

Crime Mapping News



A Quarterly Newsletter for Crime Mapping, GIS, Problem Analysis, and Policing

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Inside this Issue

The topic of this issue of *Crime Mapping News* is how mapping and GIS can be used to examine drug trafficking and contraband issues. This issue begins with an article that discusses the use and dynamic application of mapping technology by a major law enforcement program located in the Eastern corridor to combat drug trafficking and gang-related activity in various regions of D.C., Maryland, and Virginia. The second article explains the usefulness of crime mapping in a correctional facility to assist with contraband problems and to deter illicit activity. The third article is part of a new series of this newsletter called the *Crime Mapping News Spotlight* where we highlight a particular program, crime analysis unit, or special event involving GIS, crime mapping and/or crime analysis and provide a brief snapshot of the key components, ideas, or strategies. This issue's spotlight is about a police department's implementation of a new crime analysis and mapping system and the benefits it will bring to their operations and responses to crime and disorder problems.

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Crime Mapping at the Washington/Baltimore HIDTA Program

by Kevin Armstrong, Program Manager, Evaluation and Crime Mapping Unit, Washington/Baltimore HIDTA

The High Intensity Drug Trafficking Area (HIDTA) Program was created by the Anti-Drug Abuse Act of 1988, which authorized the director of the Office of National Drug Control Policy (ONDCP) to designate regions within the United States that face drug trafficking threats as HIDTAs. The Washington/Baltimore HIDTA (W/B HIDTA) was established in 1994, and includes jurisdictions in Maryland (Baltimore City, Baltimore, Howard, Anne Arundel, Montgomery, Prince George's, and Charles Counties); Virginia (City of Alexandria, Loudoun, Prince William, Arlington, and Fairfax Counties); and the District of Columbia. In 2005, the W/B HIDTA was expanded to include the Virginia counties of Henrico, Chesterfield, Hanover, Prince George, and the cities of Petersburg and Richmond. The goal of the Washington/Baltimore HIDTA is to dismantle or disrupt drug trafficking organizations operating within the region by fostering cooperation among federal, state, and local law enforcement as well as treatment/criminal justice agencies.

Evaluation & Crime Mapping Unit

The Evaluation & Crime Mapping Unit at the W/B HIDTA assists its participating agencies and 49 internal W/B HIDTA initiatives through the use of crime mapping and analysis. This assistance is provided by two full-time employees at no cost to the initiatives. The unit provides various levels of support depending on the needs of the agency. To some agencies without Geographic Information System (GIS) technology, the unit is their sole source for crime mapping products. Other agencies, with some resources of their own, only seek assistance for special projects or data requests. As a result, the unit produces roughly 400 maps a year. The maps cover a wide variety of geographies from a drug corner in Washington, D.C. to a meth lab in rural Maryland.

To view the *Crime Mapping News* in full color, visit the Police Foundation or COPS Office Web sites at www.policefoundation.org or www.cops.usdoj.gov.

In order to provide clients with accurate and effective maps, the W/B HIDTA maintains a large GIS database for the region. Through partnerships with federal, state, and local GIS data providers, the W/B HDITA is able to acquire highly accurate raster and vector datasets. W/B HIDTA's unique position in the law enforcement community allows it to facilitate data sharing among neighboring jurisdictions through a mutually beneficial agreement. Crime data obtained from the partnering providers are used by the W/B HIDTA law enforcement initiatives and are also used by the unit to provide custom products for agencies within the region.

The W/B HIDTA currently supports 29 separate law enforcement and treatment/criminal justice agencies with over 34 GBs of imagery and 25 GBs of vector data. The Evaluation & Crime Mapping Unit utilizes the full suite of ArcGIS software from ESRI to create maps and manage the data. Network Analyst, Spatial Analyst, Tracking Analyst, and Publisher extensions are also employed.

Current Projects

Parole & Probation

The Maryland Division of Parole & Probation (DPP) is a prime example of how working with the W/B HIDTA can

Parolee and Probationer Offenses by County

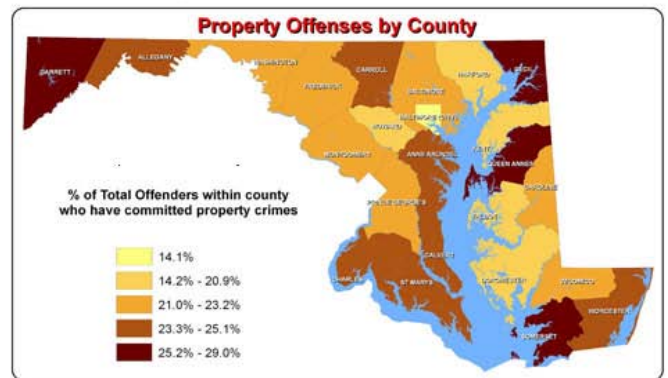
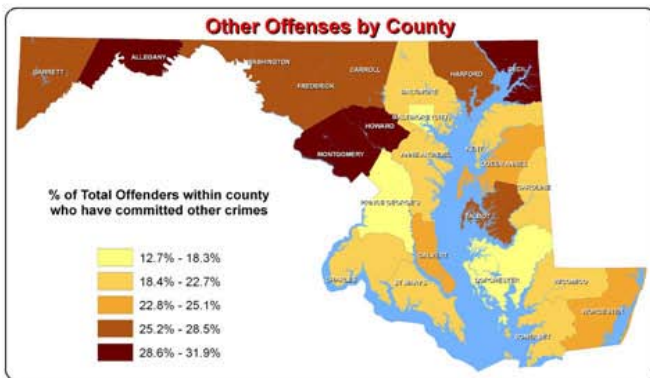
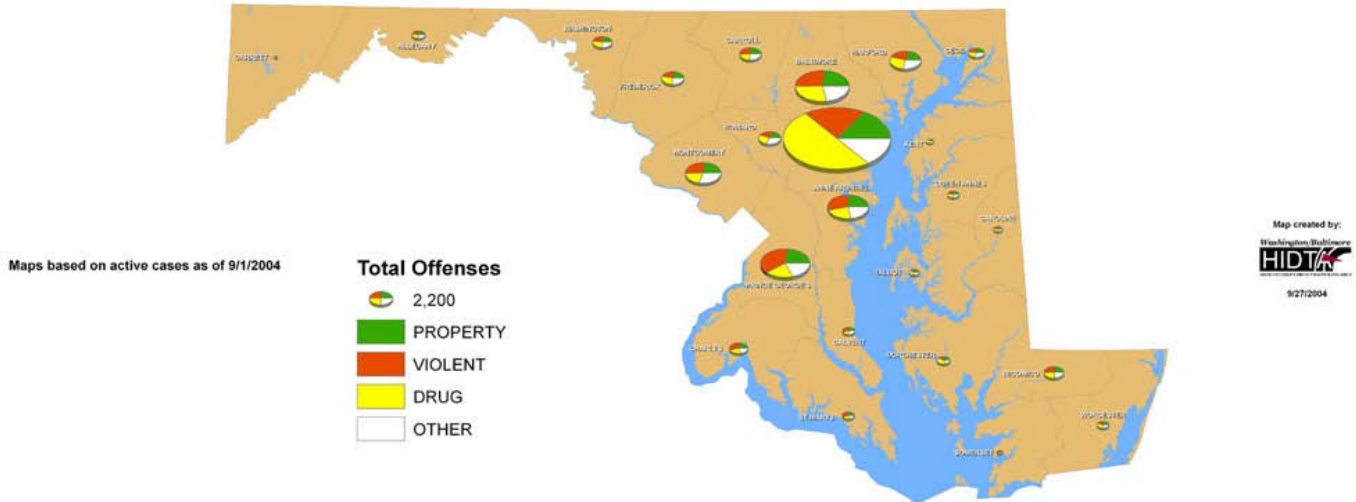
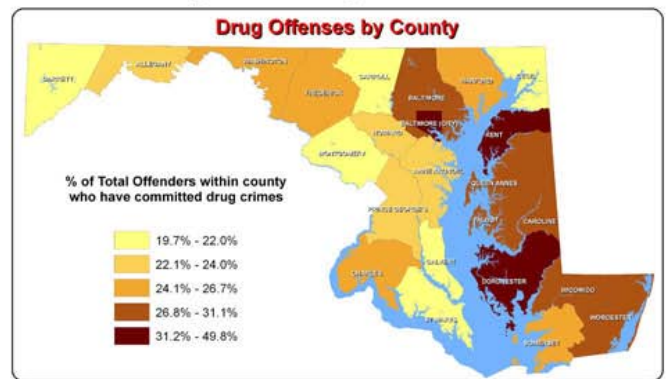
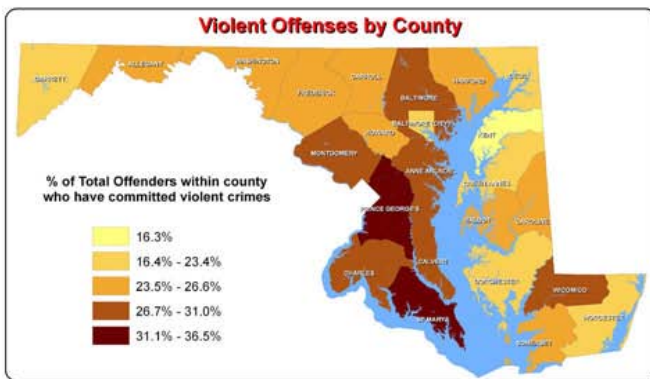


