking on an individual attending workshops or counseling without need for face to face meeting. These units also work well in a group home environment where a number of subjects live together such as a halfway house.

**Domestic Violence Deterrence (DVD)** consists of ankle worn single piece design incorporating GPS for location and cellular communication for reporting data to central computers. These units allow continuous tracking of the perpetrator throughout the community and may also employ pager or cellular unit carried by the victim and helps reduce the likely hood of families facing threats, intimidation, and physical violence.

## **A COMMITMENT TO QUALITY**

Jemtec's commitment to quality and customer service is critical to maintaining the Company's position as the industry leader. Our customers are provided the highest quality products possible and outstanding service from installation, to training and ongoing technical assistance 24 hours a day. The products are fully warranted for one year from date of delivery and in most cases have been certified to the ISO 9001 International standard for quality systems.

JEMTEC is committed to achieving leadership-level quality in all of its services and products. Our concept of quality is defined in two ways: by the degree to which our services and products are designed to meet or exceed our customers' needs and expectations; and by the degree to which our services and products are defect free.

## **WHY GLOBAL POSITIONING SYSTEM (GPS)?**

We are frequently asked why GPS as compared to regular EM, VV or Day Reporting or even nothing at all for community based offenders. It is clear to us that one solution does not fit all offenders (includes pretrial) and that a spectrum of technology should be used along with behavioral skills training and support to change behavior. We strongly support a stair step program for those offenders which require additional support in the community. The stepped program would see clients move through a technology program starting from the most intensive for their needs such as GPS, EM or VV and retching down to day week or monthly reporting.

As well we see the technology being available to not just Corrections but also Police, Courts, Parole and Health Services as needed. The program would see a pay for use component with a small minimum to ensure the continued support the provider.

## **WHY ELECTRONIC MONITORING?**

When implemented properly, today's electronic monitoring solutions can quickly detect undesirable behaviors and notify authorities on breaches of release conditions. This can then in turn support treatment efforts, reduce public risk and be an extremely cost-effective alternative to the high cost of continuous police surveillance.

Electronic monitoring offers many worthwhile benefits to a wide range of stakeholders.

### **PUBLIC**

- Demonstrates to citizens and taxpayers that law enforcement is using a multi-pronged, cost-effective approach to manage challenging cases
- Enhances public protection – especially challenging high-risk / high-profile cases such as Section 810s, provides greater offender accountability

### **POLICE SERVICES**

- Enhances supervision and reduces the needs for time consuming 'round-the-clock police surveillance
- Reports curfew compliance, alcohol consumption, entering prohibited areas and neighborhoods, provides reward and sanction tool to encourage responsible behavior
- Reduces requirement for routine tasks and surveillance activity, Helps identify suspect behavior, Increases staff efficiencies

### **HIGH RISK / HIGH PROFILE SUBJECTS**

- Provides closer scrutiny and transition for those terminating their parole or leaving an institution
- Allows subjects to demonstrate that they are prepared to cooperate
- Provides needed structure by forcing adherence to a schedule or alcohol abstinence
- Helps detect impulsive behavior

While EM cannot guarantee that an individual will conduct him/herself responsibly, it does establish a framework that encourages positive behavior patterns. EM allows law enforcement officials to monitor and enforce certain sanctions such as curfews that would otherwise be a significant drain on limited resources

## Appendix B. Safetracks GPS Canada

Material available at Safetracks GPS Canada Website: <http://www.safetracksgps.ca/>

SafeTracks GPS Canada has been actively evolving the Electronic Monitoring (EM) industry in Canada for over 5 years. Our quest to bring a true EM solution to Canada has been a long journey which has required precision, knowledge and perseverance. Our team, SafeTracks GPS Canada, is confident we have finally reached this milestone and look forward to being the premier EM provider in Canada for years to come.

We look forward to working with our exclusive EM partners as we continue to evolve, and change this industry in Canada. Please take the time to review a brief Corporate Progress Report as follows. Please feel free to contact us if you require additional information or details.

