

# **Reducing Contraband through Technology**

**Jeff Henry**

## **Abstract**

Correctional facilities are constantly dealing with issues related to contraband within their facilities. As inmates come up with new ways to introduce contraband and illegal substances into the facility, Correctional administrators must identify the origins within their facility and find innovative ways to thwart these efforts. This research will review the origins of contraband and examine what detection technologies are being utilized and which technologies are deemed most successful in detecting contraband.

## **Introduction**

All correctional facilities are faced with the daily struggle to create a safer environment for those incarcerated, as well as their staff, and to control illegal and harmful contraband. Contraband interdiction is a dynamic and ever-advancing security challenge. Most prisons and jails are reactive rather than proactive when dealing with the issues of contraband and rely on those inquisitive employees who pride themselves in the detection and removal of contraband items from the facility. However, those individuals' efforts are not enough and they are too few and far between. Even through their diligent efforts and coordinated searches, contraband still remains an issue within facilities. Corrections administrators should make concentrated efforts to deal directly with the problem by focusing on the origins and points of entry for contraband into their facilities. The focus of this research is to examine the origins of contraband and to determine the extent of, and the utilization of, effective contraband detecting technology, which can be deployed at various entry points to detect and deter contraband. The utilization of technology, will offer corrections administrators the ability to reach their ultimate goal of operating a safe facility for staff, offenders, and the public, by eliminating or at least reducing contraband.

## **Literature Review**

### **Origins of Contraband**

Contraband is prevalent in most jails and prisons and is, like the weather, fluctuating from day to day. Often, there is a sense of uselessness because it seems we only react rather than change the course of events. Bouchard provides suggestions for dealing with contraband in our jails and prison facilities and how correctional personnel can stay ahead of the contraband smugglers. Bouchard suggests that

correctional professionals adopt strategies to deal with contraband by cultivating contraband control specialists (contraband nerds), utilizing a systematic approach to searches, and anticipating and identifying entry points into the facility. Bouchard identifies the origins of contraband by utilizing the acronym E.V.I.L., which stands for employee, visitor, inside, and let in. (Bouchard, 2012). These are the focal points upon which correctional professionals should concentrate their efforts to detect and deter contraband from entering their facilities.

As great an effort as is placed on the qualifications and background checks of new employees, there will always be those individuals who will conduct illegal activity. Unfortunately a small percentage of corrections employees will become involved in some sort of illegal activity, whether it involves bending or overlooking institutional rules, or bringing in illegal drugs. "Downing the Duck", the prison jargon term "duck" referring to an correctional employee, who can be manipulated or easily fooled, comes to mind. In the inmate version, prisoners share how they manipulate and con staff into smuggling contraband items to them while incarcerated, which ultimately result in the demise of the officer. These corrupt officers deal the greatest blow to the security of the facility and will be the most difficult to curtail (Bouchard, 2012).

In addition to the correctional staff and the contracted employees who enter the facility, correctional facilities allow multiple visitors into the facility each day, most of whom comply with the institution's rules and regulations. However, as with employees, there will be a small percentage that will circumvent procedures and introduce contraband into the facility.

A large percentage of contraband within our correctional facilities originates from ordinary items the correctional staff provides directly. This is contraband that is fashioned from items, such as razors, toothbrushes, and reading material, while other contraband is hidden during intake and not detected and allowed to enter the facility. Often items are brought in by inmate work crews who have returned from working outside the facility (Bouchard, 2012).

## **Weapon and Contraband Detection Technology**

The following are examples of technology that may be deployed by correctional professionals to eliminate or minimize the origins of contraband entering into facilities.

### **Hand Held / Walk-Through Detectors**

Hand Held Metal Detectors (HHMD's), also called Metal Detection Wands, and Walk-Through Metal Detectors (WTMD's) or Archway Metal Detectors (AMD's) are a very common security technology. The reason for this is that these devices are affordable, portable, and relatively easy to operate. The HHMD's allow the security staff to accurately locate the source of contraband on an arrestee/inmate's body, often after an arrestee/inmate has gone through an AMD and caused an alarm. The operator can then move the HHMD around and close to an arrestee/inmate's body to detect any metal object. The operator can fairly accurately locate sources of metal that may be on, or close to the person's body. The HHMD's and AMD's work on basically the same

principle, they emit time-varying electromagnetic fields and listen for waves coming back from potentially harmful metallic items (Paulter, 2001).

