

**Child Abductions in the Future :  
To Chip or not to Chip?**

**by**

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The Command College Futures Study Project is a FUTURES study of a particular emerging issue of relevance to law enforcement. Its purpose is NOT to predict the future; rather, to project a variety of possible scenarios useful for strategic planning in anticipation of the emerging landscape facing policing organizations.

This journal article was created using the futures forecasting process of Command College and its outcomes. Defining the future differs from analyzing the past, because it has not yet happened. In this article, methodologies have been used to discern useful alternatives to enhance the success of planners and leaders in their response to a range of possible future environments.

Managing the future means influencing it—creating, constraining and adapting to emerging trends and events in a way that optimizes the opportunities and minimizes the threats of relevance to the profession.

The views and conclusions expressed in the Command College Futures Project and journal article are those of the author, and are not necessarily those of the CA Commission on Peace Officer Standards and Training (POST).

## **Child Abductions in the Future : To Chip or not to Chip?**

Jack Jones and his wife Judy are avid explorers. They love to take hiking trips and expeditions in remote parts of the country. Once their daughter was born, they had concerns about taking her on these hikes. Jack and Judy decided to have Jane implanted with the *People Chip*. This chip not only contained pertinent medical information about their daughter (Jane is a diabetic), it also had the capability of being utilized as a tracking device. This gave the Jones' peace of mind, as they knew if their daughter became lost, she could easily be located by activating the GPS function on her tracking device. What they didn't know was that one day this device would save their daughter's life.

During one of their expeditions, the Jones' checked into a hotel in Utah. Jane was six years old and already an avid hiker. They pulled into the motel; Jack went to register and get the room key. Judy decided to get out of the car and go into the small vending area to get them some cold water. She told Jane to stay in the car, as she would be right back.

Jack returned to the car and found his wife and daughter were not there. A few minutes later, Judy returned without Jane. Jack asked where Jane was and Judy laughed. She told him she was too tired and thirsty to play "hide and seek". The look on Jack's face immediately told her this was no game. Jack and Judy searched the parking lot to no avail. Judy ran into the motel and asked the clerk to call 911. When the deputy arrived, they again searched the area without success. The deputy called the National Center for Missing and Exploited Children (NCMEC)

and informed them of the missing child. He reported a possible abduction and requested they activate the Global Positioning System (GPS) locator function of Jane's *People Chip*.

As additional law enforcement resources arrived at the motel, the coordinates of Jane's location were received. Pinpointed at a motel fifteen miles away, police quickly responded. When they arrived, the clerk told them that a man and a child matching Jane's description had just checked in to room 207. The authorities went to the room and found Jane and a male adult. The man was arrested without incident, and later identified as a known child predator. Certainly, the quick response by deputies, the *People Chip* and GPS saved the little girl's life.

The story you have just read is fiction. The technology described, though, is not. In a world where predators stalk public parks as well as the Internet, what options do we have to protect our kids? If it were commercially available, would you consider implanting your child with a *People Chip*? Why or why not? These are the questions we'll explore as we look at ways to keep our kids safe by employing the future of tracking technologies.

### **Reactive vs. Proactive**

The number of children reported missing (kidnap, runaway, lost) each year is staggering. According to the U.S. Department of Justice (DOJ), the number of missing children has increased 444% since the early 1980's. About 115 cases each year are true kidnappings perpetrated by someone the child does not know, or is a slight acquaintance. Of those, just more than half come home safely; 58 are sexually assaulted, and about 46 are killed.

There are many programs and devices to address lost, missing or abducted children. They have had success; however, they are all reactionary in nature. Programs such as Amber Alert, Child Watch and Kids DNA Safety Kits are excellent tools; all were legislated or developed to serve the goal of finding children when they have been abducted. They were not, however, designed to thwart abductions or keep children safe. In many cases, they are only beneficial after the child has been located, dead or alive, and used for identification purposes. There are also cellular telephones designed for children with GPS and Internet tracking capabilities, tennis shoes with GPS tracking, tech savvy wristbands with panic alarms, and other devices to assist parents in protecting their children. These are valid options, and may be good tools to help keep someone safe. They are, though, reactionary and can often only be used when a child is capable of activating the device. This leads to the potential for the device to be removed before activation, or that a child might forget to take action in an evolving incident where there is danger.

