



Predictive Analytics for security & law enforcement

By combining powerful geospatial statistical analysis with high-resolution satellite imagery, DigitalGlobe's Predictive Analytics helps security and law enforcement professionals identify areas at increased likelihood for future criminal incidents and events, giving them the ability to better deploy resources when and where they are needed to accomplish prevention and apprehension missions.

Area reduction

By analyzing hundreds, even thousands of attributes, the goal of predictive analytics is area reduction – the ability to geographically narrow down and rank those areas and targets that are at an increased likelihood for future incident. With powerful geospatial analytics and a comprehensive archive of high-resolution satellite imagery, DigitalGlobe is able to deliver highly accurate and effective solutions that achieve area reduction of up to 95% even in disparate, non-contiguous locations.

Supports risk-based deployment decisions

Predictive analytics increases the chances of an operation's success by helping organizations make pro-active risk-based deployment decisions, increasing the chances of preventing future incidents by identifying the when, where and what of crime. This DigitalGlobe solution will provide organizations with the tools to pro-actively allocate resources and better set tactics and strategies, as well as be able to more rapidly respond to incidents that do occur, increasing the likelihood of apprehension.

Creating a collaborative environment

Successfully deterring crime often involves collaboration of numerous entities, each with its own expertise. DigitalGlobe's predictive analytics effectively conveys complex statistical relationships in a relevant and actionable manner for use in the field; predictive analytics enable end users to effectively leverage their domain expertise and tacit knowledge in support of novel insight and innovative solutions.

Furthermore, secure web-based capabilities allow agencies to share information, transferring operationally relevant and actionable knowledge to peers without compromising sensitive data resources.

Customers served

- Local, state, and federal law enforcement
- Homeland security
- Corporate security

Supports “Get in Front” strategies

With the unique capability to geographically narrow down and rank potential at-risk targets, along with the ability to proactively identify potentially new at-risk targets and locations, including those not directly adjacent to previous events, DigitalGlobe’s predictive analytic solutions provide users with the insight to move from chasing crime as it happens to effectively anticipating and “getting in front of it”, supporting proactive approaches to prevention and response.

Use case #1: Law enforcement

Customer: Virginia State Police

Challenge: Apprehend a shooting spree suspect before he strikes again.

Situation: Over a period of months, a shooter had been targeting military installations in Northern Virginia. There had been no casualties, but law enforcement officials feared the incidents would escalate in severity, especially with the upcoming high profile events including Veteran’s Day, the Marine Corps Birthday, and the Marine Corps Marathon.

Solution: Data such as location, time, target type, terrain, proximity to highways and access and escape routes analyzed from the first shootings narrowed down the highest risk area from 750 miles to 75 miles.

Result: The suspect was successfully apprehended in one of the highest-ranked target sites before further incident.

Use Case #2: Corporate security

Customer: One of the nation’s largest producers and transporters of energy, which serves millions of customers in the Northeast, Mid-Atlantic, and Midwest.

Challenge: Proactively prevent a growing problem of copper theft from remote electrical substations.

Situation: Company has a vast infrastructure including more than 1,000 electrical substations, magnets for copper thieves. With the price of copper skyrocketing, theft of this valuable metal at the company’s substations had been growing exponentially.

Solution: Analyzing factors such as historic data from previous thefts, highway access points and proximity to scrap metal dealers, DigitalGlobe produced a monthly breakdown of the top thirty substations likely to be targeted.

Result: In the one year since the company deployed predictive analytics, copper theft decreased by 54 percent despite an 8% increase in attempts.

KEY CAPABILITIES

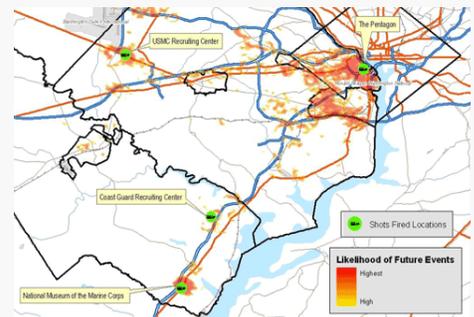
- » Geospatial predictive analysis for risk assessment
- » Resource optimization and deployment recommendations
- » Line of sight visualization and analysis
- » Socio-cultural and human geography mapping
- » Critical Infrastructure monitoring using high-resolution satellite imagery

Contact

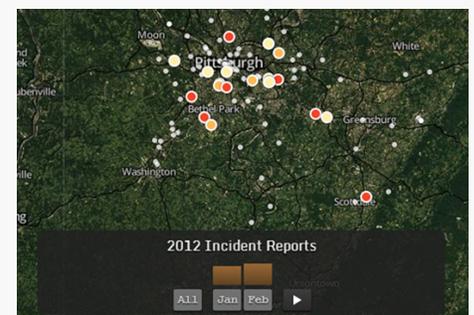
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Three days after the analytic product was disseminated and briefed, a new shooting incident at the U.S. Coast Guard Recruiting Center in Woodbridge, Virginia, was reported. As depicted, this incident occurred in a location identified as high likelihood by the model.



This sample map shows how DigitalGlobe Analytics is able to rank the areas and targets that are at an increased likelihood for future incidents by using factor data analysis.

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