

# Crime Mapping News



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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](http://www.policefoundation.org) or [www.cops.usdoj.gov](http://www.cops.usdoj.gov).



## *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).

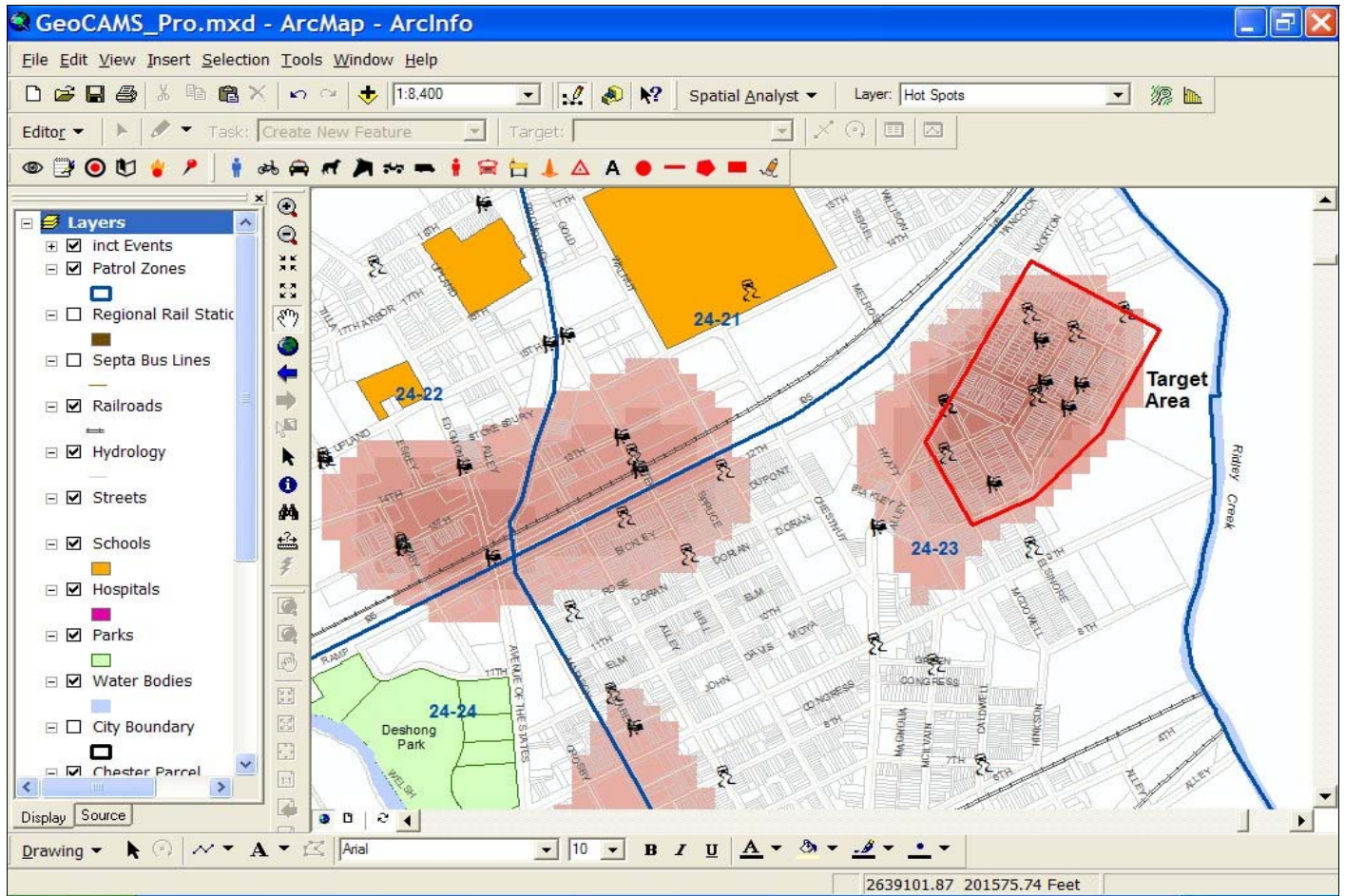


Figure 1. High density areas clearly define tactical responses.