Figure 1. Maps showing total offenses and various types of offenses by parole and probationers by county.

be mutually beneficial. Each month the W/B HIDTA receives the complete database of parolees and probationers under active supervision in Maryland, which includes over 90,000 records. The Evaluation & Crime Mapping Unit geocodes the database and maintains an x/y coordinate table. This facilitates the process of updating the database with succeeding monthly information. The unit only needs to geocode the additions each month, which number around 5,000. The resulting dataset is a monthly snapshot of the entire parole and probation population. HIDTA provides analysis and maps to DPP that assists them in managing their clients and effectively communicating their policies to the public (see Figure 1 on previous page). This service provides valuable information to DPP without the financial investment in GIS technology.

As custodian of the monthly DPP database, W/B HIDTA established agreements between DPP and several local police departments to distribute the data. Currently, four departments receive a monthly update that they use for a variety of purposes. Additionally, the data are utilized by W/B HIDTA initiatives. For example, it is advantageous for officers to know if their target has a weapon violation when conducting a buy/bust operation.

Gang Mapping

Gang activity in the W/B HIDTA region has reached alarming levels in recent years. The resulting increase in violence and drug trafficking has prompted police departments to develop strategies for suppressing gangs. Working in cooperation with the Metropolitan Police Department (MPD) and the U.S. Attorneys Office (USAO) in Washington, D.C., the Evaluation & Crime Mapping Unit created a map delineating street gang areas in D.C. (see Figure 2). The USAO interviewed several MPD detectives and street officers to determine what blocks were occupied by gangs. The resulting map, which identified over 90 individual gangs, has been distributed in both hardcopy and digital shapefile format to over 50 different law enforcement and treatment/criminal justice agencies throughout the region. The map was

updated in 2004 and 2005 with the help of the FBI/Safe Streets Task Force. A companion map was created in early 2006, detailing the areas in DC/Northern Virginia where MS-13 activity was on the rise. This map was very well received by the law enforcement community.

Parcel Interdiction

The W/B HIDTA recently established a parcel interdiction initiative to address the growing trend of drug trafficking via the parcel (packaging) system. Parcel interdiction appears to be one of the least risky methods of delivery due to the low cost and anonymity it offers because

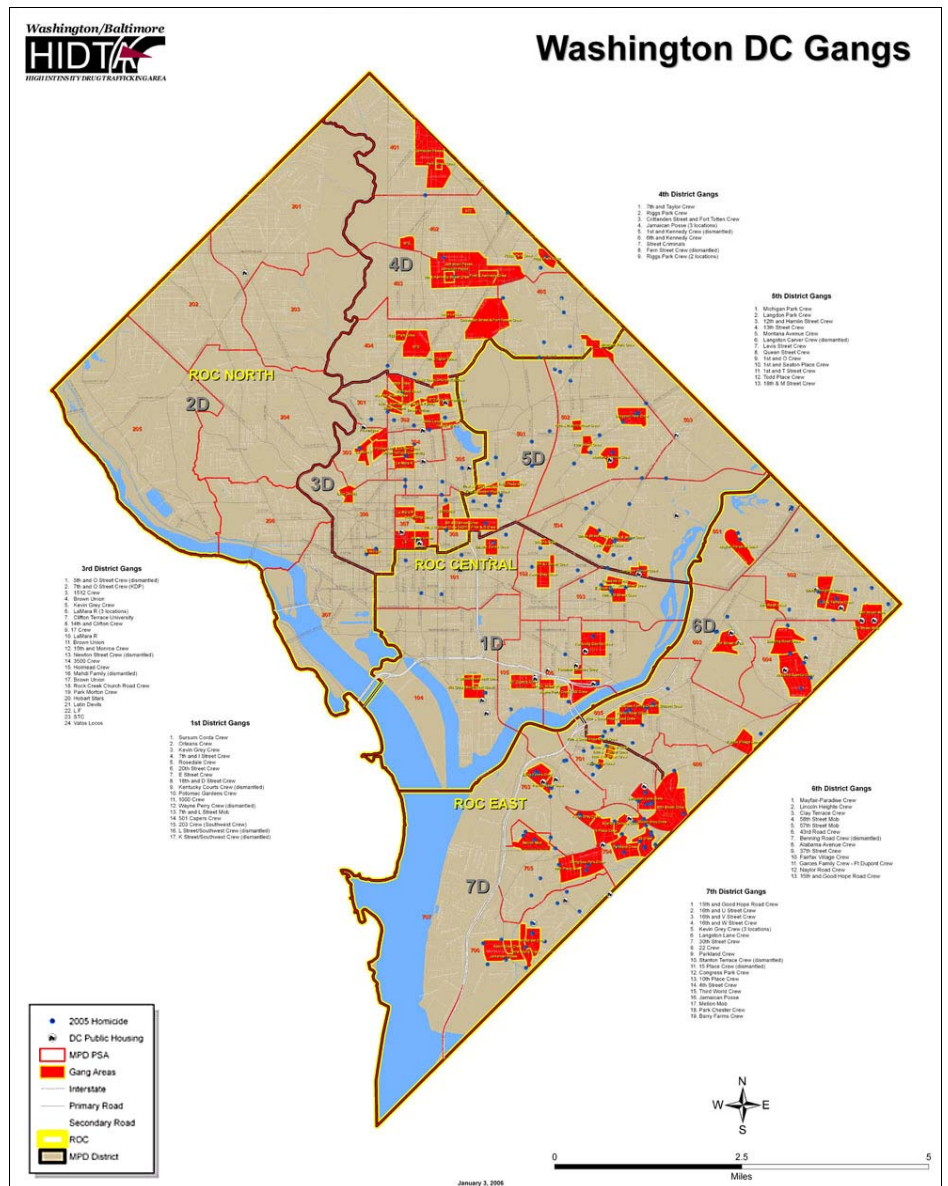


Figure 2. Map showing street gang areas in the District of Columbia.