Over the years, tragic incidents of child abduction or homicide have led to laws created to enhance the safety of our children. From the Lindbergh Law of the 1930's to Megan's Law and Jessica's Law, both enacted in the last two decades, are all intended to put stricter sentences or restrictions on sex offenders once released from prison and their crimes include children.

Unfortunately, they do little to protect the child while they are still alive. As statistics show, the number of children reported missing or abducted continues to rise. In truth, there is no legislation that can prevent a crime against a child, nor will any law expedite the safe return of that child so long as there are predators willing to commit the crime.

These programs, devices and laws have assisted in peripherally keeping our children safe. They have not kept pace, however, with the emerging technologies of today or the future. A more proactive approach is needed when a child is abducted; a process or device that can't be visually seen or removed by the perpetrator. A tool for law enforcement to use when every second of the child's life is critical. As any law enforcement professional will tell you, with these types of crimes, time is of the essence and the first few hours after abduction are critical in recovering a child safely.<sup>1</sup> To meet this need, the use of implantable microchips may be the solution. Before discussing the advantages and drawbacks of implanting tracking technology in our children, it is useful to consider how differently some of our more notorious child abduction cases might have turned out if the police could have located the child quickly.

### **Case Reviews**

On February 1, 2002, 7-year-old Danielle van Dam, was taken from her bedroom in Sabre Springs, an upper middle class neighborhood in northern San Diego. Suspicion immediately focused on a neighbor, David Westerfield. On February 22, 2002, David Westerfield was arrested and on February 27, 2002, Danielle's badly decomposed body was found 40 miles from her home. David Westerfield was convicted and sentenced to death in January 2003.<sup>2</sup>

On July 16, 2002, five-year-old Samantha Runyon was playing in her front yard with a friend when a man approached her and claimed to have lost his dog and needed her help. Within 24

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<sup>1</sup> Federal Bureau of Investigation, Child Abduction Rapid Deployment Teams, <http://fbi.gov/card/>

<sup>2</sup> Irene McCormack Jackson, New Bill Seeks to Protect Kids from Predators, Union Tribune, March 7, 2003

hours of being reported missing, Samantha's body was found in the national forest near Riverside, California by two hang gliders. The suspect was eventually caught and convicted.<sup>3</sup>

On January 8, 2007, 13-year-old Ben Ownby disappeared from his bus stop in Beaumont, Missouri. A classmate gave police the description of a truck in the area when Ben disappeared. Several days after the abduction, police in another town were serving a warrant and noticed a truck matching the description of the one seen at Ben's disappearance. The following day, FBI agents walked into the apartment and received an unexpected surprise. Not only did they locate Ben Ownby, but they located Shawn Hornbeck, who had been missing since October 6, 2002.<sup>4</sup>

In 2002, fourteen-year-old Elizabeth Smart was abducted from her bedroom in Salt Lake City. She was held captive for nine months by a religious zealot before being found and reunited with her family. The perpetrators, Brian David Mitchell and Wanda Brazee, have both been charged with kidnapping, burglary, sexual assault and conspiracy. They are both in mental institutions and have been found by the court to be incompetent to stand trial.<sup>5</sup>

In all cases of missing children, whether located safely or found murdered, the accounts are similar to the ones cited above. The big question remains: Would the microchip technology with the GPS function have changed the outcome of these cases? If these children had been implanted with a microchip, and a system was in place to quickly obtain their locale, the probability of finding them quickly and safely would have been much greater. Danielle and Samantha may have survived their abductors and been found alive within hours of being reported

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<sup>3</sup> CNN.com, February 20, 2007, <http://cnn.com>

<sup>4</sup> Foxnews.com, Abducted Boys Mark 1<sup>st</sup> Anniversary Home, January 11, 2008, <http://foxnews.com>

<sup>5</sup> About.com: Crime/Punishment, Brian David Mitchell, March 18, 2008

missing. Ben, Shawn and Elizabeth may have been located within hours of their disappearance, not days, months or even years later. This technology, although not without controversy, allows law enforcement and parents to consider a means to proactively locate missing and abducted children within the critical few hours of their abduction, minimizing both physical and emotional harm to the child.

### **Microchips**

Microchips have become an important part of our society. There are locating devices in our cellular telephones, vehicle tires, library books, passports, luggage, printers, T.V's, computers, work uniforms, vehicles and other consumer goods. If these items are lost or stolen, they can be located with the use of GPS or Radio Frequency Identification (RFID) technology and hopefully recovered.

