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## ***Welcome to The Harlow Report - GIS***

**W**elcome to the 4th issue of 2003! This issue is filled with information that you should know. For example, if you are involved with utility automation systems, then you should know just how busy this market is. Seven more companies made it into Intergraph's 100% club; that is good news for everyone in the business of GIS.

### **Featured Articles**

**Utility Automation Projects Surge.** InfoNetrix, that well-known utility research firm issued its quarterly tactical project activity report. It identifies the projects that utilities are planning. They do this by conducting interviews with 200 to 300 utilities each calendar quarter. This effort has identified a record level of project activity — almost 300 projects valued at nearly \$150 million.

**MapQuest is on Track** Though most of us think of MapQuest as just an online mapping company that we use for directions, the company is much more. It is a leading location finder, and that is becoming a very important part of GIS. In fact, if you did not know, they sell some of their services directly to end-user companies to serve up maps of all kinds.

**Seven More Go 100 Percent** Recently seven more utilities made it to Intergraph's 100 Percent Club — quite an accomplishment. You get into this prestigious club by being a utility company that achieved full digital conversion of their geofacilities data.

## More to Know

**Out of the Box** Our collection of news events that may indirectly effect your GIS project. Events are categorized by State and Local Government, Technology, and Utilities.

**GIS Net Surfing** Our monthly list of interesting GIS web site links. If you want a description and links for GIS suppliers, click on GIS Vendors in the upper right corner.

**News to Use.** Short takes on the latest GIS news with links to more information

## Just 4 Laffs

**The Right Way to Use GPS** If ever there were a use for combining GIS, GPS and the tools that made America great, this is it.

**Think You know Everything?** A list of 17 facts that you can put to good use at your next conference, cocktail party or coffee break.

As always, we thank you for your support, and trust that you and your loved ones remain safe, healthy and prosperous.

*Chris Harlow*



## ***Utility Automation Projects Surge***

**I**t's the economy Stupid! Or is it? Everywhere you turn, some talking head tells you just how bad the economy is. But the smart business person knows that if you target your opportunities, you can always find the bright side of the economy. For example, snow in the city usually keeps shoppers away from the stores. Snow in the mountains brings out the ski bunnies.

Yes, the IT industry is flat — survey after survey points that out. But in niche markets, things can look pretty bright. As you may know, I am associated with InfoNetrix. ([www.InfoNetrix.com](http://www.InfoNetrix.com)), a leading technical market research firm focused on utility and energy automation markets. In 2002 I conducted the GIS and Mobile Computing Solutions Market Study on their behalf (check out the excerpts in last month's issue) — and will conduct the 2003 study as well. While I naturally tend to focus on the strategic view (I guess I'm just a big picture guy), other InfoNetrix research analysts toil at producing the firm's quarterly tactical project activity reports. That is to say they identify the projects that utilities are planning by conducting interviews with 200–300 utilities each calendar quarter.

This effort has identified a record level of project activity — almost 300 projects valued at nearly \$150 million. The important details are in InfoNetrix' just published Q1-2003 Business Horizons™ Reports. These reports, published each calendar quarter by InfoNetrix, identify project activity in two principal automation sectors within the North American electric utility marketplace, as summarized below.

### **\*TDMS (Transmission & Distribution Management Solutions) includes projects for ...**

- SCADA (supervisory control and data acquisition)
- EMS (energy management systems)
- DMS (distribution management systems)
- DA (distribution automation)
- SSA (T&D substation automation)
- RTUs (remote terminal units) and RTU-like field devices
- Communications Systems
- Professional Consulting Services

### **\*GMCS (GIS & Mobile Computing Solutions) includes projects for ...**

- GIS (geographic information systems)
- AM/FM (automated mapping/facilities management) systems
- Mobile Computing Systems
- Critical Applications, including OMS and WMS
- Professional Engineering & System Integration Services
- Conversion Services

## Yup, it is the economy, Stupid!

According to InfoNetrix Principal and co-founder Mike Marullo “GMCS showed the largest number of projects (183) and the most significant spending outlook (over \$76 million), but TDMS also exhibited robust project plans with 106 projects valued at just under \$70 million.”