Note from the editors: The opinions expressed in the articles of this newsletter are those of the authors and do not necessarily reflect the views of the Police Foundation or the COPS Office. In addition, only light editing has been done in order to keep each author's voice and tone.

of the use of fictitious names and return addresses. The W/B HIDTA is currently working with several major parcel carriers to intercept drug parcels and perform controlled deliveries to arrest the recipients. Its parcel interdiction initiative provided the Evaluation & Crime Mapping Unit with a database of all intercepted drug parcels for analysis. The unit was able to provide the initiative with information to help target specific source and destination areas resulting in greater efficiency in discovering drug parcels. Intelligence analysts at W/B HIDTA are currently working on targeting the financial side of these deliveries. The drugs arrive and money is returned to the source area through several means. It is the goal of the W/B HIDTA to intercept these funds and disrupt or dismantle these drug trafficking organizations.

Future Plans

The Evaluation & Crime Mapping Unit is attempting to become a data warehouse for the region as it continues to acquire data from both internal and external sources. The unit is currently evaluating several software products to help distribute digital data to clients. ArcIMS and Google Earth Enterprise are two possible solutions (see Figure 3). Both offer the ability to effectively provide data to internal initiatives and external clients. The unit is

continuing to establish more data-sharing agreements and encourage more local jurisdictions to work together to combat drug trafficking organizations. With more relevant data, the law enforcement agencies within the region will be better equipped to address these threats.

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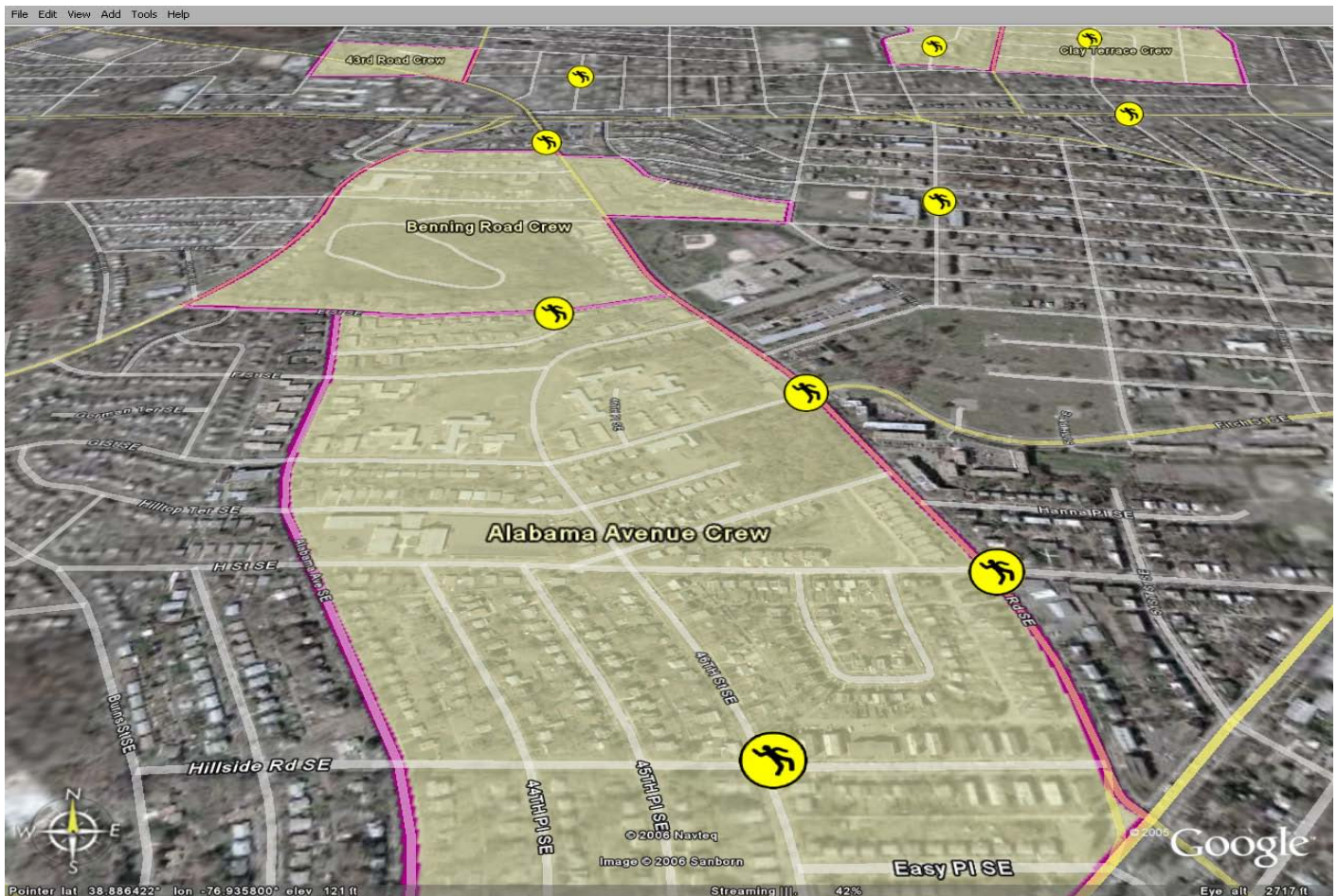


Figure 3. Map showing gang areas with the use of ArcIMS and Google Earth.

Incident Mapping: The Ultimate Contraband Control

by

Jay Bales, Corrections Inspector, Huron Valley Center (MI), and Joe Bouchard, Corrections and Psychology Instructor, Gogebic Community College and Librarian, Baraga Maximum Correctional Facility, Michigan Department of Corrections

Are all contraband control processes created equal? Is it really as simple as looking for any item that is not allowed or out of place?

Complete contraband control is much more than a simple pat-down or visual search. When done well, it is a comprehensive process that involves all layers of staff over a long period of time. Some of the ingredients necessary for a quality search are patience, communication, planning, and documentation.

Conceptually speaking, there are really four levels of contraband control (Figure 1). They range from level one, the stage of staff non-involvement in the search, and culminate at the highly evolved level four, which incorporates all active levels of this model and adds elements of incident mapping.

Level one is omission, and is actually an inactive step. It is the bottom rung of the contraband control ladder, involving no staff time, effort, or thought. When a staff member performs a “fake down” or a feigned clothed-body search, that person is mired in level one. Personnel who look the other way or permit passing of items between offenders are engaged in omission of contraband control duties.

Level two is the simple visual search. This is the first active phase of the four-level paradigm. The name precisely represents its function: a simple visual search. This is by no means thorough but it does represent a start in preventing illicit goods from moving between prisoners.

Level three is the eight-point contraband control process (Figure 2). It consists of shared information, pattern analysis, vigilance, the search (either overt or covert), documentation, the reality filter, maintenance, and imagining motives.

This is not a simple linear progression of items one to eight. It is an ongoing process. In fact, the maintenance aspect of this points to fine tuning the process to match conditions specific to each facility, population, and other variables.