### **Technical Overview**

Our due diligence, partnerships, and knowledge allowed us to break ground and initiate this innovative step in Canadian EM.

Our EM platform is almost identical to the industry leading EM platform that is located at the SecureAlert corporate head office in Salt Lake City, Utah. Servers, data bases, communication lines as well as redundancies for power requirements were all implemented in a true, 100%, 5 Diamond ULC approved facility. A VPN ties our platform to the specialists at SecureAlert corporate head office shall any maintenance or upgrades need to be done as we move forward.

The addition of Northern 911 as the selected Monitoring Center for this Canadian platform was a perfect fit. As the premier 5 Diamond, award winning, ULC, 911 response center in Canada, this added another layer to our ground breaking, innovative EM solution.

### **Mission**

Our mission is to provide Pro-Active electronic solutions to help improve the safety and security of our communities. Safety is our prime concern and it is especially important in today's busy, high paced society.

Our Pro-Active safety solutions add a new layer of security with the enhancements of cost effective, GPS empowered, Electronic Monitoring technologies; SafeTracks GPS Canada is committed and dedicated to improving safety and security through electronic intervention.

Whether you want to keep an extra eye on your Children, Newly Licensed Teenagers, Elderly Parents, Loved one with Alzheimer's disease or other Special Need, Victims of Domestic Violence, or Mentally Challenged, SafeTracks can help add an electronic layer of safety and security which was previously unavailable.



## Appendix C. SecureTracks GPS

Material available at SecureTracks GPS Website: <http://securetracksgps.com/>

SecureTracks GPS provides leading-edge electronic monitoring devices to public and private agencies. Our expert training, service, and management; is second to none.

We are committed to serving your needs and provide you with excellent customer service and personal attention. Our goal is to deliver the most advanced GPS electronic monitoring device to you and meet your needs while building a relationship and deliver everything we promise.

SecureTracks GPS is a division of Synergy Telecom Service Co., Inc. based in San Antonio, Texas. Synergy has been providing public pay and inmate telephone services to correctional facilities since 1995.

The emergence of the Global Positioning System (GPS) has provided effective developments and reliable devices for Electronic Monitoring (EM). The overcrowding in many jails and prisons has led to alternatives from incarceration for pre-trial and community needed supervision for offenders. Synergy Telecom formed SecureTracks GPS to provide electronic monitoring devices to meet this growing need.

SecureTracks GPS provides local, state, and private agencies with a reliable and proven Electronic Monitoring (EM) device for offenders. With over 5 million offenders under different forms of pre-trial and community supervision, a state-of-the-art patented EM device is needed for peace of mind.

We understand the correctional industry, for over 15 years we have worked with local and state agencies to successfully provide public pay and inmate telephone services. We also install kiosks, video visitation systems, and voicemail services. We provide telephone services to small, medium, and large jails and prisons in the United States and Canada.

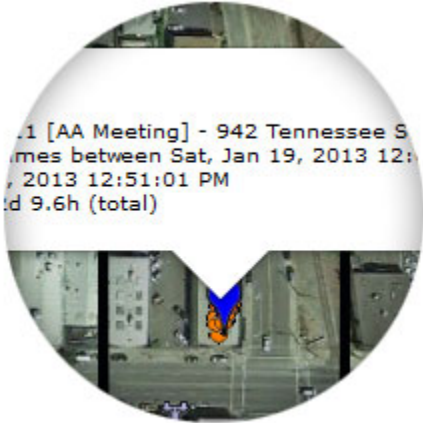
Our mission is to provide excellent customer service with personal attention tailored to all of our clients. We establish a relationship with all of our customers in all areas of service, training, and management. We listen to the specific needs of each of our clients and strive to provide them with all of their needs. We have partnered with SecureAlert to offer you a reliable, effective, and proven GPS electronic monitoring device.

We recognize the need for alternatives to incarceration and provide you with a patented GPS monitoring device and a dedicated monitoring center second to none!

