Criminal Intelligence
GIS Solutions for Intelligence Analysis
Applying GIS Technology to Criminal Intelligence
Intelligent Tools, Intelligent Maps, and Intelligent Decisions for Law Enforcement

Today’s law enforcement and public safety personnel must be knowledge-based workers. From the police chief to the detective to the intelligence analyst, you need information to quickly gain awareness and understanding of events within and across jurisdictions. Geographic information system (GIS) technology provides the tools to collect, analyze, and disseminate information quickly and easily. By adding GIS to your capabilities, you can transform your data into actionable intelligence.

Using ArcGIS ModelBuilder®️, the Lincoln Police Department is able to analyze crime incidents and crime density.

ArcGIS®️ analytic tools can be applied to identify vulnerabilities for a missile attack around an airport.

Every crime starts with a location. GIS helps you leverage the location of events, people, and critical infrastructure to analyze, understand, and build solutions to the challenges you face.

GIS provides an enterprise approach to help you meet your short-term and long-term crime-fighting and homeland security needs. Use GIS to address immediate tactical challenges by linking and identifying the location of potential suspects for further investigation. GIS can also be used to develop a comprehensive picture of crime or threats in a community. Its sophisticated analytic tools reveal crime patterns or potential trends over time. Data can then be integrated from multiple sources to plan where and what types of resources should be deployed to prevent crime or disrupt threats.
Intelligence analysis derives meaning from diverse data and complex analysis. By leveraging the geographic component of your crime intelligence, you gain insight and value for the entire intelligence life cycle. You can effectively gather and analyze intelligence from multiple sources. Results can be quickly and easily disseminated using highly intuitive information—maps. A GIS can help you with the challenges you face by

- Focusing data needs and requirements on a common platform
- Supporting data collection and aggregation from multiple agencies
- Providing tools for data discovery from multiple sources
- Integrating data to improve overall intelligence
- Analyzing information to support officers and investigators in the field
- Establishing an effective method for exchanging intelligence across multiple jurisdictions
- Capturing business processes and workflows to identify best practices and necessary improvements
Meeting the Homeland Security Mission

Homeland Security Is a Shared Responsibility

Good policing is vital to protecting your community as well as the nation. This requires an all-hazard approach, having people, procedures, and technology in place to handle both man-made and natural disasters. Proper intelligence tools coupled with geographic information provide the ability to analyze data to display and disseminate a common operating picture (COP). GIS can help you by providing analytic tools to transform data, a secure environment for collaboration and information exchange, and a platform that can support you as you take your intelligence into the field.

GIS benefits homeland security by

- Analyzing and improving response capabilities
- Locating personnel, assets, and resources
- Identifying critical infrastructure and vulnerabilities
- Developing training and evaluation scenarios
- Establishing real-time situational awareness
- Creating a common operating picture
- Improving the timeliness and quality of decision support
- Developing higher-quality contingency plans that are easy to access
- Conducting data fusion and intelligence analysis
The Arizona Counter Terrorism Investigation Center applies GIS for critical infrastructure assessment and protection.

The Strathclyde Police in Scotland apply GIS in the follow-up investigation to the attempted Glasgow Airport bombing of June 30, 2007. The police use GIS to efficiently conduct their search, looking for additional evidence captured on surveillance cameras.

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Law enforcement agencies today confront complex challenges. Policing requires more than responding to a crime scene or working quickly to close a case and apprehend an offender. Law enforcement requires proactive, intelligence-led policing to effectively support planning and resource allocation. GIS provides an integrated platform for all types of data. Law enforcement agencies can use spatial analysis and visualization to aid in decision making at all levels throughout the agency.

GIS provides an information-based method supporting all roles and aspects of law enforcement.

Officer, Detective, or Squad Supervisor

Officers, detectives, or squad supervisors use GIS to access intelligence information from their desktop or mobile computers to enhance field investigations and more accurately target crime.

Command Staff

Commanders examine crime patterns and threats over time for a specific location or across a community. They can gain accurate assessments for the tactical deployment of staff and resources.

Chief of Police or Intelligence Director

GIS provides a chief of police or intelligence director with a comprehensive view for long-term decision making. Predictive crime models can also be used for developing comprehensive, strategic plans.

Intelligence Analyst

Intelligence analysts use GIS as a platform for applying tools and methods to support the entire intelligence analysis life cycle from planning and collection to analysis, dissemination, and evaluation.

The United States Postal Service uses GIS to detect and deter money-laundering activity.
ArcGIS: The Complete Enterprise GIS

Whether you need to perform spatial analysis, manage large amounts of spatial data, or produce cartographically appealing maps to aid in decision making, ArcGIS® allows you to use one common platform to meet all your GIS needs. And because ArcGIS is built using technology standards, it will integrate well with your existing systems.

ArcGIS is a complete system for authoring, serving, and using geographic information. It is an integrated collection of GIS software products for building and deploying a complete GIS wherever it is needed—on desktops or servers, in custom applications, over the Web, or in the field.

Learn more about GIS for criminal intelligence at www.esri.com/publicsafety.