Level four employs incident mapping in concert with the eight-point contraband control process. This is the use of mapping misconduct over time and analyzing the data. Incident mapping, combined with contraband control, is a systematic way to assess past events to minimize the dangers of illicit goods in our facilities in the present and the future.

Figure 1. Four levels of contraband control.

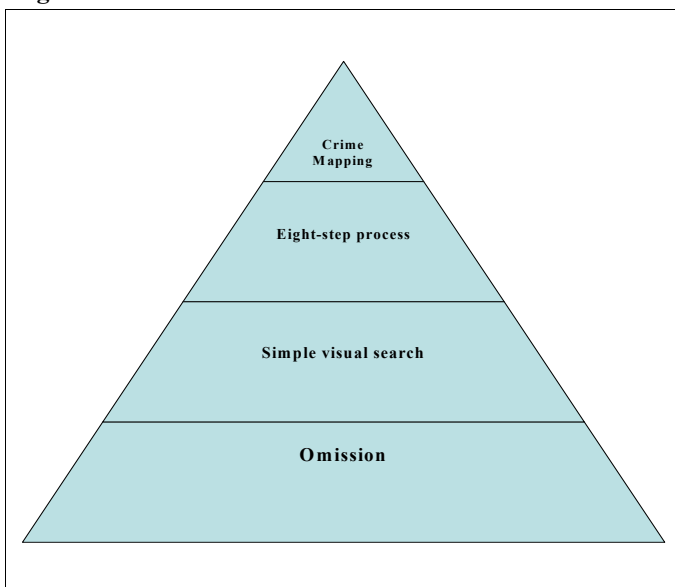
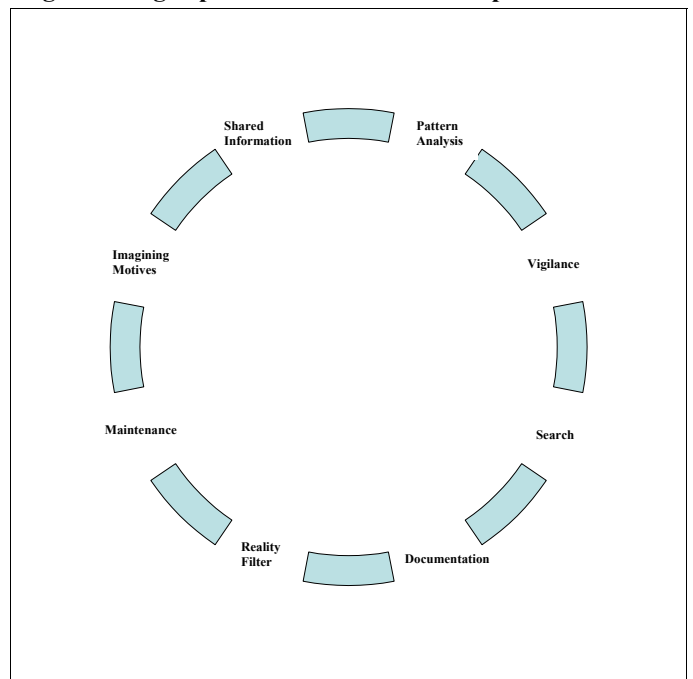


Figure 2. Eight-point contraband control process.



A Prudent Partnership

Employing both contraband control and incident mapping strengthens the effectiveness of the process. Like anything new, it is sometimes difficult to know where and when to start. A solid foundation is most important when incident mapping in a correctional setting. A clear understanding of your organization’s goals and objectives is essential, as is a working knowledge of the systems and their daily application. The more staff who possess this knowledge, the more enhanced is the overall ability to collect and analyze intelligence.

Basic Necessities for Mapping Prisoner Contraband Misconduct

To effectively map manually for analysis, your organization must have a system of identifying and documenting prisoner misconduct. The misconduct report should include the following elements:

- Date of occurrence
- Time of occurrence
- Reporting staff member's name
- Prisoner name, number, cell number, and other identifiers
- Victims (if any) and injury incurred
- Weapons (if any)
- Any contraband secured or seen

To enhance the intelligence, there should also be master prisoner population index, staff schedules, visitor schedules, special activities schedules, prisoner store details, prisoner assignment and schedules, and any other documentation believed to be relevant to track prisoner or staff behavior.

Location is Key in Crime Mapping

Contraband is mobile. In most cases, there has to be a drop or pass location, but a thorough contraband misconduct report lists a location of occurrence. These misconduct reports are documentation of location.

Schematics are useful tools to assess the overall physical plant design for each building. Basically, incidents of contraband crime in a specific area can be represented on a large wall map with a simple pin, flag, or label. Over time as incidents of misconduct are uncovered, the mapper continues to apply corresponding marks on the map. Patterns will emerge, such as clusters or hot spots of activity.

This simple contraband mapping method can be modified. For example, color coding makes the data more meaningful. A red pin could represent prison-made weapons; a blue pin could signify narcotics or prescription drugs; and a green pin could symbolize gambling paraphernalia. Practitioners should develop a user-friendly coding system for identifying the misconduct on the schematics. Once plotting begins, it is crucial to stay with a consistent system.

This data gathering can also be modified to account for time. There are many ways to look at how crime evolves over time and determine patterns:

- Look at the times of day. When is most of the misconduct committed?
- Chart activity over the course of a year. What time of year is it more likely that misconduct will occur?
- Map the progression of the spread of contraband in the long-term. What starts as a small geographical cluster of illegal activities can spread. The direction of its growth can suggest future patterns.

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Also, feel free to contact individual Crime Mapping and Problem Analysis Laboratory staff with questions or comments.

Greg Jones

Research and Crime Mapping Coordinator

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Communications Director

- Contraband trading patterns can be compared to basic population increases. Correlations can be drawn between new areas of contraband trafficking, additional population pressures, and all incidents of contraband over time.

This is just the tip of the iceberg in terms of sophistication. The incident-mapping process does not simply have to be manually applied and depicted. Computer software is available in many forms to assist in collection and analysis of data.

Benefits of Mapping

The benefits of mapping contraband misconduct may not be visibly apparent for a month or more, depending on the frequency of written misconduct in an institution or the static or active nature of the prisoner population. In time, however, one will begin to witness a graphic representation of conditions. Eventually, spatial and temporal patterns of incidents will become more apparent.

Some Examples of Success

Physical plant deficiencies may also become more evident. In mid-1996, one practitioner mapped prisoner misconduct at a multi-level secure correctional facility that housed male prisoners. He