## Appendix D. G2 Research

Material available at G2 Research website: <http://www.g2-research.com/home/>

### Enhanced Monitoring to Improve Public Safety



ICU OBSERVER acts as companion product to existing GPS monitoring hardware to provide Community Corrections officials with critical travel insight to enhance their capacity and effectiveness in the monitoring and investigation of offender activities and program adherence.

Each day, the GPS bracelet worn by an Offender on Community Supervision collects over 1400 individual GPS points. As a Corrections official, you can opt to view a breadcrumb trail to see where an individual went on a given day or you can opt to automatically analyze those 1400 GPS points in conjunction with all the prior GPS points collected for that Offender to truly understand the travel patterns, alert patterns and overall activity of the Offender over the long-term.

ICU OBSERVER will help you maximize Public Safety and your investment in existing GPS-based EM programs.

#### Real-world applications

##### Improved Daily Review

The fully analyzed GPS data will automatically provide the user with a series of visual clues and highlight times/locations that will be of interest to the reviewer. Save up to 40% of the normal time required to conduct a daily review of Offender travel – and gain more insight into Offender behavior at the same time.

##### Case Investigations

In the event of a detailed investigation or a hearing that requires the review of Offender activity over a period of time, the data within ICU OBSERVER is easily interrogated to allow for the production of a series reports and graphs to deliver key intelligence such as location pattern analysis to determine aggregate activity at specific locations or locations sharing common characteristics.

##### Law Enforcement Support

Rapidly and effectively provide colleagues in local Law Enforcement with the most comprehensive analysis relating to the whereabouts and activities of an individual or group of individual for any period of time. Deliver this insight with just few mouse clicks.

##### Coming Soon: Alert Pattern Analysis

Managing alerts is a critical activity for the Corrections official and the Agency as a whole. ICU OBSERVER captures all of the alert activity generated by the EM device and displays the alerts for rapid detection by the user. With detailed analysis of the alerts, ICU OBSERVER will be able to help the Agency identify repeat offenders, problematic caseloads and geographic areas with problematic coverage, thereby allowing the Agency to be proactive in areas such as re-orienting zones and Offender behavior.

## Appendix E. RFP – Red Deer Domestic Violence Collaborative

Example RFP for GPS Technology and services for a pilot to monitor high risk offenders convicted of Domestic Violence.

### 1.0 INTRODUCTION

The Central Alberta Women’s Emergency Shelter (“C.A.W.E.S.”) is a charitable organization serving the central Alberta area. Our safe, secure home-like shelter located within Red Deer currently houses up to thirty-six women and children at any one time for a maximum of 21 days, or longer in special circumstances.

Our clients include women who are battered (physically, psychologically, sexually and emotionally) with or without children and in need of temporary safe refuge from family violence and whose health and safety would be threatened if they remain in the family home. Victims of sexual assault who are incapable of meeting their own needs or those of their children are also offered safe refuge. Women and children in crisis, experiencing homelessness or in an emergency situation and without viable alternatives are eligible for shelter services.

### 2.0 BACKGROUND

C.A.W.E.S. has received a grant from Alberta’s Safe Communities Innovative Fund (“SCIF”) to fund a pilot project designed to enhance the supervision of select persons subject to court orders arising from *Criminal Code of Canada* convictions for serious criminal domestic violence offences. The pilot project will involve the use of ankle bracelets and GPS technology for electronic monitoring of offenders within the City of Red Deer who are subject to probation orders that contain terms that:

- (a) prohibit contact with victims or other named persons;
- (b) require curfew compliance;
- (c) restrict movement to specified geographic areas; and
- (d) prohibit attendance within or near specified geographic areas.

The long term goal of the pilot project is to increase offender compliance with probation orders and thereby enhance the safety of victims of serious criminal domestic violence and other members of the public, and to reduce further involvement of both offenders and victims with the criminal justice system.