### **Backscatter X-Ray**

This detection device uses high energy, low dose X-ray beams to detect contraband on a person's body or within a vehicle. The device features a portal walk-through application or can be configured as an enclosure to accommodate vehicles. However, this technology is not capable of detecting objects in body cavities, such as in the mouth or inside of the abdomen (Whitworth, 2010). However, it can detect objects that regular X-ray scanners and metal detectors cannot pick up very well, like ceramic knives, drugs and liquid explosives.

### **Millimeter Wave Detection Devices**

Similar to backscatter x-ray devices, millimeter wave detection devices interpret high frequency radio waves through the use of software to determine if an arrestee/inmate is concealing contraband either next to or close to the skin. This technology can be utilized either passively or actively and detects foreign objects within a reasonable timeframe. However, like the backscatter X-ray, it does not detect objects within the body (Whitworth, 2010).

### **Weapons and Non-Permitted Devices Detector**

The weapons and non-permitted devices detector, or WANDD, is a hand held system similar to the hand held metal detectors. The WANDD can be used to scan fully clothed inmates/arrestees and can detect objects underneath clothing using sound waves. This technology is designed to specifically spot non-metallic contraband and will detect metal as well (Bulman, 2009).

### **Whole Body Scanner**

Proponents claim that this new technology is revolutionizing strip searches in today's jails and prison facilities. One could say the word strip search is being dropped altogether. In a 21<sup>st</sup> century search, a full body scanning technology is being deployed that detects hidden objects inside or on an arrestee / inmate's body. This entire process is completed in about 7 seconds and only requires the individual being scanned to remove their shoes (Pittman, 2011). The whole body scanner works by emitting a low dose of radiation and digitally interprets the image, which is sent to a nearby computer screen. Proponents of this technology suggest that it can detect narcotics, plastic and liquid explosives, metallic and nonmetallic weapons, chemical and biological materials, and components of explosive devices. Compared to previous technologies, advocates claim a field of view and object detection efficiency advantage (Ely & Craig, 2009).

## **Technology in the Mailroom (Drug Detection)**

As technology advances in the detection of contraband within jail and prison facilities, the methods used to get contraband into facilities also advances: LSD dropped onto an envelope and covered with a stamp, cocaine injected in the ink of a gel pen (NLECTC, 2003); and marijuana and/or tobacco sealed in an envelope or a greeting card. Any way you can think of to disguise illicit drugs coming into facilities a drug addict will give it a try. A common technique for getting illegal drugs into a facility is through the mail. Often under the guise of legal mail, "Legal Mail" is generally from an inmate's attorney and is often not opened and searched in the mailroom, but is forwarded to the housing area where the mail can be opened in front of the intended inmate and given to them (Gearhart, 2006).

The New Generation Adult Detention Center in Pima, Arizona was struggling with the same issues that many facilities face across the country, which was how to defeat contraband and illegal drugs from entering their facility through the mail. Through the assistance of the Border Research and Technology Center (BRTC) and the Sandia National Laboratories (SNL) evaluations were conducted to determine the feasibility of trace drug detection equipment. According to SNL's team, drug detection systems fall into two categories: bulk detectors and trace detectors (NLECTC, 2003).

Bulk detectors utilize x-rays, computed tomography (CT) scans, and similar techniques to detect a pound or more of contraband substances (NLECTC, 2003). These types of detection devices usually require an operator to visually view the images and determine if an item requires further investigation.

Trace detectors can be utilized in two sample modes: vapor or swipe. They detect drug vapors emanating from inside or residue on the exterior of an item. Portable "sniffers" are also available for detecting drug vapors. When vapors are not present, surface particle detectors can be utilized in the "swipe" mode (NLECTC, 2003). One such trace detector uses Ion Scan Technology. This technology (ion mobility spectrometry) senses organic compounds and is typically used to detect drugs and explosives. It operates by detecting the ion profile of gaseous samples of the air associated with the suspected item and comparing the profile to known contraband substances in a self-contained database (NLECTC, 2010).