For you transmission techies, get this: the TDMS report identifies utility plans to procure more than 3,700 RTUs for new systems and additions to existing installations – also a record number. Yeah, nothing like a slow economy to make your quota.

“These first two reports of 2003 identify the most opportunities and highest project spending outlook ever documented in our quarterly Business Horizons™ Reports series and represents significant growth potential in the major market sectors (i.e., TDMS and GMCS) they address,” said Ed Finamore, who leads the InfoNetrix Electric Utility practice area.

## But what kind of projects are out there?

I thought you might ask. As it turns out, those InfoNetrix researchers called and interviewed managers at over 230 electric utilities during the January through March survey period. The table below summarizes the projects and project values depicted in the resulting reports.

**TDMS & GMCS Project Activity**

<b>TDMS Project Type</b>	<b>Total Projects</b>	<b>Values (\$000s)</b>
T&D Automation Systems	72	\$51,030
RTU Add-on/Expansion Units	38	\$12,935
RTU Add-on/Expansion Units	38	\$12,935
Communications Projects	54	\$4,567
Consulting Services	14	\$1,440
<b>TDMS Subtotal</b>	<b>106</b>	<b>\$69,972</b>
<b>GMCS PROJECT TYPE</b>	<b>TOTAL PROJECTS</b>	<b>VALUE (\$000s)</b>
AM/FM/GIS Systems	85	\$29,905
Mobile Computing	48	\$19,480
Professional Services	15	\$1,040
Conversion Services	35	\$25,785
<b>GMCS Subtotal</b>	<b>183</b>	<b>\$76,210</b>
<b>TDMS +GMCS TOTALS</b>	<b>289</b>	<b>\$146,182</b>

## **Why the rebound?**

To get that answer, we checked with another InfoNetrix principal, Mike Smith, director of tactical market research and development. He was kind enough to share his thoughts with us. “Frankly, we’re somewhat surprised at the strength of the recovery this early in the new year so it will be interesting to see if it is sustainable for the balance. However, we’re seeing many utilities come full circle, having transitioned from tightly regulated monopolies to an almost unbridled period of diversification, followed by a recent return to a more traditional utility focus < all within a few years.”

“Bear in mind that these quarterly Business Horizons™ Reports address a 3–to 30–month planning horizon for each utility we survey,” Smith continued. “This means that the projects we identified in this first quarter will be initiated between now and fall 2005. Each quarter we survey 200–300 new utilities and are able to project out a little further as the year progresses. By the end of 2003 we should have a pretty clear picture of planned TDMS and GMCS projects through mid–2006,” Smith explained.

## **Conclusion**

Although I have known Mike Marullo and Mike Smith for a decade or so, my participation in last year’s GMCS study was my first opportunity to get an insider’s look at how they conduct their research. Believe me when I tell you that they are first rate. Marullo is a stickler for detail and accuracy — great for you; a pain for me. Smith understands this market, knows what to ask, and how to go about getting it. Unlike the “other Mike”, Smith is not constantly “adjusting” my writings. (All “sticklering” is left to Marullo!)

InfoNetrix Business Horizons™ Reports are based on surveys conducted with 1,000 electric utilities annually and are available separately or as part of an InfoNetrix Market Intelligence Program. If you sell into this market and don’t already subscribe to all of the offerings of InfoNetrix, you are missing the opportunity of a lifetime. Don’t let anyone tell you that there aren’t any opportunities out there! Projects and market insights are just a click away at [www.InfoNetrix.com](http://www.InfoNetrix.com)



## MapQuest Is On Track

**Y**ou remember MapQuest, don't you? You probably used it to get directions sometime in the last few weeks. Of course we are talking about the self-described world's leading online mapping, routing and global location-based services company. I remember when they first hit the web, and I along with the rest of the GIS elitist snickered at this mapping (i.e. not GIS) program. I also remember crying when I heard how much AOL paid for them.

Though most of us think of MapQuest as just an online mapping company that we use for directions, the company is much more. It is a leading location finder, and that is becoming a very important part of GIS. In fact, if you did not know, they sell some of their services directly to end-user companies to serve up maps of all kinds.