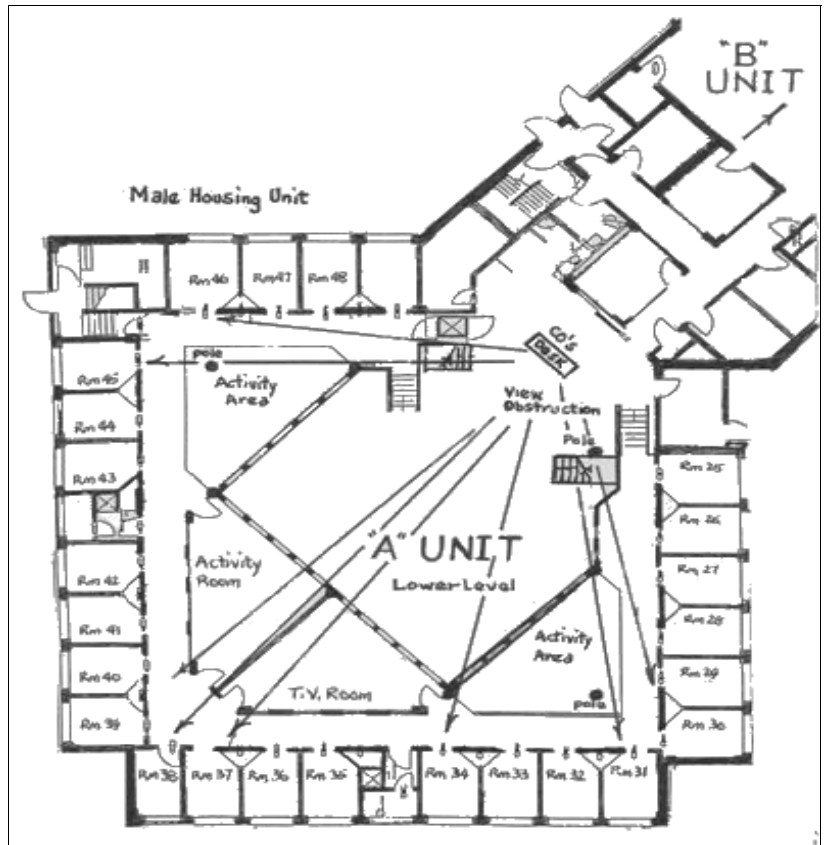


Figure 3. Line of sight diagram of a male housing unit.

discovered that the “line of sight” in the housing unit was a major factor in drug usage and trafficking (see Figure 3). It was further discovered that more than 70 percent of the prisoners found guilty of drug trafficking or usage were assigned to corner cells near common area restrooms or with views obstructed from a good line of sight by staff.

In mid-1997, the same practitioner mapped prisoner misconduct at a multi-level female correctional facility (see Figure 4) and again found that line of sight in the housing unit was a major factor in drug trafficking, substance abuse, and the spread of contraband. Approximately 70 percent of the prisoners found guilty of drug trafficking and usage were assigned to corner cells near common area restrooms or with obstruction to staff’s line of sight.

The Results of Incident Mapping and Contraband Control in Corrections

When employing the intelligence harvested from incident mapping, staff have recovered considerable quantities of controlled substances, dangerous contraband, and stolen property (see Figure 5). Various scams to defraud civilians of tens of thousands of dollars have been thwarted. Other tactics used with contraband control and incident mapping were telephone monitoring, random searches, and review of prisoner mail.

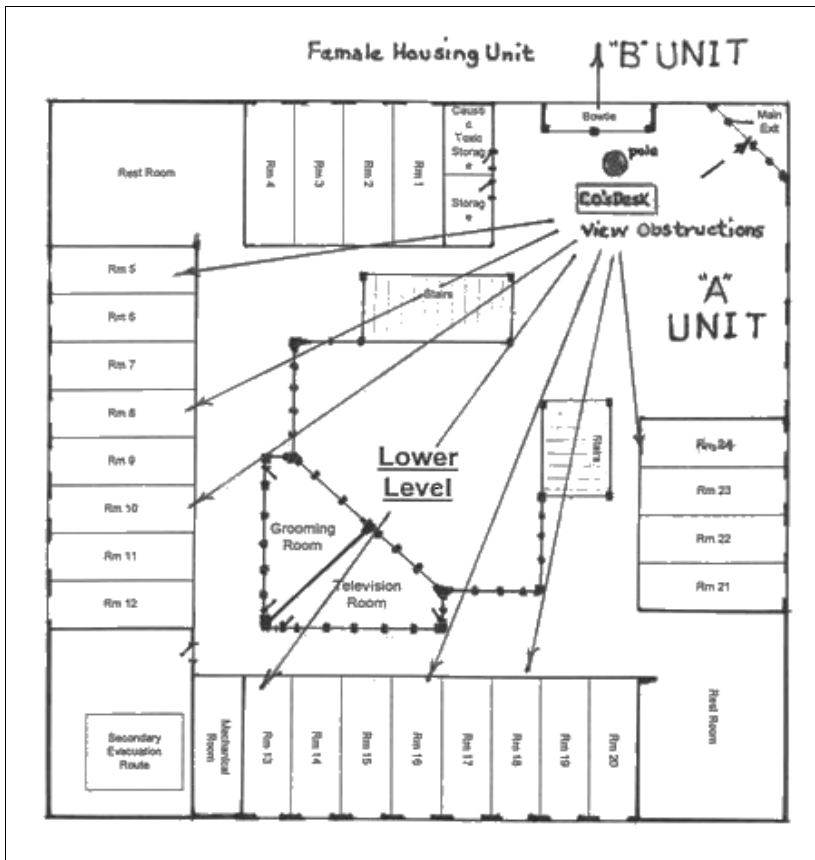


Figure 4. Line of sight diagram of a female housing unit.

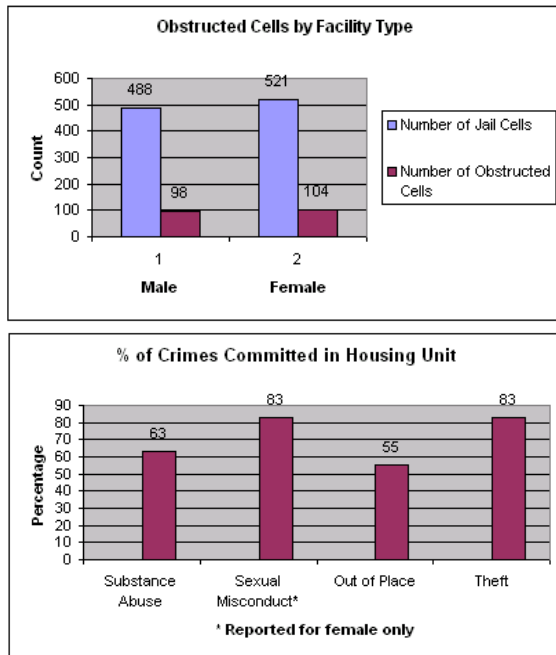


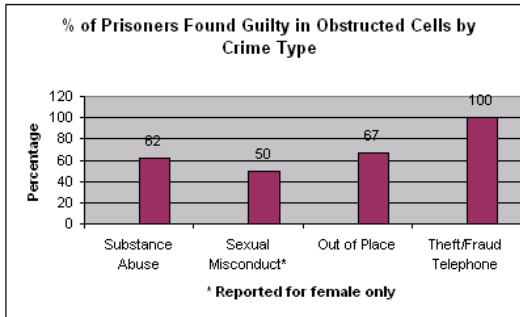
Figure 5. Stats related to obstructed cells and housing unit.

A tried and true method of fraud is the telephone scam. This is where money is solicited under false pretenses from unsuspecting individuals through telephone calls. Sometimes, staff unwittingly assist in this by housing perpetrators closer to a more desirable location. Through incident mapping, personnel can see if perpetrators are in close proximity to the telephones. Sometimes, a simple cell move will eliminate opportunity for the would-be scammer.

Incident mapping is a way to use data from the past to predict future occurrences of contraband. It also can be applied to determine patterns in a short-term crime wave. This is as simple as modeling from the past. Look at all of the misconduct reports that you have written over the past year. Make a chart of each occurrence that lists location, charge, and time. With the data assembled, ask the following questions: What patterns emerge? Do you write more tickets near shift change? Which infraction occurs most frequently? Is more smuggling misconduct occurring the week before prisoner payday?