## **Video Conferencing / Visitation**

Video conferencing has been utilized by the courts primarily for first arraignments and visitation for over a decade. This process has eliminated the need for excess transports of inmates to and from the courts, resulting in an increase in public safety and a decrease in transportation costs. Through the use of video visitations the number of visitors into the facility is also reduced significantly, thus eliminating contraband dispersion, and reducing the passage of messages from one inmate to another (Jackson & Paddock, 2009).

## **Monitoring Inmates Remotely**

Keeping track of inmates' whereabouts and movements has always created a challenge for correctional officers. As Miles & Cohn (2006) explain, monitoring inmate movements are usually done by sight identification as inmates pass from post to post. It also demands constant radio or telephone communication between posts and documenting such activities with handwritten notes regarding departure and arrival times of inmates.

Recognizing the need to enhance and streamline facilities' ability to better manage workflow and routine tasks, commercial applications, such as the use of radio frequency identification (RFID) tags, are finding their way into correctional facilities (McKay, 2008). By simply reading an RFID chip, RFID is helping to reduce staff miscommunication and process inefficiencies (Johnson, 2011). RFID tags can be attached or embedded in various objects, mainly wrist bracelets. Each tag has an integrated circuit and a tiny antenna which communicates wirelessly with a network of sensors to track inmate movements (Bulman, 2009). For controlling or detecting contraband, the active RFID system can track an inmate identified as a "mule," or carrier of contraband. The inmate can be tracked throughout the facility to determine where he/she goes and with who contact is made (McKay, 2008).

In addition to active RFID, the system can also be implemented in passive RFID mode, which with integrated software can essentially function as a tool for storing, tracking, and collecting data. Essential tasks that can be recorded and maintained in the system include, but are not limited to: inmate headcounts; medication administration; and preventative maintenance. The system virtually eliminates all paper logs/tracking (Johnson, 2011). Thus allowing correctional officers more time to visually observe and maintain order in the housing areas.

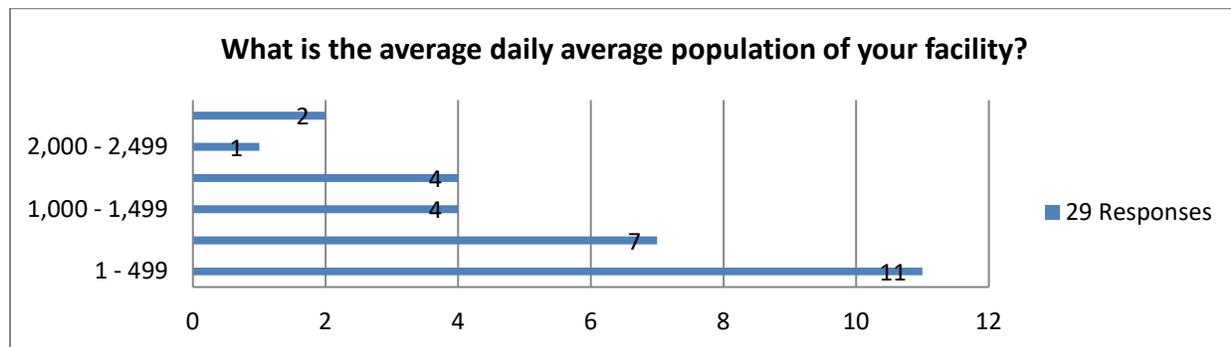
As with all technology, it is only one more tool the correctional practitioners can utilize that will assist in searching for contraband. Technologies are not designed to replace the correctional officer, only enhance their ability to detect contraband entering the correctional facilities while reducing the time it takes to conduct a proper search.