### All Aboard

Unless you live in the Washington, NYC, Boston corridor and perhaps a few other places the term "All Aboard" is probably a remnant from an old black and white movie. Nobody says All Aboard to jet plane passengers or to the folks crammed into a Greyhound bus, or to vacationers on a luxury



ocean liner. It is a term tightly linked to trains. Today, trains are either a best-bet for some commuters, a nostalgic, if not scenic way to travel, or the 100 car monster riding the tracks making you late for your meeting. I still have vivid memories of going to Grand Central Station in NYC to climb a board that train that would take me to my Grandfather's house in Connecticut — but I digress, and you really want to know what this has to do with MapQuest and GIS

Before you can actually climb aboard one of these steel horses, you first have to find a railroad station. That's where MapQuest comes in. You see, MapQuest and Amtrak announced an agreement to integrate MapQuest Business Solutions software on Amtrak's popular Web site, [www.amtrak.com](http://www.amtrak.com)

Now you can find directions to any of more than 500 railroad stations across the country. That seems to be a lot better than trying to flag down a train at your local rural RR crossing! Under this new agreement, the MapQuest technology will enable Amtrak to expand the mapping and routing functionality on its web site. With MapQuest tools in place, visitors to Amtrak's Web site are now able to search for the locations of any of Amtrak's more than 500 stations from coast-to-coast. Using the Amtrak "Station Finder" — powered by MapQuest — passengers may locate Amtrak stations at both their point of departure, their final destination or any point in-between. In addition, MapQuest provides detailed driving directions to and from rail stations and offers maps to assist Amtrak passengers in planning their travel itineraries.

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From my recent dealings with MapQuest I have learned that they intend to move the famed MapQuest product beyond just the standard Web mapping tools we all know. They want to make their technology the preferred mapping engine for organizations that want to get people from one location to another. Tommy McGloin, Senior Vice President and General Manager of MapQuest said "This agreement demonstrates the confidence that America's leading corporations have in MapQuest to get their customers where they need to go."

### **Conclusion**

Whether you consider MapQuest a GIS company or a dot com company is immaterial. They are the ordinary person's portal into our world of GIS. Yes, yes, I know that what you do is far more complicated and important, but applications by companies such as MapQuest put GIS in terms that even your Auntie May can understand.

So what do I think of MapQuest's strategy of new business applications? I think they are on the right track!



## Seven More Go 100 Percent

Coaches seem to love to tell their players to give 110%. So just how do you do that? For me, 100% is just fine. Recently seven more utilities made it to Intergraph's ([www.ingr.com](http://www.ingr.com)) 100 Percent Club — quite an accomplishment. You get into this prestigious club by being a utility company that achieved full digital conversion of their geofacilities data. Of course, it helps if you are an Intergraph customer.



Arthur Spencer, executive vice president, Utilities & Communications Division, Intergraph Mapping and Geospatial Solutions said “We appreciate the confidence that each of these new members has shown by selecting Intergraph to be their geospatial technology partner and converting their invaluable geospatial data to our solutions. We look forward to helping them realize the maximum benefits of complete geospatial resource management solutions.” There is more than just accolades at a user conference for those in the club. By completing their conversion, these companies can start getting all the benefits of GIS, including data accuracy and better integration with other enterprise systems.

### And the winners are ...

Intergraph provided us with a list of this year's winners. Seven utilities from North America and Europe were inducted into the club. Pay attention to these companies because they truly are leading the way with their dedication and hard work.

\* **Antwerpse Waterwerken N.V. (A.W.W.), Belgium** - a key water production and distribution company serves more than 150,000 private and commercial customers in the city of Antwerp and surrounding areas. A.W.W. owns and operates a distribution network covering approximately 2,600 kilometers and produces and distributes approximately 156 million cubic meters of drinking water per year. Web: [www.pidpa.be/default.htm?tt](http://www.pidpa.be/default.htm?tt)

\* **Columbia Gulf Transmission, USA** - an operating company of NiSource, Inc., Columbia Transmission offers a variety of natural gas transportation and storage services. On average, Columbia Transmission moves more than three billion cubic feet of natural gas per day through a 12,750-mile pipeline network that covers the Midwest, Northeast, and Middle Atlantic states. Web: [www.columbiagastrans.com/cgt.html](http://www.columbiagastrans.com/cgt.html)