Throughout the term pilot project C.A.W.E.S. will be working with the Red Deer R.C.M.P. Domestic Violence Unit, the Red Deer Domestic Violence Court Project, the Red Deer office of

Alberta Justice (Crown Prosecutors) and the Red Deer office of Alberta Department of the Solicitor General (Probation Officers).

The SCIF grant is to fund the operation of the pilot project from its anticipated start date APRIL 1<sup>ST</sup> 2011 until March 31<sup>st</sup>, 2014.

### **3.0 GENERAL AND SPECIFIC REQUIREMENTS OF THE PROPOSAL**

Pursuant to this RFP a contract may be executed with C.A.W.E.S. In the event that a contract is awarded it shall contain, at a minimum, the terms, conditions and requirements of this RFP, as follows:

#### General

1. The contract will be for the term of the pilot project.
2. The vendor shall supply a comprehensive GPS Electronic Monitoring Solution for offender monitoring that must include ten (10) fully integrated single piece devices (“tracking devices”) that attach to offenders’ ankles.
3. The vendor must provide a web based software system that allows RCMP and other authorized personnel to access the vendor’s central host system via commonly used web browsers over a high speed internet connection.
4. The Vendor must provide a secure central host system that houses all data and historical reports in Canada.
5. The vendor must provide a monitoring centre that is located in Canada.
6. The vendor must provide training and support.

#### Specific Requirements

##### **A. GPS Tracking Devices**

The tracking devices must each be a single piece device that:

- attaches to an offender’s ankle;
- integrates CPU, GPS technology and GPRS/GSM cellular (voice and data) technology;
- communicates with the vendor’s live monitoring centre to track and capture location information about the offender;

- allows real-time voice communications between the RCMP and other authorized agencies, the monitoring centre personnel and the offender;
- meets ISO 9000 manufacturing standards, be FCC certified and poses no safety hazard to the offender or any other person;
- functions reliably under normal atmospheric and environmental conditions;
- provides real-time tracking and alarm notification, and when data channels are not available the device must be able to provide real-time notification via SMS;
- is a highly sensitive module augmented by EGPS (Enhanced-GPS) and Network Assisted services that enable location identification within thirty (30) meters;
- at a minimum provides tracking intervals of one (1) minute;
- can independently verify and record compliance and violations (including zone violations and equipment violations) without further communications with the central host system;
- has an internal clock that date and time stamps all events;
- when the device recognizes the occurrence of a violation, the device shall log that violation onboard and shall initiate a data transfer with the central host system, regardless of the next preset "call-in" time, to enable the vendor to immediately notify the RCMP or other authorized agencies and victims;
- automatically identifies and communicates to the central host system **alarm information** including, at a minimum: inclusion zone violation, exclusion zone violation, strap tampering, loss of communication, battery "critical" and shutdown;
- automatically identifies and communicates to the central host system **event information** including device power up, battery charging and battery charged;
- provides two/three way voice communication capabilities that can be utilized by the vendor's monitoring centre to communicate to the offender at any time regarding alarms and/or

violations, and that allows the vendor's monitoring centre and the RCMP to have other voice communication through the device, and that provides digital recording and date and time-stamped recording of all such communications;

- initiates violation notification to ensure real time violation notification to the RCMP (as opposed to violation notification by the vendor's central host system);
- provides vibration, audio and voice alerts to the offender;
- provides multiple tracking options (i.e. active and passive) without changing out any equipment or components;
- provides storage of location and event data in the event of a disruption of communication with the central host system, with capability to forward stored data to the central host system upon resumption of communication;
- provides a strap made of hypoallergenic plastic that is stretch and cut resistant and contains an embedded fiber optic strand capable of detecting tampering and which will generate a violation notice to the central hosting system in the event of tampering;
- contains an on-board audible alarm of at least 90dB that cannot be de-activated by the offender;
- contains a battery that provides 24-36 hours of active life and re-charging capability no greater than 1.5 hours;
- shall be waterproof to at least three (3) meters; and
- includes a charging cord that plugs into a standard AC power supply while still affixed to the offender's ankle.