## **Methods**

Data was collected and analyzed to determine technologies that were being utilized in the detection and deterrence of contraband from within and entering detention facilities. The survey addressed the origins of contraband as it pertains to how contraband was being brought into correctional facilities. The methodology utilized for this research consisted of a twenty-five (25) question survey sent out electronically to jail administrators in all sixty-seven (67) Florida counties. The survey questions focused on what types of technologies are being utilized in their respective facilities and focused on how contraband was being detected, rather than what the individual contraband items were. The survey questions also focused on who was being searched for contraband and at what point. Prior to the survey being deployed, all of the counties receiving the survey were contacted to ensure the appropriate contact person would receive the survey to provide the appropriate data for best results and to verify a current



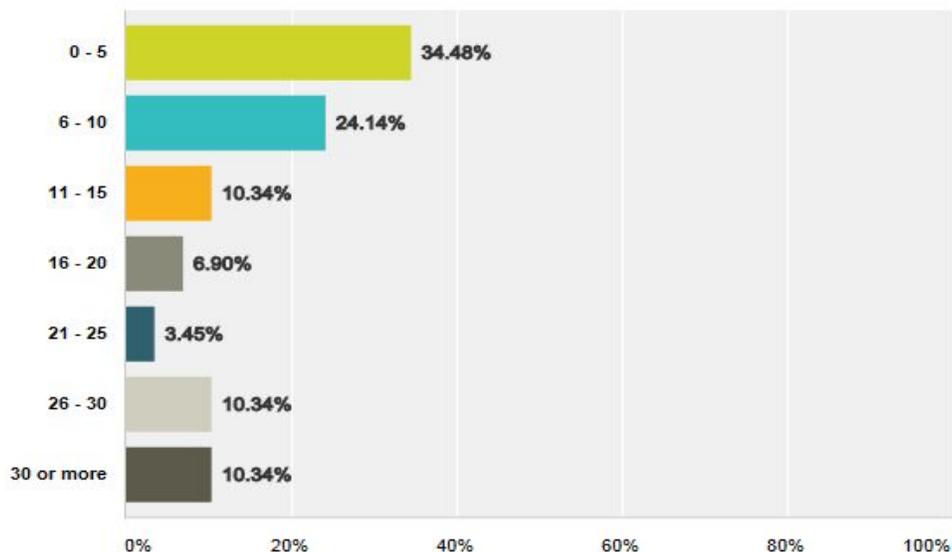
Respondents were asked to provide information regarding the inmate average daily population (ADP) housed in their facility. All twenty-nine agency respondents (100%) provided data resulting in a population breakdown as follows:



In addition to the facilities ADP, this researcher wanted to determine how prevalent are incidents occurring in detention facilities on a monthly average which involve the detection of contraband. Ninety-six percent (96%) of the respondents provided the following data regarding the prevalence of incidents involving contraband detection: Thirty-four percent (34%) reported five or less incidents; twenty-four percent (24%) reported six to ten incidents; ten percent (10%) reported eleven to fifteen incidents; six percent (6%) reported sixteen to twenty incidents; three percent (3%) reported twenty-one to twenty-five incidents; ten (10%) percent reported twenty-six to thirty incidents; and ten percent (10%) reported thirty or more incidents on average per month in which contraband is detected in their facility.