\* **FLUXYS, Belgium** - a leader in the natural gas transport sector in Europe, FLUXYS has one of the best interconnected systems in Western Europe, with 17 points of connection to natural gas sources and neighboring networks. FLUXYS' network is comprised of 3,730 kilometers of pipeline, associated infrastructure, an underground storage facility and a terminal for liquefied natural gas. Web: <http://www.fluxys.net/>

\* **Huntsville Utilities Gas Department, USA** - manager of a utility infrastructure that experienced phenomenal growth between 1950 and 1970 to keep pace with the city's development into a

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metropolis with a significant role in America's space program. Today, Huntsville Utilities provides water, gas, and electricity to more than a quarter of a million residents in northern Alabama. Web: <http://www.hsvutil.org/>

- **North-West Sealand Energy Supply Company (NVE A.m.b.a.), Denmark** - an energy provider of northwestern Sealand, Denmark's largest and most populous island, NVE distributes electricity to 117,000 customers throughout 2,000 square kilometers. NVE produces 57 million KWH of electricity per year.
- \*
- \* **Progress Energy Florida, USA** - one of the largest subsidiaries of Progress Energy, the utility is a Fortune 250 diversified energy company with more than 21,900 megawatts of generation capacity and \$8 billion in annual revenues. Progress Energy Florida serves 1.4 million electric customers throughout a service territory covering 20,000 square miles in central Florida. Web: [www.progress-energy.com/custservice/flares/index.asp](http://www.progress-energy.com/custservice/flares/index.asp)
- \* **Wind Telecomunicazioni, Italy** - a market growth leader in fixed and mobile telecommunications sectors, Wind was the first Italian telecommunications company capable of offering integrated fixed-line, mobile, and Internet communications services. Wind serves over 20 million customers. Web: [www.wind.it/](http://www.wind.it/)



## Out of the Box

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**Editor's note:** In “Out of the Box” we bring you news snippets that are not necessarily related specifically to GIS. These are items that come across my screen that help me understand our industry, by understanding the world around us. For the complete article just click “Details Here.” Think of it as thinking **Out of the Box**

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### In State and Local Government ...

- School lunches still inadequate. The GAO claims that “School lunches are more healthful than a decade ago, but many schools still fall short of feeding children meals with the right amount of nutrients and not too much fat.”

[http://www.kansascity.com/mld/kansascity/news/breaking\\_news/5826292.htm](http://www.kansascity.com/mld/kansascity/news/breaking_news/5826292.htm)

- Seeking New Industry. Using Geographic Information System mapping software, commissioners were able to locate several parcels that would be suitable. With help from city officials involved with economic development and the county's planning and zoning department, commissioners put together a proposal with incentives and submitted it Monday, May 5.

[http://www.zwire.com/site/news.cfm?newsid=7937408&BRD=1409&PAG=461&dept\\_id=33071&rfi=6](http://www.zwire.com/site/news.cfm?newsid=7937408&BRD=1409&PAG=461&dept_id=33071&rfi=6)

- 911 ad angers county. A rift has opened between Grand Traverse County and state public safety officials over a newspaper advertisement that criticized the county's 911 surcharge proposal in the final days of the ill-fated campaign. <http://www.record-eagle.com/2003/may/10adflap.htm>

### In Technology ...

- Military Often Enlists Commercial Technology. As the United States invades Iraq, many of the information technologies used by the armed forces would have their origins in commercial rather than military initiatives—a shift from the way the American military traditionally developed the communications used to wage war.

<http://www.nytimes.com/2003/03/10/technology/10GEAR.html?ex=1055649600&en=f85960a9bb94c76a&ei=5070>

- A serious security flaw in Microsoft's Passport service put more than just its 200 million customers' accounts at risk of being hijacked—it also gave the software giant a public relations black eye and



opened it up to some stiff fines. The flaw, in Passport's password recovery mechanism, could have allowed an attacker to change the password on any account to which the username is known. The simplicity of the attack method and the high value of the data frequently stored in Passport accounts—names, addresses, birthdates and credit card numbers...combined to make the vulnerability critical. [http://news.com.com/2100-1083\\_3-1000686.html](http://news.com.com/2100-1083_3-1000686.html)