Incident mapping offers many benefits both inside the prison as well as out. We can utilize our enforcement resources more optimally, a prudent and necessary strategy, especially in times of fiscal uncertainty. Also, when hardening a hot spot with more effective patrol, surveillance, or physical security, staff may inadvertently cause misconduct to be redirected to other areas. With good communication between staff, however, hot spots of misconduct can be anticipated and controlled. It is up to all corrections professionals to apply patterns and anticipate the next hot spots for illegal activity.

Collecting and analyzing data enhances our effectiveness. Crime mapping brings out the sleuth in many staff, enhances our sense of professionalism, and encourages us to think more strategically about our role in the criminal



justice process. Contraband control crime mapping reduces and deters illicit activity and makes for a safer facility for prisoners and staff. In turn, the public benefits through effective utilization of tax dollars.

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The opinions expressed in this article are those of Joseph Bouchard and Jay Bales, employees of the Michigan Department of Corrections (MDOC), and do not necessarily represent the opinions of the MDOC. The MDOC is not responsible for content or accuracy.



CRIME MAPPING NEWS SPOTLIGHT: Johnson City Police Department

The Johnson City, Tennessee, Police Department (JCPD) is in the process of implementing a powerful computerized crime analysis and mapping solution – GeoDecisions® Crime Analysis and Mapping System® (GeoCAMS®). The custom solution, developed by Pennsylvania-based GeoDecisions, will access the existing calls-for-service and incident data collected by Tennessee's Washington County Emergency Communications District 911 computer-aided dispatch system and the police department's records management system supported by a wireless reporting network.

The system will provide mapping and geographic information system (GIS) capabilities so the JCPD can quickly and efficiently map and analyze crime patterns and hot spots, develop crime-fighting strategies and tactics, and more effectively manage the deployment of law enforcement resources and personnel. The flexibility of the mapping system allows it to support important workflows and procedures within each division of the police department.

The JCPD serves as a consolidated law enforcement agency supporting public safety and homeland security in Johnson City, a city with a population of 56,217. Currently, the JCPD employs 148 sworn officers and 31 civilian employees.

For a number of years, the JCPD has recognized the need to utilize existing incident data collection to enhance decision making. However, the department's crime mapping tools have remained fairly limited.

To initiate and guide the procurement process, the JCPD developed a detailed set of system requirements to serve as a basis for the methodical evaluation of existing offerings. Our requirements dictated the need for the acquisition of a fully functioning, crime mapping program that would enable users to acquire accurate and timely crime data in a wide range of graphic formats, combining multiple data sets into one display. The addition of interactive crime maps will aid the JCPD in tracking crime trends, deploying resources more effectively, tracking the efficiency of interventions, and moving the department toward a Compstat model. The future system would need to satisfy each of these requirements for it to be considered a successful project.

While the JCPD recognized its growing success at analyzing crime, it identified a need to augment these non-

spatial analysis techniques utilizing GIS-based tools. This would provide patrol managers and investigative staff with a more effective way to visualize the analysis results and develop more proactive crime deterrent methods. Clearly, a widely distributed, proven GIS-based mapping and analysis system would address these needs. The Johnson City Police Department selected GeoCAMS as its system of choice.

GeoCAMS will significantly enhance the JCPD's current methodology for analyzing crime, which involves cumbersome records searches and pin maps that identify where different offenses have occurred. GeoCAMS automates the integration of computer-aided dispatch and records management system records, while providing users with the ability to display the data through custom-generated reports. Users can conduct simple or advanced calls-for-service or crime searches, and then view the search results as a table, chart, or map with the tools utilized in GeoCAMS. Using various map tools, a user can zoom into a call or crime location on a map, add special graphics to the map, and print the map.

Detectives, officers, and command staff can use the data to determine crime-fighting strategies, such as where to most effectively deploy law enforcement personnel based on crime-pattern reports, or to determine where similar incidents may be correlated in time and space with a particular case currently under investigation.

For the JCPD, the application will provide users with tools for more proactive crime pattern research, identification, and elimination. It also provides managers with the ability to identify hot spots, nuisance properties, and crime trends. Additionally, command staff can identify short-term or long-term hot spots so that personnel can be deployed where they are most needed (see Figure 1). This information can also be used to measure and display in report or map form the successful results of crime reduction strategies.

GeoCAMS will allow the JCPD to coordinate specialized patrols and units by conveying timely information. Tactical units utilize the mapping tools to visualize information that assists the planning of their rapid response in emergency management situations (see Figure 2).

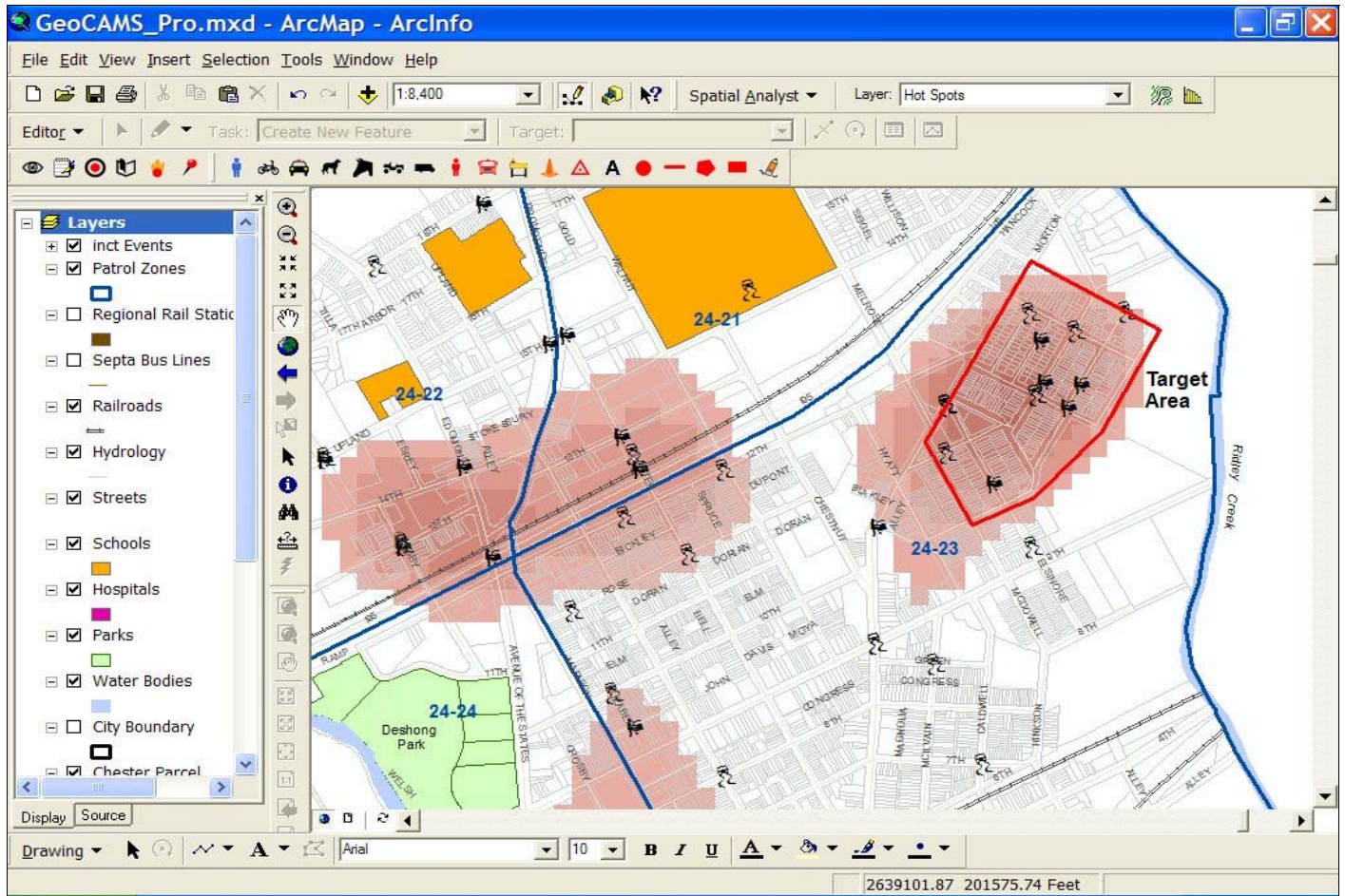


Figure 1. High density areas clearly define tactical responses.

