

IRRIS®

YOUR EYE ON MILITARY LOGISTICS AND TRANSPORTATION SECURITY

IRRIS WHITE PAPER

01 . 19 . 2007

GEODECISIONS®

INTRODUCTION

IRRIS technology is a first-of-its-kind Web-based portal assisting the Military Surface Deployment and Distribution Command Transportation Engineering Agency (SDDCTEA) in its core mission to improve the global deployment of U.S. Armed Forces in support of the National Military Strategy. On a daily basis, SDDCTEA uses patented IRRIS technology to effectively manage, document, and synchronize the movement of cargo, transported over land and sea, throughout the world.

IRRIS technology integrates transportation logistics, near-real-time tracking, and infrastructure data into a single, secure application accessible through the Internet. With near-real-time and relevant information about road conditions, construction, incidents, and weather from more than 400 worldwide data sets, IRRIS technology enables SDDCTEA to visualize assets and perform spatial queries and analysis, such as plume modeling to depict the effects of hazardous materials and/or explosives on any geographic area.



INNOVATION

From the onset, IRRIS was designed to be a vendor neutral, open system leveraging best practices in information technology and easily integrating with existing systems. This flexibility enables IRRIS technology to handle the latest technological advancements and grow from a U.S.-based transportation data display tool to a global multi-component display, reporting, and analysis application.

As IRRIS technology continues to improve and demonstrate its wide range of use, adaptability, and ease of integration with new sources of static and near-real-time data, its demand by other branches and military agencies has increased.



The U.S. Navy tracks \$1 billion worth of aircraft engines per month and monitors the location of battleships and battle groups using IRRIS technology. Additionally, state and local emergency response management agencies, the U.S. Department of Transportation, the U.S. Northern Command, and the Federal Emergency Management Agency used IRRIS during the Hurricane Ivan evacuation in 2004.

In 2005, the next generation of IRRIS technology was released, offering improved mapping, reporting, and querying capabilities.

IRRIS 6.0 enhancements include a fully redesigned user interface for optimal usability; a “My IRRIS” page offering users the ability to customize their own IRRIS home page with frequently used maps and queries; map making capabilities via a wizard-like interface or by defining a desired location on a World Map; enhanced feature-rich mapping and cartographic display; updated reporting tools displaying data or query results as charts and graphs; and the ability to instantly export IRRIS maps and query results into PowerPoint presentations.

Today, IRRIS has more than 1,500 users and 2.5 terabytes of data. It uses the latest Web, geographic information systems (GIS), intelligent transportation systems, location-based services, wireless technologies, and global positioning systems to provide support for effective logistics, emergency response, and management.

STRATEGY

Over the last decade, mobility, logistics, and rapid deployment of troops and equipment have become increasingly important to the U.S. military. When the events of Sept. 11, 2001, occurred, the military saw a clear need for an integrated logistics tool like IRRIS to facilitate and coordinate the movement of personnel and resources in response to emergency situations.

SDDCTEA joined forces with GeoDecisions, an information technology company specializing in geospatial solutions, to develop a single, flexible application enabling military users to be more proactive in coordinating and managing assets. Through this partnership, IRRIS technology was soon created, transforming the way SDDCTEA views and analyzes infrastructure readiness and tracks military cargo.

In today's fast-paced world, the military depends as much on logistics and transportation as strategy and tactics to successfully meet its objectives. IRRIS technology offers rapid, near-real-time access to national and worldwide infrastructure data, enabling SDDCTEA to successfully achieve its mission of coordinating military/emergency responses, managing assets, and tracking equipment and personnel.



VALUE

IRRIS allows decision makers at operation centers worldwide to visualize assets and to perform analysis and location-based queries. The core mapping and information aggregation functions provide an ideal platform for near-real-time vehicle and cargo tracking. The flexibility of IRRIS also allows SDDCTEA to proactively address issues related to tracking shipments and other assets.

As a single, effective, global infrastructure solution, IRRIS breaks down barriers between government and military agencies by effectively integrating existing technologies and data from military agencies, local, state, and federal governments, and commercial sources.