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- Sun Microsystems and Oracle plan to attend the first meeting to discuss a proposed Web services standard, despite their support of a rival specification. The participation of Sun and Oracle in the meeting gives hope to industry watchers that a compromise could be reached between two rival [efforts](http://news.com.com/2100-1011_3-1000486.html)  
[http://news.com.com/2100-1011\\_3-1000486.html](http://news.com.com/2100-1011_3-1000486.html)
- NEC to release mega-handheld. NEC plans to release the MobilePro 900 later this month, a handheld device that resembles a mininotebook but contains the technological guts of a PDA. The device is larger than most PDAs but smaller than a laptop computer at 9.69 by 5.05 by 1.19 inches  
[http://news.com.com/2100-1041\\_3-1000832.html?tag=lh](http://news.com.com/2100-1041_3-1000832.html?tag=lh)

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### **In Utilities ...**

- Homeland Security Secretary says utilities should be first to absorb costs of increased security ... In address to NARUC Tom Ridge said utilities have a “fiduciary responsibility” to absorb the costs of increased security to protect the interests of their shareholders and that the utilities should be “the first group of folks we look to” ... He added that at some point increased security costs may be transferred to ratepayer ... With 85 percent of the nation’s critical infrastructure owned by the private sector, said Ridge, improving security will be a “shared responsibility” between government and industry. <http://www.nrri.ohio-state.edu/programs/infrastructure/>
- Top California power regulator touts grid master plan. California, for the first time, is forging a single plan to guard against the blackouts and price spikes that battered it during the 2000 – 2001 energy crisis, the state's top regulator said. “California has aimed before to upgrade the power system, but this is the first time that state agencies have committed to work together on a single plan,” Michael Peevey, the new president of the California Public Utilities Commission (CPUC), said in an interview with Reuters. Peevey said California plans to cut consumer demand through aggressive conservation programs, build up to 2,000 megawatts of new plant capacity a year and add renewable energy to strengthen supplies – power for 2 million homes. California’s energy future, outlined in the plan drafted by the CPUC and two other power agencies, also will feature small generating plants in neighborhoods where the energy is used, a revamped power grid and new pipelines to import natural gas. <http://www.forbes.com/business/energy/newswire/2003/03/17/rtr909139.html>
- PG&E Corp.’s top executives enjoyed a big year in 2002 even if the company did not. According to a proxy statement filed Friday, the 12 highest-paid executives as a group got salaries of \$6 million, bonuses of \$2.9 million, and “long-term incentive” payments of \$1.8 million. Toss in \$18.2 million in miscellaneous payments, mostly to convert six executives’ existing pension benefits into tax-favored annuities, and the top dozen grossed a cool \$29 million for the year.  
<http://www.bayarea.com/mld/cctimes/5455811.htm>
- Regulators from Pennsylvania and two other states have asked the Federal Energy Regulatory Commission (FERC) to override the Virginia legislature's attempt to block two key utilities from joining a multi-state electric grid effort.  
<http://www.forbes.com/markets/newswire/2003/03/18/rtr910919.html>
- Venezuela makes one billion barrels oil discovery. Venezuela’s state oil company has discovered two new oil fields with combined reserves of nearly 1 billion barrels of crude oil, a top executive with

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Petroleos de Venezuela SA (PDVSA) said on Monday. Venezuela, which earlier this month created an energy task force to cultivate closer contacts with the Bush administration, disclosed the new discoveries at a news conference in Washington. Luis Marin, chief operating officer of PDVSA, said test results confirmed the oilfield discovery about two weeks ago. He declined to identify the location of the new oilfields, or if they were offshore or on land. He described the oil as light, high-quality crude. Marin also said the new fields were near existing oil industry infrastructure, indicating they could be close to active fields and the new crude could be quickly shipped to market by pipelines already in place. Also, Venezuela is offering U.S. energy companies Venezuelan oil to deliver to the U.S. Strategic Petroleum Reserve. [http://biz.yahoo.com/rm/030324/energy\\_venezuela\\_usa\\_6.html](http://biz.yahoo.com/rm/030324/energy_venezuela_usa_6.html)



## ***GIS Net Surfing***

### **Web SARS Map**

[http://www.esrichina-hk.com/SARS/Eng/sars\\_eng\\_main.htm](http://www.esrichina-hk.com/SARS/Eng/sars_eng_main.htm)[sars\\_apr92003.pdf](http://www.esrichina-hk.com/SARS/Eng/sars_apr92003.pdf)

In response to the SARS epidemic, ESRI Hong Kong created Web mapping viewer of SARS cases in Hong Kong, China, and worldwide.