Unlike RFID, where information is retrieved using a hand held scanner, GPS is a satellite-based navigation system with a network of 24 satellites. It works in all types of weather conditions, anywhere in the world, 24-hours a day. This technology is accurate in dense foliage and urban settings. GPS has the capability to triangulate the location of an object to within 5 meters. Given the potential for GPS to help lost hikers, assist military maneuvers and find our cell phones, why wouldn't we consider how they might be used to find lost people?

Human microchip implants are already in use all over the globe. The implantable microchip is the size of a grain of rice and is implanted in the arm. The chip remains in "sleep mode" until it is activated through the use of an RFID scanner. Interestingly, this technology is saving lives in

many hospitals around the World. Since 2005, microchips have been implanted in Alzheimer, cancer, diabetic and heart disease high risk patients who typically come to emergency rooms and are non communicative due to their illness. The patients name, address, phone number, allergies, diagnosis, medications, physicians, emergency contacts and advance directives, which the patient has control over editing, is the only information contained on the chip. A scanner is used at the hospital to retrieve information and determine appropriate treatment. Unfortunately, 98,000 deaths occurred last year in emergency rooms because of no patient information or inaccurate information. Conversely, chipped information readily available to emergency personnel has been credited with saving hundreds of lives since its inception.<sup>6</sup>

Implantable microchips are also being used in laboratories and large corporations for better security. Employees are voluntarily chipped to allow easy access into areas they work. The chipped individual walks up to a scanner, waves their arm and is allowed access into the area. Sounds like a story from a science fiction book, but this is real life technology.

It is time to seriously consider implanting microchips in our children so they can be found in the event of an abduction. Too often, children are abducted and murdered because there are no leads to the child's whereabouts. A microchip implant, with the assistance of GPS, would provide law enforcement with a means of tracking this child and returning them home safely. Although not without debate, the procedure is pain free, the cost is minimal and parents would have some comfort in knowing their child can be found by law enforcement and returned home.

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<sup>6</sup> VeriChip, March 13, 2008, <http://VeriChip.com>

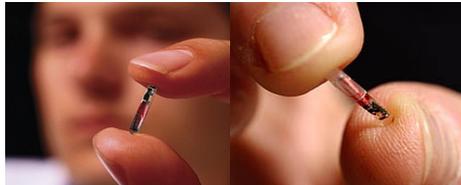
## **Political and moral implications**

Several bills were proposed to Congress in 2007 regarding implanting employees with microchips. CA State Senator Joe Simitian introduced a bill barring an employer or anyone else from **requiring** a person to have the devices implanted. Another bill, by Senator Ellen Corbett, would require companies that issue identification cards or other items containing RFIDs to disclose the personal information revealed by the devices and what steps they've taken to protect that data.

Senator Simitian is concerned the information provided by RFIDs could be used to track people's movements or steal personal data. "When people understand the vulnerability of the technology and the absolute lack of any privacy protections or limits on information that can be broadcast, they understand why it's a legitimate source of concern." To counter his argument, Roxanne Gould, vice president for California government relations for the American Electronics Association, a high-tech industry group, said Simitian is taking the wrong approach, although her organization hasn't taken a position on the implant bill. She said, "Our bottom line is we're opposed to anything that demonizes RFIDs," "The technology has been in existence for more than 50 years. It's in more than 1.2 billion ID credentials worldwide. . . . We've not seen a single showing of ID theft or harm. Lawmakers should focus on preventing inappropriate use of RFIDs, not in restricting the technology".

Scott Silverman, chief executive officer of VeriChip Corporation, a Florida company that makes implantable RFIDs, said his firm has a "very strong privacy policy" and doesn't oppose bills banning the forced use of the devices. VeriChip is the first and only company to focus on delivering RFID solutions for people and companies. They currently offer implantable, wearable and attachable RFID technologies. In 2004, they received approval from the Food and Drug Administration to implant identity chips under the skin of humans. According to their records, they have approximately 5,000 installations (implants) worldwide, crossing healthcare, security, government and industrial markets. VeriChip claims the chip can remain operable in the human

body for 20 years. They have not discovered any evidence to suggest the chips are toxic or cause carcinogenic effects. To date there are no reported medical issues with patients implanted with their microchip.<sup>7</sup> Wired magazine reports the rice sized device costs \$200 each and those implanted would pay an injection fee and a monthly \$10.00 database maintenance charge.<sup>8</sup>