### How often is contraband detected in the facility (booking or housing), on average, in a given month?

Answered: 29 Skipped: 0

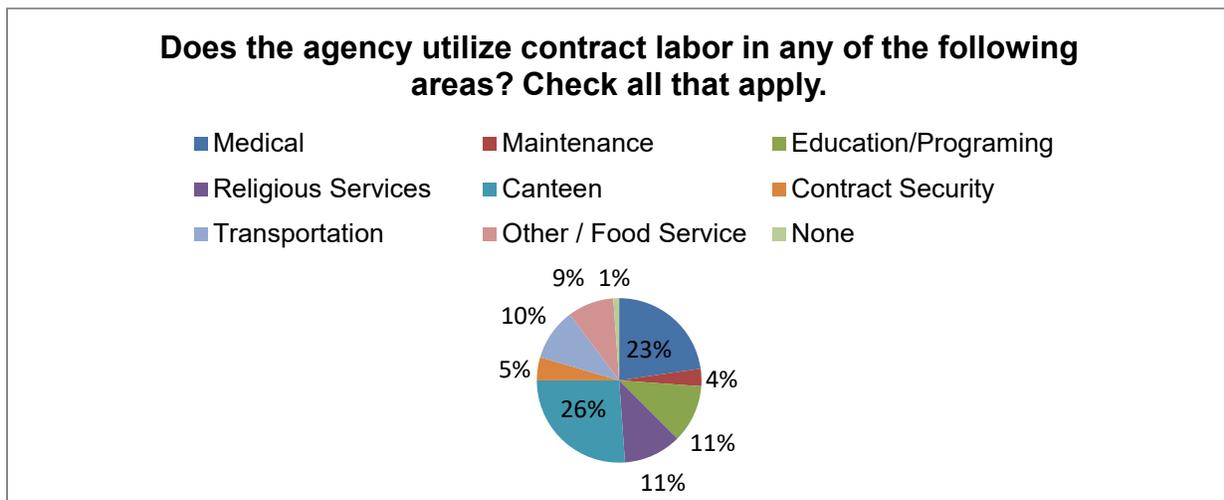


On average the number of incidents involving the detection of contraband for all of the facilities/agencies responding combined is 9.8 incidents per month.

After analyzing the number of incidents of the responding facilities, the survey focused on the origins of contraband entering facilities and what measures/technologies are being utilized to diminish the access points for contraband.

### **Employee**

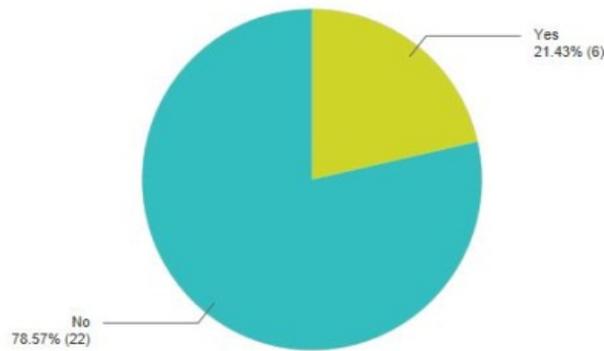
To evaluate the employee origin of contraband, data was collected to determine if contraband detection technology was being utilized to detect or deter contraband from entering the facilities via employees (sworn/certified or civilian), or through contract labor. Ninety-six percent (96%) of the respondents reported their agency utilizes contract labor in their facility. The following chart indicates the areas of utilization of contract labor as reported by the 29 agencies responding.



In addition to sworn/certified employees, a large assortment of civilian employees enter detention facilities to perform various functions on a daily basis. Ninety-three percent (93%) of respondents provided data in response to searching employees upon entry for duty. Seventy-nine percent (79%) indicated they do not search employees prior to duty. The other twenty-one percent (21%) of responding agencies indicated they do search employees upon entry and indicated this search is conducted utilizing a hand-held wand or portal (archway) detector. Two respondents indicated these employee searches are conducted on a random basis.

### Does the agency search employees (sworn and civilian) upon entry for duty?

Answered: 28 Skipped: 1



### ***Visitation***

One of the origins of contraband mentioned above included inmate visitation and allowing visitors to enter secure areas of the facility. One hundred percent (100%) of the respondents responded indicated that seventy-nine percent (79%) of facilities surveyed were utilizing video visitation. Sixty-five percent (65%) of respondents whose agency utilizes video visitation reported the visitations are conducted on-site, while twelve percent (12%) indicated they conduct both on-site and off-site video visitation, and four percent (4%) utilize on off-site video visitation.

