

ARCNEWS

Public Safety Log

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GIS for Public Safety

Location Is the Key to 21st Century Policing

Lew Nelson, Global Law Enforcement Manager (Police Chief Retired)



Twenty-first century law enforcement takes advantage of many different methodologies for fighting crime. Whether it's evidence-based, problem-oriented, predictive, or intelligence-led policing, each has a particular need: understanding the geography—or the

“where”—of policing. Crime, criminals, victims, and most of what law enforcement deals with have a location: a specific address, building, street corner, block, or similar geography.

Today's geographic information system (GIS) technology allows us to understand the nature of crime using information captured in any number of ways. This is good news for law enforcement. It means that no matter what database or system architecture your department runs, it can harness the power of

geography and use mapping to make better decisions. And it's happening everywhere—in national agencies, big cities, and small municipalities.

Data-driven policing, combined with GIS, results in an accurate information picture. It allows your organization to put the right people in the right place at the right time. For this reason, GIS use in law enforcement continues to grow. It is recognized as an integrating technology that adds value to existing resources. This ultimately makes communities safer.

ArcGIS Online Supports Community Mapping for Public Safety

A new Esri Web site is now available for finding and sharing GIS content, organizing geographic information, and building GIS communities. With the importance of communication, collaboration, and coordination among all types of public safety agencies, this online resource will help meet mission demands.

The site, ArcGIS.com, also contains a link to ArcGIS Explorer Online, a browser that provides direct access to ArcGIS.com content.

Through ArcGIS.com, visitors can access a number of free, ready-to-use basemaps for use in projects and applications, such as an interactive map for locating health services.

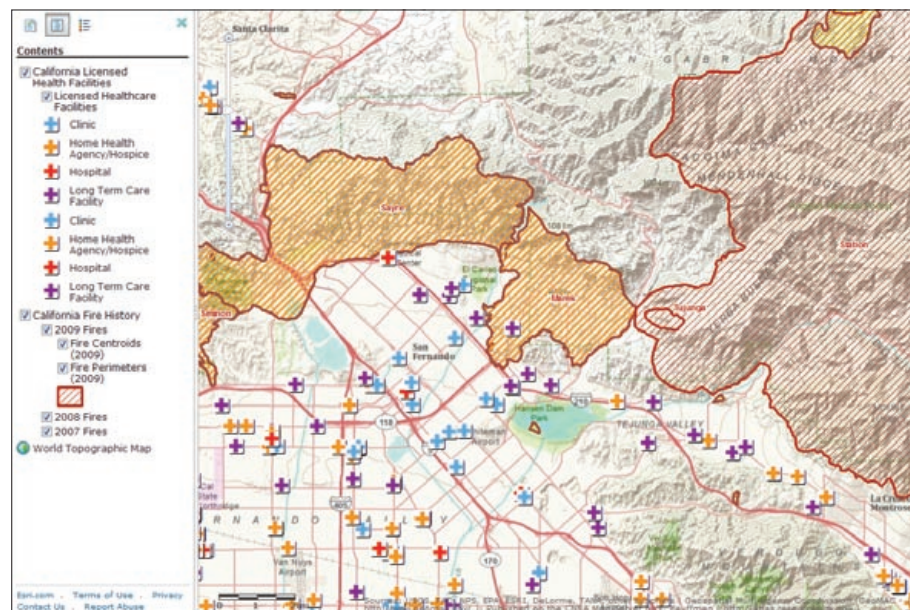
These include community maps built with data from organizations around the world. Esri gives users its high-quality basemaps as a starting point, and community map builders can then search ArcGIS online content or other GIS servers and the Web to find additional layers to build mashups.

These mashups can be shared and consumed by others, including those using the new ArcGIS for iPhone mapping application. ArcGIS.com also allows

people to share their maps and apps with everyone or with groups that they create or join to collaborate on specific projects.

At ArcGIS.com, choose from special interest groups to join, where you can contribute content and create and share maps.

One existing resource that takes advantage of ArcGIS.com is the Public Safety Resource Center user community (resources.arcgis.com/public-safety). It provides useful templates and best practice information, enabling you to implement ArcGIS to support public safety



ArcGIS.com provides comprehensive access to data resources. In this instance, California wildfire fire history and other related data are available.

organizations. This site includes applications to perform planning and analysis, assist in mitigation efforts, provide comprehensive situational awareness, and support response and recovery operations.