The Verichip is an example of an implantable device suitable to locate missing children. Altered to passively broadcast the chip's location in the case of an abduction could be similar in many ways to services now in place to locate stolen vehicles equipped with Lojack, a privately owned organization that assists law enforcement with the technology to monitor a vehicle's movements and subsequent recovery. The implant process is easy, safe under the supervision of a medical professional, and not overly expensive. Why wouldn't everyone want to protect their child in this way? The truth is there are strong sentiments on both sides of this issue.

### **Pros and Cons**

The issue of implanting a microchip in a child to locate them in the event of an abduction is not without controversy. There are indications that science is moving unavoidably closer to the use of microchips in humans. To some, the microchip implant is a wonderful invention – a high tech helper that could increase security at nuclear power plants, help with Alzheimer patients and

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<sup>7</sup> VeriChip, March 20, 2008, <http://VeriChip.com>

<sup>8</sup> LifeSiteNews.com, Human Implantable VeriChip Being Promoted At Discount Price, <http://www.lifesitenews.com/ldn/2002/oct/02102807.html>

allow consumer to track items they have lost. To others, the notion of tagging people is another “Big Brother” tactic, a departure from history and tradition where people have had the right to go and do as they pleased. To yet another group of people, the concept of implanting microchips into our children only supports the notion that we live in a democratic society and government-controlled data systems are a dangerous step toward establishing a 24-hour surveillance society.<sup>9</sup>

The medical implications are yet another issue all together. VeriChip claims to have done extensive research and has no recorded medical issues with the implants. As a parent, could the risks of the research completed be enough for you to have your child implanted? This is a question each parent or primary care giver must consider before moving forward. In 1998, the Mayo Clinic in Rochester, Minnesota conducted a study about the worries of parents in relation to child abductions. Nearly three-fourths of the parents surveyed said they feared their child may be abducted and one-third of parents said this was a frequent worry – a degree of fear greater than that held for any other concern, including car accidents, sports injuries or drug addiction.<sup>10</sup> The question remains, though; is this enough proof that parents are concerned about their child being abducted that they would consider a tracking implant?

Implanting microchips into humans could be called a permanent intrusion and a bodily invasive. Some might believe that implanting a microchip is a violation of an individual’s rights under the Fourth and Fifth Amendments to the US Constitution. The Fourth Amendment protects individuals against unreasonable search and seizures. At issue would be the potential violation in the use of electronic surveillance. The Fifth Amendment protects us against self incrimination. Self incrimination is usually referred to in terms of “verbal self incrimination”,

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<sup>9</sup> [www.aclu.org](http://www.aclu.org), March 2, 2008

<sup>10</sup> Redbook, February 1998

but it has also been applied to the removal of objects from someone's body.<sup>11</sup> According to Dr. Elaine Ramesh, an attorney in the Patent and Licensing Department of Nalco Chemical Company, "the use of such device appears farfetched, however, examination of the existing technology and the potential utility proves microchip implantation is both possible and, for some purposes, desirable. Beginning with voluntary introduction, Americans may be lulled into accepting them. The time to prevent grievous intrusion into personal privacy by enacting appropriate legislative safeguards is now, rather when it is too late".<sup>12</sup>

In a recent CNN poll, 76% of the people surveyed said they did not want a device implanted in them or their children, while 24% said that they would see this option favorably. In 2000, Richard Sullivan, Chairman and CEO of Applied Digital, maker of the "Digital Angel", a miniaturized tracking device, said their product was the first ever to meld tracking devices with wireless internet technology and global positioning. The maker sees applications of Digital Angel to include monitoring at risk patients to police tracking down abducted children who carry the device in their backpack. Sullivan claims, "If this was five to seven years ago, you would not be able to draw together this technology. But it's here today, and it's going to have an extremely positive impact."<sup>13</sup>

The National Center for Missing and Exploited Children (NCMEC) was established in 1984 as a private nonprofit organization. They provide nationwide services for families and professionals in the prevention of abducted, endangered, and sexually exploited children. When asked, the

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<sup>11</sup> Rochin v. California, 342 U.S. 165 (1952)