### ***Internal***

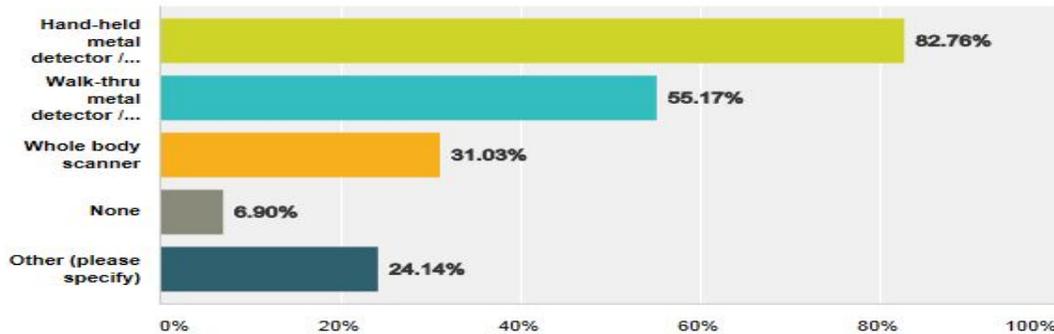
Data was not collected concerning this point of origin due to the fact that internal contraband consists of items that correctional staff provides directly to the inmate population on a daily or weekly basis. These common items are then fashioned into contraband.

### ***Let In***

In response to the origin of "Let In" contraband, respondents provided data indicating which type of technology their facility was utilizing. One hundred percent (100%) of those who responded indicated the following technologies which are presented below.

**What technologies is the facility (receiving and/or housing) utilizing to detect/deter contraband? (Check all that apply)**

Answered: 29 Skipped: 0



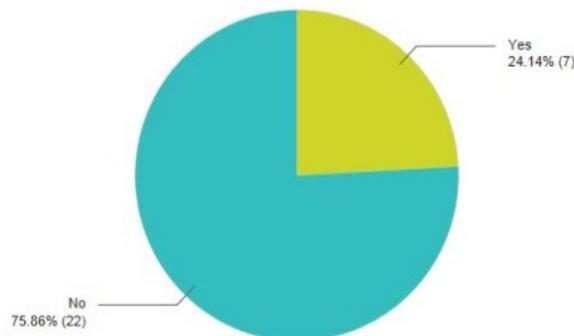
Respondents who selected other indicated the BOSS chair as a technology utilized at their facility. The B.O.S.S. chair or body orifice security scanner is a unique, fast, non-intrusive, inexpensive, high sensitivity metal detector chair designed to detect metal objects in body cavities.

The thirty-one percent (31%) of respondents who utilize the whole body scanner provided additional data to include during which processes their agency utilizes this type of technology. The respondents indicated that the whole body scanner technology is primarily utilized during three processes, the intake/booking processes, transports, and when inmate workers return from a work detail.

In addition to contraband being detected on or in the possession of a person, respondents provided data regarding the detection of contraband being sent in through the facilities' mailrooms. Seventy-six percent (76%) of respondents indicated they are not utilizing contraband detection technology in their facilities' mailrooms. Of the twenty-four percent (24%) who responded they do utilize technology, respondents indicated the utilization of technology such as X-ray, metal scanner, and K9.

**Does the facility's mailroom utilize technology to detect contraband?**

Answered: 29 Skipped: 0



## ***Inmate Tracking***

Data was collected from respondents regarding the use of any type of inmate tracking technology. One hundred percent (100%) of respondents provided the following data: Sixty-nine percent (69%) indicated their facility is not utilizing technology designed for inmate tracking. Thirty-one percent (31%) percent indicate their facility is utilizing inmate tracking software to include: bar coded armbands/wristband; Aegis event tracking; IMS (Computerized logging); Basic Data software; and JMS system.

## **Discussion**

As indicated by the data collection and responses for this research, there are various options for deployments of technology available to assist correctional staff in their efforts for detection and deterrence of contraband. As mentioned earlier, the utilization / implementation of technologies will not replace good old fashion corrections work, but it will provide more tools and options for correctional staff to conduct their daily assignments. It is this writer's opinion, the results of this research indicate that the utilization of technologies to assist correctional staff in their detection of contraband is underutilized. Some origins of contraband have been addressed, while other origins could benefit from the implementation of technology.

While evaluating the contraband being introduced through facilities' mailrooms and being brought in by employees, this writer found it interesting that the use of detection technology is not being consistently utilized. Contraband such as illegal drugs being sent into facilities, via the US mail, has been long identified as a common practice of inmates. Yet, twenty-two (22) agencies are not utilizing contraband detection technology in their mailrooms.

