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GEO Diversions

GEOCACHING: THE INTERNATIONAL SPORT USING GPS

Long ago, mountain men buried provisions in special hiding places, or caches, while they travelled 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, www.Geocaching.com, boasts over 13,500 active caches in 109 countries. So, what exactly is Geocaching?

It all started in Oregon on May 3, 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 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's participants quickly grew from trendy "techies" to mainstream hikers and families.

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

Client Solutions

ABOVE IT ALL IN MICROSOFT FLIGHT SIMULATORS

Ever fantasized about the rush of adrenaline that WWII pilots felt amidst a pivotal, air-to-air battle miles above the Pacific? How about controlling a 747 jumbo jet on final descent into Chicago's crowded O'Hare Airport? It's all possible with the latest editions of [Microsoft's popular Flight Simulator Series](#). The virtual simulators include cockpits with working instruments, accurately engineered planes, realistic weather turbulence, and other interactive effects. The simulators also use precise geospatial data to create an ultra-realistic landscape for flying enthusiasts.



**LAND INFO DEMs Help Microsoft
 Create Real Flight Experience**
[Click here to view screen shots](#)

"Our goal is to deliver a visual experience that is as close to reality as technically possible," commented **Jan Zukin-Neutz**, GIS Data Manager for Microsoft's Entertainment Business Unit. "Now with modern geospatial data, such as LAND INFO's terrain models, the games are becoming very true-to-life."



Flying High Above the Himalayas

Microsoft based landscape animations of the Himalayas, Mt. Fuji, Northern Marianas Islands, Solomon Islands, Paupa New Guinea, Athens, Hong

ground landscapes. The selection of data types, scales, and geographic locations were based on costs, data availability, rendering times, available space on game disc, and, most importantly, the anticipated user interest for specific locales. For example, in [Combat Flight Simulator 2: WWII Pacific Theatre](#), high resolution data was used for key battle areas. In [Flight Simulator 2002](#), Microsoft concentrated higher resolution data around major international cities and airports. Broader scale data, such as one kilometer DEMs, were used for more remote, less-descript areas.

Microsoft's development team integrated the geospatial data through a proprietary rendering process. Using an internal terrain

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.

**Vote for the
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Best of 2001 List**
*LAND INFO
has been nominated for
Best Data Provider*
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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 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.

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.

Kong, and other South Pacific Islands, on three-dimensional [digital elevation models \(DEM\)](#), produced by LAND INFO International. LAND INFO created these DEMs by extracting and interpolating contour elevation data from [topographic maps](#). Production technicians then manually cleaned gaps and spurs to ensure the highest accuracy. The contour data was then formatted to create a fully georeferenced, 3D interpretation of the landscape.

Microsoft then integrated a variety of additional datasets, including [satellite imagery](#), [aerial photos](#), airport data, hydrology files, and transportation datasets, to develop the simulators'

engine, the multiple data layers were combined to create the final three-dimensional landscape. Sky, sun, weather, and other effects were added to complete the simulated scenes.

Microsoft's Flight Simulator series has drawn respect from aspiring pilots as well as novice thrill seekers. It replicates a real flight experience so well, the U.S. Navy has even implemented a customized edition into its own training programs.

For more information on the simulator games, please visit Microsoft.com.

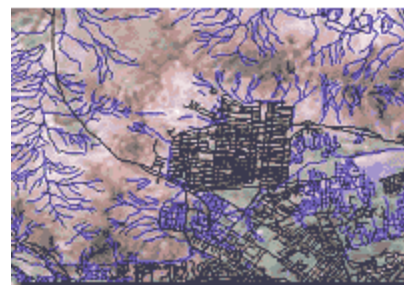
[\(view screen shots...\)](#)

Corporate News

ROADS, WATERWAYS, & OTHER MAP LAYERS IMMEDIATELY AVAILABLE FOR AFGHAN CITIES

LAND INFO now offers immediate availability of map feature layers for Afghanistan's five major cities. Roads, buildings, and hydrography layers are available for [Kabul](#), [Herat](#), [Jalalabad](#), [Mazar-e-Sharif](#), and [Qandahar](#). The datasets are part of a **special promotion for Afghanistan datasets available through March 31, 2002**. Multiple scale [topographic maps](#) and [3D DEMs](#) are also available for the entire country.

The feature layers are extracted from topographic maps. Following high-resolution scanning, the topographic map image is filtered through a proprietary software application that extracts all colors, leaving only the desired feature (*i.e. roads*). The image is then "cleaned," eliminating any peripheral data not related to the feature layer. The map is then assembled using a semi-automated



See interactive demo of Kabul datasets at LANDINFO.com

vectorization process. The final image is exported in either a DXF or SHP file format.

LAND INFO has teamed with Telemorphic to present an interactive online demonstration of the Kabul, Afghanistan data layers. The demonstration, along with reduced pricing information, can be viewed at LANDINFO.com/1_afghanspecial. [\(more info...\)](#)

LAND INFO International, LLC

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