COMING SOON!!!

NEW PUBLICATIONS FROM THE POLICE FOUNDATION
CRIME MAPPING AND
PROBLEM ANALYSIS LABORATORY

on

Intelligence and Crime Analysis

and

Using Mapping for Prisoner Reentry Efforts

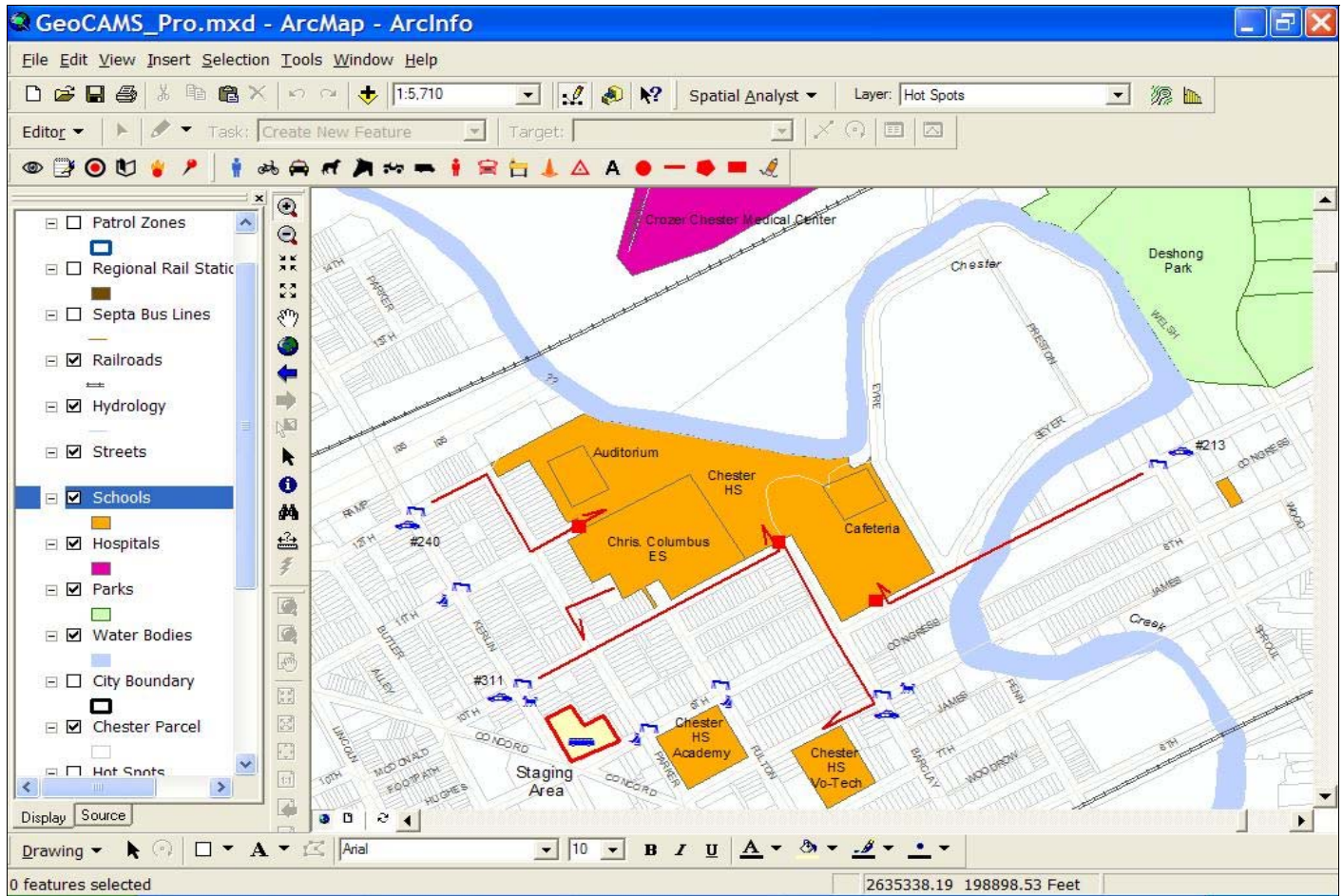


Figure 2. Communicating deployment for pre-plans is visual and rapid.

The custom GeoCAMS implementation will support the department's developing Compstat policing model, which requires certain reporting processes for daily operations. The model enables law enforcement agencies like the JCPD to have accurate and timely information on past criminal activity. GeoCAMS permits existing incident data to be mapped, analyzed, and incorporated into the model, and also provides current information for crime-fighting strategies and initiatives.

Moreover, current administrative tasks, such as tabulating incidents and providing crime summary reports, will be simplified through the use of GeoCAMS. Today, spatial components are inherent in many law enforcement functions. With the new system, the JCPD can begin leveraging their new crime-fighting toolsets to enhance many of these processes.

ESRI[®], ArcView[®], and ArcEngine[™] technology are used to develop the GeoCAMS Pro and Lite, respectively. These powerful, current development environments provide a robust application that can be rapidly deployed without specialized training.

Chief John Lowry is eager for the new system to become operational. "We are excited about this new system for timely crime analysis and more effective resource

management. Our goal is to address crime and disorder more proactively and position ourselves to anticipate trends more effectively. This system will help us reach that goal."

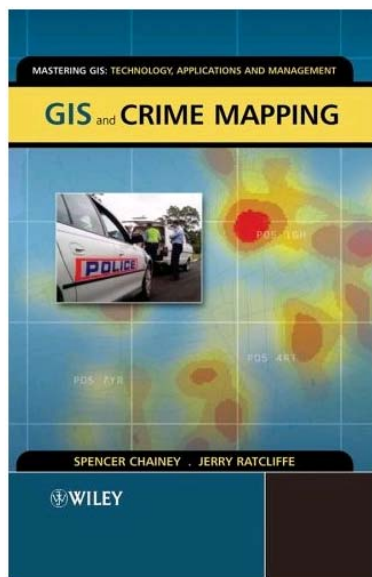
This article was authored by Captain Mark Sirois and Lt. William Galten (Ret.).

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Book Review: GIS and Mapping Authored by Spencer Chainey and Jerry Ratcliffe

by
Greg Jones, Research and Crime Mapping Coordinator, Police Foundation



Growing attention in policing is being directed at various technologies that can aid law enforcement agencies in developing comprehensive and responsive solutions to the crime problems in the communities they serve. Some of the technologies that have emerged on the policing scene over the past decade include global positioning systems (GPS), Automated Vehicle Location systems (AVL), and Palm Pilots (for data collection purposes) to name a few. Additionally, police leaders and practitioners are increasingly making use of geographic information systems (GIS) and crime mapping tools to better understand crime patterns, trends, and their communities.