## COMING SOON!!!

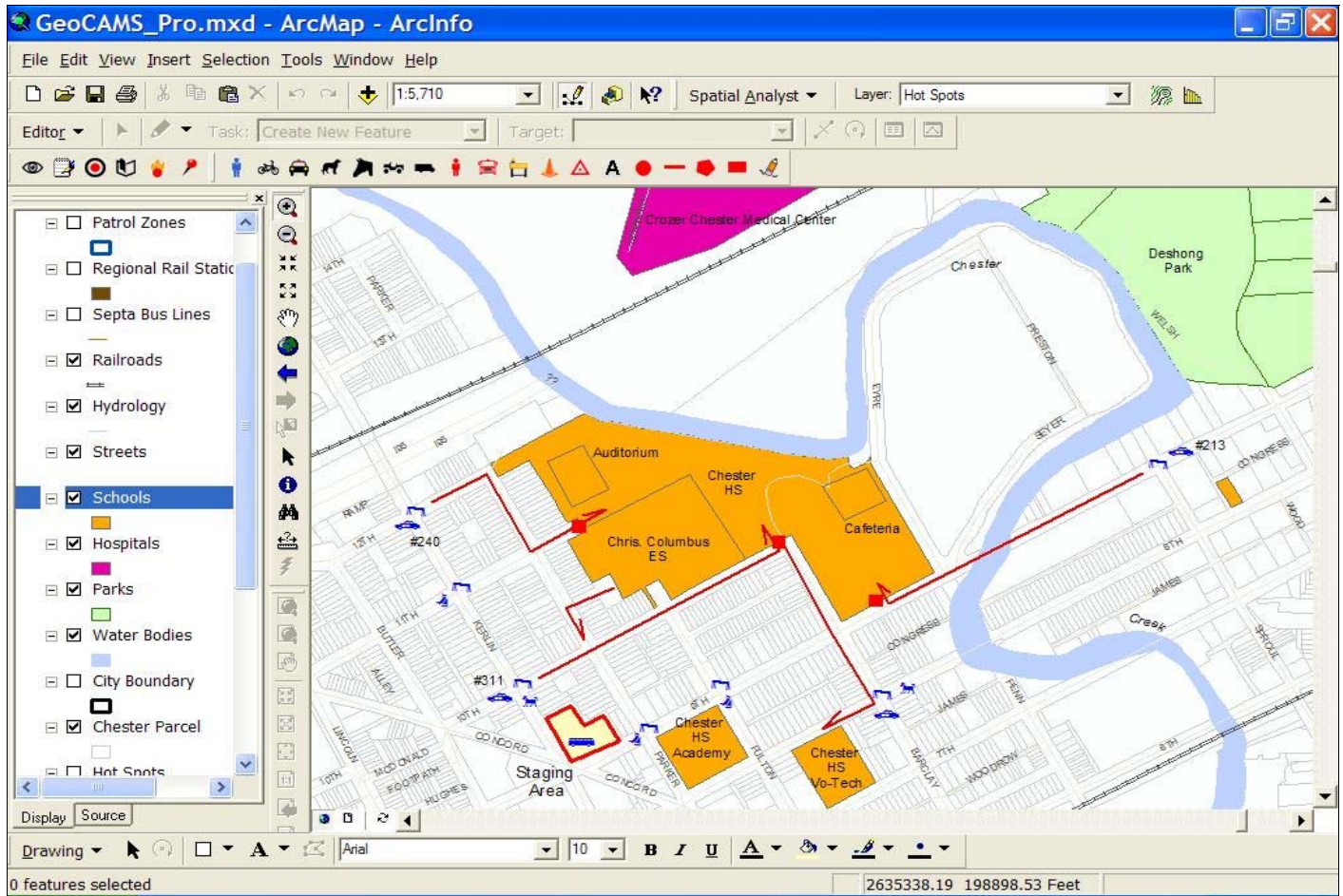
NEW PUBLICATIONS FROM THE POLICE FOUNDATION  
CRIME MAPPING AND  
PROBLEM ANALYSIS LABORATORY

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<sup>®</sup>, ArcView<sup>®</sup>, and ArcEngine<sup>™</sup> 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.).*

*Captain Mark Sirois is the Mapping Project Manager for Johnson City Police Department and can be contacted at [msirois@johnsoncitytn.org](mailto:msirois@johnsoncitytn.org)*

*Lt. William Galten (Ret.) is the Project Manager for GeoDecisions and can be contacted at [wgalten@geodecisions.com](mailto:wgalten@geodecisions.com)*