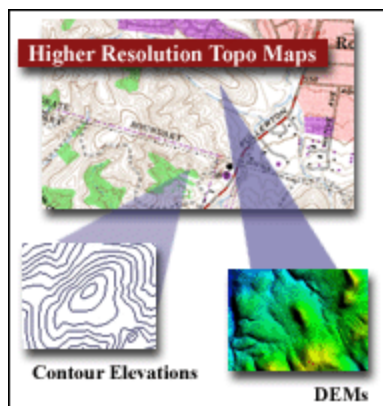


### Upcoming Solutions

## LANDINFObase WILL INTRODUCE NEXT GENERATION DATA TO GIS USERS

LAND INFO is now developing a series of new service lines and client programs. One of the most exciting programs is "**LANDINFObase**", a trio of next generation data delivered via the Internet through a subscription model. It combines high resolution **Topographic Maps** with matching layers of precise **Contour Elevations** and 10-meter **Digital Elevation Models (DEM)**. The new data will be at a substantially higher resolution and quality level than currently available in the GIS marketplace.

LANDINFObase is a seamless GIS database that can instantly deliver geo-referenced data formatted in multiple projections. The new service is expected to be formally launched later this summer. Clients or individuals interested in learning more about LANDINFObase, or providing recommending program components, should [contact Jim Schiefer](#) at +1 303-369-6800.



Initially, LANDINFObase will only include data for the United States. Subscribers will be able to select project area, choose virtually any file

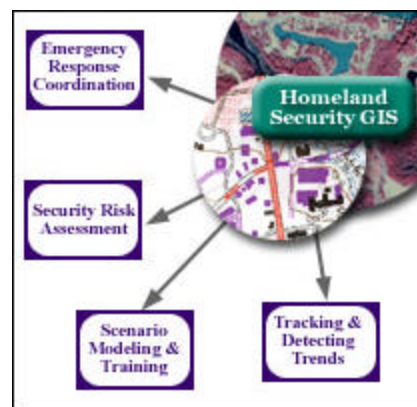
### Services News

## GIS PLAYS VITAL ROLE IN HOMELAND SECURITY

The power of a Geographic Information System (GIS) is its capability to graphically organize and display a series of location-based information, such as roads, buildings, and rivers. For years, the technology has been used by engineers, land development planners, and environmental scientists. Today, in the wake of increasing terrorism concerns, governments and commercial companies around the world are looking to GIS to support their security initiatives.

GIS gives decision-makers the visual context of a specific reference point on Earth. The reference point may be a building, a power plant, a water reservoir, or a pipeline system. Through real-time technology, such as Global Positioning Satellites (GPS), the reference point may also be a moving object, such as a vehicle or a plane. GIS enables decision-makers to visually analyze the reference point's environment, such as adjacent structures, public access points, and proximity to emergency response routes.

The United States has implemented an aggressive campaign to strengthen its "Homeland Security". New safety-oriented programs at federal agencies, regional governments, and commercial enterprises have heightened the demand for visual mapping databases. GIS applications, topographic base maps, remote sensing data, and vector layers (*i.e. roads, rivers, buildings*) are now the basis for assessing security risks and modeling emergency scenarios.



*Around the world, decision-makers look to GIS for security needs*

personnel, regional emergency officers, and centralized coordination managers. This type of data sharing, analysis, and graphic representation speeds the understanding of an event, and improves the decision making process at all levels of the security (*or emergency response*) teams.

Following the tragedies on September 11th, emergency and recovery teams utilized GIS in a variety of applications. Real-time thermal maps of New York's "ground zero" were used to pinpoint locations of buried fires. This helped direct firefighters' efforts where they could make the most impact. During the recovery effort, officials collected hundreds of thousands of items from the rubble. Recovery workers collected GPS coordinates of found articles, then fed them into a GIS database to create a map of the recovered items. This continues to help forensic investigators and engineers define the towers' collapses.

format and projection, and instantly download the high resolution data layers.

The topographic maps will be color-scanned at a much higher resolution than the current USGS DRG data. This creates a much richer digital topographic map, but also significantly enhances the accuracy and quality of derivative contour elevations, DEMs, and custom feature extraction. Better data enables better decisions for engineers, land managers, and other GIS professionals.

[\(Tell Us Your Opinion & Help Shape Upcoming Program\)](#)

#### **HOW ARE YOU USING LAND INFO DATA?**

**Tell us about your project  
that used LAND INFO data.  
It could be the next feature in  
the**

**Data Solutions Journal.  
[Email Steve Ebner today.](#)**

**GPS Adventures**

## **GEOCACHING: A GLOBAL GAME OF HIDE & SEEK USING GPS**

Long ago, mountain men buried provisions in special hiding places, or caches, while they traveled the countryside. Today, with the popularity of recreational Global Positioning Satellite (GPS) receivers, this practice has been transformed into a treasure hunt game for outdoor enthusiasts. [Geocaching](#) is capturing the interest of hardcore outdoor adventurers as well as families looking for new ways to enjoy a hike. The growing popularity is not isolated to the United States. The sport's first and largest website, [Geocaching.com](#), boasts over 13,500 active caches in 109 countries.