<http://www.corda.com/examples/go/map/sars.cfm>

An equally effective Web map of SARS is available from CODA Technologies, Inc.

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### **Arizona Geographic information Council**

<http://agic.az.gov/>

The mission of AGIC is to coordinate the development and management of geographic information in Arizona. AGIC promotes the use of GIS and related technologies to address problems, develop plans, and manage the natural, economic and infrastructure resources of the state.

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### **Center for Geographic Information Systems (Georgia)**

<http://cgis.gatech.edu/>

The Center for Geographic Information Systems is a research center focused on GIS technology applications, education, providing cutting-edge innovative solutions to diverse real world problems.

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### **BIBLIOGRAPHY ON LAW AND POLICY**

<http://www.spatial.maine.edu/I-16/biblio.html>

The National Center for Geographic Information and Analysis (NCGIA) with financial support from the National Science Foundation is funding a research initiative on "Law, Information Policy, and Spatial Databases". Primary topics on which the research is focused include (1) access rights of citizens to publicly held information, (2) intellectual property rights in spatial databases, (3) privacy rights and principles, and (4) liability in the use, sharing, and distribution of geographic information system data and analysis results. To initiate the research effort, the NCGIA joined with the Arizona State University Center for the Study of Law, Science and Technology to host a "Conference on Law and Information Policy for Spatial Databases." Most of the papers produced for that conference are provided below. Also provided are a bibliography, additional papers reporting research results, and links to other resources relevant to geographic information system (GIS) legal issues. Updates will be provided as further work is accomplished.

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### **University of Maine: Depts of Spatial Information Science and Engineering**

<http://www.spatial.maine.edu/ARCHIVE/old/>

The title of this site is sufficient to tell you what goes on.



## ***News to Use***

### **ESRI PLTS Defense Solution Now Available**

<http://www.esri.com/plts>

ESRI announced that the PLTS Defense Solution is now shipping. Developed to meet the specialized mapping needs of the defense user, the PLTS Defense Solution includes data loading, single-click editing, extraction, and quality control production tools as well as product-specific geodatabase models. The PLTS Defense Solution includes GIS Data ReViewer and Map Production System (MPS), which are quality control and map generation components. GIS Data ReViewer enables users to maintain data quality throughout a project, while MPS facilitates the production of cartographic products. According to ESRI's Jesse Theodore, with the PLTS Defense Solution you can

- Create Vector Map Level 1 (VMap 1) and 1:250,000-scale Joint Operations Graphic-Air (JOG-A) cartographic products.
- Create Vector Map Level 2 (VMap 2) data and 1:50,000-scale Topographic Line Map (TLM) cartographic products.
- Produce National Imagery and Mapping Agency (NIMA)-standard Foundation Feature Data (FFD) databases in Vector Product Format (VPF) from features extracted primarily from stereo imagery.
- Facilitate feature extraction from stereo imagery.
- Ensure data quality control with built-in quality assurance/quality control (QA/QC) tools.

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### **Southern Company Selects Intergraph's InService**

<http://www.intergraph.com/imgs>

Southern Company purchased Intergraph's InService™ for enterprisewide mobile workforce management. Southern Company is the parent firm of five southeastern electric utilities: Alabama Power, Georgia Power, Gulf Power, Mississippi Power and Savannah Electric. Through these utilities, the company serves 4 million customers across a 120,000-square-mile service territory spanning most of Georgia and Alabama, southeastern Mississippi and the panhandle of Florida. According to an Intergraph spokesperson, InService was chosen to replace the company's legacy system for the following reasons:

1. InService is flexible and open, allowing Southern Company to use HTML and Java Scripting to create forms and associated business logic on a mobile platform
  2. Map data from different sources can be easily ported into InService and will look the same to users whether the platform is dispatch, mobile or Web
  3. Map-based routing gives users the ability to view proposed routes quickly and further optimize crew response.
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**URISA Board Approves a GIS Code of Ethics**

[http://www.urisa.org/ethics/code\\_of\\_ethics.htm](http://www.urisa.org/ethics/code_of_ethics.htm)

On April 9, 2003, the URISA Board of Directors unanimously approved a GIS Code of Ethics proposed by the URISA Ethics Task Force. The Code of Ethics is intended to provide guidelines for GIS professionals. It should help professionals make appropriate and ethical choices. It should provide a basis for evaluating their work from an ethical point of view. By heeding this code, GIS professionals will help to preserve and enhance public trust in the discipline. Details available at the link above.

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**M.J. Harden Associates Selected by Brownsville Public Utilities Board(BPUB)**

<http://mjharden.com>

MJ Harden will provide quality control support during Brownsville's electric geodatabase update process for its entire service area. Using various QA/QC processes and methods, MJ Harden will ensure that BPUB receives accurate electric facility data from their conversion vendor.

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**Maptech Releases All New Terrain Navigator Pro**

<http://www.maptech.com/>

Maptech's New Terrain Navigator Pro aims at bringing the benefits of using USGS topographic maps and aerial photos to a wide spectrum of professions that rely on detailed maps for work or recreation. Over 30 new features give users a wide selection of tools to customize the maps for land surveying, real estate, forestry, land management, public safety, homeland security, fire fighting; as well as recreational uses from hunting and hiking to genealogy.

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**Universal Map Debuts SmartMaps RSP**

<http://www.universalmmap.com/smartmaps.html>

Universal Map announced SmartMaps RSP — a new revenue generating plan that provides an advanced web mapping application while also generating income for the organization. "SmartMaps RSP is a great option for any organization looking to provide web mapping, while generating revenue," said Universal Map's Craig Allen, Technology Solutions Sales Manager. SmartMaps RSP provides the client with an interactive web mapping and data display application for use with its members and participants. Revenue is generated when the client sells the web-mapped display as advertising space. Universal Map and the client share the risk and reward of the success of the project.



## *The Right Way to Use GPS*



## ***Think You Know Everything?***

### **27 things you might not know ...**

1. A dime has 118 ridges around the edge.
2. A cat has 32 muscles in each ear.
3. A crocodile cannot stick out its tongue.
4. A dragonfly has a life span of 24 hours.
5. A goldfish has a memory span of three seconds.
6. A "jiffy" is an actual unit of time for 1/100th of a second.
7. A shark is the only fish that can blink with both eyes.
8. A snail can sleep for three years.
9. Al Capone's business card said he was a used furniture dealer.
10. All 50 states are listed across the top of the Lincoln Memorial on the back of the \$5 bill.
11. Almonds are a member of the peach family.
12. An ostrich's eye is bigger than its brain.
13. Babies are born without kneecaps. They don't appear until the child reaches 2 to 6 years of age.
14. Butterflies taste with their feet.
15. Cats have over one hundred vocal sounds. Dogs only have about 10.
16. "Dreamt" is the only English word that ends in the letters "mt."
17. February 1865 is the only month in recorded history not to have a full moon.
18. In the last 4,000 years, no new animals have been domesticated.
19. If the population of China walked past you, in single file, the line would never end because of the rate of reproduction.
20. If you are an average American, in your whole life, you will spend an average of 6 months waiting at red lights.
21. It's impossible to sneeze with your eyes open.
22. Leonardo Da Vinci invented the scissors.
23. Maine is the only state whose name is just one syllable.
24. No word in the English language rhymes with month, orange, silver, or purple.
25. On a Canadian two dollar bill, the flag flying over the Parliament building is an American flag.
26. Our eyes are always the same size from birth, but our nose and ears never stop growing.
27. Peanuts are one of the ingredients of dynamite.



***If you change your  
Email address,  
tell us!***

[Charlow@charter.net](mailto:Charlow@charter.net)



**Looking for a domain name, email address or an inexpensive web hosting services?  
Go to <http://www.aadomain.net> where domain names are \$8.75 or less!**