FINANCIAL IMPACT

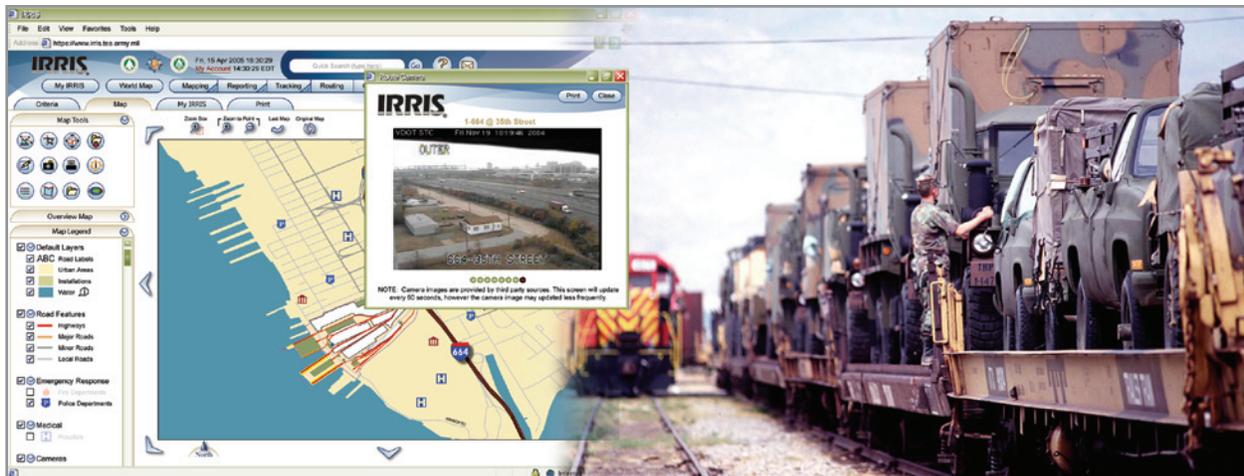
Since 2001, IRRIS technology saved U.S. taxpayers approximately \$40 million and enabled SDDCTEA to track 750,000 worldwide shipments annually. During Operation Iraqi Freedom, the application saved the United States \$15 million by providing critical support. Also, as an intuitive, user-friendly application, IRRIS technology reduces the time and cost for military training and operations.

ENTERPRISE INTEGRATION

Through IRRIS technology, the U.S. military streamlined logistics and improved situational awareness worldwide. For example, IRRIS technology provides users with a common operating picture for government and military agencies, improving the response time of global deployments and minimizing fatalities.

Also, the technology's Total Asset Visibility (TAV) and In-Transit Visibility (ITV) functions make it ideal for transportation logistics and real-time tracking. The application's shipment tracking, transportation, and risk management tools can pinpoint the location of military cargo in near-real-time, making it especially effective for monitoring sensitive shipments.

IRRIS technology continues to improve as new data becomes available and as logistics and emergency management functionality is requested. The strong partnership between the government, GeoDecisions, and users ensures the application meets the military's ever-changing needs. Also, the ability to integrate existing live data feeds and static GIS data from various government and commercial sources makes IRRIS a powerful tool for a variety of logistics, transportation, and homeland security applications.



ORGANIZATIONAL CHANGE

IRRIS technology has transformed operations for all its users. Instead of using phones and fax machines to conduct business, IRRIS users can instantly access critical information. IRRIS technology also introduced a new level of security for users. IRRIS is built from the ground up, using a role-based security model to limit access to personnel with proper authorization, while utilizing a Secure Sockets Layer (SSL) and a Public Key Infrastructure (PKI) to ensure secure data transmission.

IRRIS technology changed the way SDDCTEA monitors current situations. Through IRRIS technology's management-by-exception feature, users can establish certain rules and receive automated alerts if the rules are violated.

For example, during the 2005 inauguration of President Bush, SDDCTEA's Surface Cell Operation Team established a rule preventing any truck carrying hazardous materials, arms, ammunition, or explosives within 50 miles of Washington, D.C. This team also used the management-by-exception feature in a similar capacity during Super Bowl XXXIV in Jacksonville, Fla. In both instances, this feature allowed end users to concentrate on critical issues and prepare for a potential incident.



CONTACT INFORMATION

SDDCTEA

SDDCTEA's mission is to improve the global deployability of U.S. Armed Forces by providing the Department of Defense with transportation engineering, policy guidance, research, and analytical expertise to support the National Military Strategy.

GeoDecisions

GeoDecisions is an award-winning leader in the information technology industry that specializes in geospatial solutions. Using Web-based mapping and reporting applications, GeoDecisions provides a full range of innovative solutions for military initiatives and enhanced decision making.



IRRIS TECHNOLOGY IS BUILT ON THE .NET FRAMEWORK USING THE GIS SUITE OF SOLUTIONS FROM ESRI®.