#### B. Software System



The vendor shall be required to provide a web based software system that will allow RCMP personnel and other authorized agency personnel to access the vendor's central host system by commonly used web browsers over a high speed internet connection.

The software system must:

- be completely web based and shall not require installation on RCMP or other agencies' computer hardware;
- be secure and must utilize protocols that prevent unauthorized access;
- have the capability to provide the RCMP and any other authorized agencies with on-demand offender location web-tracking, so as to provide up to date mapping and location data relating to offenders immediately upon request by authorized personnel;
- allow authorized personnel to view comprehensive offender data including offender profiles, current and historical monitoring data, violation status and notification settings, with capability to upload multiple offender identification photographs;
- display the physical location of offenders on a recognizable map interface with zoom and pan capabilities, and allow identification of approximate street addresses;
- allow authorized personnel to use the software to specify notification protocols (identify violations and events that trigger communication, type of communication and communication recipients);
- allow other types of communications such as telephone, email and text;
- be capable of performing single event crime scene correlations, including the capability to query databases to determine whether particular offenders were at or near crime scenes at specific times;
- allow authorized personnel to access online reports; and
- allow authorized personnel to easily view the actual speed of offender travel, battery status of the device, number of satellites and cellular strength at each recorded point.

### C. Central Host System

The vendor must provide a secure central host system that:

- stores all monitoring data in Canada;
- is located at the vendor's facility;
- is failure-protected by a fully redundant backup system;
- is capable of indefinitely continuing monitoring operations in the event of an AC power loss;
- is capable of communicating data to and receiving data from the GPS devices via cellular telephone technology; and
- is located in Canada and houses and stores all data and historical reports only in Canada.

### D. Monitoring Centre

The vendor must provide a monitoring facility solely devoted to monitoring offenders as follows:

- there shall be live monitoring with operators using information transmitted from the tracking devices to the central host system;
- the monitoring centre shall be staffed by operators who shall be available to monitor offenders and communicate with authorized personnel and offenders continuously via a toll-free telephone number 24 hours per day each and every day of the week;
- monitoring centre operators shall provide real time intervention monitoring of offenders and alarm notification to the RCMP and other authorized personnel, and to offenders;

- real time notification to the RCMP and authorized personnel shall include telephone, text message, and email and shall follow established protocols;
- real time notification shall be by the tracking device voice communication technology in accordance with established protocols;
- all monitoring centre operators and other monitoring centre personnel must be without any Criminal Code or other record of conviction under any federal statute, must not have any pending Criminal Code charges or pending charges under any other federal statute, must sign a Confidentiality Agreement and must successfully complete training courses related to monitoring as required by the vendor and/or C.A.W.E.S.;
- the monitoring center must be located and operated solely within Canada; and
- the monitoring centre shall not store or transmit data related to offenders outside of Canada.

#### E. Training and Support

- the vendor shall provide initial onsite training for authorized personnel;
- such training shall include instruction on the installation and operation of the tracking devices and software;
- such training shall include written instructions and operating manuals;
- the vendor shall also provide web based remote training opportunities to authorized personnel;
- the cost of training shall be paid by the vendor unless otherwise agreed; and
- the vendor shall provide reasonable ongoing support and training as required by C.A.W.E.S.

#### **4.0 QUALIFICATIONS OF THE VENDOR**

The vendor shall be licensed to carry on business in the Province of Alberta. In the event that the vendor is a corporation, the vendor shall be properly incorporated and authorized to carry on business in the province of Alberta.

The vendor shall furnish with the vendor's response to this RFP a certificate of insurance evidencing that the vendor has insurance coverage equal to or greater than 2 MILLION DOLLARS, and the vendor shall name C.A.W.E.S. as additional insured in the minimum amount indicated herein, and shall submit a certificate of insurance to C.A.W.E.S. naming C.A.W.E.S. as an additional insured in the minimum amount indicated herein before beginning work on this pilot project and annually thereafter during the term of the pilot project.