Another area of concern for contraband entering facilities is employees, whether correctional staff or contracted labor, while entering or exiting the facilities. All employers believe the individuals they hire are ethical and trustworthy, however, this writer has experienced firsthand that is not always the case. Having stated that, twenty-two (22) of the responding agencies indicated they do not search employees entering the facility. Regardless of the technique utilized, the knowledge of a potential search will keep employees honest and less likely to be compromised.

While reviewing the origins of contraband through *Visitation* and *Let In*, the sample respondents indicated that technology was being utilized in these areas.

Included in the survey instrument, respondents were provided the opportunity to comment on which technology they deemed most effective in the detection of contraband. The responses varied, however, eleven (11) of twenty-eight (28) respondents indicated the whole body scanner as most effective, with one (1) respondent adding, the whole body scanner is least intrusive and pin points the suspected item. Respondents were also provided the opportunity to comment on which technology they deemed least effective in the detection of contraband. Again the responses varied, however, of the twenty-three (23) respondents providing comment, thirteen (13) respondents indicated metal detection devices (hand held, portal) as least

effective. Two (2) respondents elaborated stating these technologies were least effective due to the alert being non-specific.

As technologies continue to improve and enhance correctional staff's ability to detect contraband, respondents were asked what detection technology they would recommend to agencies wanting to acquire detection technology. Overwhelmingly, all twenty (20) respondents, who provided a response, recommended the whole body scanner.

### **Recommendations**

Based on the data collected during this research project this writer would make the following recommendations.

- Identify the origins (access points) for contraband into their facility.
- Agencies should evaluate the cost / benefit to acquiring new detection technology.
- Pursue additional revenue streams, such as grants, if budget restraints will not allow for the purchase of new technology.
- Adopt policies and procedures that mirror the Florida Department of Corrections Entrance and Exit Procedures (602.016).
- In regards to utilizing a whole body scanner, consider expanding the use of this technology to additional applications (processes).

The implementation of technologies to detect contraband will not eliminate the contraband problem or replace correctional staff. However, it will provide the correctional staff with another tool that can be accessed to detect and remove contraband which ultimately leads to a safer environment for the inmates, the staff, and the facility as a whole.

Captain Jeff Henry has been with the Polk County Sheriff's Office Department of Detention for over 22 years. He began his career as a detention deputy in 1991 and has worked his way up the ranks serving in various capacities in both the Security and Support Divisions. His most recent promotion came in January 2013 when he was promoted to Captain. He currently serves as the Bureau Commander for the South County Jail facility. Jeff earned a Bachelor's Degree in Criminology and a Master's Degree in Adult Education both from the University of South Florida.

## References

- Bouchard, J. (2012). Today's forecast: Contraband. *American Jails*, 25(1), 31-34.
- Bulman, P. (2009). Using technology to make prisons and jails safer. *NIJ Journal*, 262, 39-41. Retrieved from <http://www.ncjrs.gov/pdffiles1/225764.pdf>
- Ely, J., & Craig, T. (2009). Developing testing methodology for the use of noninvasive whole body scanner. *Corrections Today*, 71(4), 45-47.
- Gearhart, G. (2006). Controlling contraband. *Corrections Today*, 68(6), Retrieved from <http://aca.org/fileupload/177/prasannak/gearhart.pdf>
- Jackson, M., & Paddock, M. (2009). A greater piece of the pie. *Courts Today*, 7(3), 26-28.
- Johnson, D. (2011). Guardian rfid brings offender management into the 21st century. Retrieved from <http://www.correctionsone.com/police-technology/software/jail->
- McKay, J. (2008). Prisons use rfid systems to track inmates. *Government Technology*, Retrieved from <http://www.govtech.com/public-saftey/Prisons-Use-RFID-Systems-to-Track.html>
- Miles, C., & Cohn, J. (2006). Tracking prisoners in jail with biometrics: An experiment in a navy brig. *National Institute of Justice Journal*, 253, Retrieved from <http://ojp.usdoj.gov/nij/journals/253/tracking.html>
- National Law Enforcement and Corrections Technology Center (NLECTC). (2003, Summer). You don't have mail. *TechBeat*: 1-2. Retrieved from <https://justnet.org/pdf/NoMailSumm03.pdf>
- National Law Enforcement and Corrections Technology Center (NLECTC). (2010, June). An introduction to portal contraband detection technology. *Fact Sheet*: 1-4. Retrieved from [https://www.justnet.org/pdf/00-Portal%20Primer\\_web.pdf](https://www.justnet.org/pdf/00-Portal%20Primer_web.pdf)
- Paulter, N. G. (2001). Guide to the technologies of concealed weapon and contraband detection. *U.S. Department of Justice, National Institute of Justice, Washington, D.C* (NIJ Guide 602-00). <http://www.ncjrs.gov/pdffiles1/nij/184432.pdf>
- Pittman, E. (2011). County jails deploy whole-body scanners to detect hidden weapons or contraband. *Government Technology*, Retrieved from <http://www.govtech.com/public-safety/County-Jails-Deploy-Whole-Body-Scanners.html>
- Whitworth, A. (2010). Current and emerging technologies and limitations. *Corrections Today*, 72(5), 105-107.