GIS and Crime Mapping is a valuable resource that criminal justice practitioners, academicians, and law enforcement personnel, especially, can use to better understand how geographic information and mapping play important roles in crime prevention and crime reduction strategies. First, this book is easy to follow and presents topics and concepts in a logical framework. This is aided by the learning objectives section at the beginning of each chapter that provides a brief synopsis of what the readers should expect to learn about in the following pages. Second, the various chapters seem to build upon the previous ones to provide a greater sense of the depth and application of geographic information systems and crime mapping. For example, the chapter topics progress from Basics of Crime Mapping to Spatial Theories of Crime, then Spatial Statistics and so forth. Third, there are various examples and case studies within each chapter that help the reader understand the practical application of many of the concepts (e.g., grid thematic mapping, kernel density) as well as the methodological issues that surround them, including what some may consider to be the more advanced concepts (e.g., spatial regression and lag models).

Of particular interest in this book is the Crime Map Cartography section and the authors' attention to visual variables and color, or what I call the "art of color." In other words, they describe how the human eye perceives colors, how colors can make or break your map, how they can distract or draw in your particular audience, and what considerations an analyst should be cognizant of when constructing a map (i.e., symbols, text, shades and patterns, classifications, etc.). Finite details such as these have become a lost art to some in the field, and are a critical area of mapping that analysts, researchers, and practitioners should definitely pay more attention to in their day-to-day work. This is particularly important when providing maps to their counterparts and community members.

Another section that deserves attention is Mapping Crime with Local Community Data. The police are on the street responding to calls day after day or night after night and utilize several generated reports (Compstat, daily crime reports, calls for service reports, crime bulletins, etc.) on a daily basis so they can focus their tactical, strategic, and operational resources accordingly. One of the ways in which their jobs can become easier is by creating value-added partnerships with other agencies (i.e., hospitals, corrections, schools, etc.) that can provide valuable datasets which will complement their existing databases.

What is also evident in the book is the use of practical examples from various countries including the United Kingdom, Australia, and the United States. This not only shows the global extent to which GIS and crime mapping/analysis is being used

and applied, but more importantly, this allows analysts to understand the similarities and/or differences about problems across countries and to learn additional perspectives about these problems.

One of the shortcomings of this book was that it became difficult at times to completely synthesize discussion points and/or concepts because the maps used to visually explain them were usually in black and white instead of color. While it is understandable that the cost of publishing in color is very expensive, a book using maps as an instructional and informational tool is quite limited in its potential when such maps exclude color. Nonetheless, I think the authors are still able to convey to the reader the basic meaning of each concept and their practical application(s) in the field.

The combination of geographic information, crime mapping, and a greater understanding of criminal behavior and patterns are helping the law enforcement community to reach new analytical heights in combating crime and disorder problems. *GIS and Crime Mapping* is a must read for law enforcement and community safety practitioners, students, and researchers who are interested in learning about the advantages of utilizing geographic information systems and crime mapping and the important role they are playing in today's policing world. It is also a good refresher and substantive reference for the more advanced analysts who are looking to hone their day-to-day analysis skills. This book is available for \$60 from John Wiley and Sons Ltd. (ISBN: 0470860995) or through their web site at www.wiley.com.

Upcoming Conferences and Training

SEPTEMBER

International Association of Crime Analysts Conference
September 11 - 14, 2006
New Orleans, LA
<http://www.iaca.net/Conference2006.asp>

Introductory, Intermediate, & Advanced MapInfo Professional Training in select cities:
Atlanta, GA; Dallas, TX; Denver, CO; Newport Beach, CA; Toronto, CAN; Troy, NY
www.mapinfo.com

ESRI Training: Working with ArcGIS Spatial Analyst 9.x in select cities:
St. Charles, MO; Charlotte, NC; Henderson, NV
www.esri.com/training/index/html

ESRI Training: Advanced Analysis with ArcGIS in select cities:
Chicago, IL; Atlanta, GA; Denver, CO; New York, NY; Phoenix, AZ; Redlands, CA; San Antonio, TX; Anchorage, AK
www.esri.com/training/index/html

OCTOBER

Crime Mapping and Analysis Program: Introductory ArcGIS 8.x Training
October 2 - 6, 2006
Denver, CO
<http://www.nlectc.org/cmap/schedule.html>

International Association of Chiefs of Police
October 14 - 18, 2006
Boston, MA
<http://www.theiacpconference.org/>

GENERAL WEB RESOURCES FOR TRAINING SEMINARS AND CONFERENCES

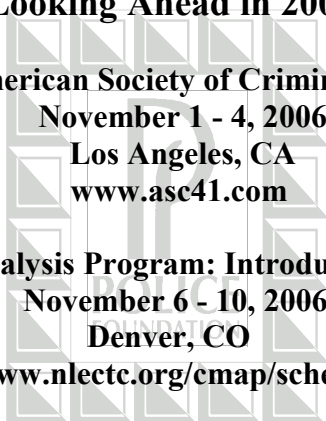
<http://giscenter.isu.edu/training/index.htm>
<http://msdisweb.missouri.edu>
www.actnowinc.org
www.alphagroupcenter.com
http://www.cicp.org/course_sched.html
www.cops.usdoj.gov
www.esri.com/events
<http://www.iaca.net/Training.asp>
www.ialeia.org
www.ialep.org
www.mapinfo.com/events
www.nijpcs.org/upcoming.htm
www.nlectc.org/nlectcrm
www.nsgic.org
www.urisa.org/meetings.htm
http://ocpe.gmu.edu/certificate_programs/gis.html
<http://www.worldcampus.psu.edu/wc/GISCertificate.shtml>

Looking Ahead in 2006!!

American Society of Criminology
November 1 - 4, 2006
Los Angeles, CA
www.asc41.com

Crime Mapping and Analysis Program: Introductory ArcGIS 8.x Training
November 6 - 10, 2006
Denver, CO

<http://www.nlectc.org/cmap/schedule.html>



The mission of the U.S. Department of Justice, Office of Community Oriented Policing Services (COPS) is to advance community policing in jurisdictions of all sizes across the country.

COPS provides grants to tribal, state, and local law enforcement agencies to hire and train community policing professionals, acquire and deploy cutting-edge crime-fighting technologies, and develop and test innovative policing strategies. COPS also provides a wide range of original publications, tools, and products designed specifically for law enforcement and community members who wish to enhance their community policing capabilities.

This broad range of programs and products helps COPS offer agencies support in virtually every aspect of law enforcement, and it's making America safer, one neighborhood at a time.

Visit www.cops.usdoj.gov to:

Obtain information on COPS funding opportunities

Read up on the most relevant issues in community policing today

Learn about training opportunities

Visit our resource room online or call the U.S. Department of Justice Response Center at **800.421.6770** for a full selection of COPS publications and other resources.

www.cops.usdoj.gov

COPS★

COMMUNITY ORIENTED POLICING SERVICES
U.S. DEPARTMENT OF JUSTICE

ABOUT THE POLICE FOUNDATION

The Police Foundation is a national, nonpartisan, not-for-profit organization dedicated to supporting innovation and improvement in policing through its research, technical assistance, communication, and professional services programs. Established in 1970, the foundation has conducted seminal research in police behavior, policy, and procedure, and works to transfer to local agencies the best new information about practices for dealing effectively with a range of important police operational and administrative concerns. Motivating all of the foundation's efforts is the goal of efficient, humane policing that operates within the framework of democratic principles and the highest ideals of the nation.

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