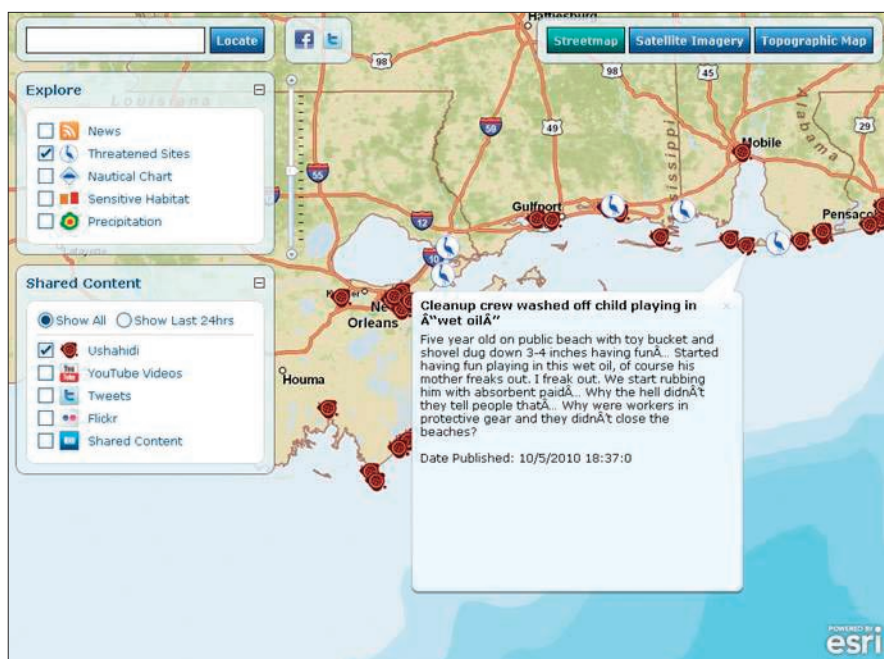
Ushahidi and Esri Team to Improve Crisis Mapping Services

Esri has entered a partnership with Ushahidi that will improve the collection and use of crowdsourced information during large-scale emergencies. Ushahidi is a nonprofit organization that allows local observers to submit reports to its Web platform using their mobile phones or the Internet during a crisis. Esri is providing software, services, and training to support Ushahidi's Web platform. The result is better information that's more readily accessible by decision makers and the public.

Both victims of and witnesses to a crisis or disaster can request assistance or report conditions using the text messaging capabilities of their personal phone or Internet-enabled device. These reports are collected, georeferenced, then mapped on Ushahidi's Web-based map. Esri and Ushahidi will now work together to make this information available to more people, including those using Esri GIS technology. This will provide access to Ushahidi information to organizations that use GIS analysis and modeling for humanitarian response and relief.

"Ushahidi has provided an invaluable information service during crisis events, such as the Haiti earthquake, by supplying a social media platform to capture and communicate critical information for response and relief services," says Russ Johnson, director of public safety solutions, Esri. "Esri wants to support these efforts by making GIS tools available that assist in analyzing, displaying, and publishing critical information on the Ushahidi platform."

"Our strategic relationship with Esri represents an



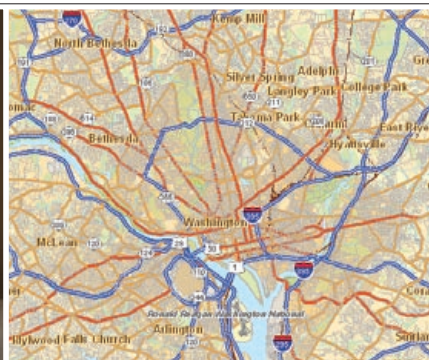
The Ushahidi platform is used to collect and map information, during large-scale emergencies.

important step forward for our combined user base," says Patrick Meier, director of crisis mapping at Ushahidi. "Esri's technology will provide Ushahidi users with access to extensive GIS data and advanced analytic tools. Esri users will also have the ability to contribute to Ushahidi mapping efforts in more seamless ways and use this data for further analysis."

Ushahidi, whose name is Swahili for "testimony" or "witness," first established itself by developing a Web site created in the aftermath of Kenya's disputed 2007 presidential election. The site collected

eyewitness reports of violence sent in by e-mail and text messages and placed them on maps. The free and open-source software platform developed for the site has since been improved and used for a number of events. For instance, in the aftermath of the Haiti earthquake, thousands of people sent text messages for help. That information was mapped and used by emergency responders to provide resources quickly where they were needed most.

To learn more about how GIS is used in emergency management, visit esri.com/emergencymanagement.



Esri Federal User Conference

January 19–21, 2011 | Walter E. Washington Convention Center | Washington, D.C.

The Esri Federal User Conference brings together geospatial leaders, decision makers, and geographic information system (GIS) professionals who are working on the challenges facing our nation and our world.