<sup>12</sup> Elaine Ramesh, Time Enough? Consequences of Human Microchip Implantation, <http://www.piercelaw.edu/risk/vol8/fall/ramesh.htm>

<sup>13</sup> Alex Canizares, Human Implants Tracking Device Excites MD's, Worries Privacy Groups, [http://www.space.com/business/technology/technology/human\\_tracker\\_000814.html](http://www.space.com/business/technology/technology/human_tracker_000814.html)

NCMEC has not taken a position one way or the other on implanting microchips in children. They do not endorse any commercial product and believe all parents should have good quality recent pictures of your children in the event they are abducted.<sup>14</sup>

### **Implementation of Chip Tracking Programs**

At present, a legislated mandate to microchip children does not seem feasible. More than a quarter of parents, though, would proceed with the implants if the devices were readily available. How can we balance the objections of many while also meeting the needs of those who avail themselves of this technology? Legislators may be asked to create regulations to answer questions such as allowing the implantee to remove the chip at will, upon consent of the parent, or at the age of 18. The issue of chip “ownership” should also be addressed. Related legislation may be needed to ensure the chip remains the property of the person into which it is implanted, rather than the company providing the service to monitor.

The idea of implanting microchips into our children is a proactive approach to locating them after they have been abducted. It is through the use of existing technology that this new concept is even possible. If our children are our most precious asset and technology exists that could recover our child if they are abducted, why aren't we moving forward and keeping our children safe before abduction? With this proposed technology, law enforcement may have a higher probability of recovering the child safely and in a timely manner. If the combination of this technology was in use today, would it have made a difference in abduction cases from the recent past? If we want to do it, what could such a monitoring program look like?

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<sup>14</sup> Email received 3-25-08 from David Shapiro, Office of External Affairs, NCMEC

## **An envisioned program**

Although they have not taken a position either for or against the use of microchips to protect children, NCMEC would be an ideal organization to manage its use. They are committed to the issue, and have assisted in the recovery of hundreds of children in the past three decades.

Equipped with technology that would have to be provided by the chip's manufacturer, NCMEC would be an objective source from which to activate the chip for tracking if, and only if, a child were reported missing.

NCMEC's call center operates 24-hours a day, 7-days a week, 365-days a year, with 24 highly trained specialists, many of whom are retired law enforcement officers. NCMEC already receives about 300 calls a day pertaining to missing and abducted children, so the workload for activating implants could fit seamlessly into their existing priorities.<sup>15</sup> Further, they could ensure the tracking capabilities would only be activated for law enforcement personnel conducting an abduction investigation. Certainly, much remains to be done to create a system to use implants effectively. With the maturation of this technology, though, the time for that work appears to be on the near horizon.

Once a system is complete, the choice to participate would still remain with the individual family. Of course, no parent wants to protect their child less than is reasonable or possible. At the same time, the ethical, moral and even religious issues are very real, and will have an impact on how many might choose this level of protection. If the data is accurate, though, about a quarter of

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<sup>15</sup> National Center for Missing and Exploited Children, February 10, 2008, <http://www.ncmec.org>

all parents nationally might “sign up” their children. If and when they do, they will call for policing to provide solutions for tracking if an incident occurs. Our job will be to provide them with an answer.

## **Conclusion**

The technology to protect our children will only be advancing as we move into the future. It is time to consider how we might best develop a program to address the safety of our children before they are abducted, sexually assaulted or even murdered. The implanted microchip is the way of the future, and just may be the answer to many parents’ worries. The first step in any child abduction is the recovery of the child. Statistics prove this becomes a daunting task when law enforcement has little to go on when they arrive on scene.

Although the first few hours after abduction are critical, the search for missing children can go on for days and even weeks with either no success or the recovery of another murdered child. With the use of the technology of microchips and GPS, an implanted child could be located within the first few hours. This technology is already commercially available, and has not yet been utilized as a foundation for our answer to proactively locate children. At the very least, a parent should have the opportunity to have their child microchipped if they feel it is in the best interest of themselves and their child.

By the time you arrive at work tomorrow, there is a high probability that another child will be abducted somewhere in the United States; the chances of their survival decrease as time moves forward. As a professional, consider how this advance would help return that child to their parents. As a parent, imagine how devastating the loss of a child would be. The choice, ultimately, is yours.