## Appendix A

### Survey Instrument – Reducing Contraband through Technology

1. Agency Name:
2. Your Name:
3. Rank or Position:
4. Phone Number:
5. Email:
6. What is the average daily population of your facility in 2012?
  - 1-499
  - 500-999
  - 1,000-1,499
  - 1,500-1,999
  - 2,000-2,499
  - 2,500-2,999
  - 3,000-3,499
  - 3,500 or above
7. What was the total operating budget for the jail facility in 2012?
8. How often is contraband detected in the facility (booking or housing), on average, in a given month?
  - 0-5
  - 6-10
  - 11-15
  - 16-20
  - 21-25
  - 26-30
  - 30 or more
9. Does your facility allow visitors into secure areas of the facility when visiting inmates?
  - Yes
  - No
10. Is your facility utilizing video visitation?
  - Yes
  - No

11. Are visitors on-site during video visitation?

- Yes
- No

12. Are visitors searched upon entry?

- Yes
- No

13. Does the agency utilize contract labor in any of the following areas? (Check all that apply) Medical

- Maintenance
- Education/Programming
- Religious Services
- Canteen
- Contract Security
- Transportation
- Other
- None

14. Does the agency search employees (sworn and civilian) upon entry for duty?

- Yes
- No

15. How are employees searched upon entry? (Check all that apply)

- Pat down
- Hand-held wand
- Portal (Archway)
- Whole body scanner
- Other (please specify)

16. What technologies is the facility (receiving and/or housing) utilizing to detect/deter contraband? (Check all that apply)

- Hand-held metal detector / wand
- Walk-thru metal detector / Magnetometer / Portal (archway)
- Whole body scanner
- None
- Other (please specify)

17. Are inmates searched upon return from work details outside of the facility?

- Yes
- No

18. How are inmates searched upon return? (Check all that apply)
- Pat down
  - Hand-held metal detector / wand
  - Walk-thru metal detector / Magnetometer / Portal (archway)
  - Whole body scanner
  - Other (please specify)
19. Does the facility's mailroom utilize technology to detect contraband?
- Yes
  - No
- If yes, please specify
20. Does the agency utilize any technology for inmate tracking?
- Yes
  - No
- If yes, please specify
21. If the agency utilizes a whole body scanner, during which processes are inmates scanned? (Check all that apply)
- Receiving/Booking
  - Housing
  - Transports
  - Not utilizing whole body scanner
  - Other (please specify)
22. Based on your experience, what contraband detection technology has proven MOST effective in detecting contraband?
23. Based on your experience, what technology has proven LEAST effective in detecting contraband?
24. Does your agency have plans to pursue any contraband detection technology in the next 3-5 years?
25. What technology would you recommend other agencies pursue in their fight against contraband (include technologies your agency is currently using or wanting to acquire)?