Join Esri president Jack Dangermond, Esri staff, and federal government professionals to explore the vision and reality of GIS for the nation, and to find out how to leverage GIS technology to accomplish your agency's mission.

- Learn how Esri® software aligns with the policies of the current administration to address today's challenges and initiatives.
- Find out how your colleagues are using GIS and get insights from industry specialists, technical support, and product development teams.
- Explore trends and technologies that are transforming the GIS field, such as Web-based GIS and cloud computing.
- Discover the capabilities of Esri's newly released ArcGIS® 10.

GIS in Public Safety

Whether you work in law enforcement, fire, homeland security, or emergency management, take advantage of this opportunity to learn how GIS is used to address our nation's public safety challenges. User presentations and technical workshops allow you to hear firsthand accounts of how GIS enables more informed analyses and meet mission requirements.

Registration is free for federal employees.

Learn more, register, and submit your abstract for a presentation at esri.com/feduc.



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On the Road

Firehouse World 2011
San Diego, California USA
February 28–March 2, 2011

16th Anti-Money Laundering Conference
Hollywood, Florida USA
March 21–23, 2011

**Fire Department Instructors
Conference (FDIC) 2011**
Indianapolis, Indiana USA
March 24–26, 2011

Wildland Urban Interface (WUI) 2011
Reno, Nevada USA
March 29–30, 2011



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esri.com/wildfire

This interactive wildfire map allows you to view continuously updated U.S. wildfire information. You can see current wildfire locations as well as view the potential for wildfire in a given area. The map also provides access to news feeds and precipitation information. In addition, you can place new information on the map, including links to Web sites, photos, videos, and other relevant information.

resources.arcgis.com/public-safety

This Web site is for the public safety user community. You can access templates, best practices, applications, and more. Discover better ways to perform planning and analysis, assist in mitigation efforts, provide comprehensive situational awareness, and support response and recovery operations.

napsfoundation.org

The National Alliance for Public Safety GIS Foundation's mission is to support the public safety and homeland security communities in the advancement of data interoperability and connectivity, through geographic information systems, and in support of local and national preparedness goals. This site provides tools and resources such as data models, best practices, and a capability and readiness assessment poll.

A Better Way to Protect Schools

California City Builds Tactical Response Application

The City of Rancho Cucamonga, California, according to the FBI's Uniform Crime Report, is one of the safest cities in the country among municipalities with 100,000 or more residents. The city also boasts one of the most mature and leading-edge GIS operations in local government.

To improve school safety in the event of an emergency, the city developed and deployed its own tactical response application, known as Active Shooter. The application has two different versions—one for field use and one for use in command centers.

The field version of the application runs from a flash drive and supplies situational maps of school facilities and emergency response plans to law enforcement, fire, and emergency medical services personnel. These situational maps enable any first responder to pan and zoom to a school floor plan at different levels. It also provides digital access to tactical response data in the event of a school emergency such as a school shooting or hazardous chemical spill.

The Emergency Operations Center (EOC) version of the application is built using Esri server technology and the Flex application programming interface (API). The server application supplies the ability to perform query and search activities, draw notification zones, export information using a simple Web interface, and more. The application has a GeorSS feed that is

linked to the dispatch center database to supply a live feed of incidents.

Prior to the Active Shooter application, data management was paper based. Binders containing all school emergency response protocols were kept in the watch command's office and the trunks of law enforcement vehicles. They were updated once a year with new, static images inserted.

"We had limited information, and it was in a cumbersome format," said John Gillison, assistant city manager, City of Rancho Cucamonga. "GIS gives us the ability to access more information, faster. And now we can do more with it using analysis and visualization."

The application provides first responders with a common operational picture (COP), enabling multiple first responders to communicate using the same information while en route to an incident. Detailed floor plans of schools and panoramic photo views of classrooms and other buildings are available. Additionally, contact information of key persons and standard protocols are available with a touch of a button.

"Any deputy sheriff can access vital school layout data and identify the location of the call," said Joe Cusimano, captain, San Bernardino County Sheriff's Department. "More importantly, it supplies the same single common operating picture to all emergency responders."

"This program has opened the door to a new level of collaboration between historical silos in the public safety arena," said Mike Bell, fire chief, Rancho Cucamonga Fire District. "With GIS as a bridge, fire and police leadership can take full advantage of the tools available and leverage them for maximum benefit for their responders in the field."

To read the full story, check out the winter issue of *ArcNews Online* at esri.com/arcnews.

Detailed floor plans give responders an accurate understanding of the layout of schools.