So, what exactly is Geocaching? It all started in Oregon in 2000. A GPS enthusiast buried a slingshot, a can of beans, some software, and a guestbook, enclosed in a water-tight container. He then posted an

GIS is critical to homeland security because it enables managers to integrate multiple information types into a common visual application. For example, the transportation route of a truck carrying hazardous materials can be overlaid on a topographic base map. Through GPS technology, the moving location of the truck can be visually displayed on top of this base data. Other datasets, such as real-time traffic counts, ongoing police and fire incidents, air traffic, and emergency team locations, can be added to create a powerful resource for planners.

The digital nature of GIS, combined with the latest wireless and Internet technologies, creates a powerful environment for collaboration. Team members spread throughout a facility, an outdoor area, or even an entire country, can now share a real-time, interactive database. For example, the previous hazardous material transport scenario could share a common GIS for roving field

The concept of homeland security is not isolated to the United States. The dangers to public safety from security breaches are a worldwide concern. Governments and private enterprises throughout the Middle East, Asia, Africa, and Latin America, are quickly learning the value of GIS in maximizing security programs. For example, in Karachi, Pakistan, GIS is being used to track crimes by location. The goal is to identify cluster areas, enabling police to allocate resources to prone areas of the city. The system also allows investigators to more rapidly identify relationships and patterns of crime spree.

LAND INFO is working with several clients on security-related projects inside and outside of the United States. It offers raster and vector geospatial datasets and GIS consulting services critical to employing the most effective security program. For more information, please [contact a LAND INFO representative](#) today.

The rules of Geocaching are fairly simple. Several items, usually unique collectibles, non-food items and a guestbook, are hidden in an outdoor location. The location needs to be legally accessible to the public. Most caches are in wooded parks or along hiking trails. The exact latitude and longitude coordinates of the cache are then published on one or more of the Geocaching websites. When found, visitors exchange one of the cache's items with one of their own.

The new sport is already evolving. Players have begun to integrate another game called "Where's George?", with Geocaching. Where's George? is an underground game that tracks the geographic path of individual U.S. one dollar bills. From the game's grassroots website, [WheresGeorge.com](#), users input their zip code & the unique serial number

Geocaching players are increasingly finding the marked dollar bills in hidden caches. The players are encouraged to exchange the dollar bill with one of their own. Currently, the Where's George? game boasts over a million users tracking over \$95 million in U. S. currency.

The best part of these new geospatial diversions is the cost. Outside of a GPS receiver and a good pair of hiking boots, there is no cost to play either game. It's probably why the sport has grown so quickly. It is now played in the United States, Europe, Latin America, and across the globe.

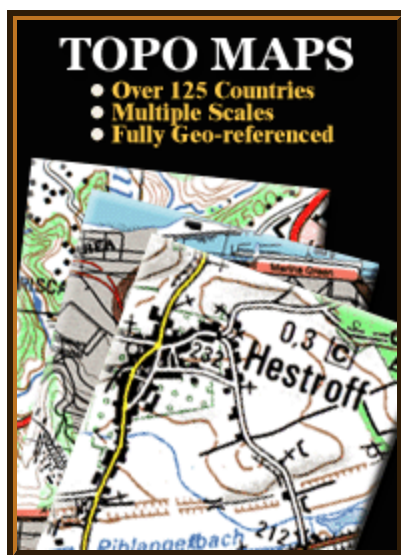
### **GEOdiversions**

instructional message with the latitude and longitude coordinates on an Internet newsgroup. Within days, the cache had multiple visitors. Soonafter, the first of hundreds of international websites was launched. The sport quickly grew from trendy "techies" to mainstream hikers.

of each dollar bill. They then write the website address on the bill, and spend it. The hope is that the bill's future owners will visit the website and update the bill's travel history. The game's popularity has grown by word-of-mouth and recent exposure in the national media.



(GEOdiversions appears exclusively in the DSJ. We accept original comics, top 10 lists, & other fun features...) [SUBMIT YOURS](#)



[Click Here to Unsubscribe to the Data Solutions Journal](#)

## LAND INFO International, LLC

LAND INFO International offers complete geospatial solutions, from GIS consulting, production, integration, to training services. The company markets digital data for over 125 countries, including satellite imagery, 3D terrain models, topographic maps, transportation data, hydrography data, contour elevation data, and custom datasets. LAND INFO provides solutions for civil engineers, government planners, project managers, and other

international professionals. Please visit [www.LANDINFO.com](http://www.LANDINFO.com) to learn more about these products and services. [Contact LAND INFO](#) today at 1-800-949-5080 (+1 303-369-6800) to discover how our data solutions can maximize the success of your team.

### More DSJ Features

- [Flooding Water Mgmt with GIS Applications](#)
- [GIS Supports Wild Horse Release in Mongolia Desert](#)
- [Azerbaijan Pipeline Creates Need for GIS](#)

[Article Index](#)

[Home Page](#) - [Feature Data](#) - [DEMs](#) - [Aerial Photos](#) - [Topographic Maps](#) - [Satellite Imagery](#)

[Download LAND INFO PDF Brochure](#)

*Send feedback about this DSJ issue to Steve Ebner at [sebner@LANDINFO.com](mailto:sebner@LANDINFO.com).*

Missed a DSJ issue? View past issues at <http://www.LANDINFO.com/2.dsj.htm>

Copyright © 2002 LAND INFO International, LLC. All rights reserved.