## **5.0 GENERAL**

By responding to this RFP each responding party agrees and acknowledges that:

- (a) any contract awarded by C.A.W.E.S. shall be awarded in reliance on the information contained in the written proposal submitted in response to this RFP;
- (b) vendors who submit proposals may be required to answer further questions and provide further information C.A.W.E.S. relating to their proposals;
- (b) receiving or responding to this RFP shall not entitle any party to participate in providing technology or services resulting from or arising in relation to this RFP, and C.A.W.E.S. shall have no liability or obligation whatsoever, in equity or at law, to any party with respect to this RFP except upon the complete and proper execution of a written contract with such party;
- (c) C. A.W.E.S. has not and does not warrant or represent that the information contained in this RFP is accurate and complete.

## **6.0 CRITERIA BY WHICH PROPOSALS WILL BE ASSESSED**

C.A.W.E.S shall not be obligated to accept any proposal submitted in response to this RFP. In the event that a proposal submitted in response to this RFP is accepted or rejected by C.A.W.E.S, such acceptance or rejection shall be in the absolute discretion of CA.W.E.S.

RFP responses will be assessed by C.A.W.E.S as follows:

- (a) all responses to this RFP shall remain confidential and shall be deemed to be the property of C.A.W.E.S and shall be retained by CA.W.E.S. in accordance with the C.A.W.E.S. record retention policy;
- (b) the assessment shall take into consideration the specifications and qualifications described herein;
- (c) assessors shall make note of special or differentiating features of each proposal;
- (d) C.A.W.E.S. has established certain requirements with respect to the proposal to be submitted in response to this RFP. The use of the words “shall”, “must”, or “will” in this RFP indicates a requirement or condition that must be met before any proposal will be accepted.
- (e) prior to awarding any contract C.A.W.E.S. shall conduct a credit or reference check of the vendor selected, and in the event that C.A.W.E.S. is not entirely satisfied with the result of that credit or reference check then C.A.W.E.S. shall be absolutely entitled to decline to enter into any agreement or contract with the said vendor; and
- (f) C.A.W.E.S. shall not be required or obligated in any way to disclose to any other party the basis upon which any proposal to this RFP is accepted or rejected.

## **7.0 TIMING OF RESPONSE TO PROPOSALS**

Within thirty (30) days of the Closing Date C.A.W.E.S. shall notify each responding vendor of its decision to accept or reject that responding vendor’s proposal.

## **8.0 PROCESS FOR SUBMITTING QUESTIONS REGARDING THE RFP AND SHARING RESPONSES WITH OTHER PARTIES**

Questions relating to this RFP should be submitted in writing to:

Central Alberta Women’s Emergency Shelter

P.O. Box 561

Red Deer AB T4N 5G1

**Attention: Ian Wheeliker, Executive Director**

Fax (403) 346-2128

C.A.W.E.S. retains the right to decline to respond to questions that may, if answered, breach C.A.W.E.S. duty to keep information confidential, or that C.A.W.E.S. determines in its absolute discretion are not questions that are relevant to this RFP.

CA.W.E.S. retains the right to disclose questions submitted and responses to such questions to such parties that C.A.W.E.S. determines, in its absolute discretion, are entitled to such information.

## **9.0 INSTRUCTIONS FOR SUBMISSION OF PROPOSALS**

Each responding vendor must deliver **four (4)** signed copies of its proposal to C.A.W.E.S. to the address described in Article 8, to the attention of Ian Wheeliker. Each written proposal submitted:

- (a) must be received by C.A.W.E.S on or before the Closing Date described at page 1 of this RFP, unless C.A.W..E.S. in its absolute discretion elects to extend the Closing Date;
- (b) must be signed by the responding vendor (if an individual) or its authorized officer or representative (if a corporation or a partnership); and
- (c) must contain complete and detailed information responding to the specifications and qualifications described in this RFP, and must include a statement that the responding vendor understands the terms and conditions of the RFP, is able to meet those specifications as of the date the proposal is submitted and will abide by them if awarded a contract.