TECH b•e•a•t

Dedicated to Reporting Developments in Technology for Law Enforcement, Corrections, and Forensic Sciences

A Good Catch

Walking briskly down a neighborhood street, arms pumping, exercise clothes sweaty, he looks like many other men out getting exercise. But he has another purpose in mind: burglarizing homes. He uses his exercise routine to scout out potential victims in this city's suburban neighborhoods, striking always at the same time of the evening, when his victims are usually involved in a weekly activity.

But this evening he won't succeed. Police are on to his routine. They are waiting for his planned strike. He will become their next "CATCH."

CATCH—the Crime Analysis Tactical Clearing House—supports law enforcement agencies in analyzing crime series and patterns. CATCH is a project of the Office of Justice Programs' National Institute of Justice's Crime Mapping and Analysis Program (CMAP) operated by the National Law Enforcement and Corrections Technology Center (NLECTC)–Rocky Mountain at the University of Denver.

According to Sean Bair, CMAP program manager, the CATCH project has a threefold mission: to provide technical assistance relating to serial crime, to warehouse serial crime data, and to make the data available for use in research and methodology development. Bair adds that data used for research and methodology development has been sanitized; that is, personal information relating to the perpetrator has been removed.

"The purpose of CATCH is not for us to become crime analysts for hire, but to 'teach a man to fish'; that is, teach law enforcement departments to do their own crime analysis," Bair says. He notes that CATCH staff use a number of crime mapping and analysis software applications and techniques to help agencies analyze identified crime series. He further notes that building up a warehouse of solved and unsolved crime series will provide researchers and theoreticians with reliable access to these data, enabling them to help agencies improve their methods of crime analysis and solve crime series more systematically.

Bair says that sanitized versions of closed crime series will generally be made available to requesters. Sensitive data and open cases may be made available to accredited researchers who assist agencies with ongoing crime series at the agency's signed request.

The CATCH project evolved from a University of Denver graduate student thesis on next-event forecasting, which differs from geographic profiling. Geographic profiling analyzes the locations of a series of crimes to determine where the offender most likely resides. Next-event forecasting looks at where previous crimes occurred to predict where the next crime will happen.

CATCH is now available to law enforcement nationwide following its beta test debut in the Four Corners States [Utah, Colorado, New Mexico, and Arizona] during 2005.

CATCH IS AS CATCH CAN

During beta testing, the CATCH project had several successes, including the following:

SAVANNAH-CHATHAM (GEORGIA) POLICE DEPARTMENT

Series of Nine Kidnappings and Rapes, October 2005. CATCH staff mapped the crime locations along with other variables and created a timeline. Because the victims were kidnapped and then taken to isolated locations and assaulted, the mapping was complex. Using movement-analysis techniques, CATCH team members projected probable locations where the offender had targeted the victims and provided a list of recommendations for disrupting the series. These forecasts and recommendations backed up conclusions by the Savannah authorities, who initiated a public awareness campaign about the crimes. The Savannah-Chatham Police Department arrested the offender following an attack in an area targeted for increased surveillance. In the words of Savannah-Chatham Crime Analysis Supervisor Richard Strait, "Thanks for the help and add this one to your success stories!"

"Before opening up the project to the entire country, NLECTC–Rocky Mountain wanted to run CATCH on a trial basis," Bair says. "We wanted to see how it worked out in a smaller area first. We knew if we just made a broad announcement, we would be inundated. Late in 2005, we expanded the project into a few other States.

"The beta phase was a time to streamline the process. We wanted to gauge how much time it would take to work with a department and show their people what could be done, what couldn't be done, and how their own staff could do it themselves next time. It turns out that the average time spent on cases varies between 2 and 4 hours.

"In addition to showing law enforcement agencies how to use the techniques of the CATCH project for future serial crime cases, we are encouraging agencies to take advanced CMAP training, all aimed at making their use of CATCH a one-time event. Also an important part of CATCH is determining if a particular department's crime series is an extension of what is going on in someone else's jurisdiction."

For example, Bair says, more than 200 burglaries have occurred in the Colorado Front Range, all believed to have been committed by the same suspect and spanning the jurisdictions of approximately 10 police departments.

"Our approach has been to help them by facilitating communication across the various agencies. With so many cooks in the kitchen, there isn't necessarily one cook who holds the recipe. Initially, we invited all the agencies together, provided them the venue to meet and discuss the series, and helped facilitate the cross-jurisdictional analysis.

"We also have helped them deal with the technological issues that came about because of the size of this series, which crossed so many boundaries. It is difficult to put the whole series on one map. We have helped them see the puzzle by putting together its individual pieces, and we assisted them with the analysis of the series and provided feedback on what to look for. That is a very typical example of what we're able to do from a technological standpoint."

For more information on the CATCH project, contact Sean Bair at 800–416–8086 or sbair@du.edu. Or visit www.crimeanalysts.net/catch.htm. For general information about the CMAP initiative, visit www.crimeanalysts.net.